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To be the best

NASA was satisfied. The space agency chiefs believed that the extensive (and often alarmingly intrusive) screening and testing process had delivered to them the best seven of the original 110 candidates. Each man was an exemplary test pilot who had stood up well to intense scrutiny and unprecedented testing of their physical and psychological well-being. Furthermore, it was determined through probing interviews that they would be able to conduct themselves competently and correctly in the glare of the forthcoming media spotlight and display the qualities the space agency desired in the man who might one day become the first American to fly into space.

However one of the new astronauts was harboring an undisclosed secret, and there was another major hurdle that Leroy Gordon Cooper Jr. now had to overcome in his quest to fly into space.

During the many tests and interviews, Cooper had insisted that there were no marital problems between himself and his wife Trudy. On the contrary, he stressed repeatedly that they had a stable and loving relationship. Unfortunately, it was a rather large step away from the truth. Their marriage had been on the rocks for some time, and things really came to a head when Trudy heatedly accused Cooper of infidelity, in particular carrying on a lengthy affair with a married woman. At the time that he was selected by NASA they had actually been separated for four months, and Cooper knew any hint of a fractured marriage would definitely not suit the agency's ideal image of a loving family man in a stable relationship.

"This happily-ever-after business posed a problem for me, because my wife, Trudy, and I had been separated and living apart for some time," he later wrote, without any reference to extramarital dalliances. "I had been living in bachelor quarters at Edwards, and she was in San Diego with our two daughters, then eleven and nine. We had discussed getting back together for the kids but had made no decision ... I knew that a phone call or two could put an end to my charade, so as soon as I had a chance I made a quick trip to San Diego to talk to Trudy."¹

A PROBLEM SOLVED

It was a time of desperation, and Cooper was certainly desperate to hold onto his new and highly desirable job of Mercury astronaut. To achieve this, however, there had to be the semblance of a happy family life, untainted by marital problems, even if it had to be manufactured.

"I had a feeling that was the way it was going to be with NASA," he later revealed. "Anybody who was in a separation or divorce process would not even be considered. It was the way America was at that time. Certainly, with a conservative organization like NASA – I think it still is probably very dominant within NASA – if it came down to a competition between a man who was currently involved in a divorce versus somebody who was supposedly happily married, then the divorce guy would lose out."²

Although initially reluctant to comply, Trudy was still an air force wife – albeit in name only – and she eventually realized that it could prove to be an amazing adventure for the two of them and their children. Cooper recalls that as a pilot herself, Trudy had gradually caught his enthusiasm and agreed in principle to support the notion of their being a happy couple so that he could remain in the program. Very quietly they got back together, although theirs was a marriage in name only. From then on, although a struggle at times, they gave every outward appearance of being devoted to each other. However, Trudy was always distinctly reticent when discussing family issues with the media, on one occasion stating in a *Life* magazine interview that, "having my husband become an astronaut hasn't wrought any great change in our lives."

For many years NASA would maintain a squeaky-clean policy when on the issue of astronaut marriages, even though several marriages were terminally rocky. Eventually, when cracks started to appear in this highly manufactured publicity veneer and other couples began to separate, the Coopers would once again drift apart, this time for good.

However this would all be in the future as Gordon Cooper flew into Washington's Andrews Air Force Base on Wednesday, 8 April, where he was due to take part in a preparatory briefing from NASA's public relations officers Walter Bonney and John "Shorty" Powers in preparation for the next day's press conference.

The next morning at the Dolley Madison House, NASA's temporary headquarters, the seven astronauts met as a group ahead of the press conference. Meanwhile, their identities had been kept a closely guarded secret. Public affairs assistant Paul Haney gave the nervous men some final instructions as to what they might expect once they had been introduced to the waiting media.

"They won't just ask about your flying," the media-savvy Haney warned. "They'll ask about your religion; do you go to church regularly? They'll ask about your wife and kids. What's your political affiliation? Were you a Boy Scout as a kid?"³ There was a lot of shuffling of feet as the seven men pondered the best and possibly indirect way to address such issues in a positive manner.



NASA's temporary headquarters at the Dolley Madison House in Washington, D.C.
(Photo: NASA)

FIRST PUBLIC EXPOSURE

An expectant crowd of reporters and photographers had already assembled in the vast ballroom within the unassuming terra-cotta building on Lafayette Square, situated in close proximity to the White House. While NASA had no thoughts or intentions of elevating the seven men to the status of instant heroes, they were openly astonished when hordes of media personnel kept streaming into the room. The fledgling space agency had somehow underestimated the public's interest in the soon-to-be-named astronauts.

At the far end of the ballroom, television cables snaked haphazardly across the floor and looped around tripod cluster lights, surrounded by television and movie cameramen who jostled for the best positions as a matter of routine. Some of the more adventurous were even perched precariously on top of ladders. The nation's reporters were seated in a hopelessly inadequate area in front of the stage, eagerly watching the drawn curtains above them for the first signs of movement.

Then, right on cue at 2:00 p.m., the curtains were drawn open to reveal a long, felt-covered table, behind which dangled a large NASA logo, hanging from a second set of curtains. An American flag was positioned at either side of the stage, while impressive large-scale models of an Atlas rocket and a Mercury capsule had been placed for effect in front of the table. In the center were seven empty chairs. Seated at the far right and left were the presiding NASA spokesman Walter T. Bonney, NASA Administrator Dr. T. Keith

Glennan, Dr. W. Randolph Lovelace II (Chairman of the NASA Life Sciences Committee), Brig. Gen. Don D. Flickinger (USAF), Capt. Norman Lee Barr (USN), Dr. Robert R. Gilruth (Director of Project Mercury) and his assistant Charles Donlan.



The seven Mercury astronauts at the press conference, 9 April 1959. On stage, from left: Brig. Gen. Don Flickinger, Deke Slayton, Alan Shepard, Wally Schirra, Gus Grissom, John Glenn, Gordon Cooper, Scott Carpenter, Capt. Norman Barr, Robert Gilruth, Walt Bonney (standing). Charles Donlan is mostly obscured behind Bonney. (Photo: NASA)

As television cameras came to life, still cameras clicked and a salvo of flashbulbs popped in a dazzling crescendo of light and sound. At this point the seven men were ushered in, all dressed neatly in civilian clothing. Looking out into the auditorium in some bewilderment, they sat down in a pre-arranged alphabetical order, each behind their nameplate, and glanced apprehensively at their individual microphones. Trying hard not to display their discomfort as flashbulbs exploded all around them, Slayton, Shepard and Schirra took out cigarettes and lit up. All seven were somewhat relieved when Walter Bonney finally stepped up to his microphone and patiently began to call for order.

"Gentlemen," Bonney belatedly announced to the crowd. "These are the astronaut volunteers. Take your pictures as you will, gentlemen."

Once the preliminaries had been dealt with, Bonney introduced Dr. Glennan, who related how the seven men seated alongside him had been selected, and the challenges they would face as they trained to fly into space. Meanwhile, in the back of the room NASA assistants handed out press kits containing brief biographies of the astronauts. Several journalists eagerly grabbed their copy and made a dash for the door, ready to phone in their stories for the evening papers.

Then, finally, came the moment everyone was waiting for, the time for Glennan to formally announce the names of the seven men. "It is my pleasure to introduce to you, and I consider it a very real honor, gentlemen, from your right: Malcolm S. Carpenter, Leroy

G. Cooper (failing to add the Jr.), John H. Glenn, Jr., Virgil I. Grissom, Walter M. Schirra, Jr., Alan B. Shepard, Jr., and Donald K. Slayton ... the nation's Mercury astronauts!"

With that, an amazing thing happened. As one, hordes of hardened reporters and photographers momentarily set aside their notebooks and cameras and a loud, lengthy round of applause and cheers filled the room. Stunned, the new astronauts could only grin sheepishly at each other.

"It's as if we have already done something, I thought," Cooper would later reflect. "All we had done was have our names on a list and take some tests. We hadn't even flown a mission yet."⁴

Once the room settled down and order had been restored the questions began, with Walter Bonney moderating. It was the moment that the seven men had dreaded, and their fears were soon realized as the very first question directed to them for individual responses had nothing to do with their test pilot background or other qualifications, it was what their wives and children thought of their selection as an astronaut.

First alphabetically, Carpenter gave his short response. "They are all as enthusiastic about the program as I am," he uttered into his microphone before sitting back. Then it was Cooper's turn.

"I don't remember what I said," he later confessed. "Whatever I mouthed, it came from behind the mask of a career officer; a few platitudes, then shutting up and hoping like hell that no one knew the truth about my marriage."⁵

In fact, his brief response was very much a reflection of what Carpenter had said. Later in the interview session the question of their wives came up again and each of them was asked what they felt their wife's reaction might be to them flying on such a hazardous undertaking. By now, much more at ease, Cooper gave a stock response. "I've never had a problem, so far as my wife going along with my career," was his careful reply to the question. "My wife is also a pilot and is quite sympathetic, and particularly to this program. She is enthusiastic."

Cooper handed over to John Glenn. Glenn was far more expressive and, as it turned out, had a creative and patriotic way with words. He spoke with ease about how he and his family attended church regularly. The other six men were more than comfortable to allow Glenn to take center stage, meaning they could get away with uttering shorter, far less quotable platitudes. Freckle-faced, red-haired Glenn was the undoubted, smiling star of the conference, much to the relief and even bemusement of his companions, as Cooper later related.

"I think John was the only one who was rather familiar with the fame, having been on that transcontinental flight and that television program he had been on.* He was pretty public-relations oriented. But it was kind of a jolt to the rest of us, as we had never been exposed to public relations at that level before. It took a while to get used to. I avoided all the public relations wherever I could, staying out of the limelight."⁶

Twelve days after the Washington press conference, on 21 April 1959, Cooper took Trudy and their two daughters on a pre-training visit to Shawnee, where he would have the chance to catch up with long-time friends and relatives. Over the next two years he would only have the occasional opportunity to pay low-key visits to his hometown; for the most part, his life would be consumed by a hectic training schedule that precluded all but a few fleeting family get-togethers.

* See *Friendship 7: The Epic Orbital Flight of John H. Glenn, Jr.* by Colin Burgess, Springer-Praxis Books, 2015



After the question session had ended, it was time for some posed photographs. From left: Wally Schirra, Alan Shepard, Gus Grissom, Deke Slayton, John Glenn, Scott Carpenter and Gordon Cooper. (Photo: NASA)



A proud maternal grandmother, Orena Herd of Tecumseh, with a signed photo of her grandson's astronaut group. (Photo: Oklahoma Historical Society)

ON BEING AN ASTRONAUT

When the seven astronauts met each other for the first time at Langley Field, Virginia in April 1959, none of them, nor for that matter anyone associated with the newly-created NASA Space Task Group, had any real idea as to exactly what the role of the Mercury astronauts would entail.

"We were unsure how we should train for space flights, how we would become familiar with the spacecraft and its many systems, or even how the pilot would be integrated into these systems," Cooper once mused. "We were all starting from scratch, from the ground floor in manned space flight." Like the others, he assumed that a lot of their training would involve flights in jet airplanes. "We didn't know what else to train on," Cooper said. "Nobody had trained astronauts before."⁷

What was really in store for the seven test pilots was years of concentrated training, detailed studies of spacecraft systems, attending countless hundreds of coordination and planning meetings, writing reports, and participating in hundreds of hours of hardware development and checkout.

Looking back, Cooper said that they could all recognize "that in some cases there would have been more efficient ways of doing things. However, considering the limited knowledge in this space business in the spring of 1959, I consider it remarkable that Project Mercury ran so close to its originally planned time schedule. Few programs in the history of airplane development ever had so many unknowns staring the test operations team in the face."⁸

Until proper office, training and accommodation facilities were created in Hangar S at Cape Canaveral in Florida, the astronauts would occupy one large office at Langley Field, Virginia, furnished with seven desks arranged in a U-shape, a blackboard, maps, a 24-hour clock on the wall and the use of an adjoining library. In order to maximize their training and official duties, NASA appointed a 19-year-old secretary named Nancy Lowe, who sat outside their office and handled all of their mail; a task that eventually grew to monumental proportions.

As well as being instructed in how to operate the Mercury spacecraft by McDonnell engineers, the astronauts now had to rapidly accrue a general knowledge in such fields as astronomy, astrophysics, meteorology, geophysics, rocketry, physiology, and space navigation and trajectories. In addition to familiarizing themselves with the spacecraft and the rockets to launch it, their training involved reproducing conditions they would experience on their mission. This included high acceleration, weightlessness, reduced atmospheric pressures, heat, disorientation, tumbling, increased carbon dioxide, noise, and vibration.

It would be some time before appropriate training facilities were made available to the astronauts, but in the interim they made do with improvised methods and apparatus. One such device was a Link trainer body, normally used to train military pilots, which was housed in the Morehead Planetarium in North Carolina. It had been modified with the addition of a window and headrest to simulate viewing conditions inside a Mercury capsule. Following astronomy sessions at the planetarium, the Link trainer allowed the astronauts to practice star recognition techniques during a simulated orbital mission.

At the time, no one really knew how a pilot might react to the space environment or how well he might be able to perform his assigned tasks. Partially for this reason, but also because unmanned flights were scheduled as part of the development program, the

Mercury spacecraft was designed to perform a mission automatically. Manual controls for maneuvering the spacecraft and managing its systems were to serve as backups for the automated primary systems.

"From the start of the program," Cooper recalled, "we encouraged the concept of the pilot being a primary part of the overall system." Throughout the manned flight phase, this concept became ever more of a reality.⁹

While the Mercury astronauts adopted the team concept during most of their space flight training, they needed to be at so many sites and to become knowledgeable of so many technical aspects of the program that it was soon apparent they would require to divide up these tasks. Each man was assigned a specialty topic appropriate to his prior experience and he would closely monitor developments. Then they would periodically brief one another on their observations so that all seven were able to stay abreast of the program.

As astronaut training officer Robert B. Voas stated in a 1961 report:

These assignments were as follows: M. Scott Carpenter, navigation and navigation aids; Leroy G. Cooper, Redstone booster; John H. Glenn, crew [systems] layout; Virgil I. Grissom, automatic and manual attitude-control system; Walter M. Schirra, life-support system; Alan B. Shepard, range, tracking, and recovery operations; and Donald K. Slayton, Atlas booster. In connection with his specialty area, each man attends meetings and study groups at which current information on capsule systems is presented. Regular periods are set aside for all the men to meet and report to the group. Another important source of information about the vehicle, particularly in the absence of any elaborate fixed-base trainers, has been the manufacturer's mockup. Each of the men has had an opportunity to familiarize himself with the mockup during visits to McDonnell [Aircraft].

Other valuable aids to the astronauts in keeping up to date with the status of the development program were the regularly issued reports of the Capsule Coordination Group meetings. As Voas explained:

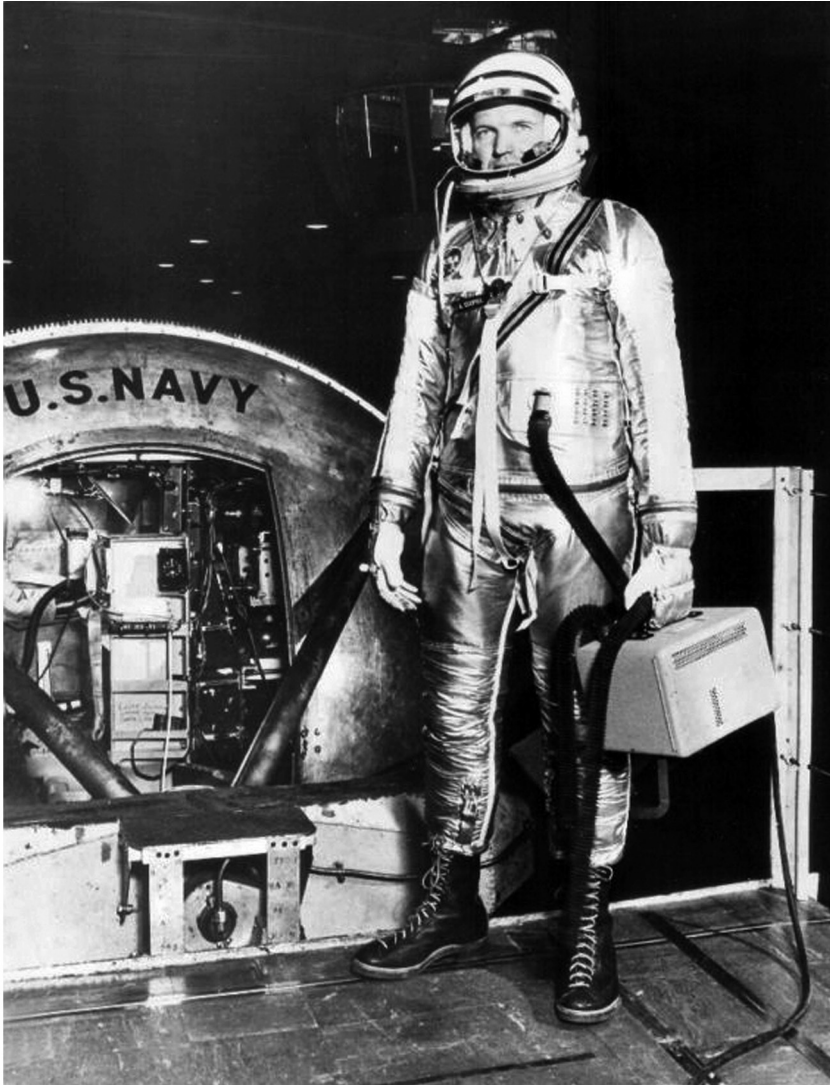
At these meetings, the status of each of the capsule systems is reported and any changes are discussed. Miscellaneous reports on boosters and on progress have also been provided to the astronauts by cooperating agencies. Maintaining an up-to-date flow of accurate information on vehicle development status is a critical problem not only for the Mercury training program, but also, in all probability, for most near-future spaceflight developments, since training must proceed during the vehicle development phase.¹⁰

In speaking of his assignment to the Redstone booster development, Cooper said in a *Life* magazine article in September 1959:

The first manned shot is going to be a ballistic firing; that is, the man will be fired off from Canaveral, go about 100 miles up, float there weightless in the capsule for a few minutes and then come back down into the Atlantic on a ballistic trajectory. The booster being used for this is the Army's Redstone, and it is my special job in the project to keep up with the engineering developments on the Redstone and its connections with the astronaut capsule. We are paying special attention to setting up systems which will provide ample warning time for the pilot and the ground control people in case it becomes necessary to abort the mission in a hurry.

The stresses faced by the pilot on the ballistic firing will not be as great as those faced on the orbital firing. The period of weightlessness will be brief. The acceleration forces will not be as great. The capsule will only reach speeds of 5,000 or 6,000 mph and the problem of heating on re-entry will not be as severe. Because we will be flying on a ballistic trajectory without orbital speed, we know pretty much where we're going to hit. Still, the man who rides the Redstone will go into space.¹¹

One acceleration pattern training tool experienced by the astronauts at this time was a huge, 50-foot centrifuge located at the Naval Air Development Center in Johnsville, Pennsylvania.



Wearing a full pressure suit, Cooper poses outside the gondola of the Johnsville centrifuge. (Photo: NASA)

The egg-shaped gondola, mounted at the end of a long rotary arm, was configured to simulate spacecraft for either orbital or ballistic missions. This provided the men with a series of acceleration and deceleration g (gravity) forces like those they might encounter while riding a rocket into space and returning to Earth. Wearing full protective pressure suits and helmets, and strapped into cushioning plastic seats inside the gondola, the first centrifuge tests would subject them to around 8 or 9 gs. Later this would be beefed up to 18 or 20 gs to simulate emergency situations. They would be whirled around at high speeds in what they referred to as an “eyeballs out” exercise; not their favorite training method by any means. Overall, each Mercury astronaut experienced an average of 45 hours on the centrifuge.

In an interview with *Life* magazine in 1959, Cooper spoke about their training thus far. “We have tried to duplicate some of the stresses we’re going to get in flight. The centrifuge, which simulates the acceleration and deceleration strains that we will feel going up and coming back, is a good practice ground. We’ve all put in some time in this machine at Johnsville ... When running at extremely high accelerations, the ‘big wheel’ is an exhausting device. But I feel that it reinforces our confidence that a man is going to be able to perform in the situations we’ll encounter. It is not just a case of getting familiar with the feelings of stress. We must also learn to handle the capsule while undergoing the stress.”¹²



The Mercury Procedures Trainer located inside the Mercury Control Center at the Cape.
(Photo: NASA)

Another training facility, and one the astronauts deemed extremely useful, was the Mercury Procedures Trainer (MPT), which was capable of simulating the operation of the Mercury spacecraft and its onboard systems. Two of these units had been procured in

order to have one at the main Langley training base in Virginia, and a second – to be used during pre-launch training – in the Mercury Control Center at Cape Canaveral.

The majority of the astronauts' operational training on the Mercury systems would be achieved in these procedures trainers. While the pressure suits the astronauts wore in the MPTs were pressurized, it was not possible to fully simulate the environmental conditions that would apply in space.

Each of the MPTs not only had the capability to simulate the operation of all of the Mercury systems, but to create some 275 separate system failures for the occupant to solve. Initial training began by reviewing each system separately in the trainer. The normal operation of each system and all of the failures which could be simulated were demonstrated in this period. Then a simulated series of "nominal" Redstone and Atlas missions would be "flown" by the astronauts, with the barest minimum of simulated emergencies. This would allow the astronauts to become familiar with the timing of normal missions. Once they were generally familiar with how any particular mission was intended to unfold, the numbers and types of malfunctions were increased. By the end of the group training period, each man had made a large number of Redstone and Atlas "runs," and also had the opportunity to experience most of the simulated major emergencies.

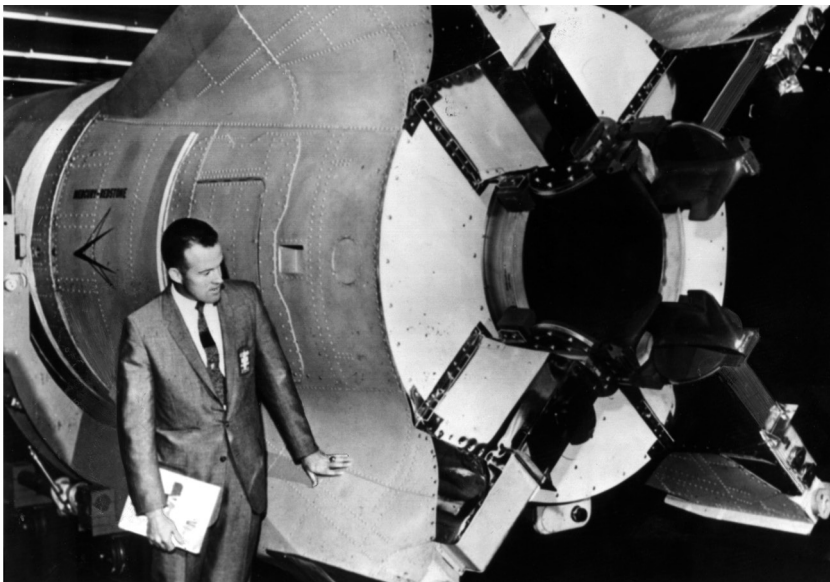
Meanwhile, weightless training was carried out in Convair C-131 Samaritan and Boeing C-135 Stratolifter aircraft, allowing the astronauts to experience unrestrained weightlessness for a period of about 30 seconds each time the pilot flew one of a series of parabolic arcs. They could also experience weightlessness while strapped into the rear cockpit of a North American F-100F Super Sabre jet. Additionally, the U.S. Naval School of Aviation Medicine subjected them to episodes of disorientation in what was known as the Slowly Revolving Room training facility.

The astronauts attended lectures on the subjects of recovery and survival, and then participated in exercises. They learned how to evacuate rapidly from a capsule after splash-down. This involved using a "boilerplate" Mercury capsule, initially in a water tank at Langley and later in the Gulf of Mexico. There was an exercise in the Nevada desert in which they remained in a remote region for four days while learning how to improvise under extreme conditions, using such survival methods as converting their spacecraft's parachute into loose clothing and headgear.

Cooper's training was interrupted in 1960 when he began to suffer mild abdominal pain. Tests revealed a problem with the onset of gallstones, and doctors recommended the removal of his gallbladder. This was a relatively minor operation and he was soon able to resume full-time training.

Meanwhile he found working on the Redstone booster involving and interesting, as he explained in the astronaut book *We Seven*.

"The Redstone was already a well-proven bird when it was first considered for use in Project Mercury. Of course, it had to be made compatible with the Mercury spacecraft, and this took some close coordination and communication between several different agencies. I feel that assigning an astronaut to help accomplish this paid off, for several reasons. For one thing, I was a military man who had been assigned to a civilian agency, so I could understand the problems on both sides. As an engineer, I could talk the language of the other engineers. And since I was hoping to ride the finished product myself, I could really get immersed in the problems."



As part of his specialty assignment, Cooper inspects a Redstone rocket. (Photo: NASA)

Cooper also took on another task, as chairman of an Emergency Egress Committee that was responsible for working out procedures to rescue an astronaut in the event of an emergency on the launch pad. “We had already worked out rescue and recovery procedures for picking up the astronaut downrange, even in the case on an abort which might bring him down just a few miles out to sea [from the Cape]. But we also wanted to cover ourselves in the event of an unforeseen accident right there on the pad.”

Safety was one of the driving principles in the operation of Project Mercury, and Cooper was fully involved in planning and preparing for any serious and unforeseen accidents on the launch pad. Part of this involved setting up emergency procedures, including firefighting crews and techniques for handling the volatile fuels and various pyrotechnics such as escape rockets and retrorockets that had to be inserted into the system. He was also working on a plan to rapidly extract the astronaut from atop the Redstone in the event of an emergency using an articulated “cherry-picker” motorized vehicle positioned close to the pad. At the first sign of an impending disaster, a small cabin at the end of the long upper arm would be hurriedly maneuvered against the side of the capsule, allowing the astronaut to blow his hatch and escape into this cabin. He would then be driven away from the danger zone.

“It was a very rewarding duty for me,” Cooper noted. “And I believe it helped to have one of the astronauts taking a personal interest in this special program. Some of this may sound like strange work for astronauts to be doing. But space travel is not all Moon and stars and distant planets. There are many unusual duties that need to be done before we can launch a man safely on such a trip.”¹³



The “cherry picker” (more correctly the “mobile aerial tower”) acted as an emergency escape route for an astronaut in peril. (Photo: NASA)

THE NEED FOR SPEED

While the eager public was fed a carefully manufactured line about the astronauts being all-American, family-oriented good guys, there was one thing NASA could never hope to suppress – the fact that their astronauts were hot-shot test pilots who had lived on the precarious edge of danger for many years while operating supersonic jet airplanes and all manner of motorized speed machines. They were used to testing limits, meeting hazardous challenges, staring death straight in the face, and knowing the adrenaline burst associated

with going faster or harder than anyone around them. Their highway was the open sky, but when they stepped out of their supersonic steeds they needed to feel that same sort of exhilaration on the ground, which meant owning a sleek, fast and powerful car.

When the seven men were selected to join NASA, Alan Shepard was already into his second Corvette, and it was not too long after his epic space flight in May 1961 that the president of General Motors saw the tremendous sales potential in news photographs of America's first astronaut zipping around in one of their cars. Ed Cole therefore decided to present Shepard with a dazzling white, brand-new 1962 Corvette with a customized interior. The astronauts were not allowed to enter into any commercial arrangements, but this was explained away as simply a gift expressing gratitude from someone who admired Shepard for what he had achieved for the nation. The astronaut was certainly the envy of his colleagues, and Ed Cole loved seeing photos of Shepard with his sleek Corvette in dozens of newspaper and magazine articles. He was truly an out-of-this-world advertisement for the company and especially its high-priced Corvette.

A Chevrolet and Cadillac dealer named Jim Rathmann recognized the enormous marketing potential in what Ed Cole had done. The winner of the 1960 Indianapolis 500, Rathmann ran a dealership in Melbourne, just a short drive from Cocoa Beach and Cape Canaveral. He had already struck up a lasting friendship with Shepard and Gus Grissom, and it inspired him to contact Cole and discuss something he wanted to pitch to him; a scheme setting up a special "executive" lease deal for the nation's foremost heroes.

The handshake arrangement that they sorted out meant the astronauts needed only to pay the princely sum of one dollar per year in order to lease the very latest Corvettes to roll off the assembly line. Soon, all but one of the other astronauts were burning up the miles in powerful Corvettes. The once-quiet roads around the Cape and Cocoa Beach would never be the same again. The two-lane duels fought by the highly competitive Shepard, Grissom and Cooper in their huge block-powered Corvettes, while wearing Ray-Ban sunglasses and Ban-Lon shirts, would soon become the stuff of legend – and the bane of the local police, who grudgingly but admiringly turned a blind eye to these dangerous antics.

Rathmann had guessed correctly; Americans idolized their astronaut heroes, and very soon the Corvette was seen as the premier sports car for anyone to own. The only recalcitrant voice in the whole deal was that of John Glenn, who was not overly enticed by the offer of a near-free Corvette. He elected instead to trade in his underpowered German NSU Prinz saloon car and drove out of Rathmann's yard in a spacious, more family-friendly Chevrolet station wagon.

Rathmann became so close to the Mercury astronauts that they agreed to teach him to fly. Among other instructions, Cooper told him never to fly under a seagull because the bird would leave a nasty deposit. When Rathmann made the mistake of laughing, Cooper decided to prove his point, flying so low under a flock of gulls that a terrified Rathmann could hear the airplane's propellers slicing through marsh grass. On landing, an unperturbed Cooper clambered down from the plane and pointed to the spattered roof. "I told you," he said.¹⁴

Cooper, who also loved racing speedboats, took special pride in his new Corvette. He also held licenses with the Sports Car Club of America (SCCA) and the National Association for Stock Car Auto Racing, better known as NASCAR. He would often be seen drag-racing up and down the sand on Cocoa Beach, sometimes towing his fellow astronauts on skis along the shallow water. After finishing their fast car antics for the day, they would hit the hotels and bars of Cocoa Beach with a vengeance.



A later photo of Gordon Cooper with his 1963 Corvette. (Photo: David Temple)



Cooper in an Indy racing car owned by Jim Rathmann, Indianapolis, 30 May 1963 (left); preparing for a high-speed run in a hydroplane owned by Bernie Little on Lake Washington, Seattle, 10 August 1963 (top right), and in the boat driven by band leader and power boat enthusiast Guy Lombardo (lower right). (Photos: Retro Space Images)

Many things would be tolerated back then, so long as the astronauts kept their names out of the papers for any of the wrong reasons, but NASA was becoming worried with Cooper's incessant need for risk and speed. To their consternation he and Gus Grissom began entering official car and boat racing competitions, and concerns were expressed that when not involved in training for space flight the astronauts were living life in too fast a lane. They kept an especially cautious eye on Cooper, but had to admit it did not seem to affect his diligence and aptitude when it came to his studies, training and varied duties associated with his ongoing and high-profile role as an astronaut.

PUBLIC PERCEPTIONS

As always, Trudy Cooper chose her words carefully during interviews. The public interest in the astronauts' families was intense, and like the other wives she had to be very circumspect when talking about their husbands and the tremendous, high-profile undertaking in which they were involved. Once she remarked:

When Project Mercury reaches the point that all of us are waiting for – when they are ready to launch Gordon or one of the others into space – I'm going to be quite tense. But I won't be afraid. I want to be there to see it go. If necessary, I will take our daughters, Camala, 10, and Janita, 9, out of school to see it too. It will be a thrilling moment in all our lives.

I suppose I have an awful lot of faith in the engineering and technical skills of the people in this country. I don't worry about Gordon's airplanes falling apart any more than I worry about our house collapsing ... As far as Gordon is concerned, it is a lot of hard work, but he loves hard work.

We use our time together the same way we always have; taking the girls biking, on picnics, swimming, and just being together. The only real concern I have now is in catching up on my sewing so the girls' school clothes will be ready.

I suppose many women would become impatient with a life that is as uncertain and full of change. I never know when Gordon is going to leave, and often I don't know when he is returning until he gets home. But changes, delays and disrupted schedules are so typical of service life that you just learn to accept them. You learn to take the things your husband does in stride, too. I have already become so thoroughly immersed in Project Mercury that I am surprised at people who think it is strange.

For a while in 1957 the first Sputnik was quite a phenomenon and people ran out in their backyards every evening to look at it, but pretty soon they got accustomed to the idea. I think this program will go the same way. And I know it will work. It has to.¹⁵

Interviews were also a part of being an astronaut, and even though it required taking time out from their training NASA considered it important to keep the public informed and to present the astronauts as approachable, down-to-earth people. In one such early 1960s interview at the Cape with Italian writer Oriana Fallaci, Cooper pointed out that even though he loved his job and believed in what he was doing, he often thought he'd like to be back in a place called Carbondale, doing very little but relaxing and fishing.

"It's a spot in the Colorado mountains; my mother lives there. We've got a ranch in Carbondale, my mother and I. It's beautiful, you know. Lots of vines, and we make wine,



Gordon and Trudy Cooper in his Beech Bonanza aircraft. (Photo: NASA/Retro Space Images)

like you. But in wooden vats, the old-fashioned kind, like yours. And we make brandy too. And then there's lots of fish in Carbondale. I like fishing. I was born at Shawnee, Oklahoma, and down there everybody goes fishing: those beautiful lakes and rivers. At first I used to go fishing here too, with Grissom; there used to be fish in the pools near the launch pad, there aren't any now. They must have been baked by the gusts of flame. Only the sharks are left. But in Carbondale there are tiny, tiny fish that swim upstream like trout. There are times when I'd like to stay up there in Carbondale and do nothing ... But you can't spend your life fishing."¹⁶

Despite the aura of glamour associated with his job as an astronaut, Cooper did not care overly much for the rounds of public appearances and speechmaking. "Being a celebrity is new to us all – at least on this scale," he once said. "Suddenly you find yourself more careful about where you go, about whom you're seen with – even about what you say. It isn't always pleasant. We're being used as a kind of shot in the arm to the nation."¹⁷

Gordon Cooper was definitely the sort of person who could leave an immediate impression upon the people he met. One such person was future flight director and manager Gene Kranz, who would achieve almost legendary status for his work and inspirational leadership during the Apollo years. In 1961, shortly after being hired by the Space Task Group to serve as a procedures officer in the Mercury Control Center, Kranz, a former fighter pilot, was directed to make his way down to the Cape to work on the launch of the unmanned Mercury-Redstone 1 (MR-1) flight. As related in his autobiography *Failure is Not an Option*:

After the plane rolled to a stop ... a shiny new Chevrolet convertible wheeled to a halt just beyond the wingtip. An Air Force enlisted man popped out, saluted, and held open the car's door for a curly-haired guy in civilian clothes, a fellow passenger who deplaned ahead of me.



The first astronaut that legendary flight controller Gene Kranz met was Gordon Cooper. (Photo: NASA)

The “curly-haired guy” then offered Kranz a ride to the Cape, a convenient offer, so he climbed in.

After clearing the plane he peeled into a 180-degree turn and raced along the ramp for 100 yards, my neck snapping back as he floored the Chevy. I had never driven this fast on a military base in my life. I was thinking I had hitched a ride with a mad-man, or at least someone who apparently had no concern about being pulled over by the Air Police for speeding and breaking every regulation in the book.

Hitting the highway, he made a wide turn and a hard left, burning rubber. In no time, he had the needle quivering between eighty and ninety miles an hour. After a joyful cry of ‘Eeeee hah,’ he turned and offered his hand, saying, ‘Hi, I’m Gordo Cooper.’ I had just met my first Mercury astronaut.¹⁸

Another automobile story involving Gordon Cooper comes from Manfred (“Dutch”) von Ehrenfried, who was recruited by NASA in 1961 and became a flight controller in the Flight Control Operations Branch. Dutch said he always enjoyed interacting with Cooper, and found the astronaut to be “very friendly” right from their first meeting.

I always liked him. When I first saw and heard Gordo he had just come out of the Langley Mercury Procedures Trainer and he was in his space suit; first time I ever saw one. It was during a debriefing of a simulation. I was new and very young and thought, well this should be interesting. Then I heard him speak with that Oklahoma accent. I thought, “How can anybody who speaks like that become an astronaut?”



Manfred ("Dutch") von Ehrenfried. (Photo courtesy of Dutch von Ehrenfried)

A few years later after we moved to Houston, Gordo got one of the Jim Rathmann Corvettes. It was a 1965 Massau Blue fastback. He took me for a hair-raising ride in the back roads of MSC [Manned Spacecraft Center] and told me that he didn't really like the fastback; he wanted a convertible. So he offered me the car for what he paid for it; \$4,400. I jumped on it. At the time, I had two little children and I shoved them in the back. My wife made me sell it a year later; something about it wasn't a family car! I wish I had kept it; it would be worth a fortune today.¹⁹

USING THE POWER

Despite being advised concerning what they could and could not say to the ever-present press, Cooper would sometimes use the fame of the astronauts to the group's advantage. During one such interview he happened to mention to a reporter that the astronauts were increasingly unhappy about their lack of piloting time, saying it was necessary in order to maintain their flying skills. He added that whilst they were being universally lauded as the nation's best pilots, they often had to meet their astronaut obligations by flying around the country as passengers on commercial airlines.

"I didn't go out of my way to tell this reporter about it," Cooper later explained. "He was there at Langley, looking over our training schedules, and started talking about our training. He said, 'I see that flying airplanes is your number one training device, keeping up constant flying in fighter airplanes. What are you flying?' I said, 'Personally, I'm going over to McGee Tyson on weekends and standing alert with them, flying F-104s. Which I have to

go over there to do, because we don't have any airplanes.' He said, 'You mean you don't have any airplanes in NASA at all?' I said, 'That's right, we don't.' That started the whole thing. He was quite an investigative-type reporter, and really did a lot of investigating. Of course, I'm sure that irritated some NASA people. But on the other hand, they were sitting around dragging their feet on getting our number one training device. They had all the funding; they had everything they needed to get them for us. They just wouldn't do it."²⁰

As if that hadn't opened the gate wide enough, Cooper also let his feelings – and those of the other astronauts – be known to New York Congressman Jim Fulton over lunch one day at Langley. He explained that in order to keep their flight pay, they had to get in line behind deskbound colonels and generals who were also trying to maintain their flight time and therefore their flight pay. The congressman expressed amazement, saying he thought flying was an essential part of an astronaut's training. "It is," Cooper fired back. "Or *should* be." The very next day the House Committee of Science and Astronautics launched an investigation into why these men, training to fly into space, found it so hard to access aircraft to keep up their flying proficiency.²¹



Cooper in the cockpit of an F-102 at Patrick Air Force Base. This was the type of aircraft the astronauts needed in order to maintain their flight proficiency. (Photo: NASA)

As a result of this unwanted publicity and governmental pressure, and definitely unhappy with being deliberately sideswiped by Cooper manipulating the press, NASA was reluctantly stirred into action. For the next couple of years they were permitted to share, with greatly increased priority, some Lockheed T-33 Shooting Star jets, Convair F-102 Delta Daggers, and later Convair's F-106 Delta Darts with the Air Force pilots based at Langley. The astronauts were obviously delighted that through a little bit of "astropower," they could now maintain their proficiency and move around the country without the need to travel on commercial jetliners.

Later, in 1962, NASA decided to supply a small fleet of Northrop T-38 jets for the exclusive use of the astronauts. Northrop test pilot Richard (“Dick”) Thomas recalls another incident in which Gordon Cooper was involved.

During the early 1960s Northrop was introducing the T-38 to the astronauts. NASA was planning to buy airplanes to provide flying time for them. The second group had been selected to add to the original Mercury Seven group. Another company pilot and I took our T-38 demonstrator to Houston for the astronauts’ evaluation. Everybody was already a test pilot, so briefings and checkouts were very limited. However, we maintained a reasonably formal approach, [checking that] each pilot had all the appropriate flight equipment. The astronauts would arrive on their scheduled time and fly; however, when we reached the last flight time [of the day], that pilot had not arrived. There was no concern, because we knew the astronauts were very busy, but it was getting late.

Finally, Gordon Cooper arrived wearing a sport shirt, slacks, and loafers. We briefed and politely talked until one of our people suggested the airplane was ready and would Mr. Cooper like to get his flight gear? Cooper’s reply was, ‘I’m ready.’

We had taken pictures with all the astronauts by the airplane (Cooper in slacks and parachute). We had a good flight with Gordon Cooper but NASA never included a copy of our picture with him. It just shows that even a maverick could have the ‘Right Stuff.’²²

FIRST AMONG EQUALS

On 19 January 1961, as America was looking forward to the inauguration of President John F. Kennedy the next day, MSC director Robert Gilruth requested that the seven astronauts assemble for an important briefing. They knew what was coming – the *big* announcement. That day one of them would walk out of the astronauts’ office as the person chosen to be the first American – and most likely the first person – to fly into space.

Gilruth got straight down to the details, which he cautioned they had to keep strictly confidential. First of all, he stated that even though he had selected the prime pilot, he was going to release three names to the press. In order to minimize the pressure on the prime pilot during his crucial mission training, Gilruth intended merely to say that one of the three astronauts would be chosen as the pilot and the other two would back him up. Gilruth then acknowledged that all seven men had worked long and hard over the previous 21 months, and any one of them would be capable of piloting the first flight. While the astronauts appreciated this, they were on the edge of their seats waiting for the decision.

Without any further ado, Gilruth announced that Alan Shepard had been selected as the prime pilot for the first suborbital space mission, and John Glenn and Gus Grissom would be his backup pilots. There was silence for a few moments as Shepard tried his hardest not to break into a huge grin of relief, and then the others got up and shook his hand.

“Al Shepard would be the first in space,” Cooper reflected. “For nearly two years we had worked together like brothers – fiercely competitive, yes, but at the same time very supportive and wanting to see the other guy succeed in every way. That would not change now. Besides, I reminded myself, there would be plenty of other good missions down the road – longer and even *better* missions.”²³



5 May 1961 and Alan Shepard makes history as the first American into space. (Photos: NASA)

Three weeks before Shepard's flight, the astronauts finally moved out of Langley to set up office at the Cape.

On 5 May 1961, four months after being selected, Shepard executed the first space flight by an American astronaut, launching on a Redstone rocket, flying a ballistic arc, and landing in the Atlantic some 15 minutes later and some 302 miles downrange. Cooper had played an important role on Shepard's flight, serving as CapCom at the reinforced blockhouse built adjacent to Launch Pad 5 at the Cape. His duties entailed monitoring the weather and standing by to put into effect the rescue mission he had been working on to enable Shepard to get out of his capsule using the "cherry-picker" vehicle if there was a sudden emergency prior to launch. Fortunately, this was not necessary and the mission was a complete success.

But Shepard's aspirations of becoming the first person to fly into space had been cut short three weeks previously when a Soviet cosmonaut named Yuri Gagarin had orbited the Earth in a Vostok spacecraft on 12 April. Shepard was understandably furious. Had NASA not been so preoccupied with monkey flights and test launches, he felt he might have made history ahead of Gagarin.

The Soviet announcement said Gagarin "safely landed in the prearranged area of the USSR" after a flight of 108 minutes, including 89.1 minutes in orbit. During the flight, Gagarin reached a top speed exceeding 17,000 mph. He also set a duration record for weightlessness. The Soviet announcement said that on landing Gagarin declared, "I wish to report to the [Communist] Party and the government and personally to Nikita Sergeyevich Khrushchev that the landing was normal. I feel fine, and I have no injuries or bruises." Khrushchev responded, "You have made yourself immortal because you are the first to

penetrate into space ... let the capitalist countries try to catch up with our country, which has blazed a trail into space and which has launched the world's first cosmonaut."²⁴

"It was a blow, but it certainly wasn't unexpected," Cooper said of this pioneering achievement. "We knew the Russians were really working hard to get somebody up into space. We knew they were a long way ahead of us, because the politicians would not let us get started on the space program for about five or six years – when we could have. A lot of people like Wernher von Braun and others were working hard to try and get Congress to authorize, fund, start up and get things going. They wouldn't do it. So it really shouldn't have been any surprise that the Russians were [running] ahead of us. Plus they had a big advantage – their nuclear warheads were neither as small as ours nor as efficient as ours. They were much larger, so they had to have bigger boosters. We didn't have to develop these big booster engines, they did. So they were a long way ahead of us."²⁵

Two months after Shepard's history-making MR-3 (Mercury-Redstone 3) mission aboard spacecraft *Freedom 7*, Gus Grissom achieved the second U.S. suborbital flight on 21 July, riding *Liberty Bell 7* to an altitude of 118 miles. For this mission, Cooper flew as a chase observation pilot aboard an F-106 jet, trying – but not succeeding – to keep pace from a distance as Grissom's Redstone streaked ever faster into the sky.

The first Mercury-Atlas test had ended prematurely when the vehicle disintegrated early on. Suspicion fell on the interface between the spacecraft and the booster. So it had been decided that a chase plane would attempt to follow the Redstone as it passed through the period of maximum aerodynamic pressure that imposed the greatest stress on the spacecraft/booster interface.

"We wanted to get some pictures of that phase," Cooper explained, "just to see if we could get in close. So I had a Bell & Howell photo camera and came in with the 106 to pick up Gus as he began to move over and really began to get into the high-Q area."²⁶



Gordon Cooper in an F-102 flies over the Cape's launch pads. (Photo: NASA)

There was a dramatic end to the MR-4 mission when the escape hatch unexpectedly blew after splashdown, causing Grissom to make a quick scrambling exit as his spacecraft began filling with sea water. A Marine helicopter plucked the sinking, water-logged astronaut from the ocean less than a minute later, but the capsule continued to take on water and sank despite the best efforts of a second helicopter pilot.



A pleasant diversion for everyone as President Kennedy chats with Gordon Cooper and the astronauts' nurse, Dee O'Hara. (Photo: NASA)

On the original flight manifest, John Glenn should then have flown a third suborbital mission, but NASA decided that there was little if anything to be gained from a further manned ballistic shot. Glenn was therefore reassigned to MA-6, and in February 1962 accomplished a superb three-orbit mission that was only marred by a telemetry signal indicating that the heat shield on *Friendship 7* had prematurely unlatched. Although it was believed that this signal was improper and involved an instrumentation failure (as proved to be the case), a decision was made to re-enter with the retropackage attached in order to prevent a possibly loose heat shield from deploying the landing bag during the critical, superheated passage back through the atmosphere.

As CapCom at Muehea in Western Australia, it fell to Cooper to ask Glenn about the landing bag switch at the request of the Mercury Control Center, without revealing why he was asking the question. Despite all the dramas Glenn splashed down safely, and America erupted into a patriotic fervor and hero-worship unmatched since the days of Charles Lindbergh. "Everything was new – we were all learning," Cooper later stated, regarding the decision not to inform Glenn of the heat shield situation. "I personally think that they probably should have discussed it with him openly."²⁷

There was a shock in store when Deke Slayton was medically grounded after he was found to be suffering from a mild physiological condition known as atrial fibrillation. It was enough for him to be replaced as pilot of the MA-7 mission by Scott Carpenter. Determined to beat the condition in order to make a space flight at some future date, Slayton opted to remain with the agency and was made Coordinator of Astronaut Activities – in which role he decided crew assignments. His persistence eventually paid off when he was cleared to fly the 1975 Apollo-Soyuz Test Program (ASTP) mission.

In May 1962 Scott Carpenter made the three-orbit MA-7 mission aboard *Aurora 7*, during which he encountered severe systems failures that caused him to splash down well beyond his planned landing point. For this flight, Cooper had served as CapCom at the tracking station in Guaymas, Mexico.

In August 1962, in excess of 20,000 spectators turned out in downtown Shawnee to greet their local astronaut, who was yet to make his first flight into space. He was there for a special public event – to dedicate an Armed Forces Reserve Center that had been named in honor of his father two years after his death. Riding atop the back seat of an open convertible in the soaring August heat and waving, Cooper received the happy shouts of the crowd lining the street as he passed by, and cheerful greetings from people who knew him. He would later describe the parade as “a real homecoming and a good family reunion.”

Having arrived at the Armed Forces Reserve Center, Cooper and his mother Hattie unveiled a dedicatory plaque in honor of the late Col. Leroy G. Cooper. It was both a proud and reflective duty for the Mercury astronaut, who dearly wished that his father could have survived long enough to see his son fly into space.

While in Shawnee for the dedication ceremony, Cooper was also presented with a traditional war bonnet by elders from the Otoe tribe, who endowed him with the title Chief Oklahoma Space Man.

At a press conference later, Cooper said, “It’s pretty hard to describe how you feel about a homecoming like this. It’s wonderful, of course, and it’s so good to see so many people I haven’t seen in such a long time.” When asked if he thought that flying into space might be dangerous, he smiled and shrugged off the question. “It certainly couldn’t be any more dangerous than driving my car across country.”²⁸

PREPARING FOR SPACE

Although the pre-flight phase in the early days of the Mercury program presented the opportunity to incorporate certain modifications into successive capsules, equipment necessary to meet specific operational requirements would also be added. However, this often caused problems for the astronaut. Owing to the limited usable cockpit space and the even more limited center-of-gravity travel and gross weight of the capsule, it was essential to analyze the proposed configuration changes intensely before clearing them for implementation. Their inclusion often resulted in some type of compromise being made to the astronaut’s comfort, his freedom of movement, and/or the smooth operation of the systems.

“The natural tendency was for everyone to want to improve on existing equipment and to add worthwhile experiments that could be fitted in,” was Cooper’s take on this situation. “Space flight is so expensive that no one wants to waste a single second of orbital time. However, we all discovered that the entire flight is compromised when all equipment, all

experiments, and all the flight plan details aren't frozen early enough to check out each piece of equipment and allow everyone – and particularly the pilot – to become thoroughly familiar with all procedures.”²⁹

As Dutch von Ehrenfried observed, considering the proposed length of the mission that Cooper was assigned, “The Mercury spacecraft was growing in weight with all the added fuel and life support needed for the extended duration. Furthermore, in order to exploit the additional time in orbit this was to be more of a scientific mission involving a lot of photographic equipment. It was to fly over most of the Earth between latitudes 33 degrees north and south, so it would require even more recovery and tracking forces than a six-orbit mission The aeromedical teams were reduced slightly, reflecting the flight surgeons' increasing confidence of the astronaut's reaction to a prolonged period of weightlessness and the ability of the spacecraft's environmental control systems.”³⁰

During the early Mercury missions the cabins were becoming increasingly cluttered, to the point where the space available to the astronaut and the equipment with which he had to work was extremely limited. Getting some of the equipment located and moved about often provided more exercise than that provided by the special exerciser device that was carried onboard. “Stowage of equipment is a very real problem that too often is not given enough consideration,” Cooper later observed.³¹



Gordon Cooper leaves Hangar S during training as the backup MA-8 pilot for Wally Schirra. (Photo: NASA)

Wally Schirra flew an exemplary MA-8 mission in October 1962. On the earlier three-orbit flights of Glenn and Carpenter, there had been concerns expressed about running out of maneuvering fuel. Schirra was having none of that. He flew his six orbits aboard *Sigma 7* with such care and economy that towards the end there was in excess of 70 percent of his fuel remaining; so much that he had to jettison some of it before he could safely begin his re-entry.

With Wally having shown how to conserve fuel, a reassured and enthusiastic NASA began preparing to push on with the MA-9 mission. It was initially intended to stretch it out to a “day long” mission of eighteen orbits, but in the end it would prove possible to do even better.

Apart from the medically sidelined Slayton, there was only one Mercury astronaut who had not completed a space flight, and that was Gordon Cooper. But as Slayton revealed in his posthumously released autobiography, the young Air Force pilot had managed to alienate some of the agency hierarchy with his constant complaining and brash antics. “It was true he didn’t show the best judgment at times,” Slayton stated.

Prior to the selection of a pilot for MA-9, there was also some conjecture that the choice should really depend on whether there would be more than one long-duration Mercury flight. Quoting “an unidentified Mercury official,” the influential *New York Times* newspaper reported that if only one such flight was planned, officials at NASA felt it might be “prudent to entrust this flight to a pilot with Mercury experience. Cdr. Shepard is a known quantity and it would be a waste of acknowledged talent to finish Mercury without giving him an orbital flight since he handled the first mission flawlessly.”

In his book, Slayton also revealed his surprise when Cooper, whom he knew from Edwards Air Force Base, had been selected as an astronaut. “When I heard Gordo’s name, my first reaction was, something’s wrong. Either he’s on the wrong list or I am. Gordo was an engineer at Edwards. As far as I was concerned, he wasn’t even a test pilot. But I figured NASA had its reasons.”³²

Nevertheless, having worked and trained with him for three years, Slayton believed that Cooper was more than capable of doing a good job, and when the time came would recommend him for the flight. He also felt there was nothing to be gained by replacing him with Shepard.

One person who did not entirely share Slayton’s belief in Gordon Cooper’s abilities was NASA’s Operations Director Walt Williams, essentially the third-in-charge at the space agency. In his biography of Alan Shepard, *Light This Candle*, Neal Thompson wrote, “A few months before the flight Williams told Shepard that his faith in Cooper was shaky and there was a strong chance he might ask Shepard to fly instead. Shepard immediately latched on to the idea and began selling himself for the job.”

Thompson also revealed that, “NASA knew Cooper was an excellent pilot, but he had never seemed to train as hard as the others. And despite his love of fast cars and fast planes, his laid-back attitude and laconic Oklahoma twang struck some NASA officials as lazy ... some of them began wondering if Cooper was up to the task.”³³

Although the seven astronauts were a highly competitive bunch, eager to take the plum assignments, Cooper understood he now had to keep a close watch on the hard-driving Shepard. “Al would do whatever he could to take someone’s spot on the flight schedule,” Cooper would later relate. “For that reason, everyone endeavored to keep one eye open in the back of his head whenever Al was around.”³⁴

As Slayton recalled, “There was some grumbling out of HQ, so I said, ‘Either we fly him on MA-9 or we send him back to the Air Force now. It isn’t fair to keep this guy hanging around if we’re not gonna fly him.’ I guess you could say I called their bluff.”³⁵

Slayton got his way. On 14 November 1962 it was officially announced that Gordon Cooper had been assigned as the MA-9 pilot, with Alan Shepard serving as his backup. Walt Williams gave Shepard the news on a flight from Houston to Los Angeles. There was silence for a moment as Shepard gave him one of his icy penetrating stares, before saying, “Well, you know I could do a better job.”³⁶

Cooper was jubilant because his assignment promised to be an excellent one. “The original Mercury launch schedule had provided for two six-orbit missions before trying for the first one-day mission – and it was to be *mine*. Eighteen orbits were the goal, but if the flight met all expectations, Mercury Control would extend the mission to twenty-two orbits – leaving me in space for approximately a day and a half.”³⁷

SETTING THE DATE

If there was to be another long-duration Mercury flight after MA-9, which was still on the cards, then Shepard would definitely be assigned to that mission. However he was still poised to jump into the prime pilot role for MA-9 if the opportunity came his way.

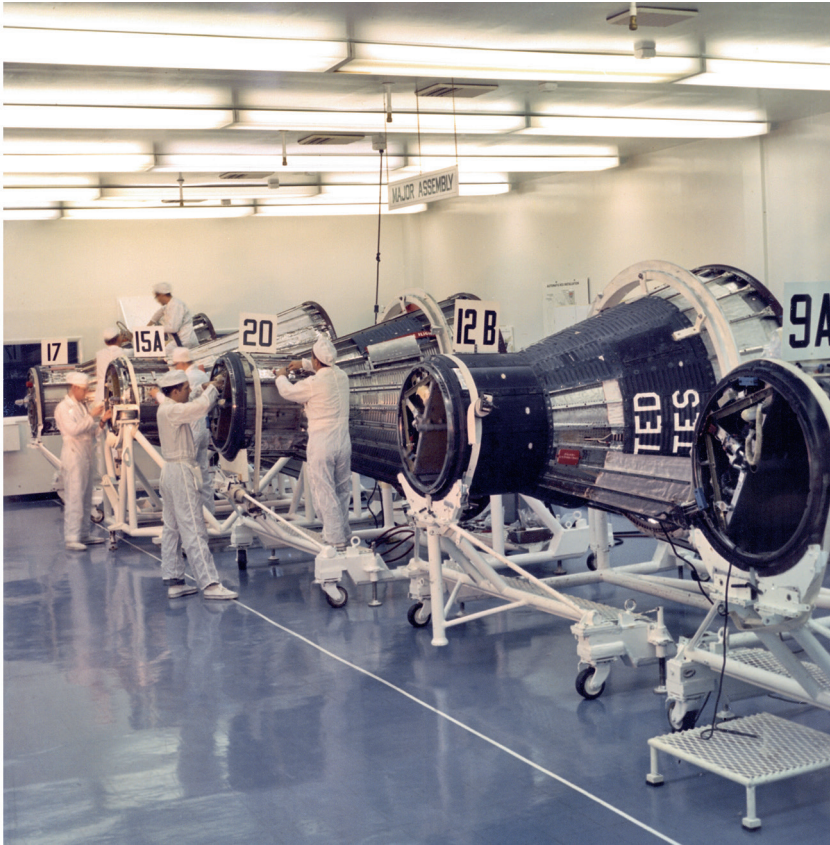
“I wasn’t the only one who considered Al a cutthroat when it came to getting his way,” Cooper revealed in *Leap of Faith*. “When he was my backup on my Mercury flight, Wally Schirra – like Al, a navy pilot – volunteered to shadow Al to make sure I got a fair shake during all our pre-flight work and see that Al didn’t try to sabotage my chances for taking the flight.”³⁸



A test run in the Mercury Control Center where Alan Shepard and Wally Schirra would serve as CapComs for the MA-9 mission. (Photo: NASA)

In making the crew announcement, NASA said the spacecraft for the MA-9 flight, then tentatively scheduled for 2 April 1963, had already been delivered to the Cape, where it was undergoing preliminary tests and checkouts in Hangar S. The NASA spokesman said the April date reflected the fact that unfavorable weather near Cape Canaveral and the Atlantic missile range normally lasted right through the first quarter of the year.

The capsule arrived at the Cape on 9 October and ten days later all its systems had been satisfactorily checked out.



Mercury capsules under construction at the McDonnell plant, including No. 20 which Cooper would fly on the MA-9 mission. (Photo: McDonnell Corporation)

A lot of work had been carried out to refit the spacecraft (still to be named by its pilot) for the long-duration mission. It had been decided to do away with the heavy periscope carried on previous missions, as it was no longer needed, as well as some redundant radios and data recorders. While this was a considerable loss in weight for the capsule, it was soon counterbalanced by the addition of extra water and oxygen bottles, more coolant, and additional hydrogen peroxide fuel for the thrusters. Other modifications would be made over the ensuing months. Despite design reviews and various weight-control efforts, the launch weight would be some 700 pounds greater than the original design weight.



Cooper with McDonnell engineers working on the headrest to be used on his mission.
(Photos: NASA)

The year of 1963 got off to a good start for Gordon Cooper on 27 January when “Shorty” Powers, the Public Affairs Officer at the Manned Spacecraft Center, told an audience of Texas Associated Press managing editors that the MA-9 mission might extend to as many as 22 orbits and therefore last 34 hours.



Cooper with NASA PAO John (“Shorty”) Powers. (Photo: NASA)

As Cooper would explain, he had been assigned three main operational priorities for his MA-9 flight, namely to “prove that a pilot could go off automatic control and fly the spacecraft efficiently; capably manage the use of all onboard consumables, such as fuel for the attitude-control thrusters, electricity, oxygen, and water; and conduct scientific experiments to aid development of rendezvous techniques, which would be vital in the upcoming lunar missions.”

But NASA also had another top priority for the mission, and that was determining the effects of extended space flight on the human body. “Many doctors and scientists were convinced,” Cooper said, “the pooling of blood in a person’s extremities during zero gravity would preclude space flights of more than a few hours. The sickness that the Russian cosmonauts were reported to have experienced on their long-duration flights increased the concern.”³⁹

The “sickness” to which Cooper alluded had afflicted cosmonaut Gherman Titov on the Vostok-2 mission in August 1961. Remarkably, having achieved a single orbit with Yuri Gagarin, the Soviets sent their second cosmonaut up for a day-long mission. Titov, at 25

years old still the youngest person ever to fly into space, was normally a robustly fit and healthy person but he had fallen prey to a mysterious illness while in orbit. This unknown and debilitating illness later came to be called Space Adaptation Syndrome (SAS). In addition to feeling generally nauseous throughout his 18 orbits, at one stage the hapless cosmonaut threw up. There was speculation that this was perhaps just the reaction of a novice spaceman to weightlessness but Sergei Korolev, the engineering manager who led the Soviet space program, took it so seriously that he shut down the nation's manned space efforts for a year as top physicians tried to determine a cause.

Even today, scientists find it hard to understand the neurophysiology behind SAS, which can strike any space traveler with little warning, causing severe disorientation, dizziness, and nausea during their first few days in orbit.

As nothing was known about SAS in the early days, it was assumed that Titov had simply reacted badly and that he should not be permitted to journey into space again.



B. R. Schuster of McDonnell Aircraft Company paints the *Faith 7* logo onto the side of Cooper's spacecraft. (Photos: NASA)

Like his predecessors, Cooper chose the name for his Mercury spacecraft. "I knew that an awful lot of thought and symbolism had gone into the earlier names [so] I felt a certain responsibility," he explained. "I selected the name *Faith 7* to show my faith in my fellow workers, my faith in all the hardware so carefully tested, my faith in myself and my faith in God. The more you study, the more you [get to] know all the scientific stuff; it correlates. It confirms religious faith. The name was painted on the side of the spacecraft by the McDonnell Corporation at Cape Canaveral. The design was selected by me."⁴⁰

However, as Deke Slayton once observed, the name caused some lingering doubts at NASA Headquarters. "What if something went wrong?" he recalled. "They could see the headlines now: NASA LOSES 'FAITH!'"⁴¹

REFERENCES

1. Gordon Cooper with Bruce Henderson, *Leap of Faith: An Astronaut's Journey Into the Unknown*, HarperCollins Publishers, New York, NY, 2000
2. Gordon Cooper interviewed by Francis French, Ventura, CA, 25 April 2001 and Santa Monica, CA, 26 October 2002
3. Paul Haney email correspondence with Colin Burgess, 21 September 2003
4. Gordon Cooper with Bruce Henderson, *Leap of Faith: An Astronaut's Journey Into the Unknown*, HarperCollins Publishers, New York, NY, 2000
5. *Ibid*
6. Gordon Cooper interviewed by Francis French, Ventura, CA, 25 April 2001 and Santa Monica, CA, 26 October 2002
7. Neal Thompson, *Light this Candle: The Life and Times of Alan Shepard*, Crown Books/Random House, New York, NY, 2004
8. Gordon Cooper, "Astronaut's Summary Flight Report," from *Project Mercury Results of the Fourth Manned Orbital Flight*, NASA SP-45, Washington, D.C., October 1963
9. *Ibid*
10. Robert B. Voas, NASA Space Task Group, *The Training of Astronauts: Report of a Working Group Conference*. Publication 873, National Academy of Sciences – National Research Council, Washington, D.C., 1961
11. Gordon Cooper, *Life* magazine article, "I've the normal desire to go a little higher," issue Vol. 47, No. 11, 14 September 1959, pg. 28
12. *Ibid*
13. Carpenter, S., Cooper, Jr. L, Glenn, Jr., J., Grissom, V., Schirra, Jr., W., Shepard, Jr., A., and Slayton, D., *We Seven*, Simon and Schuster Inc., New York, NY, 1962
14. Douglas Martin, *New York Times*, article "Jim Rathmann, 1960 Indianapolis 500 Winner, Dies at 83," issue 2 December 2011
15. Trudy Cooper, "I Want to See it Go," from *Australian Women's Weekly*, issue 21 October 1959, pg. 27
16. Oriana Fallaci, *If the Sun Dies*, Collins, London, U.K., 1967
17. Jerry Bledsoe, *Esquire* magazine article, "Down From Glory," issue January 1973
18. Gene Kranz, *Failure is Not an Option*, Simon and Schuster, New York, NY, 2000
19. "Dutch" von Ehrenfried email correspondence with Colin Burgess, 10 December 2015
20. Gordon Cooper interviewed by Francis French, Ventura, CA, 25 April 2001 and Santa Monica, CA, 26 October 2002
21. Gordon Cooper with Bruce Henderson, *Leap of Faith: An Astronaut's Journey Into the Unknown*, HarperCollins Publishers, New York, NY, 2000
22. Cynda and Velvet Thomas, *Hell of a Ride: A First Person Biography of the Gutsy Test Pilot Richard G. 'Dick' Thomas*, iUniverse, 2008
23. Gordon Cooper with Bruce Henderson, *Leap of Faith: An Astronaut's Journey Into the Unknown*, HarperCollins Publishers, New York, NY, 2000
24. Lester A. Sobel (editor), *Space: From Sputnik to Gemini*, Facts on File, Inc., New York, NY, 1965
25. Gordon Cooper interviewed by Roy Neal for NASA Oral History Program, Jet Propulsion Laboratory, Pasadena, CA, 21 May 1998

26. Gordon Cooper interviewed by Francis French, Ventura, CA, 25 April 2001 and Santa Monica, CA, 26 October 2002
27. *Ibid*
28. Jack Reese, *Shawnee News-Star* (Oklahoma) article, "Cooper: A Glimpse at an Astronaut," issue 29 June 1963, pg. 2B
29. Gordon Cooper, "Astronaut's Summary Flight Report," from *Project Mercury Results of the Fourth Manned Orbital Flight*, NASA SP-45, Washington, D.C., October 1963
30. Manfred ("Dutch") von Ehrenfried, *The Birth of NASA*, Springer-Praxis Books, New York, NY, 2016
31. Gordon Cooper, "Astronaut's Summary Flight Report," from *Project Mercury Results of the Fourth Manned Orbital Flight*, NASA SP-45, Washington, D.C., October 1963
32. Donald Slayton and Michael Cassutt, *Deke! U.S. Manned Space from Mercury to the Space Shuttle*, Forge Books, New York, NY, 1994
33. Neal Thompson, *Light this Candle: The Life and Times of Alan Shepard*, Crown Books/Random House, New York, NY, 2004
34. Gordon Cooper with Bruce Henderson, *Leap of Faith: An Astronaut's Journey Into the Unknown*, HarperCollins Publishers, New York, NY, 2000
35. Donald Slayton and Michael Cassutt, *Deke! U.S. Manned Space from Mercury to the Space Shuttle*, Forge Books, New York, NY, 1994
36. Neal Thompson, *Light this Candle: The Life and Times of Alan Shepard*, Crown Books/Random House, New York, NY, 2004
37. Gordon Cooper with Bruce Henderson, *Leap of Faith: An Astronaut's Journey Into the Unknown*, HarperCollins Publishers, New York, NY, 2000
38. *Ibid*
39. *Ibid*
40. Dick Lattimer, *All We Did Was Fly to the Moon*, Whispering Eagle Press, Gainesville, FL, 1985
41. Donald Slayton and Michael Cassutt, *Deke! U.S. Manned Space from Mercury to the Space Shuttle*, Forge Books, New York, NY, 1994

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