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Q U A R T E R L Y



**JOHN F. KENNEDY
AND THE
"RIGHT STUFF"**

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HOMER BOUSHEY AND THE
FIRST ROCKET-POWERED
FLIGHTS**

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Clockwise, from top left:

Dick Gordon, Pete Conrad, Neil Armstrong, and Dave Scott

Credit: NASA

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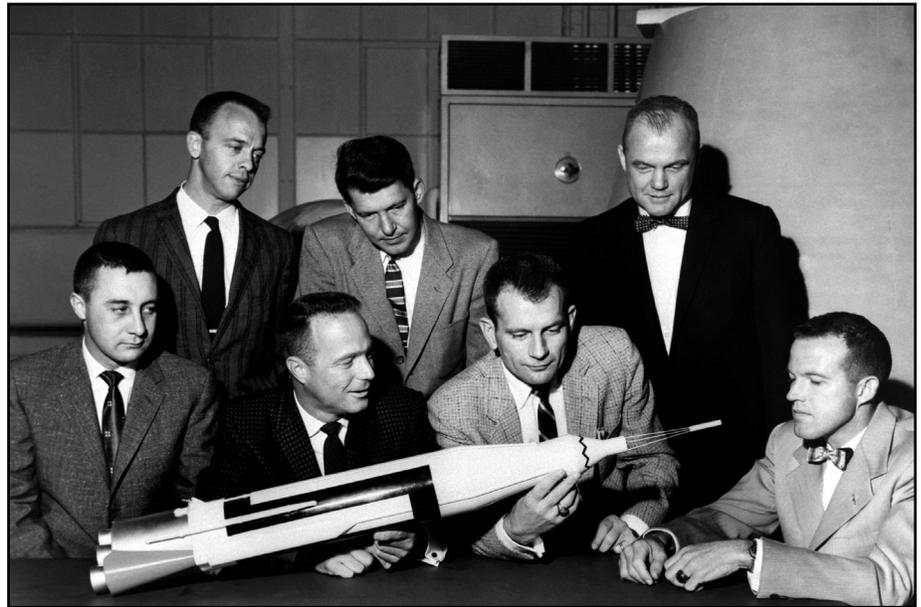
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JOHN F. KENNEDY AND THE “RIGHT STUFF”

by John M. Logsdon

As John F. Kennedy entered the White House in January 1961, of the issues he would soon have to address “he probably knew and understood least about space.”¹ This would quickly change. The domestic and international reaction to the 12 April 1961 flight of the first human to orbit the Earth, Soviet cosmonaut Yuri Gagarin, convinced Kennedy that he had to enter a space race with the Soviet Union; he asked his advisers to find him “a space program which promises dramatic results in which we could win.” Six weeks later he announced to a joint session of Congress his decision to send American astronauts to the Moon “before this decade is out.”

Project Apollo, the lunar landing program, was not the only space effort that engaged JFK’s attention in his brief time in the White House. While Apollo was just getting started in the 1961–1963 period, Project Mercury, the National Aeronautics and Space Administration (NASA) effort to launch the first Americans into orbit, carried out its six astronaut-carrying missions. From Alan Shepard’s 15-minute suborbital flight on 5 May 1961, to the final 22-orbit, 34-hour flight of Gordon Cooper on 15–16 May 1963, Mercury’s flights excited the public and provided a positive background for White House decisions on the lunar landing program. President Kennedy, overruling most of his advisers, took the risk of approving live television coverage of the Shepard launch. In its successful aftermath he met the seven military pilots who had been chosen in 1959 to be the first U.S. astronauts—Alan Shepard, Virgil “Gus” Grissom, John Glenn, Scott Carpenter, Walter Schirra, Gordon Cooper, and Donald “Deke” Slayton—and took a strong personal interest in both their and the program’s fate. While President Dwight Eisenhower



The Mercury 7 astronauts: Alan Shepard Jr., Wally Schirra Jr., John Glenn Jr., Gordon Cooper Jr., Deke Slayton, Scott Carpenter, and Gus Grissom. Credit: NASA

had never paid much personal attention to the astronauts, viewing them as military volunteers for an experiment, John F. Kennedy from May 1961 on made them an integral part of his administration and included them in its social as well as its official life.

The “Mercury Seven” were only a few years younger than the president. Kennedy at the time of Alan Shepard’s flight was 43; Shepard, 37. John Glenn, the oldest of the original seven Mercury astronauts and the astronaut who developed the closest relationship with the president and his brother Robert, was 39. The astronauts represented a personality type quite attractive to Kennedy and about which he had written in his book *Profiles in Courage*—individuals who had responded successfully to challenging circumstances. In the Mercury astronauts, “Kennedy had found exactly the type of men he needed as allies in his pursuit of new frontiers.” In the words of Tom Wolfe’s classic book on the Mercury astronauts, they had the “Right Stuff,” defined by Wolfe as a mixture of being eager to engage in “single combat” against a dangerous enemy (in this case, the unknowns of space travel) and of exuding the “vital

force of manhood.”²

In the aftermath of the Shepard flight, Kennedy came to recognize that the widespread public interest given to American astronauts could be employed in support of various political messages. As a presidential candidate he had been urged by African-American leaders to include a black man in the astronaut corps. While he seemingly gave little attention to that suggestion at the time, as he became engaged with the U.S. space effort, he also took initial steps to have an African-American man selected as an astronaut, judging that such a choice would be an important signal both domestically and internationally of his commitment to civil rights. This effort ultimately was unsuccessful, but not for the lack of White House effort. This effort on Kennedy’s part is little known.

The overall history of President Kennedy’s frequent interactions with the Mercury astronauts has not previously been well documented. That history not only adds new details to exist-

ing accounts of the Kennedy presidency; it is also a case study of the overall behavior of Kennedy as president, constantly seeking information, open to hearing a wide range of views, dealing directly with many individuals, but also placing both responsibility and trust on the men he selected to head the various agencies of the executive branch.

The Flight of Alan Shepard: A Necessary Success

John F. Kennedy's first exposure to issues involving the first seven U.S. astronauts was less than positive. Even before he entered the White House, Kennedy was warned by his transition task force on space that Project Mercury was technically "marginal," that he should not allow "the present Mercury program to continue unchanged for more than a very few months" and that he not "effectively endorse this program and take the blame for its possible failures." Of particular concern was the possible death of an astronaut during a Mercury mission, particularly if he were to be stranded in orbit. The issue of whether to approve the initial Mercury launch confronted President Kennedy during his first months in office, and the risks involved intensified when that launch was scheduled only two weeks after the April 1961 Bay of Pigs fiasco. Most of JFK's advisors suggested postponing the launch until the political fallout from the abortive Cuban invasion had diminished, but Kennedy made the risky decision to go ahead with the launch and to do so in full view of the world. (By comparison, the Soviet Union launched Yuri Gagarin without prior notice and only announced his mission after Gagarin had successfully returned to Earth.) This risk paid off when on May 5 astronaut Alan Shepard was sent on a 15-minute suborbital ride in front of live television cameras and was safely recovered from his Atlantic Ocean landing. The Shepard flight came as President Kennedy was considering the major acceleration of the U.S. space program that he would announce three weeks later; if the

flight had been a major failure, it is not clear that Kennedy would have, or could have, approved a recommendation to send Americans to the Moon.

Questioning Project Mercury

From the start of Project Mercury in 1958, the project's plan called for several brief suborbital flights with an astronaut aboard before committing a human to an orbital mission. The first such flight would have come in March 1961 if it had not been for the combination of some relatively minor problems on a 31 January test flight carrying the chimpanzee Ham and biomedical concerns about an astronaut's ability to withstand the stresses of spaceflight raised by the President's Science Advisory Committee (PSAC). An additional March test flight without an astronaut (or chimpanzee) aboard was inserted in the Mercury schedule, and the first astronaut-carrying flight, Mercury/Redstone-3 (MR-3), was slipped until the end of April or early May. (It is interesting to speculate what might have happened if that March flight had carried a U.S. astronaut, making him, rather than Gagarin, the first human to go into space, albeit not into orbit.)

Beginning with the transition task group report in January and extending almost to the day of the flight, there were White House fears that the risks of the MR-3 mission outweighed its benefits. These fears were only amplified by the failure at the Bay of Pigs in mid-April; the possibility that a U.S. astronaut might perish in the full light of media coverage of the mission so soon after the United States had looked so weak in its unwillingness to support the Cuban invasion force was very troubling to President Kennedy and his top advisers. The



President John F. Kennedy and First Lady Jacqueline Kennedy watch the launch of the first American in space, Alan Shepard Jr. in 1961. Credit: Cecil W. Stoughton. Courtesy: JFK Presidential Library and Museum

White House concern, according to JFK's special counsel Theodore Sorensen, was "that such a big buildup would worsen our national humiliation [the Bay of Pigs] if the flight were a failure."

The one-orbit flight of Soviet cosmonaut Yuri Gagarin on 12 April had multiple consequences. Most important, the flight and the international and domestic acclaim that it produced convinced a skeptical president that the United States had to enter, and win, a space race with the Soviet Union. It also demonstrated that concerns regarding the ability of a human being to survive the stresses of spaceflight were unfounded; Gagarin showed no ill effects from his 89-minute journey around the Earth. Still, doubts about the wisdom of going ahead with the mission, at least so soon after the Soviet orbital flight and the Bay of Pigs fiasco, persisted. The person who had led the PSAC review of Mercury, Princeton University chemist Donald Hornig, on 18 April sent a memorandum to Sorensen raising two questions: (1) "Is MR-3 still justified, in view of the risks, after the Russian flight?" and (2) "If so, should the present schedule be maintained or should it



President John F. Kennedy congratulates Alan B. Shepard Jr., the first American in space, on his historic 5 May 1961 ride in the *Freedom 7* spacecraft and presents him with the NASA Distinguished Service Medal. The ceremony took place on the White House lawn. Shepard's wife, Louise (left in white dress and hat), and his mother were in attendance in addition to the other six Mercury astronauts and NASA officials, some visible in the background.

Credit: NASA

be carried out at a later time?" Hornig noted that after the Gagarin flight "the fact that one human can withstand these conditions [of spaceflight] is now established." Hornig's conclusion was that "it seems likely that we should proceed on schedule, particularly since the world already knows that schedule," but that "our estimate of the risk is still that it cannot presently be demonstrated that the likelihood of disaster is less than one in ten or one in twenty."

On 26 April, JFK's science adviser Jerome Wiesner told the executive secretary of the National Aeronautics and Space Council, Edward Welsh, that his office had been receiving messages from "some of the scientists . . . raising a question about the advisability of our going forward with the Mercury man-in-space shots." Their concern, said Wiesner, was that "if these shots were successful, they would still look relatively small compared with what the Russians have done, and, if the shots failed, the damage to our prestige would be serious." Concerns about the wisdom of proceeding were not limited to the White House. Senators John Williams (R-DE) and William Fulbright (D-AK) suggested "that the flight should be postponed and then conducted in secret lest

it become a well-publicized failure."

President Kennedy made the final decision to approve the flight in an Oval Office meeting on 29 April. Present at the meeting were Wiesner, Sorensen, national security adviser McGeorge Bundy, and Edward Welsh, Executive Secretary of the National Aeronautics and Space Council, among others. One of those present raised the point of "maybe we should postpone the Shepard flight, maybe we shouldn't take this risk, something might go bad, there might be a casualty, and we've had a number of things go rather poorly here and maybe we shouldn't do this right now." The majority of the group favored this position, but Welsh argued that it was no riskier than flying from Washington to Los Angeles in bad weather and asked the president, "why postpone a success?" Kennedy sided with Welsh and decided to go ahead with the Shepard flight.

Even after he made this decision, Kennedy continued to worry. On 1 May, the day before the flight was scheduled to lift off, NASA Administrator James Webb and White House press secretary Pierre Salinger met with Kennedy for a final review of the press arrangements for covering the launch. Webb assured the president that all precautions had been taken and the

flight should go forward as scheduled. Kennedy asked his secretary to place a call to NASA's public information officer in Florida, Paul Haney, to discuss plans for television coverage and to discuss the reliability of the Mercury capsule's escape system. Salinger talked to Haney from the Oval Office and, after Haney reviewed the history of the launch escape system, told Kennedy that he felt that JFK's concerns about astronaut safety had been adequately answered.

MR-3 a Success

Because of poor weather, the MR-3 flight was postponed on 2 May and again on 4 May. Finally, on 5 May astronaut Alan Shepard was launched on what he described as a "pleasant ride." A wave of national relief and pride about an American success swept the country, from the White House down to the person in the street. At the White House, Kennedy's secretary Evelyn Lincoln interrupted a National Security Council meeting to tell the president that Shepard was about to be launched. Kennedy, joined by Lyndon Johnson, Robert Kennedy, Secretary of Defense Robert McNamara, Secretary of State Dean Rusk, and presidential advisers Sorensen, Bundy, Arthur Schlesinger, and others, crowded

around a small black-and-white television set in Lincoln's office to watch the takeoff. As Jacqueline Kennedy walked by, the president said: "Come in and watch this." Sorensen suggests that the group watching the flight in Lincoln's office "heaved a sigh of relief, and cheered" as Shepard and his spacecraft were pulled from the Atlantic Ocean. After Shepard was safely aboard the recovery ship, Kennedy, in an unplanned move, called him, saying, "I want to congratulate you very much. We watched you on television, of course, and we are awfully pleased and proud of what you did."

If the Shepard flight had been a catastrophic failure, it is very unlikely that President Kennedy would have, or politically could have, soon afterward set as a national goal the flight of Americans to the Moon. However, the unqualified success of the flight in both technical and political terms likely swept away any of Kennedy's lingering reservations with respect to the benefits of an accelerated space effort. In a formal statement issued after the flight, Kennedy said: "All America rejoices in this successful flight of Astronaut Shepard. This is an historic milestone in our own exploration into space. But America still needs to work with the utmost speed and vigor in the further development of our space program. Today's flight should provide incentive to everyone in our nation concerned with this program to redouble their efforts in this vital field. Important scientific material has been obtained during this flight and this will be made available to the world's scientific community." At a press conference later in the day, Kennedy announced that he planned to undertake "a substantially larger effort in space."

Kennedy Meets the Astronauts

On the morning of 8 May Alan Shepard and the six other Mercury astronauts were flown from Grand Bahama Island, where Shepard had been brought after his recovery from his suborbital mission, to Andrews Air Force Base and then by helicopter to the White House lawn. They were met

in the Rose Garden by a gathering that included President Kennedy and his wife Jacqueline, members of Congress, NASA leaders, and others. Awarding the NASA Distinguished Service Medal to Shepard, the president said: "how proud we are of him, what satisfaction we take in his accomplishment, what a service he has rendered to his country." He noted once again that "this flight was made out in the open with all the possibilities of failure, which would have been damaging to our country's prestige. Because great risks were taken in that regard, it seems to me that we have some right to claim that this open society of ours which risked much, gained much."

After the award ceremony, the seven astronauts and others in the gathering joined President Kennedy in the Oval Office; the group totaled 20 to 25 people, including Vice President Johnson, the chairs of the Senate and House space committees, and several managers from NASA. The astronauts sat on couches on either side of the president, who "gushed with questions." He and Shepard discussed how the flight had demonstrated the ability of a human not only to survive a space-flight, but also to carry out various functions while in space; Kennedy seemed well aware of the reservations of his science advisers on this point. Alan Shepard recalled that "everybody certainly was running over with confidence at that time because the flight had gone so well and we had proved our point . . . that a man can operate



Engineer Commissioner of the District of Columbia Brigadier General Frederick J. Clarke (third from right) presents astronaut John H. Glenn Jr. (second from right) with a key to the city during a reception honoring Glenn. Looking on (L-R): President John F. Kennedy's niece Maria Shriver (in profile), President Kennedy, and Vice President Lyndon B. Johnson (partially hidden at edge of image, holding hat), 26 February 1962. Credit: Cecil W. Stoughton. Courtesy: JFK Presidential Library and Museum.

effectively in space." Robert Gilruth, the director of NASA's Space Task Group that was managing Project Mercury, was present. He remembered Kennedy saying, "Look, I want to be first." Gilruth replied: "Well, you've got to pick a job that's so difficult, that it's new, that they'll [the Soviets] have to start from scratch. They can't just take their old rocket and put another gimmick on it and do something we can't do." Gilruth added, "it's got to be something that requires a great big rocket, like going to the moon. Going to the moon will take a new rocket . . . and if you want to do that, I think our country could probably win because we'd both have to start from scratch." Kennedy's reply was "I want to go to the Moon." Gilruth, only five years older than Kennedy, added "He was a young man; he didn't have all the wisdom he would have had. If he'd been older, he probably would never have done it."



Project Mercury Flight Director Christopher C. Kraft Jr. (left) and astronaut John H. Glenn Jr. (center) brief President John F. Kennedy on the operation of the Mercury Control Center at Cape Canaveral Air Force Station, before the presentation ceremony of the NASA Distinguished Service Medal to Glenn. Brevard County, Florida, 23 February 1962.

Credit: Robert Knudsen. Courtesy: JFK Presidential Library and Museum

After leaving the White House, Shepard was taken by President Kennedy to a meeting of the National Association of Broadcasters; this was not on the planned schedule for the day, but Shepard's surprise visit provoked a tumultuous welcome. After his stopover at the broadcasters' meeting, Shepard and the other astronauts paraded up Pennsylvania Avenue to the Capitol as thousands, assembling with little advance notice, cheered. Shepard suggests that "these two things—the successful demonstration of man's capability and the public support of a program which immediately became to them a very thrilling, exciting program—affected him [President Kennedy] in his decision-making process."³

While Kennedy enjoyed his first encounter with the Mercury astronauts, that warm feeling was not immediately reciprocated. Writing 33 years after he was welcomed to Washington by the president, Shepard suggested that he

was not happy with the way he had been treated on that day. He recounted that he "did not like what was happening . . . He disliked, intensely, being used. Walking in on the broadcasters' convention with the president would be showing off a war trophy named Shepard, and it smelled." He also described himself as being treated as "Kennedy's new pet." At the end of the day the astronauts, according to Shepard, thought that "much of it had been great, much of it left a bad taste in their mouths, and most of them would have been happy never to see Washington, D.C. again." Shepard's was most likely a minority view, and he came to enjoy his subsequent contacts with the president. Also, of the original seven astronauts, only Shepard benefited directly from JFK's decision to go to the Moon; he was the commander of the *Apollo 14* mission to the lunar surface in January 1971.⁴

The Flight of John Glenn: Creating an American Hero

In contrast to Alan Shepard's negative assessment of his first encounter with President Kennedy, Marine Lieutenant Colonel John H. Glenn Jr., the astronaut chosen to make the first orbital flight in Project Mercury, had no such resentments. Glenn from the time he was selected as an astronaut was the most "political" of the Mercury seven; Shepard, whom together with Glenn were the recognized leaders in the astronaut group, noted that ever since the astronauts' first press conference in 1959, Glenn "had been wrapped in the American flag," was "NASA's fair-haired boy," and had "polished a lot of apples."⁵ While this may have been an over-characterization, Glenn certainly was the most politically oriented, clean cut, and conventionally behaved of the original seven astronauts.

Glenn's orbital flight was originally scheduled for late 1961, and was delayed several times; he got as far as being strapped into his spacecraft on 27 January 1962. When that launch was scrubbed, NASA set a next launch date

two weeks later, and Glenn left Florida to visit his family in suburban Washington. When he got there, he learned that President Kennedy wanted him to "stop by" the White House while he was in the area. Glenn and Kennedy met on 5 February. According to Glenn, the president's questions about the upcoming flight were "so detailed that I asked him if he wanted me to come back with models and blueprints that would explain things better"; Kennedy said yes. Kennedy asked about "the anticipated g level during launch; were we actually going to drive it like we did an airplane . . . What pressures we would be operating under; what we would do if the pressure in the spacecraft failed?" Kennedy also asked Glenn whether he and the other astronauts "felt very personally every possible thing had been done to ensure our safety."

A few days later Glenn came back to the White House "with models, maps, and charts"; he and the president moved from the Oval Office into the Cabinet Room, where they talked for an hour. Glenn was "impressed with his curiosity about everything that was going to happen on the flight." Glenn judged Kennedy's interest "as an interest in one human being to another—as one 'guy' to another, if you will." Kennedy talked about the space program "with passion," and believed, as did Glenn, "that it was not just a scientific journey, but a source of inspiration that could motivate Americans to pursue great achievements in all fields."⁶

President Kennedy flew to Cape Canaveral on 23 February to greet Glenn on his return to the United States after his successful 20 February flight. He presented medals to Glenn and Robert Gilruth and viewed Glenn's spacecraft, which had also been returned to the Cape. Kennedy also toured the facilities; it was his first visit to the space launch center. After Glenn spent a weekend on Key West unwinding with his family, on 26 February he and astronauts Alan Shepard and Gus Grissom, who had made a second sub-orbital flight in July 1961, flew with Kennedy on Air Force One from

Florida to Washington DC. During the flight, Glenn, Shepard, and Grissom spent an hour discussing with the president “some things of a more personal nature, expressing our opinions about how we could possibly be used to help sell the space program,” both domestically and internationally. At least some of the Mercury astronauts had been in personal contact with the director of the U.S. Information Agency, famed journalist Edward R. Murrow, and had come to realize “what this thing [their spaceflights] had meant internationally.” The three astronauts suggested to Kennedy “Some kind of a scheme . . . so that we could make appearances . . . and help sell the program domestically and abroad, and at the same time allow us a certain amount of freedom to participate in our own requirements,” including “time to stay in training and help in the various engineering areas of the program.” Kennedy listened to the three astronauts, but seemed much more interested in discussing their actual experience of spaceflight.⁷

The combination of the airplane conversation between the president and the three Mercury astronauts on 26 February and the many celebrations surrounding Glenn’s flight seems to have had an unintended and rather negative impact on President Kennedy’s attitude toward the activities of the Mercury astronauts. When NASA Administrator James Webb met with him a few weeks later, Kennedy made it “very clear” that he wanted to communicate a public impression “that our astronauts are at work for the next flight with all their energy and vigor, and that the parade celebrations and so forth were behind us.” This impression, Kennedy thought, was particularly important in terms of creating a perception that the United States was doing everything it could to catch up with the Soviet Union in space. Webb stressed to the president that NASA policy was to limit astronaut public appearances to an absolute minimum; the only exceptions to this restrictive policy were allowing astronauts to participate in scientific meetings at which the astronaut himself could make a contribution



Astronauts Walter Schirra and Gordon Cooper brief President Kennedy and Vice President Johnson on the Mercury spacecraft. Credit: NASA

or in gatherings of “serious minded youth groups of national or international stature which might help motivate young people to study science or engineering.” Webb promised to call the White House if there were exceptional cases that might “involve any of the matters which the President mentioned to me.”⁸

President Kennedy’s involvement with John Glenn did not end in the aftermath of Glenn’s flight. The astronaut became a social friend of the president and especially JFK’s brother Robert. This personal contact allowed Glenn later in 1962 to exert direct influence on administration policy with respect to allowing current and future astronauts to continue to receive payment for their and their family’s personal stories.⁹

Kennedy’s Involvement in the Remaining Mercury Flights

The remaining three Project Mercury missions were very high-profile events for the United States, and the White House kept careful track of their preparation and of the missions themselves. In addition, President Kennedy got personally involved in each mission, with each involvement being very different in character.

Slayton Grounded

Astronaut Donald “Deke” Slayton was scheduled to pilot the sec-

ond Mercury orbital flight, scheduled for late May 1962. But on 15 March 1962, NASA abruptly announced that because of an “erratic heart rate” he was being replaced on the flight by the astronaut who had been John Glenn’s backup, Scott Carpenter. Although the announcement was sudden, in fact Slayton had been under close medical surveillance for more than two years because of a tendency toward cardiac fibrillation. Although Slayton had previously been cleared to fly, James Webb early in 1962 had ordered a complete reevaluation of his situation, and between January and March both government and eminent private doctors reviewed Slayton’s case.

The outside doctors unanimously recommended that Slayton should not make his scheduled flight; this conclusion was communicated to Webb on 15 March and led to the NASA announcement that Slayton was being grounded. At some point preceding this announcement, Webb and White House science adviser Jerome Wiesner debated whether such a switch was necessary. According to Slayton’s account, Wiesner told Webb, “take him off this flight, dammit. It’s a risk we can’t afford.” He asked the NASA chief



President John F. Kennedy (left), John Glenn (center), and General Leighton I. Davis (right) ride together during a parade in Cocoa Beach, Florida, after Glenn's historic first U.S. human orbital spaceflight. Credit: NASA

“Why take the risk with the unknown when you have astronauts in perfect physical shape ready to go?”¹⁰

When President Kennedy learned of NASA's decision, he asked Vice President Johnson to provide him with the relevant background. Johnson on 22 March sent the president “a chronology of the Slayton case.” Johnson told Kennedy that “a decision has been made by NASA to assign Slayton to fly a subsequent three-orbit mission, provided physiological tests now being planned for him produce no anomaly.” In fact, Slayton's fibrillations did appear in those tests, and he did not go into space until the July 1975 Apollo-Soyuz mission.¹¹

Kennedy did not intervene to question NASA's decision to ground Slayton; this reflected his general approach of letting those officials in charge of a government agency make decisions specific to the operation of that agency, unless there were exceptional circumstances that required White House involvement. But Kennedy, in this case as in many other instances in his presidency, did have an independent source of information. Dr. Lawrence Lamb, who had been one of the physicians that had examined Slayton in 1959 during the process of

Slayton's being selected as a Mercury astronaut, had even at that time strongly suggested that Slayton was not qualified for spaceflight. In 1962, Lamb was not only a senior staff member of the Air Force Aerospace Medical Center in San Antonio, Texas, but also a friend of President Kennedy's personal physician, Dr. Janet Travell, and an acquaintance of Kennedy's military assistant Major General Ted Clifton. When NASA first announced that Deke Slayton was the astronaut for the second Mercury orbital flight, Lamb “communicated with Clifton about the Slayton problem and he relayed the information to the President.” Lamb subsequently discussed the issue directly with President Kennedy; he remembers that “In the Kennedy tradition, he asked me many searching questions.”¹²

Nuclear Tests and Project Mercury

There was direct presidential involvement of a very different character in the next Mercury flight. Walter Schirra was to be the pilot. The missions of Glenn and Carpenter had lasted only three orbits; Schirra's flight was planned for six orbits and scheduled for late September or early October.

On 25 April 1962 the United States resumed testing of nuclear weapons, with some of the tests planned to take place in the atmosphere and outer space. These were the first above-ground tests carried out by the United States since 1958. The U.S. action was in response to Soviet atmospheric tests of very high-yield nuclear weapons in late 1961. On 9 July 1962 the STARFISH test exploded a 1.4-megaton device at an altitude of 400 kilometers. Chairman of the Atomic Energy Commission Glenn Seaborg noted that “to our great surprise and dismay, it developed that STARFISH added significantly to the electrons in the Van Allen belts. This result contravened all predictions.” The added space radiation disabled or shortened the operating lifetimes of at least six satellites, five American and one Soviet. In addition, it created questions about the impact of high altitude nuclear testing and the resulting added radiation on human space missions.¹³

The first to raise this issue was the Soviet Union. Cosmonaut Andriyan Nikolayev was launched on a four-day mission on 11 August. That same day the Soviet Union in Moscow delivered a diplomatic note addressed to Secretary of State Dean Rusk, which said that “terrestrial and cosmic observations of Soviet scientists have shown that nuclear explosions at high altitude similar to the explosion carried out by USA [on] 9 July 1962 create dangerous conditions for life and health of cosmonauts.” Thus, said the note in telegraphic form: “Government Soviet Union expects that Government USA will exhibit understanding of responsibility lying on it and will refrain from carrying out nuclear explosions which could create threat to safety of Soviet cosmonaut.” Rusk quickly issued a public statement that “We wish Major Nikolayev a safe flight and a happy landing. The United States of course contemplates no activities that would interfere with him in any way.”¹⁴

The implications for astronaut safety of the unexpected added radiation from the STARFISH test concerned President Kennedy. At a 4

September meeting to discuss the issue, Kennedy wanted to know whether the existence of an artificial radiation belt resulting from additional testing “would preclude, or could preclude, our going to the moon.” He asked NASA’s number three official, Associate Administrator Robert Seamans, “What the impact could be on a team of astronauts.” Seamans assured the president that the potential impact was not life-threatening. In a National Security Council meeting on 6 September, Kennedy decided to drop three of the remaining eleven tests and directed that the planned schedule for future nuclear tests be revised “to accommodate the next MERCURY launching.” Schirra’s six-orbit flight on 3 October went off without problems.¹⁵

Contingency Planning for Cooper Flight

The last flight of Project Mercury was to be launched on 15 May 1963; astronaut Gordon Cooper would stay in space for 22 orbits. Unlike previous short-duration Mercury flights, this

extended mission would carry Cooper’s spacecraft over Chinese, North Vietnamese, and Cuban territory and territorial waters, and there was concern regarding what might happen if an emergency forced Cooper to land in or near one of those communist countries. On 15 March the Joint Chiefs of Staff had requested “policy guidance at an early date to facilitate recovery operations”; astronaut and spacecraft recovery was a Department of Defense responsibility. This request was relayed to the Department of State by Deputy Assistant of Defense for International Security Affairs William Bundy (McGeorge Bundy’s brother) in a 28 March letter. Bundy asked for “development of alternative contingency plans for immediate consideration and early implementation in the event the astronaut descends into unfriendly territory,” including plans “covering situations in which force is required in the rescue of a downed astronaut.”

The White House got involved in this policy issue. On 3 May Charles Johnson of the National Security

Council staff, who was responsible for space issues, suggested to McGeorge Bundy that in the kind of contingencies being discussed, “some flavor of Presidential authorization would be highly desirable.” In response, Bundy in a 3 May National Security Action Memorandum 237 told the secretaries of State and Defense and the director of the Central Intelligence Agency that “the President is aware of the contingency planning” with respect to the possibility of landing in unfriendly waters, and “agrees that the Secretary of Defense has adequate authority to authorize the penetration of the territorial waters . . . for the purpose of locating, rendering assistance to, and retrieving the personnel and spacecrafts [*sic*].” Cooper’s flight had no problems that might have forced an early descent from orbit.¹⁶

No More Mercury Flights

On 21 May 21 Gordon Cooper and his fellow astronauts came to Washington for a Rose Garden ceremony honoring Cooper and the end of the Mercury program; President Kennedy



On 21 May 1963 President Kennedy and his wife Jacqueline hosted the Mercury astronauts and their wives for dinner in the White House family quarters. (Gordon Cooper and his wife are not in this photograph; John Glenn was in Japan). President Kennedy had presented the NASA Distinguished Service Medal to the astronaut from the final Mercury flight, Gordon Cooper, earlier in the day. As they relaxed over drinks, the astronauts lobbied the President, unsuccessfully, to add one more flight to Project Mercury. Clockwise from right: President Kennedy (in rocking chair), Alan Shepard, Virgil “Gus” Grissom, M. Scott Carpenter, Rene Carpenter, Donald “Deke” Slayton, Marjorie Slayton, Betty Grissom, Mrs. Kennedy, Jo Schirra, Walter Schirra, Louise Shepard. Credit: JFK Presidential Library and Museum

paid tribute to the Mercury team. He noted that:

I think one of the things which warmed us the most during this flight was the realization that however extraordinary computers may be that we are still ahead of them and that man is still the most extraordinary computer of all. His judgment, his nerve, and the lessons he can learn from experience still make him unique and, therefore, make manned flight necessary and not merely that of satellites. I hope that we will be encouraged to continue with this program. I know that a good many people say, "Why go to the moon," just as many people said to Lindbergh, "Why go to Paris." Lindbergh said, "It is not so much a matter of logic as it is a feeling."¹⁷

After leaving the White House, Cooper addressed a joint session of Congress. The astronauts then attended a luncheon at the State Department hosted by Vice President Johnson at which NASA paid tribute to all those who had made Project Mercury a success. Next they joined others at a reception at Administrator Webb's house. Finally, the six astronauts and their wives (John Glenn was in Japan) were invited by President Kennedy and his wife Jacqueline to an informal dinner in the family quarters of the White House. After a few drinks, the president raised the question of another Mercury flight, and the astronauts, led by Alan Shepard, "expressed their views very vocally to the President that we should have another flight." Kennedy "didn't react strongly" to this argument, saying that "he felt that it should be the decision of the Space Administration to make."

The astronauts had told Webb at the reception at his home that they had intended to raise the issue with the president. Webb had raised no objection, asking only that the astronauts also present to the president Webb's reasons for opposing an additional flight. Webb was confident that the president would not intervene to reverse the judgment of NASA management. That indeed was the case; Kennedy asked the astronauts "What does Mr. Webb think?" Told that Webb opposed the additional flight, Kennedy responded "I think we'll have to go along with Mr. Webb." Kennedy called Webb the next morning to reaffirm that he was not going to overrule Webb's decision.¹⁸

There was one additional indication of President Kennedy's personal interest in the Mercury astronauts. John Glenn had supported Gordon Cooper's flight from aboard a tracking ship off the coast of Japan, and then had flown his wife and two children to Japan at his own expense for a 10-day holiday. However, both the U.S. Information Agency and the U.S. Embassy in Tokyo asked Glenn while he was in the country to make public appearances and to meet with Japanese leaders, including the Crown Prince and the Prime Minister. This transformed what was supposed to be a vacation into almost an official visit; Glenn estimated that he spent two-thirds or three-quarters of his time in Japan on U.S. government matters. When President Kennedy learned from U.S. Ambassador to Japan Edwin Reischauer about what had happened, he decided

that "it would not be unwarranted if the NASA were to pay the transportation expenses of your wife and children," and "asked Mr. Webb to do this."¹⁹

President Kennedy's last encounter with the Mercury astronauts was on 10 October 1963. In a Rose Garden ceremony, he presented the astronauts with the Collier Trophy "for pioneering manned space flight in the United States." Kennedy's remarks at the ceremony placed the Mercury astronauts' achievements in a broad context. The president said he was particularly glad to be awarding the Collier Trophy to the Mercury astronauts, because "I hope this award, which in effect closes out a particular phase of the program, will be a stimulus to them and to the other astronauts who will carry our flag to the moon and perhaps, some day, beyond."²⁰

A Black Astronaut?

As the Mercury program got underway, the issue of broadening the ethnic basis of the astronaut corps became an issue of presidential concern. In an anecdote of questionable authenticity, one of Lyndon Johnson's biographers reports that President Kennedy "liked to tell the story of how he and Lyndon had watched [John] Glenn's takeoff together from his office [in March 1962], and how, as the countdown began and they were both watching very tensely, Johnson suddenly turned to Kennedy and said, 'If John Glenn were only a Negro.'"²¹

All seven of the Mercury astronauts were Caucasian; this was an unavoidable outcome of President Eisenhower's 1958 decision to limit astronaut candidates to military test pilots. There were no non-Caucasian test pilots in the military services as the initial astronaut selection took place in 1959, and that was still the case as the Kennedy administration took office in 1961. On 21 September 1961, Edward R. Murrow, the prestigious radio and television correspondent who had become the director of the U.S. Information Agency, wrote to James Webb, asking "Why don't we put the first non-white man in space?" He added "If your boys were to enroll and train a qualified Negro and then fly him in whatever vehicle is available, we could retell our whole space effort to the whole non-white world, which is most of it." Webb responded to Murrow on 18 October telling him that NASA had many suggestions for adding to the seven Mercury astronauts, "including considerable interest . . . in the selection and flight of a woman." Webb's reply "did not give any encouragement" to Murrow's suggestion because it was "inconsistent with our agency's policies."²²

It is very likely that Murrow at this time or earlier also communicated his proposal directly to John Kennedy. Kennedy as a presidential candidate had already been sensitized to the symbolic benefits of having at least one black U.S. astronaut. According to one account, when Kennedy met with various African-American leaders during his campaign to ask them what was needed to make sure he was the choice of most black voters, Whitney Young, executive director of the National Urban League, suggested that Kennedy pledge that he would make sure that NASA would recruit a black astronaut. Although Kennedy did owe his election, among other factors,

to his strong support from African-American voters, addressing civil rights issues was not one of his top policy priorities, and neither during the campaign nor in his first year in office did he make such a public pledge.

Kennedy did take several civil rights steps in 1961, however. Among them was putting pressure on the Department of Defense to enforce existing equal opportunity legislation and regulations and promoting racial integration in the military services. As part of this initiative, the White House apparently quietly urged the Air Force to include at least one black officer in an incoming class at its new Aerospace Research Pilot School, which had been established in October 1961 as the first formal U.S. astronaut training course. The criteria for applicants to the school included being under 35 years of age, having at least 1,500 hours of experience flying jet airplanes, possessing at least a bachelor's degree in science or engineering, and having three consecutive "outstanding" ratings from his military superiors.

Of the then current black Air Force pilots, only one, Captain Edward Dwight Jr., met all the criteria for acceptance to the school.²³ According to Dwight, on 4 November 1961, without prior warning, he received a letter inviting him to apply to the Edwards school. His goal at this point, he recounts, was to become a career Air Force officer, not a test pilot and potential astronaut candidate. Dwight did apply and was accepted for the first phase of the year-long program, aimed at teaching basic test pilot capabilities. The commander of the Aerospace Research Pilot School was legendary test pilot Colonel Chuck Yeager, the first person to fly faster than the speed of sound. Yeager remembers that "from the moment we picked our first class, I was caught in a buzz saw of controversy involving a black student. The White House, Congress, and civil rights groups came at me with meat cleavers, and the only way I could save my head was to prove I wasn't a damned bigot." He adds that he "was informed that the White House wanted a black pilot in the space course."²⁴

The program began in August 1962. Dwight completed the first portion of the course (according to Yeager, only with special attention and tutoring; Dwight, in contrast, suggests not only that he was not given special help, but that barriers to success were placed in his path), and applied to enter the second, more rigorous, phase, which would focus on space skills and thus qualify its graduates to be candidate astronauts for either the Air Force or NASA. After the Air Force reviewed all the applications for the second phase, Dwight, according to Yeager, was rated 26th and last among finalists for acceptance; plans called for accepting only 11 candidates.

As those who would be selected for the second, space-oriented portion of the course were about to be announced in Spring 1963, Yeager was called by Air Force Chief of Staff Curtis LeMay and told that "Bobby Kennedy wants a colored in space. Get one in your course." Yeager first tried to defer Dwight's acceptance to a subsequent space class, but when he was told that this was not acceptable to the White House, he agreed to increase the number of students accepted to 15 instead of the planned 11, with 3 additional white applicants who had been rated ahead of Dwight, but not originally selected, also admitted. According to Dwight, on the night before the formal announcement that he had been accepted into the advanced course, President Kennedy called Dwight's parents to congratulate them on their son's accomplishments, and the fact that he was to be admitted was leaked to the media by the White House.

It was Attorney General Robert Kennedy, rather than his brother the president, who was most active at this time in promoting Dwight's astronaut candidacy. While Dwight was completing the first phase of his training and even after he was admitted to the space portion of the program, "every week, it seemed like, a detachment of Civil Rights Division lawyers would turn up from Washington"; they "squinted in the desert sunlight and asked a great many questions about the progress and treatment of Ed Dwight."²⁵

As the Dwight situation unfolded,

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USAF Captain Ed Dwight.

Credit: USAF. Courtesy of Ed Dwight

Edward R. Murrow continued to push the White House regarding the benefits of having a black astronaut. Murrow again contacted President Kennedy, stressing "the favorable international impact which would stem from our having a negro in training as an astronaut." The Space Council got involved at this point. Kennedy told Vice President Johnson that he hoped that "something might be done" in order to place an African-American in training as an astronaut. Space Council Executive Secretary Edward Welsh at a 12 July 1962 meeting of the council reported that NASA had already looked into the matter, and that "there are not available any but Caucasian males who could meet the rigorous competence and experience qualifications required." Welsh had contacted the secretaries of the Air Force and Navy, who "agreed to examine the possibilities of working negroes and orientals into their test pilot training programs, as an initial step toward qualification for astronaut eligibility."²⁶

As he progressed through his advanced training, Dwight applied to be a NASA astronaut. He was one of 26 people, many from venues other than the Aerospace Research Pilot School, recommended to NASA by the Air Force as potential astronauts; a total of 136 indi-

viduals applied for selection. Of these, NASA selected 14 as astronaut candidates in October 1963. Dwight was not among them, although two of his school colleagues, Dave Scott and Theodore Freeman, both Caucasian, were selected.

Several members of Congress and the black-oriented magazine *Ebony* suggested at the time and later that Dwight had suffered from racial discrimination during his time at Edwards; according to Dwight that allegation was never investigated. Chuck Yeager suggests that “the only prejudice against Dwight was a conviction shared by all the instructors that he was not qualified to be in the school.” Dwight in his autobiography paints a very different picture of systematic harassment and prejudicial behavior by Yeager and other members of the school’s staff. Yeager’s deputy Thomas McElmurry later commented that “Dwight was perfectly capable of being a good astronaut . . . He would not have been number one, but if it was important enough to this country to have a minority early in space then the logical guy was Dwight. But it wasn’t important enough to somebody in this country at this stage of the game to do it, so they just chose not to do it.” Dwight’s classmate Dave Scott, who was selected by NASA as an astronaut candidate and later walked on the Moon, says that Dwight was not selected as an astronaut because he was less qualified than other applicants, rather than as a result of racial prejudice. This perspective was confirmed by the individual in charge of NASA’s selection process, Mercury astronaut Deke Slayton, who had been named head of the astronaut office after being taken off active flight status. Slayton notes that NASA was well aware of White House interest in Dwight’s candidacy, but although “Dwight got through the school and did okay . . . Okay wasn’t really enough. Had he been white, he wouldn’t even have been a serious candidate . . . Just based on the flying and technical matters, Dwight finished out of the running.”²⁷

After supporting Dwight’s partic-

ipation in the space course at Edwards, the White House did not interfere with NASA as it selected the 1963 class of astronauts, and Dwight did not contest NASA’s decision. That being the case, the immediate issue of naming a black astronaut disappeared. Indeed, NASA would not select African-Americans for astronaut training until 1978; the Air Force in 1967 did select a black man, Robert Lawrence, as a military astronaut.

Conclusion

The interaction between Kennedy and the Mercury Seven is in many ways a microcosm of the Kennedy style as president. In executing the duties of his office, he kept himself informed in detail about those government activities of highest priority and significance to the success of his presidency, and used his various staff advisers, in addition to his voracious consumption of the public media, to make sure that there was a constant flow of relevant information reaching him. The president became personally involved in every Mercury flight, even if it was just a congratulatory call to an astronaut after his successful mission. But Kennedy also in almost all cases deferred to those whom he had selected to be in charge of a particular area of government activity when decisions were required on how to proceed; only when there were significant conflicts among his advisers and the responsible line officials was he likely to intervene. This was the approach he followed, for example, on the question of whether to add an additional flight to Project Mercury.

Kennedy’s presidency was also highly personal. He wanted to know the people involved in major government programs and to see for himself what they were doing. He got to know the Mercury astronauts personally, interacted with them in both formal and informal settings, and made sure that their concerns were heard at NASA and in the White House.

The six successful flights during Project Mercury, two suborbital and four in Earth orbit, were headline

events during the two years between May 1961 and May 1963. While the Soviet Union continued to lead the United States in developing and demonstrating human spaceflight capability, Project Mercury captured the imagination of the American public and people around the world, by being conducted in an open manner and by dramatizing the Mercury astronauts as representing the best of American courage and skill. Mercury gave the United States the breathing room it needed to develop the launch vehicles and spacecraft needed to catch up with Soviet capabilities; without its accomplishments, the Soviet Union would have been unchallenged in human spaceflight achievements until the middle of the decade. While in technical terms Mercury achieved little more than demonstrate that humans could survive and function in the environment of space, it was a crucial political step on the path to U.S. space leadership. For President John F. Kennedy, Mercury and its astronauts validated his 1961 decision that space leadership was, and would continue to be, an important element of U.S. power and pride. Kennedy did not live to see the culmination of that decision in the form of the Apollo missions to the Moon; for him, it was Project Mercury that began the exploration of what he called “this new ocean” of space.

About the Author

Dr. John M. Logsdon is the founder of the Space Policy Institute and a professor emeritus at George Washington University. His research interests focus on the policy and historical aspects of U.S. and international space activities. Dr. Logsdon is the author of *John F. Kennedy and the Race to the Moon* (2010), *The Decision to Go to the Moon: Project Apollo and the National Interest* (1970), and was the general editor of NASA’s seven-volume series, *Exploring the Unknown: Selected Documents in the History of the U.S. Civil Space Program*.

Notes

1. Unless otherwise noted, this and all other quotations in this section are drawn from John M. Logsdon, *John F. Kennedy and the Race to the Moon* (Palgrave Macmillan, 2010).
2. Tom Wolfe, *The Right Stuff* (Farrar, Straus, Giroux, 1979), 24.
3. This account is drawn from Neal Thompson, *Light This Candle: The Life and Times of Alan Shepard, America's First Spaceman* (Crown Publishers, 2004), 260; Oral History Interview with Alan B. Shepard Jr., 12 June 1964, John F. Kennedy Presidential Library, Boston, MA (JFKL); Wolfe, *The Right Stuff*, 122-125, 273, 348.
4. Alan Shepard and Deke Slayton with Jay Barbee and Howard Benedict, *Moon Shot: The Inside Story of America's Race to the Moon* (Turner Publishing, Inc., 1994), 129-132.
5. Shepard and Slayton, *Moon Shot*, 77. While the media coverage of the seven astronauts during Project Mercury, especially by *LIFE* magazine, portrayed them as relatively bland individuals with similar personalities, the reality was rather different. See Wolfe, *The Right Stuff*, for a colorful portrayal of the behaviors of the seven men.
6. John Glenn with Nick Taylor, *John Glenn: A Memoir* (Bantam Books, 1999), 253, 281. John Glenn Oral History Interview, 12 June 1964, JFKL. There is no record of the second meeting between Glenn and Kennedy in the president's official appointment calendar, but it is clear that not all of Kennedy's visitors were noted therein.
7. Oral History Interview with Alan B. Shepard Jr., 12 June 1964, JFKL.
8. Memorandum from James Webb to Robert Gilruth and Hilden Cox, 16 March 1962, NASA Historical Reference Collection, NASA Headquarters, Washington, DC (NHRC), Folder 008936. The NASA policy on astronaut appearances was contained in a 13 March directive signed by James Webb and addressed to the senior NASA leadership, National Security Files, Box 282, JFKL.
9. For an account of the controversy about the selling of the Mercury astronauts' personal stories, see Robert Sherrod, "The Selling of the Astronauts," *Columbia Journalism Review* (May/June 1973).
10. Shepard and Slayton, *Moon Shot*, 152-153.
11. Loyd Swenson, James Grimwood, and Charles Alexander, *This New Ocean: A History of Project Mercury* (Government Printing Office, 1966), 440-442; Memorandum from Lyndon B. Johnson to The President, 22 March 1962, with attached chronology, President's Office Files, Box 30, JFKL.
12. Lawrence E. Lamb, M.D., *Inside the Space Race: A Space Surgeon's Diary* (Synergy Books, 2006), 201. Lamb was also one of Vice President Lyndon Johnson's physicians, but says that he never discussed the Slayton issue with Johnson.
13. Glenn T. Seaborg with the assistance of Benjamin S. Loeb, *Kennedy, Khrushchev and the Test Ban* (University of California Press, 1981).
14. Telegram from McSweeney, U.S. Embassy, Moscow, to Secretary of State, 11 August 1962, National Security Files, Box 307, JFKL; Seaborg, *Kennedy, Khrushchev, and the Test Ban*, 156.
15. Seaborg, *Kennedy, Khrushchev, and the Test Ban*, 158; Robert Seamans Oral History Interview, 27 March 1964, JFKL; National Security Council, "Record of Actions, 504th NSC Meeting, " NSC Action 2456, 6 September 1962," National Security Files, Box 313, JFKL.
16. Memorandum from Charles E. Johnson for Mr. [McGeorge] Bundy, 3 May 1963, National Security Files, Box 340, JFKL; McGeorge Bundy, National Security Action Memorandum No. 237, "Project MERCURY Manned Space Flight (MA-9), 3 May 1962, National Security Files, Box 340, JFKL. During the Kennedy administration, President Kennedy signed many National Security Action Memoranda, but others were signed in the president's name by McGeorge Bundy.
17. John F. Kennedy: "Remarks Upon Presenting the NASA Distinguished Service Medal to Astronaut L. Gordon Cooper," 21 May 1963. Gerhard Peters and John T. Woolley, *The American Presidency Project*. <http://www.presidency.ucsb.edu/ws/?pid=9225>.
18. Thompson, *Light This Candle*, 291; Robert Seamans Oral History Interview, 27 March 1964, JFKL; Alan B. Shepard Jr. Oral History Interview, 12 June 1964, JFKL.
19. Letter from John F. Kennedy to Colonel Glenn, 13 June 1963, White House Central Subject Files, Box 176, JFKL; John Glenn Oral History Interview, 12 June 1964, JFKL.
20. John F. Kennedy, "Remarks Upon Presenting the Collier Trophy to the First U.S. Astronauts," 10 October 1963. Online by Gerhard Peters and John T. Woolley, The American Presidency Project. <http://www.presidency.ucsb.edu/ws/?pid=9461> (Accessed 9 April 2013).
21. See Joseph D. Atkinson and Jay M. Shafritz, *The Real Stuff: A History of NASA's Astronaut Recruitment Program* (Praeger, 1985); Chuck Yeager and Leo Janos, *Yeager: An Autobiography*. (Bantam Books, 1985); Ed Dwight, *Soaring on the Wings of a Dream* (Third World Press, 2009) for a discussion of the attempts to diversify the astronaut corps.
22. Atkinson and Shafritz, *The Real Stuff*, 98-99.
23. Dwight's self-published 2009 autobiography is a rambling account of his prejudicial treatment during his time as an astronaut candidate and is of questionable historical reliability. For example, Dwight recounts an eight-hour interrogation in the West Wing of the White House as he was beginning his training and several unlikely sexual incidents. Nevertheless, this brief account of White House involvement in support of Dwight's training as an astronaut candidate would not be complete without reflecting Dwight's views of the experience. In addition, there are inconsistencies in these four accounts; what is written here is the author's best effort to provide an accurate rendering of events. Later in life, Dwight reinvented himself as a successful sculptor, particularly of African-American subjects.
24. Yeager and Janos, *Chuck Yeager*, 269.
25. Yeager and Janos, *Chuck Yeager*, 270.
26. Edward C. Welsh, "Astronaut Training Report," Record of National Aeronautics and Space Council Meeting, 12 July 1962, National Aeronautics and Space Council Files, Box 2, JFKL.
27. Yeager and Janos, *Chuck Yeager*, 270; Dwight, *Soaring on the Wings of a Dream*, chapter 1, 2, 15; Atkinson and Shafritz, *The Real Stuff*, 101; Donald "Deke" Slayton with Michael Cassutt, *Deke: U.S. Manned Space from Mercury to the Shuttle* (Tom Doherty Associates, 1994), 133.

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