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AURORA 7

The Mercury Space Flight of M. Scott Carpenter

Colin Burgess

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Front cover: *Aurora 7* launched with Scott Carpenter aboard, 24 May 1962. (Photos: NASA)
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Contents

There is one spectacle grander than the sea,
that is the sky; there is one spectacle grander
than the sky, that is the interior of the soul.

– Victor Hugo (1802–1885)

This planet is not terra firma. It is a delicate
flower and it must be cared for. It's lonely.
It's small. It's isolated, and there is no resupply.
And we are mistreating it. Clearly, the highest
loyalty we should have is not to our own country
or our own religion or our hometown or even
to ourselves. It should be to, number two,
the family of man, and number one, the planet
at large. This is our home, and this is all we've got.

– Scott Carpenter (1925–2013)

Foreword

In May 1959, a few weeks after NASA had announced the selection of the seven Mercury astronauts, a 23-year-old Air Force nurse began working at the Patrick Air Force Base hospital in Florida. Just six months later, before she'd really had a chance to settle in, the hospital commander, Colonel George Knauf, called her into his office and asked if she would like to consider working as a nurse for NASA's astronauts at nearby Cape Canaveral. Much to her astonishment, 2nd Lt. Dee O'Hara would find herself at the very heart of perhaps the greatest scientific endeavor ever undertaken, and doing one of the most enviable jobs in the world. She had become the trusted nurse for America's astronauts.

Although I wasn't really sure what the job entailed, I accepted. I really didn't know what to expect or what was ahead of me when I was sent to the Cape. I must also admit that I didn't really know what an astronaut was, and the only thing I knew about Mercury was that it was a planet, and also the stuff in a thermometer. It turned out that I was to set up the Aeromed Lab, an examination area for the astronauts in a building simply called Hangar S, and be with them as their nurse. I always felt the Mercury program was launched from there because we were all crammed into this one little hangar.

I was 23 years old back when I started work at the Cape, and admittedly not very sophisticated, so my first introduction to the astronauts came as a bit of an unexpected shock. Nobody had been assigned to a flight at that point, it was so early in the program, and this probably would have been January 1960. I happened to go down the hall one day and when I opened the door to the conference room they were all sitting there, with John Glenn seated on the table. I had no idea they were in the room and felt terribly embarrassed and even a little frightened that I had barged in on them. They were, after all, very famous people by then. I stammered an apology and backed out, slamming the door behind me, and fled back red-faced to my office. Then John Glenn, bless his heart, walked up and asked me to come back "and meet the guys," and said he would introduce me, which he did.

The premise behind me being there was that they wanted someone who would get to know the astronauts so well that she would work out whether they were really sick or not. The astronauts certainly were not going to tell the flight surgeon, Bill Douglas, because

they knew the doctor had the right or capability of grounding them – the last thing these guys wanted. They were really fearful of doctors for this reason. So I made a deal with them: I said I would never betray them unless, in my opinion, what they told me would jeopardize them or the mission. In that case, I would have to report it to Dr. Douglas.

Back then, everything seemed to exist in Hangar S. It was essentially a long string of rooms off a narrow hallway which overlooked the floor of the hangar. We had a lab area, an exam room area, my little office, and then there was a large carpeted room where the space suits were kept. The suiting-up couch was in that room, where all of the suit check-outs were carried out. Then you went to the next room which was set up as a kind of a conference room for the astronauts. Past that was a little lounge area which was considered to be crew quarters, and in the next small room were bunk beds. If they were training late, or working in the capsule late, they could at least bunk there and sleep the night in privacy, and not have to drive the nineteen miles to a motel in Cocoa Beach, although they often used that distance to set hair-raising speed records in their powerful cars. Boys will be boys.

Initially, the astronauts were based at Langley Air Force Base in Virginia. During the week, they would fly down to the Cape in Florida for their testing, suit fittings, chamber tests, and so on. Then they would go back to Langley for the weekend. When it was launch time they would come down to Cape Canaveral and I would help them with pre-flight physicals, including height, weight, temperature, blood pressure and other tests.

Over the next few years, I served as the astronauts' nurse, tending to them and their families. I didn't really get to know their families well until I transferred to Houston, although I had met most of the wives when they'd traveled down to the Cape on rare occasions. Most had very small children at the time, so they stayed pretty close to home.

Once I had set up the Flight Medicine Clinic in Houston, the families would come to the clinic for medical care, in addition to their astronaut husbands. I became very close with the wives and knew them all intimately – they invited me into their homes. I am still in touch with many of them today.

They were wonderful days, but I always had my heart in my mouth whenever one of them was launched into space. You could feel the tension on everyone's part, because these men were entering the unknown and we didn't know what the heck was going to happen. It was both exciting and terrifying at the same time. Early on, I don't think any of us really thought about how historic these days would become. It was a job, and you just did your job.

I used to hear from people all over the world about how exciting they thought my job must be. I must admit I had the most ideal job in the world – I traveled, met movie stars, and got to associate with so many interesting people. I feel very fortunate to have been a part of a unique and exciting time in space history.

We all miss Scott Carpenter so much after he left us at the grand age of eighty-eight. The Scott I knew back in the Mercury days could see the beauty, the poetry or the emotion in so many things. He really was a poet, and a very sensitive, caring man.

Although it's only a small example of who he was, I won't forget the day he came into my office and said "Dee, the flint's gone in my lighter – do you have any flints?" I said I'd try to find one and after he'd gone I searched around and found a couple, which I taped

Scott Carpenter with astronauts' nurse Dee O'Hara. (Photo: NASA)

Scott Carpenter and Dee O'Hara raise a toast to Mercury astronaut Wally Schirra at his colleague's funeral in 2007. (Photo: Francis French)

under a piece of Scotch tape on his lamp. When I came in the next morning there was the piece of tape on my lamp, and underneath it was a note, and it said, "A kiss is in here for you." You see, that was Scott. It's hard to explain him to people, but that's a classic example of what he would say, and the gentleness and the sensitivity of the man. I've always had a very special spot for him.

I truly feel Scott did a wonderful job on his flight aboard *Aurora 7*. He got a lot of science done, a lot of the experiments that were thrust on him, and it's a shame he doesn't get enough credit for that. Yes, he missed his splashdown mark and scared everybody for a while. But the tragedy was when someone as powerful as Chris Kraft later came out and said, "I won't work with him again." That absolutely killed Scott's career. It was just heartbreaking; it shouldn't have happened. It was a very sad episode in an otherwise wonderful career, including his later exploits as a Sealab aquanaut. What an amazing person he was.

Over recent years, I caught up with Scott several times at different space events, and it was always a great pleasure to see him and to reminisce about old times and old friends. Scott especially loved talking to the children who came with their parents to the Astronaut Scholarship Foundation events. His eyes would light up as he asked them a number of questions about themselves and school. It was interesting to watch the children open up and talk to him without any shyness or hesitation.

We were all so sad when we heard the news of his passing, but like so many others I will always hold dear the precious memories of a man who gave so much to his nation, and yet retained the soul of a poet.

To paraphrase those unforgettable words to his great friend as John Glenn was about to be launched into orbit, "*Godspeed, Scott Carpenter*."

Dee O'Hara
Astronauts' nurse

Author's prologue

I first met Scott Carpenter in 1993 at the Association of Space Explorers' Congress in Vienna, Austria. After I'd asked him to sign my copy of his novel *The Steel Albatross* – which he did quite happily – I happened to mention that I had at home a photo of him riding a horse while stationed in Muchea, Western Australia, for the MA-6 orbital Mercury flight of John Glenn back in 1962. Immediately his face lit up and he smiled as he said, "Ah, yes – Butch." He remembered that horse well, and we fell into a conversation about the time he had spent in Muchea, and the people he'd met there. Some years later, Scott would recount by telephone the story of riding Butch in the Australian outback for a chapter in the book *Into That Silent Sea*, which I co-authored with Francis French.

Scott and I met again several times over the years at different venues, and it was always a true pleasure to sit and chat with a man who was a boyhood hero of mine. So much so that our older son was named Scott after him – a tribute he gladly repaid by sending me a surprise personal greeting for my son and his bride Melissa which I had the pleasure of reading out on the occasion of their wedding.

Although my enthusiasm for human space flight had kicked into gear during the much-delayed Mercury flight of John Glenn, the Mercury-Atlas 7 (MA-7) flight with Scott flying aboard *Aurora 7* was the first space mission I followed right from its inception, even when it was meant to be flown by another astronaut, and with the spacecraft bearing a different name. Some years later, I was able to view *Aurora 7* up close when it was on display at the Hong Kong Science Museum in Kowloon, never for one moment imaging that one day I'd not only get to meet Scott but befriend him and his daughter, Kris Stoever.

One truly unforgettable occasion came about on 26 January 2003 while I was visiting my long-time friend and co-author Francis French in California. We were delighted to have been invited to a private reception that afternoon at the Oakmont Country Club in Glendale by the Stoever family to mark the publication of Scott's autobiography *For Spacious Skies*, written with his daughter. After they had signed everyone's copies of their book, there was plenty of time to mingle with all the guests – many of them doyens of the space industry. Eventually it was time for Scott to make a short speech, thanking everyone

Scott Carpenter with the author at the Autographica show in Coventry, England, 2004. (Photo: Rex Hall)

The author enjoys a fun-filled conversation with Scott Carpenter at Spacefest V in Tucson, Arizona, May 2013. It would prove to be the last time they met. (Photo courtesy of *collectSPACE.com*/Robert Pearlman)

for attending. Midway through his oration he paused and casually mentioned that he would also like to thank another old friend who had just turned up. I turned around and it was a real pinch-me moment. The late attendee was Gordon Cooper. It would prove to be the first and only time that I had the opportunity to meet and talk with this other legendary Mercury astronaut, who sadly passed away the following year.

The last time I enjoyed a conversation with Scott Carpenter was at Spacefest V in Tucson, Arizona, at the end of May 2013 – in fact, on the 51st anniversary of his Mercury flight – and once again I enjoyed the chance to sit and chat with him as he kindly gave me a few words to use in an earlier book in this Springer series about his Mercury colleague Gus Grissom. Just five months later, I was deeply saddened to learn of Scott's death on 10 October, at the grand age of eighty-eight.

It was quite evident that Scott Carpenter (he told me he always disliked his given name of Malcolm) was cut from a very different cloth than that of his fellow Mercury astronauts. A dynamic pioneer of modern exploration, a superb athlete and test pilot, he was also a gentle and even poetic man; an experimentalist whose curiosity almost cost him his life on his only space flight and led to a well-documented falling out with certain influential members of the NASA hierarchy.

Nevertheless, his incredibly rich and diverse life certainly touched mine in so many ways, and I will be forever grateful to him and his family for allowing me to briefly touch on his own.

Acknowledgements

Bless their hearts, one and all, because a project such as this relies heavily on those who not only support the writing of the Mercury series of books, but are also willing and happy to contribute their memories and experiences.

While this particular book, out of necessity, relies heavily on numerous accounts previously written by, about, or recorded by Scott Carpenter – our amazing Dynamic Pioneer – it is the people who worked with him and knew him best that helped characterize this wonderful, adventurous man, who was blessed with the soul of a poet. I was fortunate enough to have met Scott many times over the years, and to have recorded a lengthy telephone interview with him back in 2002 – much of which was also mined for this book. He was certainly a much-loved man. Sadly, however, so many years have gone by since the unforgettable flight of *Aurora 7* in May 1962 that we have not only lost Scott Carpenter, but so many people deeply involved in his one and only flight into space. It made me doubly appreciative of those that I manage to locate who willingly dipped into the past for me and offered their accounts of that day in history, or revealed different aspects of the life and accomplishments of a greatly missed Mercury astronaut.

Many sincere thanks therefore go to Matthew Appelbaum (Mayor of Boulder, Colorado); Leigh Bartlow; Mike Blair; Ed Buckbee; Bill Cotter; Kate Doolan; Zachary Epps; Al Hallonquist; Joseph Hiura; Alan Humphries; Russ Kaufmann; Renee Mailhiot (Public Relations Coordinator) and Sarah Rosenbloom (Think Tank Volunteer) at the Chicago Museum of Science and Industry; Anne Mills (NASA Glenn Research Center); Bruce Moody; Michael Neufeld (Smithsonian National Air & Space Museum Space History Division); Robert Pearlman (*collectSPACE.com*); J. L. Pickering (*retrospaceimages.com*); Eddie Pugh; Alan, Alice and Tom Rochford; Scott Sacknoff (*Quest: The History of Spaceflight Quarterly*); and Patrick von Keyserling (Boulder Director of Communications).

Special thanks go to a dear and long-time friend who lived through those amazing years as the astronauts' nurse, Dee O'Hara, for agreeing to write such a wonderful Foreword to this book. Multiple thanks also to yet another friend and colleague of many years, Francis French, who ran his eagle eye over this manuscript – as he has done with so many previous

works of mine – not only checking facts, making suggestions for improvement, and seizing upon typos for me, but also pointing out to an Aussie author where a certain word or phrase that I might have used would have had an American scratching his or her head in puzzlement.

My friendly "deputy" Tracy Kornfeld also read through the text and his input was greatly appreciated. The web site that he created with Scott Carpenter is chock-full of stories and biographical information by and about the man, and I encourage any reader to check out *www.scottcarpenter.com*.

Finally, I am truly and abundantly grateful to two extraordinary women who were not only close to the late Scott Carpenter, but offered to assist me in paying tribute to him through this book. I therefore humbly acknowledge the kind help and gracious encouragement of the Dynamic Pioneer's widow and daughter – Patty Carpenter and Kris Stoever.

And of course, I must thank the good folks who turned my manuscript into a book. Clive Horwood of Praxis Publishing in the United Kingdom; my superb copyeditor, fellow author and good mate David M. Harland; and Jim Wilkie, who produced the glorious cover art for this and all my Springer books. At Springer Books, New York, my effusive and ongoing thanks to the hard-working Maury Solomon, Senior Editor, Physics and Astronomy, and her incredibly helpful Assistant Editor Nora Rawn, who has worked miracles for me in so many ways.

1

A replacement astronaut

1960 was a monumentally busy and incredibly productive year for America's dynamic new civilian space agency, NASA (National Aeronautics and Space Administration), which had been formally established just two years earlier. But the agency faced an uncertain future. With an election looming later that year, incumbent president Dwight D. Eisenhower had shown little regard for the nation's space programs, taking the sword to NASA's budget for the following year. He also wanted to cut the second stage of the Saturn rocket program, consigning the space agency to a future based solely on flights in low Earth orbit, without the necessary support or funding to continue through to actually landing astronauts on the Moon.

Under the Eisenhower administration, NASA faced the bleak prospect of having the civilian space program basically put out to pasture after Project Mercury. Even his potential replacement in the White House, Republican candidate Richard M. Nixon, had very little enthusiasm for a costly civilian space program. Foreshadowing a drastic curtailment of human space activities, President Eisenhower voiced his opinion that, "further tests and experiments will be necessary to establish if there are any valid scientific reasons for extending manned space flight beyond the Mercury program."[1]

Despite this grim prognosis, midway through 1960 the Army Ballistic Missile Agency (ABMA) of the Redstone Arsenal, Huntsville, Alabama, became a part of NASA and was renamed the George C. Marshall Space Flight Center. In August the space agency successfully orbited *Echo 1*, an inflatable, aluminized balloon communications satellite, while on 19 December, in preparation for the agency's goal of a manned space flight, the first test flight of a Redstone rocket carrying a Mercury capsule was successfully completed.

In November 1960, America voted in a new president by the narrowest of margins. John Fitzgerald Kennedy became the youngest man ever elected to the office, and the first Catholic to occupy the White House. NASA still faced an uncertain future, knowing that during his campaign Kennedy had been disappointingly non-committal about the nation's non-military space program. Beyond making vague statements whenever the subject was raised, he was not at all convinced that sending humans to the Moon should form a major element of his forward strategies and policies. He had even stated that developing huge rockets was a colossal waste of taxpayer money.

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President Eisenhower with (right) Dr. T. Keith Glennan, NASA's first Administrator, and Deputy Administrator Dr. Hugh L. Dryden. (Photo: NASA)

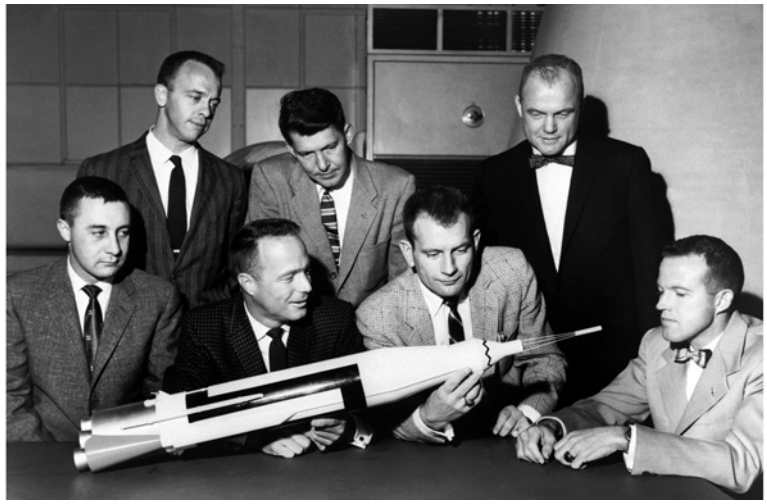
Before a session of Congress on 25 May 1961, President John F. Kennedy commits the United States to landing a man on the Moon before the end of the decade. (Photo: NASA)

History records that within half a year of taking office, and leading a nation stunned by the Soviet achievement of launching cosmonaut Yuri Gagarin into orbit, President Kennedy committed NASA and the United States to landing astronauts on the Moon's surface by the end of the decade. Instead of instigating a decline in the nation's space program, he used it to inspire the nation, and boldly set the country on what was arguably the greatest technological endeavor of all time.

FIRST ASTRONAUT CHOSEN

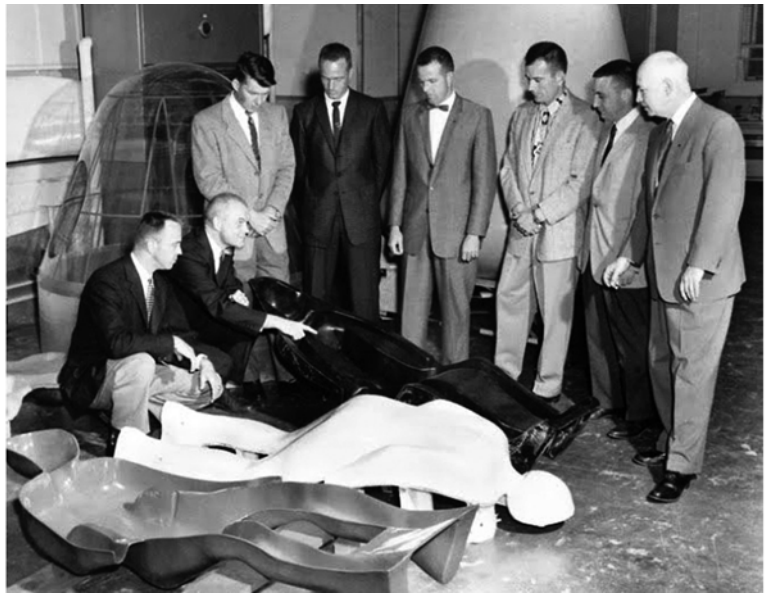
As 1960 rolled over into a whole new year filled with promise and excitement, albeit an uncertain future, NASA stood ready to decide who would become the nation's (and hopefully the world's) first space explorer – the man who would take America into space on a suborbital mission just a few months later.

The Mercury spacecraft for the historic suborbital shot was nearing completion at the McDonnell plant in St. Louis, Missouri, but NASA needed a pilot for the flight, and there were seven superbly qualified men to choose from. All were exemplary test pilots, and they had been undergoing intense space flight training since their selection back in April 1959. From the U.S. Air Force there were Capt. L. Gordon Cooper, Jr., Capt. Virgil I. Grissom and Capt. Donald ("Deke") Slayton; from the U.S. Navy, Lt. M. Scott Carpenter, Lt. Cmdr. Walter M. Schirra, Jr., and Lt. Cmdr. Alan Shepard, Jr. The seventh man, and sole Marine Corps representative, was Maj. John H. Glenn, Jr.



NASA's newly selected Mercury astronauts. From Left: Gus Grissom, Alan Shepard, Scott Carpenter, Wally Schirra, Deke Slayton, John Glenn and Gordon Cooper. (Photo: NASA)

The final decision on who would fly first fell to just one person, Dr. Robert Rowe Gilruth, at that time the appointed Director of NASA's Space Task Group. On 19 January 1961, just one day before the inauguration of the nation's newly elected president, Gilruth called the seven Mercury astronauts together into his office for an urgent meeting. Without revealing the exact nature of the exercise – although all seven quickly deduced its purpose – he handed each man a slip of paper and asked them to write down, in descending order, which person – obviously excluding themselves – they thought was best qualified to be given the job of making the first American space flight. Once they were done he collected the papers and instructed them to reconvene in the afternoon for an important announcement that would affect them all.



Dr. Robert Gilruth (far right) with the seven Mercury astronauts. (Photo: NASA)

Apart from poring over training reports and other indicators on the performance of the seven astronaut candidates, Gilruth was interested in assessing the men's peer ratings in order to determine whether their opinions coincided with his own. He knew that in the public's view the chief contender was undoubtedly the amiable red-headed Marine, John Glenn. And with very good reason – Glenn was a totally dedicated, rock-solid family man who spoke eloquently with pride and patriotism about the space program, and more than any of the other six candidates seemed to embody the ideals of a God-fearing, nation-loving astronaut.

Unbeknown to the public, however, Glenn didn't really stand a chance in a peer vote. In his eagerness to impress the NASA hierarchy and Mercury program officials with his abilities, and his famously pleasant countenance when dealing with the press, he had

created a simmering resentment among his fellow candidates. Their major gripe came when he stepped over the line by angrily rebuking and lecturing them on their openly philandering ways with hordes of eager, willing women, which he insisted was not in keeping with the image they should portray to the public. The others resented being told by one of their own how to conduct their private lives, and this had a strong influence in their individual ratings. When it came to offering his own peer rating, Glenn unhesitatingly wrote Scott Carpenter's name at the top of his list. They had become good friends during the astronaut selection process. For his part, Carpenter was one of those who looked at a person's abilities and suitabilities, and this, combined with his friendship for the amiable Marine, meant that he placed Glenn at the top of his list.

This was no surprise, according to Ed Buckbee, NASA's public affairs officer at the Marshall Space Flight Center in Huntsville, Alabama from 1960 to 1970. "Scott was a kind, gentle and considerate man, never coming on as the cocky fighter pilot type. In my view, there always seemed to be a closeness between John Glenn and Scott. They jogged together when the other Mercury guys avoided running like the plague. They asked similar questions in briefings. They studied together and their families were close."[2]

Later that day the seven astronauts were called back into Gilruth's office, where he wasted little time in announcing that Alan Shepard would make the first suborbital flight. Next to fly he named as Grissom, followed by Glenn. Prior to their own missions, both men would serve as Shepard's backup pilots.

"I did not say anything for about twenty seconds or so," Shepard would recall. "I just looked at the floor. When I looked up, everyone in the room was staring at me. I was excited and happy, of course, but it was not a moment to crow." The other six, despite their disappointment, managed to put smiles on their faces as they congratulated him.[3]

Gilruth then told the seven men that he would not be making the announcement official for some weeks, in order to take the pressure off the primary astronaut during critical mission training.

Privately, Glenn was shocked and then furious at not being selected for the first American space flight. Or even the second. At a subsequent press conference in San Diego, he momentarily lost his renowned cool when asked who of the seven would be the first to fly. "We would like to get away from the 'first' aspect," he responded, a little testiness in his voice. "This is the beginning of many flights. Actually the second and third and fourth flights may accomplish far, far more scientifically than the first flight does. That first mission is going to be sort of an 'Oh, gee whiz, look at me; here I am, Maw!' type of deal, and you are probably going to get a limited amount of data back from it."[4]

Never one to sit back and take defeat lightly, Glenn even decided to question Gilruth's decision with the NASA administrators who were appointed following President Kennedy's installation in the White House. However they refused to overturn the decision and a sullen Glenn temporarily withdrew completely from the public view, later confessing that it took a while for him to bounce back and once again involve himself in the important tasks at hand.

"Those were pretty rough days for me," Glenn later admitted. "I guess I am a fairly dogged competitor, and getting left behind … was like always being a bridesmaid but never a bride."[5]