

**Robert R. Gilruth Oral History Interview – JFK#1, 04/01/1964**  
Administrative Information

**Creator:** Robert R. Gilruth

**Interviewer:** Walter D. Sohler and James M. Grimwood

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**Biographical Note**

(1913 - 2000) Director, Manned Spaceflight Center, national Aeronautics and Space Administration (1961 - 1972), discusses the space program and contact with John F. Kennedy, among other issues.

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(signed) Robert R. Gilruth  
(date) Aug 10, 1964

Accepted:

(signed) Walter D. Sohler  
(date) 11/24/64

Robert R. Gilruth – JFK #1

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Oral History Interview

With

Robert R. Gilruth

April 1, 1964  
Houston, Texas

By Walter D. Sohier and James M. Grimwood

For the John F. Kennedy Library

**SOHIER:** This is an oral interview in connection with the Kennedy Library project with Dr. Robert R. Gilruth, Director of the Manned Spacecraft Center. The interview is being held on April 1, 1964, in Dr. Gilruth's office in Houston, Texas. Present at the interview in addition to Dr. Gilruth are Mr. James Grimwood, Manned Spacecraft Center Historian, and Mr. Walter D. Sohier, NASA General Counsel.

I wonder if we might kick this off, Dr. Gilruth, with a little discussion of the transition period from the Eisenhower [Dwight D. Eisenhower] to the Kennedy [John F. Kennedy] Administration in terms of what contacts you had with any of the incoming group. I am thinking particularly of the membership of the Wiesner [Jerome B. Wiesner] Committee, which you remember was pretty critical of the space program and particularly of Project Mercury.

**GILRUTH:** Yes, of course. This group was highly political in nature. They called themselves a "select committee on space," and they produced a "White Paper," which was published after the presidential election. One of the items about which they were critical was the amount of publicity that manned space flight seemed to get. I believe they assumed that this was our own doing rather than just the general interest of the public. Of course, they soon found when they became part of the new administration that manned space flight got even more publicity because it then got into the active phase of flying. Their criticism went away as they became part of the act. Other areas where they were critical I think were largely of the same type. As they gained more knowledge of

the program and of the problems, they generally agreed that we were following the proper path, at least to the extent any scientific or engineering group could be expected to say.

SOHIER: Did the Wiesner group talk to you at all?

GILRUTH: Actually, around the first of March in 1961, Dr. Wiesner formed an investigating subcommittee which was headed by Dr. Hornig [Donald F. Hornig], who is the President's Scientific

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Advisor today. This special committee was very thoroughly briefed on Project Mercury. They visited the McDonnell plant at St. Louis, the Cape, the Mercury Control Center, and Langley Field. A final meeting was held in Washington, in which Dr. Wiesner himself participated. In general, the investigation came at a time when many of the questions that they had asked earlier had already been answered. For example, we had just successfully flown the Mercury-Atlas (MA-2) reentry test; this was a very successful test. Some of their questions had already been answered as to the compatibility of the Mercury and Atlas. I think the only remaining questions that weren't cleared up by the briefing were medical questions, which I think are almost inevitable. If you get enough medical doctors who are not versed in flight medicine, there will usually be difficulties. For example, one of the doctors involved recommended that we should not fly an astronaut until we had run 50 chimpanzees through a centrifuge program at Johnsville. Quite facetiously I remarked we'd have to move the program to Africa because there weren't enough chimpanzees in the United States to do this.

SOHIER: Did President Kennedy ever discuss the safety question with you?

GILRUTH: No. I think that these questions were discussed, and I think that Dr. Dryden [Hugh Latimer Dryden] was our contact with the White House on these—Dr. Dryden and Mr. Webb [James E. Webb]. Mr. Webb took a very positive stand in these discussions in telling the Wiesner Committee that any recommendations they made, good, bad, or derogatory, or otherwise, they should be prepared to see them on the front page of any newspaper because this was an open program and they would have to be prepared to live openly with any recommendations they made. I think this was very helpful, too. We finally did resolve the medical questions to the point where, while they did not endorse what we were doing, at least they did not openly oppose us.

SOHIER: Two things I would like to discuss: one, Project Mercury as it evolved and was successful; and then, second, the evolution of the decision to put a man on the moon in this

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decade. When you think of the starting point being the critical Wiesner Report, which was issued before the inauguration, and then, in May of 1961, less than six months afterward, you

have this major decision made, quite a number of things happened. I'd like to try and fill this in in terms of your involvement with the White House and the President, conversations with him during this period. I guess the first time that you met with him was after the Shepard [Alan B. Shepard] flight, wasn't it?

GILRUTH: That is correct. In fact, that is the first time I had ever met President Kennedy. This was really the first time anyone of that high a level had expressed interest in manned space flight.

SOHIER: When did he do this? Did he do it to you personally?

GILRUTH: Actually there was a group of several of the astronauts and myself, Mr. Webb, I believe, Dr. Dryden, I think Walt Williams [Walter Williams] was with me. We sat in his office with Senator Kerr [Robert S. Kerr] and maybe one or two other senators. He had us all sit around with him in sort of a circle around his rocking chair. And he said, "Tell me about space and your reactions to it." Of course, everyone was just a little bit shy about expounding on how much he knew about space in that kind of company, so the President did most of the talking. And I remember particularly his saying that, if the world is to judge us by our exploits in space (and you must remember now this was just hardly two or three weeks after Mr. Gagarin [Yuri A. Gagarin] flew for the Russians), let's be first. And, as I remember, those members of Congress who were in the room were very strong in the same direction and said, "Yes, we surely agree with you, Mr. President." And I think the only inputs that most of us made were technical information about the flight, about how Al Shepard had performed and how much acceleration he experienced, and this sort of thing, and with the President really showing how he felt at this time about the manned space program.

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SOHIER: Did he ask anybody, you specifically, what things we might be able to do ahead of the Russians? Was there any discussion of that at that point? What first we might achieve in the...

GILRUTH: (Interrupting) No, I think there was no discussion of the lunar program or other more advanced programs. There may have been discussion about the Atlas as a launch vehicle and the fact that it was quite a task to make Mercury light enough so that it could be flown in orbit with an Atlas. This kind of thing, but not any real advanced programs.

SOHIER: I guess you were at a good many of the ceremonies at the White House or at the Cape in connection with the Mercury flights. I guess you must have been at all of them. Are there any that stand out in connection with what the President said or what happened at them, conversations that were held other than this discussion in his office after the Shepard flight?

GILRUTH: Well, of course you realize that very shortly after this meeting in the White House we just discussed, the President made his famous speech [May 25, 1961] declaring that flight to the moon would be a very worthy goal. The next meetings at the White House that I attended were largely those honoring the astronaut, or the flight team for the particular flight. I would guess as far as I'm concerned I had no serious conversations with the President about the program until around August the 7th when I was up there, not in connection with a flight, but as a recipient of the Distinguished Federal Civilian Service Medal—that was in '62. At this time I talked for several minutes about how the program was going, how the move to Houston was going, how people could withstand the rigors of the Houston summer, because he said he understood it was very hot in Houston. He asked questions about how the [Apollo] spacecraft contracting was going and in general was quite interested in how well we were able to do in this period of transition from Langley Field to Houston with all the other jobs he knew we had to do. I think that was about all, other than the usual nice remarks he made to people and their friends.

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SOHIER: Did you feel that in asking these questions about the climate and the move he was questioning the location in Houston? Or was this merely sort of sympathetic with your particular problems?

GILRUTH: I think he was not questioning the wisdom of the selection of the Houston site but was simply trying to show interest and encouragement to people who he knew had a great deal to do. I think he was just trying to encourage us.

SOHIER: I think we all saw pictures in the paper of President Kennedy glued to television during the shots. Did he call you in connection with shots before they went off to see if everything was going well? Do you know of any things of this sort that expressed the degree of interest he showed in these shots?

GILRUTH: He called a time or two. In one case, he called our Operations Director, Walt Williams. In another case, he called Paul Haney.

SOHIER: He didn't call you, talk to you about it?

GILRUTH: No, sir.

SOHIER: He visited down here on September 12, 1962, and made a speech at the Rice University Stadium, and then he went on to the McDonnell plant in St. Louis. Were you along on the tour?



GILRUTH: Yes. He arrived in town the night before and went from the airport to his hotel. The next morning a number of us met the official party at the Rice Hotel. He went from his hotel to the Rice Stadium where he made his speech. I rode with him, then, from Rice Stadium back to what we called the "Rich Building," which was one of the buildings we rented here in Houston, where we briefed him on the program. We briefed him for over an hour, after which he asked questions. This was right at the time when the controversy over the mode

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of lunar landing had flared up in the press as a result of some of Dr. Wiesner's activities. Dr. Wiesner was along. We briefed the President on the program. We did not question the mode. As far as we were concerned, the selection had been made. All we did was reaffirm the fact that lunar orbit rendezvous was the selection and we were highly in accord with it.

SOHIER: It had been labeled a "tentative decision" at that point, hadn't it?

GILRUTH: We acted as though it was a very excellent decision. Following this briefing, the President went out and inspected some of the hardware, including a mock-up of the Lunar Excursion Module, and I believe there are a number of photographs of the President standing on the podium in front of this Lunar Excursion Module, and he made a little speech there, too. Then he left and I rode with him over to the airport. During the ride he asked a number of questions about the astronauts, particularly about those who had not yet flown and whom he therefore didn't know, and he wanted to know who was going to fly next and my opinion of his qualifications and this sort of thing. All that was said was very complimentary to the men involved. He then took off for St. Louis. I accompanied him on his airplane. At St. Louis there was no further chance to discuss the program until the very end of his tour when the question of cost to the program and schedule and this sort of thing was discussed. There were two principal speakers during this time. Mr. McDonnell [Sanford N. McDonnell] spoke to the President about his facilities and capability, which you would expect the head of a large company to do, and then Mr. Webb and Brainerd Holmes [D. Brainerd Holmes] talked. Brainerd Holmes was particularly concerned with pointing out to the President the costs and schedule, implications of funds, and this sort of thing. The President then left and went back to Washington.

SOHIER: Did the Vice President, Vice President Johnson [Lyndon B. Johnson], visit a good many times during this period? You remember at the outset of the Kennedy Administration, President Kennedy indicated he was going to look to Vice President Johnson on

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space matters, and the space law was changed to make the Vice President Chairman of the Space Council. Was the Vice President down a lot or more often than the President?

GILRUTH: The Vice President was here every time the President was here.

SOHIER: Did he come down on his own frequently?

GILRUTH: The Vice President has not visited our facilities here by himself. He has had a number of us out to his ranch, however.

SOHIER: You were out there with the astronauts on a visit. Could you tell us a little bit about that?

GILRUTH: Well, the visit was started by the President expressing to the Vice President, Mr. Johnson, his concern that perhaps there were some problems that the astronauts had that the White House could help solve, and asked the Vice President if he would invite the astronauts and me to come down and just have a very frank talk. Well, this is exactly what it was. We had a whole evening and an afternoon of touring the ranch with him and his wife and several other members of his family, secretaries, and so on. And then an evening of talk about the kinds of problems the astronauts were having. These problems were much the same as anyone would have were he suddenly to go from relative obscurity to fame. A very friendly discussion. We left the next morning.

SOHIER: One would deduce, from the papers at least, that the astronauts had a channel almost directly to the President on some of these matters. Was this a source of problems? Did you feel they were talking directly to the President about some of their grievances? Was the President lending himself to this?

GILRUTH: Well, I would have been most affected by this, I guess, but I was never uncomfortable about the fact the President recognized that the astronauts, whom I had had a

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major hand in selecting, were very fine people. I certainly agreed with him and I have never known the astronauts to try in any way to use a friendship with the President to short-circuit the normal lines of command in the agency. And so I was very comfortable with this. I think Mr. Webb was comfortable with it and so I just see really nothing there. I think what problem there was was read in by some of our friends in the newspaper and radio business.

SOHIER: Turning to a somewhat different subject. You remember in his inaugural address President Kennedy talked about exploring the stars together. This theme of cooperation with other countries, particularly with the Russians in space, was one that I guess he included in just about every public statement he made, and most particularly in his U.N. speech in May of 1963. Did you ever have any discussions with him about this aspect of our program and what problems might be confronted?

GILRUTH: No, I didn't ever have any discussion with him. I came close to becoming part of a controversy in that regard. I was asked a question [at the National Space Club luncheon in Washington, D.C.] about joint projects with the Russians.

SOHIER: This was, I think, before the U.N. speech and after the Charles Bartlett newspaper article.

GILRUTH: The question was prompted by the Bartlett newspaper article, of which I had no inkling. Here one almost has to be a technical man to understand the situation, because, no matter if you made a joint venture to the moon, I don't think one would ever take a Russian rocket and an American spacecraft and try to put them together. The question to which I responded was that very question. Of course, I gave a technical answer, "would be fraught with great difficulties," I forget the exact wording. And of course this was picked up as soon as the President made the proposal, as people will always do. I know he [President Kennedy] was aware of my remarks because he talked to Mr. Webb about it. Any of the conversation on this Mr. Webb may remember because this was

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done a couple of days before he [the President] made his [U.N.] speech. That's all I know about it.

SOHIER: In connection with his speech, I remember there was some fear there might be statements following the U.N. speech of that type. You didn't have any further discussions with White House staff members about this particular matter, did you?

GILRUTH: No, sir.

SOHIER: A general question: You mentioned in connection with this thing with the Russians that this involves understanding the technical aspects of the problem. President Kennedy wasn't a technical man. Did he absorb enough of the technical details to be able to make the kinds of decisions he made? You saw him visiting here. Was he getting a grasp of it?

GILRUTH: Yes, I would say I was very much impressed with his ability to grasp the gist of a technical briefing and understand what was being said.

SOHIER: What was his technique at these briefings? Was it all formal charts and speeches? Did he go around and ask questions?

GILRUTH: No, these were formal charts and speeches. In fact, at the briefing here, we had Mr. Frick [Charles W. Frick], who was then Project Manager for Apollo, and Mr. Faget [Maxime A. Faget], who talked about guidance and navigation. Of course, you see, Mr. Kennedy had been a naval officer and he did know something about navigation and guidance for ships and this is somewhat similar. He was interested in the kind of sextant one would use in space.

SOHIER: Did he ask questions that showed his background?

GILRUTH: He asked some questions. There was no doubt in one's mind that he was following the presentation. Then I

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think I gave a little briefing about some of the over-all aspects of the program. I was concerned in pointing out how big a step this lunar mission was beyond anything we had done before, and the size and scope of the project which is being undertaken. I remember remarking afterwards to a number of people that the President certainly seemed to have no difficulty in following the briefings.

SOHIER: Another general kind of question: What was the real reason behind the President's interest in the space program? What did he feel the importance of the space program was to the country? What was this all about? Was it beating the Russians? Did it have in mind deeper implications than that? Did you ever get a feel for that in discussions with him?

GILRUTH: I think that he felt that pre-eminence in space was important to any country that hoped to be a leading country of the world. I don't think that he was too worried about being able to sort out and analyze completely. He recognized that it was too complex a total situation to be able to analyze in total dollars and cents. But I think he felt sure in his mind that a leading country had to at least be a leader in this field.

SOHIER: Did he ever discuss with you the military importance of space?

GILRUTH: No, sir. Never. The last time I saw the President, I think here, was November the 21st, the night before he was assassinated. He landed here at the Houston airport and I was privileged to be among those who welcomed him to Houston. He was very cordial, a fact which seemed important to me, coming as it did right after I had spoken out against cooperation with the Russians in space. Then we saw him again at the banquet in honor of [Congressman] Albert Thomas. I would like just to say again what many of you know—he made a slip of the tongue in his speech, in which he was remarking about the Saturn flight that was coming up shortly at Cape Canaveral. "Now this rocket will

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have the largest," he meant to say "payload," but he said "payroll in history." And he got through the sentence and then smiled and said: "But it will be the largest payroll in history, too!" And this just shows you how fast he was in recovering, how fast he could think on his feet. Of course, this is the last any of us here in Houston saw the President.

SOHIER:           Thank you very much, Dr. Gilruth.

[-END OF INTERVIEW]

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# BIOGRAPHY

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION  
**MANNED SPACECRAFT CENTER**  
HOUSTON 1, TEXAS

ROBERT R. GILRUTH  
DIRECTOR  
NASA MANNED SPACECRAFT CENTER

APRIL 1964

Robert Rowe Gilruth is Director of the NASA Manned Spacecraft Center in Houston, Texas. This organization is responsible for development of spacecraft for manned flight, for flight crew selection and training, and for the conduct of space flight missions.

The Manned Spacecraft Center's current major projects are Gemini and Apollo and the creation of permanent center management, development, and mission control facilities at Clear Lake, near Houston.

The Manned Spacecraft Center is one of three NASA Centers reporting to the Office of Manned Space Flight in Washington, D. C., the others being the Marshall Space Flight Center at Huntsville, Alabama, and the Kennedy Space Flight Center-NASA at Cape Kennedy, Florida.

Dr. Gilruth has served as Director of the Manned Spacecraft Center since its creation in November 1961. Prior to this, he was Director of the Space Task Group at Langley Field, Virginia, the organization responsible for design, development and flight operation of Project Mercury.

Dr. Gilruth was born on October 8, 1913, in Nashwauk, Minnesota. He received his B. S. degree in aeronautical engineering from the University of Minnesota in June 1935 and his M. S. degree in the same field in December of the following year.

After graduation he entered on duty at the Langley Memorial Aeronautical Laboratory of the NACA and began his career in flight research, his principal work being the field of stability, control, and handling qualities of airplanes.

In 1945, Dr. Gilruth was assigned to the job of organizing a research group and constructing a facility for conducting free-flight experiments with rocket-powered models for investigating flight in the transonic- and supersonic-speed ranges. This activity resulted in the development of the NACA Pilotless Aircraft Research Division which later grew into the NASA Wallops Island launching site.

In 1952, Dr. Gilruth was appointed Assistant Director of the Langley Laboratory with the responsibility for directing research efforts in hypersonic aerodynamics at the Wallops Island Station and the research in high-temperature structures and dynamic loads at the Langley Laboratory.

In October 1958, Dr. Gilruth was assigned to manage the program of manned space flight, now known as Project Mercury.

During his career, Dr. Gilruth has participated on many scientific advisory committees for the military services and NASA. Among these are:

The Planning Consultants to Committee on Guided Missiles, Research and Development Board - 1946-1947

Industrial Survey Board, Office of Chief of Naval Operations - 1952

Air Force Scientific Advisory Board to the Chief of Staff - 1952-1957

Committee on Aircraft Construction for the NACA - 1952-1957

The Technical Capability Panel of the President's Scientific Advisory Committee - 1954

Ballistic Missile Defense Committee of the Chief of Staff - United States Air Force - 1955



During his career, Dr. Gilruth has received many honors from aeronautical and rocket research societies and from universities. He was given a Doctor of Science degree in 1962 by his alma mater, the University of Minnesota, and by the Indiana Institute of Technology and George Washington University.

Other honors and awards are:

- 1950 received the Institute of Aerospace Sciences Sylvanus Albert Reed Award
- 1959 elected a Fellow of the Institute of Aerospace Sciences
- 1960 elected a Fellow of the American Rocket Society
- 1961 elected a Governor of the National Rocket Club
- Dec. 1961 elected a Fellow of the American Astronautical Society
- Jan. 1962 received the Louis W. Hill Space Transportation Award for 1962
- Feb. 1962 received the NASA Distinguished Service Medal from the President of the United States
- Mar. 1962 received the Medal of Honor of the City of New York
- Mar. 1962 received the Goddard Memorial Trophy of the National Rocket Club
- Apr. 1962 received the U.S. Chamber of Commerce Great Living American Award

- Aug. 1962 received the Medal for Distinguished Federal Civil Service from the President of the United States
- Nov. 1962 received the Robert H. Goddard Memorial Award of the American Rocket Society
- Jan. 1963 elected Honorary Fellow of the Institute of Aerospace Sciences (now American Institute of Aeronautics and Astronautics)