

Presidential Initiative and Bureaucratic Response: Delivering the Mariner IV Pictures of Mars

CARROLL R. McKIBBIN

Professor of Political Science

California Polytechnic State University

A common image of presidential initiative and bureaucratic response is one of a lethargic bureaucracy which is slow to respond to presidential directives. The implication in this familiar scenario is that bureaucrats are inattentive or indifferent to the expressed priorities of the President. This case study of a presidential initiative indicates, however, that the response of the bureaucracy can be a very complex matter. In this instance there were bureaucratic problems in such familiar areas as interagency jurisdictions and restrictive procedures. But, for the most part, here is a story of bureaucrats who tried their utmost to comply with a presidential demand—and still were unable to perform in a timely fashion.

The frustration of presidents in dealing with the bureaucracy has been widely reported. It has been directed at the bureaucracy of the Department of State as toward any government agency. President Truman called career Foreign Service officers “the striped pants boys,” and said at one point, “the career fellas in the State Department thought they ought to make policy.”¹ President Kennedy became so frustrated with the State Department that he instituted a major reshuffling of its upper echelon, and replaced several key officials with members of his own staff in the “Thanksgiving Massacre” of 1961.²

As Vice President, Lyndon Johnson received attentive support from Secretary of State Dean Rusk in the form of information, staff assistance, and various courtesies. When Johnson became President he retained Dean Rusk as his Secretary of State throughout his five-year administration. Nonetheless, Johnson had his own frustrations in dealing with the State Department. One such instance, the distribution to other governments of pictures of Mars, is the focus of this study.

Background

From October 4, 1957, the day Sputnik I was launched, until well into the 1960s, the Soviet Union was widely perceived to be ahead of the United States in the “space race.”³ Lyndon Johnson spurred American efforts to surpass the Soviet Union in this competition, first as Democratic majority floor leader in the Senate and Chairman of the Senate’s Preparedness Subcommittee, then as Vice President and Chairman of the Space Council, and finally as President.⁴

Lyndon Johnson's approach to space policy was competitive and nationalistic, focusing on "visible payoffs in the short-term."⁵ He could not endure the thought of the United States trailing the Soviet Union in space exploration, and did much to popularize the notion of a "space race."⁶ In response to the shock of Sputnik I, Johnson called the Soviet space success "perhaps the greatest threat our country has ever known."⁷ To a member of the Senate Preparedness Subcommittee, Senator Styles Bridges, he said, "There is no question but to admit the Russians are ahead of us on this."⁸ Not reluctant to use hyperbole, Johnson called Sputnik I "a disaster . . . comparable to Pearl Harbor."⁹ And to a Texas audience, he compared Sputnik I to the Alamo, saying that "history does not reward the people who win battles but the people who win the war."¹⁰

As Vice President, Johnson had been granted his request by President Kennedy to be Chairman of the Space Council. When some members of the Council expressed concern over the costs of the American space program Johnson asked, "Now, would you rather have us be a second-rate nation or should we spend a little money?"¹¹ Directed by President Kennedy to identify "any space program which promises dramatic results in which we could win," Johnson reported that an *ad hoc* committee had recommended the United States attempt to be the first to land a man on the moon, and provided six justifications.¹² The first was: "The Soviets lead the United States in prestige."¹³

After becoming president, Johnson told a Los Angeles audience, "You cannot be first on earth and second in space."¹⁴ To opponent Senator Barry Goldwater's charge during the 1964 presidential campaign that the American space program was too expensive, Johnson responded, "I do not believe that this generation of Americans is willing to resign itself to going to bed each night by the light of a Communist moon."¹⁵ Yet, as Johnson spoke those words he knew the United States trailed the Soviets. He also knew one part of the American space effort was at least on a pace with the Soviets—the Mariner program.

The Mariner program was an effort to explore outer space with vehicles equipped to transmit information back to earth. It was less spectacular than manned space flights, but equally significant scientifically. The most dramatic aspect of the program was Mariner IV. Scheduled for launch in 1964, it would take close-up pictures of Mars.

The Soviets had a similar space probe program, the Zond series, and they also had a launch scheduled to explore Mars. The United States was first off the ground, sending the Mariner IV on its lengthy journey on November 28, 1964. Just two days later the Soviets dispatched their entry in the race for Mars, the Zond II. But while the Mariner performed beautifully on its journey into outer space, the Zond experienced almost immediate difficulty, and stopped sending radio transmissions after a month.¹⁶ The Mariner IV now had the field to itself in the race for Mars, and the United States was in a rare position for the time—Americans were beating the Soviets in a space venture.

As 1965 dawned President Johnson was well aware of the progress of the Mariner IV. He mentioned it in his inaugural Address of January 20, 1965.¹⁷ A

month later Johnson commented on the Mariner in remarks following a briefing at NASA.¹⁸ In June of 1965 he again spoke of the Mariner in remarks following the signing of a bill.¹⁹ A few weeks later, after witnessing the swearing-in ceremony of LeRoy Collins as Under Secretary of Commerce, Johnson said, "In a few more days the rocket Mariner will fly by the planet Mars and man's reach will have been extended to the farthest reaches of our universe."²⁰

The success of the Mariner IV was all the more important because the Soviet Union had continued its lead in manned space ventures. On October 12, 1964, the Soviet's *Voskhod I* carried the first three-man crew into space, while the United States was still months away from the first flight of the *two-man* Gemini.²¹ On March 18, 1965, the Soviets accomplished the first "space walk" with astronauts aboard *Voskhod 2*.²² Soviet Premier Nikita Khrushchev had challenged the United States in the space race and boasted, "Let the capitalist countries catch up with our country!"²³ President Johnson was keen on meeting that test, and on changing the general impression that the United States was number two in space.

Mariner IV provided one such opportunity as it passed Mars on July 14, 1965, and began transmitting photographs back to earth. American scientists quickly confirmed the mission a total success.²⁴ The first three photos, blurred and imprecise, were released July 16 and 17.²⁵ Publication of better pictures was "withheld temporarily for further study."²⁶ (The reason for this quite intentional delay will be explained later.)

The New York Times called the Mariner IV "the most successful and most important experiment man has yet conducted in space."²⁷ Under the headline, "Soviet Propaganda Loss From Mariner is Noted," the *Times* said the Mariner IV was a great propaganda success and noted ". . . this last year the propaganda balance has changed rapidly."²⁸

President Johnson, obviously pleased with winning the race for Mars, called the flight of the Mariner IV "awe-inspiring" and "one of the really great advances in man's unending quest to extend the horizons of human knowledge."²⁹

The Presidential Initiative

The Mariner IV photos of Mars presented an excellent opportunity to show the international community that the United States was *not* behind in the space race, and had accomplishments of its own which the Soviets could not match. President Johnson seized the opportunity and instructed Secretary of State Rusk to send the best pictures of Mars (there were 21 in the series) to every head of state in the world. The pictures were to be presented prior to their release to the media, in order to maximize the dramatic impact on foreign leaders.

Secretary Rusk passed this assignment along to Herman Pollack, the Acting Director of the State Department's Office of International Scientific and Technological Affairs.³⁰ I was then a Foreign Service officer assigned to that office as Pollack's Staff Assistant. He told me about the President's directive on the Mariner IV photos, and that it would be my responsibility to see that the president's orders were carried out as expeditiously as possible. He gave this project priority, releasing me from most of my other responsibilities until the president's initiative had been satisfied.

My first step was to call the public affairs office at NASA. I told them the nature of my assignment and asked that 125 copies of the photographs be sent to my office *posthaste*. The NASA official explained these were not really photographs, but computerized “recapitulations,” and the computers had not yet completed the task of assembling the images of Mars.³¹ He also said these pictures were the property of NASA, and the Agency had no intention of giving them up to the State Department. (Apparently they planned to hold their own dramatic press conference and display the new pictures of Mars. They were already holding a very eager press corps at arms length as the media too craved an opportunity to publish the pictures for their own purposes.) Sensing I would not easily acquire copies of the Mariner photos in my own name, I resorted to the use of the president’s and exclaimed, “President Johnson wants this.” The response was not what I had hoped for. I was told, not altogether tactfully, that NASA was not about to release its precious photographs to an obscure bureaucrat, the president’s name notwithstanding.

Since time was moving on, I decided to contact the White House to see if I could get some assistance in budging the pictures out of NASA. After explaining to a seemingly endless chain of people the nature of my mission and my predicament, I ended up talking to Bill Moyers. Moyers had just recently been named Acting Press Secretary, while continuing some of his prior duties as Special Assistant to the President.³² In the latter capacity Moyers had broad responsibilities which on occasion included science policy matters and interagency reconciliation.³³ He assured me he would have the pictures sent from NASA to State, and advised me to proceed with the other arrangements necessary for the presentation.

The next step was to have the pictures mounted appropriately so the American Ambassador to the Court of St. James, for example, could present Queen Elizabeth with the 7 × 9 glossy photograph of Mars in an attractive album. Art Pardee, the Executive Director of our office, suggested I seek the opinion of the Art Division on this matter. I had worked for the Department of State for four years at that time and did not even know there was an Art Division. Checking through the agency telephone book I did indeed find it, and was soon off on a lengthy walk through the cavernous structure that houses the Department of State.

The Art Division was located, I recall, in the second sub-basement of the building. A number of artists worked there at slanted drafting tables. The director was enthusiastic about assisting with the president’s initiative. He suggested the photos be mounted in a nice binder, and showed me a variety of possibilities. I selected an attractive leather one that met with the director’s approval. When I told him approximately 125 would be required he said the price was \$75 each. What account number, he asked, should be charged? I lamely explained I did not know. I proposed that since this was a presidential project perhaps the budgetary niceties could be managed at a later time. His response was polite but negative. No money, no binders.

Using the art director’s telephone, I called the fiscal officer in our bureau and asked where I could find the money for the president’s project. He said there was none in our office but would make some calls and get back to me. Thirty or forty

minutes later he called back and said he had managed to acquire \$500 for the project from Secretary Rusk's contingency fund.

Obviously it would be impossible to order the originally selected leather binders with so limited a budget. Reviewing the variety of available binders, and mindful that other expenses might lie ahead, I now settled on a much less expensive selection — a mere 75 cents each. It was made of a light cardboard with a fluffed edge, as is often used for high school graduation photos. The art director assured me the cheap binder could be dressed up attractively, but I was skeptical it could become sufficiently elegant for kings and queens. The glamour of the presidential initiative had been reduced in my view as the value of the binders to be used slipped from 75 dollars to 75 cents.

The art director asked if I would like to have his staff write the name and title of each recipient on the cover of the binder in gold ink. He suggested an elaborate script style and showed me a sample. He also said there would be no charge. I liked both ideas and asked that they start right away. His affirmative response was enthusiastic. He said that as soon as I could provide the names and titles of the recipients his staff would get right to work on the binders. He also said they would be happy to mount the photos when they arrived from NASA.

It seemed to me the Office of Protocol would be the appropriate place to find the names and titles of heads of state, so I hastily found my way to that office. I had assumed Protocol would have a Rolodex file, or something of the sort, with all the names and titles of heads of state. I was dead wrong. They had no such list, and said it would be a major chore to go through their files and assemble the necessary information. I said, "The President wants this." I was told that since he also wanted to hold a dinner that evening, nearly the entire staff was at the White House helping with arrangements. Finally, I begged a couple dozen of the more easily located names and titles, and returned to the Art Division to get the artists started on their part of the project. What I now had in mind was a flow of names and titles from Protocol to the Art Division, hand-carried by me.

Protocol agreed to this arrangement. They would assemble the necessary names as quickly as possible, and call me whenever they had a sufficient number for me to carry to the Art Division. Now I had the work of the Protocol office and the Art Division underway. It was much like a juggler with two items in the air and reaching for a third. The act would mean nothing though without the photos from NASA.

I had no idea what the "photos of Mars" might look like, but was filled with anticipation as one of the first to see them. When they arrived, however, I was disappointed to discover they lacked precise definition. Indeed, the most obvious features of the photos were the man-added distance markers. (To the untrained eye of this layman, the photos looked like a close-up of acne.)

The covering memorandum with the photographs included a caption that NASA insisted must be used exactly as written. I no longer recall its exact wording, but I do remember the first two words: "Interdigital recapitulation. . . ." The rest was complicated and equally multisyllabic. Surely the United States could not present

a non-English speaking head of state with such a complex caption. I had thought all along that an appropriate caption might be “photograph of Mars,” but NASA would have none of that. Thus I now turned to State’s translation office for assistance in translating the caption to the appropriate native languages.

The director of the translation office blanched when I showed him the caption and requested that the jargon be translated into the native language of every head of state. When I prodded him with the now familiar “the President wants this” he only shook his head and said it was an impossible request. He explained that very few languages have sufficiently technical vocabularies. In many, the best one could do was something like “big ball in sky.” I thanked him and left.

With the lettering of the binders nearing completion we could not afford any additional bottlenecks. I had hoped not to resort to the old bureaucratic ploy of “passing the buck,” but could see no other alternative. I decided the accompanying instructions for the presentation of the official binder would include: “Please translate the caption to the local language as appropriate.” If the American ambassador did not follow that instruction precisely, the Department of State would not know, NASA would not know, and President Johnson would not know. Indeed the original intentions of the President had become increasingly remote as more and more obstacles appeared, and precious time quickly passed.

The next step was to request that the White House staff prepare a transmittal letter from President Johnson to accompany the Mariner IV folders. Any written message from a government agency to the president had to be prepared according to very strict rules. The transmittal memorandum for State was unofficially called a “Reed-Bundy Message,” named for those who were directly responsible for sending and receiving materials sent from the State Department for the president’s attention: Benjamin Reed, Secretary Rusk’s Chief of Staff, and McGeorge Bundy, President Johnson’s National Security Adviser.

I prepared the appropriate message for Reed’s signature and took it to his office in the Executive Secretariat on the seventh floor, next door to Secretary Rusk’s office. There, an assistant to Reed carefully examined the memorandum, not so much for substance as for form. Holding it up to the light, he detected a faint typewriter roller smudge on the paper, one which was not detectable without extraordinary scrutiny. He told me to redo it.

Hurrying back to my office I gently asked the Director’s secretary to re-type the Reed-Bundy message, first carefully cleaning the rollers on her typewriter. I then returned to Reed’s office with the newly prepared memorandum, only to discover that this time it was not acceptable because we had not used water-marked paper. I was told to do it again.

This process of do and redo was continued throughout the day. The memorandum was eventually re-typed seven times for a variety of sins, ranging from the aforementioned to using the wrong weight of paper, using paper with insufficient rag content, etc.

One would think these rigid requirements would be in writing and widely available throughout the Department. But our office did not normally send items

to the White House for the president's attention, and I was not dealing with the same individual each time I went to Reed's office. To this day I do not know if such rules actually were in writing or if I was just dealing with very officious people. I suspect the truth is a little of both. In any case we lost a day just getting the transmittal message prepared according to *someone's* very stringent requirements.

My juggling act now had three items in the air: Protocol researching names and titles of heads of state, Art preparing the binders, and the White House preparing the president's accompanying letter. The next item was to coordinate the presentation of the binders. Diplomatic protocol required that the binders be presented at approximately the same time to all heads of state. Since the binders and the president's cover letter would be sent to cities as close as Ottawa, Canada, and as remote and inaccessible as Fort Lamy, Chad, it was necessary to coordinate the approximate arrival times of the diplomatic pouches around the globe with a predetermined presentation date which would be part of the instructions to the embassies. The purpose was to get the Mariner IV folders into the hands of every head of state as quickly as possible, but at approximately the same time. This meant the American Embassy in Ottawa would have the folder in hand several days before the diplomatic pouch might reach Fort Lamy. Indeed, in some remote areas actual delivery time would depend on weather and other travel conditions. There was no precise way to ascertain the actual arrival time of the folders for every embassy and to calculate the time of presentation accordingly. Pouring over maps and pouch schedules and conferring with those experienced in such matters, we finally determined, as best we could, how long it would take to get the folders to every American embassy. (Of course we could not yet determine a date for presentation because we had not received the accompanying presidential letter.)

By the time the letter from President Johnson to the heads of state around the globe was received in our office all the work on the binders had been completed. They really were quite elegant in a simple way. Seemingly all that remained was to combine the presidential letter with the folios of Mariner IV pictures, add the appropriate instructions for presentation, and send the completed packages on their way via diplomatic pouches. However, this last procedure required a "clearance" from the desk officers responsible for the various countries of the world. There is a "desk officer" in the State Department for each country with which the United States has diplomatic relations. Desk officers are supposed to be the best informed individuals in the State Department, perhaps in the entire government, on matters pertaining to their respective countries. Thus all cables to and from "their" countries go through the offices of the various desk officers. In the case of President Johnson's letter and the Mariner IV folios it was therefore necessary to secure the "clearance" of each desk officer for the transmission of the package to "his" country.

Here was a mammoth task, requiring a personal visit on my part, because of the urgency involved, to dozens of offices spread all over the enormous Department of State building. Clearances were easily given to the cable of transmission, but it took a lot of time. A desk officer might be on the telephone, at lunch, in a meeting, etc. All of this resulted in my making more than one trip to many offices.

An additional complicating factor was that some desk officers thought it would be impolitic to send the Mariner IV folder only to the formal head of state in countries where the political leader was a different person, and perhaps more significant for American interests. There were enough of these suggestions that the entire cycle, from Protocol to Art to the Reed-Bundy message to the White House, had to be repeated for another couple dozen folios. This was a demoralizing turn of events for me as we had finally seemed on the brink of satisfying the President's instruction only to find we had hit another snag.

Eventually, the Mariner IV photographs of Mars were presented to heads of state and political leaders about the globe. But several weeks had passed. NASA had not been able to hold off the media for that length of time, and the Mariner IV pictures had long since appeared in *Life* and other magazines. The drama of providing heads of state with the first opportunity to see the pictures of Mars had given way to the presentation of an interesting, but dated, item.

I have no personal knowledge of the reaction of President Johnson to this state of affairs, nor have I ever been able to find any such reaction in a secondary source. For the reason explained in this article, Johnson delayed making a public statement on the success of the Mariner IV until July 29, nearly two weeks after the original pictures were available.³⁴ On that occasion, he called the feats of the Mariner IV "awe-inspiring."³⁵ I doubt he had similar thoughts about the performance of the bureaucracy.

Conclusion

In the annals of history the saga of the delivery of the Mariner IV pictures of Mars would rank very low in significance. And yet this case is a good illustration of the frustrations of a bureaucracy in trying to respond effectively and expeditiously to a presidential initiative.

President Johnson was well known for making great demands on the bureaucracy and expecting quick results. Indeed, the State Department corridors reverberated with stories of Vice President Johnson's extravagant and impulsive demands on the bureaucracy during his many international trips. In the case of the Mariner IV pictures it is doubtful he had a clear understanding of the magnitude of his directive. Probably he expected his directive to be handled more expeditiously than it was.

Frankly, the presidential perspective in such cases is understandable. I never dreamed it would be so complicated and time-consuming to send the Mariner IV pictures to every head of state. One can easily understand a president's frustration in such matters.

Students of the presidency may draw several conclusions from this case study. A major one is that even an eager and cooperative bureaucracy may not necessarily be able to comply with presidential demands promptly. The time required for bureaucratic compliance with presidential initiatives cannot be determined solely by the expectations of the President. After all, a certain duration is involved in the completion of any task. But what might be seen from the perspective of the president as sufficient may, in fact, be impossible for a variety of reasons.

The enormity of the assignment of sending the Mariner IV pictures to all heads of state, I suspect, was not clearly understood by President Johnson, Secretary Rusk, or my immediate supervisor, Herman Pollack. It surely was not clear to me until we were well into the process. Even half way through the project I could not have told the President with any precision when it would be completed.

It is evident the bureaucracy had difficulty responding quickly to this tiny *ad hoc* presidential request. Surely this is not unusual. The bureaucracy is accustomed to ongoing routines, whether it is the Internal Revenue Service processing income tax returns or the Department of State issuing visas. When an *ad hoc* demand, presidential or otherwise, is made of the bureaucracy, the procedures required to fulfill the request may cut awkwardly across normal practices. That seems evident in this case.

While the self-serving comment “the president wants this” may catch attention, it does not in itself overcome other bureaucratic problems described in this study. I found people generally prone to comply with the president’s request, but coming from a junior officer it lacked impact. I was usually dealing with bureaucrats of higher rank than myself. No doubt their response would have been more enthusiastic if the demand had come from someone of greater status. But the upper echelon of the bureaucracy has more important responsibilities than such mundane chores. Thus presidential initiatives are often left in the hands of a minor bureaucrat who has difficulty getting superiors to see requests verbalized by him as “presidential.”

There were other bureaucratic difficulties as well. The inter-agency rivalry with NASA over control of the pictures and the captions did not serve the president or the country well. One might understand NASA’s reluctance to give up its prize pictures, but the insistence on keeping the caption scientifically correct seems pretentious and unnecessary.

Procedural difficulties were evident in the Reed-Bundy message and desk officer clearance requirements. It is understandable that written materials cannot be sent to the White House in some haphazard manner. On the other hand, bureaucrats who become preoccupied with form over substance can unnecessarily delay response to presidential initiatives. Clearance requirements are also easily understood, but it would have been helpful if some form of blanket consent could have been arranged.

Budgetary restraints are ever-present and understandable. President Johnson, who took government frugality to the point of insisting White House lights only be used when absolutely necessary, surely would not have thought a budget of \$500 excessive for accomplishing the delivery of the Mariner IV pictures. Yet finding even that small sum is difficult in a government where appropriations are allocated precisely and guarded jealously. Moreover, even a \$5 budget would have required the same time-consuming procedures of accountability.

Inadequate records were a problem in Protocol. I still think it was reasonable to expect that office to have the names and titles of all heads of state in a central location. Perhaps now, in this day of computer technology, they do, but in 1965 I was told it was too complicated and time-consuming to keep such records.

International diplomatic protocol was said to require the simultaneous presentation of the Mariner IV folios to heads of state. Such procedural niceties are understandable, but did delay the process.

President Johnson's request competed with the other responsibilities of the people involved in the Mariner IV picture process. Presidential requests do not take place in isolation. They necessarily collide with a host of other demands placed upon bureaucrats. In this instance bureaucrats were responsive to President Johnson's request, but had other responsibilities as well—for example, the Office of Protocol's attention to a White House dinner.

President Johnson's 1965 charge to the bureaucracy to distribute the Mariner IV pictures to every head of state prior to being released to the media was not accomplished as he had directed. But who was to blame? Certainly the bureaucracy must take a share of the responsibility. Yet it was clearly impossible to comply with President Johnson's idea of a time-frame, i.e., "prior to being released to the media."

President Johnson had made a reasonable demand of the bureaucracy, but his time schedule was impossible to meet. *Ad hoc* presidential demands on the bureaucracy with significant time constraints are fraught with potential failure. Such failure cannot be facily explained as a lack of cooperation and effort on the part of the bureaucracy. Presidents cannot know how long every project might take, and the outcome cannot be dictated by their desires. Neither can bureaucrats always determine with precision the time required to satisfactorily fulfill a presidential demand. Presidents who are not mindful of such limitations face the possibility of seeing their initiatives fail to be completed on time—even with a cooperative and enthusiastic effort on the part of the bureaucracy.

Notes

1. Merle Miller, *Plain Speaking: An Oral Biography of Harry S Truman* (New York: Berkley Publishing Corp., 1973), p. 233.
2. Theodore Sorensen, *Kennedy* (New York: Bantam, 1966), pp. 322–25.
3. Dennis Newkirk, *Almanac of Soviet Manned Space Flight* (Houston: Gulf Publishing Company, 1990), xiii.
4. Vaughn D. Bornet, *The Presidency of Lyndon B. Johnson* (Lawrence, Kansas: The University Press of Kansas, 1983), pp. 213–17; Roger E. Bilstein, *Orders of Magnitude: The History of the NACA and NASA, 1915–1990* (Washington, D.C.: Government Printing Office, 1989), pp. 46–47, 58–59, 80–81.
5. W. Henry Lambright, *Presidential Management of Science and Technology: The Johnson Presidency* (Austin, Texas: University of Texas Press, 1985), p. 12.
6. Robert A. Divine, ed., *The Johnson Years. Vol. 2, Vietnam, the Environment, and Science* (Lawrence, Kansas: University Press of Kansas, 1987), p. 225.
7. "Inquiring into Satellite and Missile Programs," *Hearings before the Preparedness Investigating Subcommittee of the Committee on the Armed Forces, U.S., Senate, 85th Cong., 1st and 2d sess.* (Washington, D.C.: Government Printing Office, 1958), p. 1; as cited in Divine, *The Johnson Years*, p. 223.
8. Telephone Transcript, Johnson and Bridges, November 5, 1957, Congressional file, Lyndon B. Johnson Archives, box 40, Lyndon B. Johnson Library; as cited in Divine, *The Johnson Years*, p. 220.
9. Press releases, undated, Preparedness Investigation Subcommittee, Senate papers, LBJA, box 355, LBJ Library; as cited in Divine, *The Johnson Years*, p. 223.

10. Speech to Dallas Chapter, American Jewish Committee, Nov. 29, 1957, Statements file, LBJA, box 23, LBJ Library; as cited in Divine, *The Johnson Years*, pp. 223–24.
11. Edward C. Walsh, oral history interview, July 18, 1969, by Thomas H. Baker, p. 14, LBJ Library; as cited in Divine, *The Johnson Years*, p. 232.
12. Memo, Kennedy for the Vice President, 20 Apr. 1961, NASA History Office; as cited in Walter A. McDougall, *The Heavens and the Earth: A Political History of the Space Age* (New York: Basic Books, Inc., 1985), p. 319.
13. Memo, Johnson for the President, “Evaluation of the Space Program,” 28 Apr. 1961, NASA History Office; as cited in McDougall, *The Heavens and the Earth*, p. 319.
14. “Remarks at City Hall in Los Angeles” (28 Oct. 1964), *Public Papers of the Presidents: Johnson, 1963–64*, 2 vols. (Washington, D.C.: Government Printing Office, 1965), 2:1496.
15. Space Council brochure, undated, Space (Outer), Bill Moyers, office files, LBJR, box 134, LBJ Library; as cited in Divine, *The Johnson Years*, p. 234.
16. *Facts on File*, vol. xxv, no. 1282, pp. 188–89.
17. “The President’s Inaugural Address” (20 January 1965), *Public Papers of the Presidents: Johnson, 1965*, 2 vols. (Washington, D.C.: Government Printing Office, 1966), 1:71.
18. “Remarks Following a Briefing at the National Aeronautics and Space Administration” (25 February 1965), *Public Papers of the Presidents: Johnson, 1965*, 2 vols. (Washington, D.C.: Government Printing Office, 1966), 1:214.
19. “Remarks at the Signing of the Bill Providing for a National Technical Institute for the Deaf,” (8 June 1965), *Public Papers of the Presidents: Johnson, 1965*, 2 vols. (Washington, D.C.: Government Printing Office, 1966), 2:647.
20. “Remarks at the Swearing In of Leroy Collins as Under Secretary of Commerce” (7 July 1965), *Public Papers of the Presidents: Johnson, 1965*, 2 vols. (Washington, D.C.: Government Printing Office, 1966), 2:722.
21. Newkirk, *Almanac of Soviet Manned Space Flight*, p. 15.
22. *Ibid.*, p. 35.
23. Lyndon Baines Johnson, *The Vantage Point* (New York: Holt, Rinehart, and Winston, 1971), p. 280.
24. *Facts on File*, vol. xxv, no. 1290, p. 258.
25. *Ibid.*
26. *Ibid.*
27. Editorial, *The New York Times*, 16 July 1965.
28. *The New York Times*, 18 July 1965.
29. “Remarks Upon Viewing New Mariner 4 Pictures from Mars” (29 July 1965), *Public Papers of the Presidents: Johnson, 1965*, 2 vols. (Washington, D.C.: Government Printing Office, 1966), 2:805.
30. The name of this office was changed to the Bureau of Oceans and International Environmental and Scientific Affairs in 1974.
31. The Mariner IV pictures of Mars were squares consisting of 40,000 dots—200 rows with 200 dots in each row. A series of numbers transmitted to earth indicated the shade (black through gray to white) of each dot. *Facts on File*, vol. xxv, no. 1290, p. 258.
32. Emmette S. Redford and Richard T. McCulley, *White House Operations: The Johnson Presidency* (Austin, Texas: University of Texas Press, 1986), p. 55.
33. Lambright, *Presidential Management of Science and Technology*, p. 13; Redford and McCulley, *White House Operations*, p. 124.
34. Johnson, “Remarks Upon Viewing New Mariner 4 Pictures from Mars,” 2:391.
35. *Ibid.*