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INTERVIEW WITH DR. WERNHER VON BRAUN

This is an oral interview with Dr. Wernher von Braun, Director of the George C. Marshall Space Flight Center, Huntsville, Alabama, on March 31st, 1964. We're seated here in Dr. von Braun's office. Present at the interview in addition to Dr. von Braun are Dr. Eugene Emme, the NASA Historian, and Walter Sohler, General Counsel of NASA.

Mr. Sohler: I wonder if we might kick this off, Dr. von Braun, with your saying something about the first time you met President Kennedy and his wife.

Dr. von Braun: This was in the Pathé Studios in New York-- I think 104th Street, somewhere up there in that area. I cannot pin down the year. It must have been 1953, '54, or '55, thereabouts. It was before Sputnik. Both the then Senator Kennedy and I had been invited to help nominate the Man of the Year for the next year, so from this I conclude that the meeting must have been in November or December, because the new Man of the Year is usually nominated on New Year's Day.

Senator Kennedy and Mrs. Kennedy were there and I had also brought my wife along and it so happens that we had to wait for about an hour until the show was ready for us. During this hour I had a long conversation with Senator Kennedy. My wife talked a little bit to Mrs. Kennedy.

I remember that the discussion touched on quite a number of subjects, but at least half the time the Senator spent on his older brother who was killed during the war in an airplane accident that was actually pretty closely related to missile technology. I remember that he said this was an older type of bombing aircraft that had been loaded to the gills with explosives and the idea was that it would be piloted up to a certain altitude and then set on autopilot, at which time the pilot would bail out and the autopilot and the navigation gear was rigged in such a way that, after reaching the target, the plane would dive into the target. And, apparently, while he was readying the plane to go on automatic mode, the airplane suddenly blew up, killing Senator Kennedy's older brother. He spoke about this in connection with missile activities and said that missilery has come a long way since its simple beginnings, and that he had been following our work in missile development with ^{the} greatest interest. That's about as far as this particular discussion went.

We talked about a lot of other subjects. Senator Kennedy was actually doing most of the talking; I was doing most of the listening, and I found it very intriguing. Whenever he was through with something, I would shoot another question on some related question at him and he was very, very responsive and I was greatly impressed by the breadth of his interest and the broad spectrum of knowledge that he displayed. In fact, I was so impressed that when I left the studio I told my wife I wouldn't be surprised if the Senator would one day be President of the United States! I guess this was my first get-together with him.

Mr. Sohler: The tables turned, I guess--the next time you saw him he was asking the questions and you were doing the talking. (Laughter)

Dr. von Braun: Yes.

Mr. Sohler: I wonder if we might move from that period in the fifties to the time, the sort of transition period, from the Eisenhower to the Kennedy Administration, when there was a good deal of study going on. One of the studies/^{was}being conducted by the Wiesner Committee for the incoming President. During this period, did any of the incoming group, such as President-elect Kennedy or Dr. Wiesner, or any members of his committee, get in touch with you to find out what you thought ought to happen in the space program?

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Dr. von Braun: If you are referring to the period after the election but prior to the inauguration of President Kennedy, I don't think that during that time I was involved in any major discussions, but soon after the Inauguration, particularly after the appointment of the then Vice President Johnson as head of the National Space Council, I was involved. I attended two meetings with the Vice President and at one of these meetings the Vice President specifically asked me to give him my views in writing as to what kind of a space program I felt this country should pursue. He felt--somehow he made this very clear--that we ought to commit ourselves to something real important and he was kind of groping for what that "real important" really should be. In other words, should we commit ourselves more to a military program or to an exploratory program, and, if so, what should be that military program and what should be the exploratory program, and so forth. I responded to his invitation with a letter, in which, among other things, I said that maybe a commitment such as "let's land on the moon in a given period of time" would be a good solution.

Now, it may very well be that by that time the decision was already made along those lines, so I by no means claim

priority for that idea. All I can say is that this I did put in the letter, and, in fact, I think we have a copy of the letter here...

Mr. Sohler: Fine--I think the Library would be interested in that.

Dr. von Braun: I'll turn it over to them.

Mr. Sohler: Did you have any contacts even before the election, because Senator Kennedy was known as having a brain trust around him, when he was campaigning and so on. Were there any contacts then in terms of sort of thinking through what a good space program would be?

Dr. von Braun: No.

Mr. Sohler: There was nothing even during that period?

Dr. von Braun: None whatsoever.

Mr. Sohler: ~~It was after the election--after, in fact, the Inauguration?~~ Then I guess you were involved in this March 22d meeting, 1961, which is the budgetary discussion. I think you were in on that.

Dr. von Braun: Well, I did attend the Inauguration Ball, in fact, the Inauguration itself. I had a private invitation to both events and that's when I saw the President from a distance again. Whether or not I was present on this NASA team briefing of President Kennedy in Washington, I do not remember. In fact,

I don't think I was present.

Mr. Sohler: There was, during this transition period, however, a lot of studying going on in NASA and specifically down here at Marshall, wasn't there, on what ^{can} we do and what time periods we had can we do it in? I guess even before the election that/a conference down at Williamsburg, I think in October of '60... you were in on that conference, weren't you?

Dr. von Braun: I was not.

Mr. Sohler: You were not in the Williamsburg conference, but I guess there was a lot of internal studying going on that Marshall took part in...

Dr. von Braun: Yes. In fact, during this time the National Space Council was trying to formulate the new policy. Many supporting studies were carried out by all Centers to see what we could safely promise and how much it would cost, what figures should be quoted, etc...and in this we did participate.

Mr. Sohler: Did you meet with the Space Council at all?

I think you mentioned this one time that the Vice President and you exchanged correspondence. Were you contacted by the people in the Space Council doing their own studying, or was this pretty much internal NASA work?

Dr. von Braun: No, this was a meeting that the Vice President called which was attended by Mr. Webb and a few NASA people

including myself, but I think it was not a formal meeting of the Space Council.

Mr. Sohler: Was there just one meeting or were there several of these during this period?

Dr. von Braun: I think there were two.

Mr. Sohler: Two. I see. Now, the first time that you met the President as President I guess was February 23d, 1962, at the ceremonies at Cape Canaveral after the Glenn flight?

Dr. von Braun: Yes...when the President came to the Cape to present a medal to Colonel Glenn...that's right.

Mr. Sohler: Did you have an opportunity to talk to him then, or was this more ceremonial?

Dr. von Braun: No, this was strictly ceremonial. I don't even think that I was in the greeting line, but he gave a speech there and I remember that I was seated in one of the first rows so I saw him from close up.

Dr. Emme: Then, Dr. von Braun, you didn't hear anything after the Shepard flight--when Shepard flew on the Redstone...sub-orbital flight...was there any White House comment after that?

Dr. von Braun: No, I don't think so. I think Shepard himself was called by the President and I think nobody from Marshall went along on this thing. It may well be that somebody from

Houston did because at that time the Redstone was pretty old hat whereas the Mercury capsule -

Dr. Emme: It was the first American in space, though.

Dr. von Braun: Yes, it was. But there was nothing that involved me.

Mr. Sohler: Now President Kennedy came down to visit you at Marshall in September of '62--September 11th, I believe.

Could you give us some of the details of that visit?

Dr. von Braun: On my calendar I have one more item. It doesn't involve President Kennedy, but President Johnson. I [Vice] think/President Johnson came to Seattle on May 10, 1962, to give a speech pinch-hitting for President Kennedy in connection with the Second Conference on the Peaceful Uses of Outer Space, and this I attended?

Mr. Sohler: Did you have any discussion with the/^{Vice}President then or was this again ceremonial?

Dr. von Braun: I think I met him there again but it was only small talk.

Mr. Sohler: Then in September President Kennedy came down here. I guess you spent quite a lot of time with him.

Dr. von Braun: Yes. This was, if I remember correctly, the occasion...oh, yes, this was President Kennedy's visit to the Marshall Center on September 11...and I toured the Center with *the*

President, briefed him on the program, showed him our Saturn vehicles, we showed him, I believe, a static test on the test stand, and he took a great personal interest in every detail of the program.

Mr. Sohler: Did you get ^{into a} ~~in the~~ discussion ^{of} any of his philosophy about space at this point--any of his thinking? Did you have those kinds of discussions?

Dr. von Braun: He made a statement that he found it very difficult to understand that people couldn't see the importance of ^{space} this. He said he wasn't a technical man but to him it was so very obvious that space is something that we cannot neglect and that we just have to be first if we want to survive, and at the same time that this was a challenge as great as those confronted by the early explorers in the Renaissance.

Mr. Sohler: Did he ask you what your views were about whether we could...because this was after the manned lunar-landing decision...whether we could make this in the decade?

Dr. von Braun: Yes. Yes, he asked that question. He said, "Well, do you think we have bitten off more than we can chew?" and I said no, I thought that Congress willing and the funds coming, we had a very good chance of making that schedule.

Mr. Sohler: Yes. This was the occasion when you had the debate with Dr. Wiesner, wasn't it? Can you comment on that?

Dr. von Braun: Yes. Well, what happened was...we had a little display table set up in front of the Saturn I booster in the hangar and I was using this little model there to show how the entire trip from the surface of the earth to the moon and back would work. I showed, for example, how the various stages of the Saturn drop off and how, after injection into a trajectory to the moon, the command module would swing around and dock on the lunar excursion module, and how then the third stage of the Saturn V would be kicked off and how 70 hours later the thing would deboost into lunar orbit, and how the astronauts would transfer back into the lunar excursion module and make their landing, fly back with the upper stage of the lunar excursion module and make their rendezvous maneuver with the command module again, and how the command module would then boost itself back to earth and finally the reentry.

I explained these various phases of the program by throwing more and more modules of that model away until finally this little nose cone with the three astronauts aboard reentered the atmosphere.

When I was through doing this, the President suddenly said, "I understand that there is still quite a dispute among scientists

whether this is the best way of doing it." And then he turned around and said, "Jerry - where's Jerry?" (Meaning Wiesner) And so Jerry stepped up and this, of course, was a tremendous thing for the newspapermen present because they thought they could scoop a wonderful story.

Then a kind of a debate developed where President Kennedy pitted me kind of against Wiesner with a horde of newspapermen following, and the discussion was picked up by microphones and reverberated throughout the hangar. (Everyone laughs)

Of course, the newspapermen understood only half of what was said because of the acoustics and because of the many technical terms involved, but they gave it quite a play.

Now the fact of the matter is actually that Dr. Wiesner and his committee, PSAC, the President's Scientific Advisory Committee, had studied this problem also and had read up on all the studies NASA had conducted, had come to the conclusion that maybe an earth-orbit rendezvous maneuver would be the better way of doing it. Well, actually, these two methods are entirely feasible--the one NASA selected and the earth-orbit rendezvous, and there is even a third feasible method, namely the direct flight, and possibly even several others.

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So this was never a discussion of what is feasible and what is not feasible, but it was an argument about the relative merits.

For example, what is the least expensive approach? What is the most promising approach within the time frame available? And, also, what is the most reliable approach from the standpoint of survival chances and reliability of the operation?

Well, anyway, this thing went on for a couple of minutes and finally the President said, "Well, maybe we'll have one more hearing on the thing and then we'll close the books on the issue." These were, I remember, his words. And there was, indeed, one more go-around thereafter and the net result was that the PSAC said, "Well, after all, you guys have to do it and while we still are not quite convinced that this may be really the most economical way and the fastest and most promising way of doing it, we don't want to tell you how to run your own show," and so they finally came around and said, "Go ahead" and endorsed the NASA approach.

Mr. Sohler: Did President Kennedy ask you a question like, "What do you think the Russians are going to do next?" Did ~~he sort of~~.

Dr. von Braun: Yes. I think this was always very close to his mind--what will the Russians do? And another thing that he often asked, on later occasions in particular, was, "People ask me this or that question--now what do I tell them?"

There is something I remember at the Cape, the last time I saw him, he raised this question, "People ask me what does our Apollo program and the Gemini program do to our national security. Is this of military importance? What do I tell them?"

Mr. Sohler: What did you say?

Dr. von Braun: Well, my answer was the following...that, of course, the fact of space is important, as already demonstrated by the fact that ICBM's travel through outer space even today and they're probably the most terrifying weapons ever invented, so our very security depends on us. We're affected by the existence of space weapons today. On the other hand, we have already demonstrated, I would say, with Program Mercury, that man in the loop is not, as many people have said, a liability, but that man really provides a great asset because he can communicate with the ground and he can read his panel and interpret what he observes and so forth, and he can, in fact, make the whole operation far more reliable.

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And so since automatic space weapons have been demonstrated as being very important, and since men's value in space has also been demonstrated, it simply means putting two and two together to say that man in a space weapon will be a very formidable type of a combination.

On the other hand, I've also made the point to him that the most important job at this moment was to give more people an opportunity to fly in outer space so that we can develop military manned space concepts on the basis of practical experience and not just on crystal-ball gazing behind a desk. For that reason I thought that our present program was about the best program we can have, simply because it's aimed at extending the time astronauts will log in space.

Mr. Sohler: When you explained to him, as you are explaining it to us, did he ask you questions as you were going along, or sort of listen to you and mentally record it?

Dr. von Braun: In this particular case, he said, "Tell me, how do you answer these kinds of questions that people ask me? What shall I tell them?" And so in this particular case I made a little speech. (Everyone laughs)

Mr. Sohler: As you took him around and showed him models of hardware and explained the program, was this sort of a formal briefing, ^{or} informal. ^{2x11} How did he like to absorb this material,

and was he absorbing it?

Dr. von Braun: Very informal. I would also say, whenever you would stand in front of a piece of hardware and try to explain too much to him, you found that after a while he got a little restless and wanted to get close to it and virtually touch the hardware. He was immensely interested in seeing things, understanding for himself how big this is, and he would ask questions, "What is this part sticking out of the rocket's tail?" and so forth...and he was, shall we say, quite carried away with what he saw and sometimes I had the feeling he didn't like to sit still and be told with display charts what was going on, but he wanted to be close to the hardware, close to the people who were working someplace and so forth.

Mr. Sohler: Did he ask other people than you? Did he sort of turn to people in the entourage..was he trying to find out how much everybody knew...or was this a learning experience?

Dr. von Braun: No, I've never seen him checking up on another [to see] whether the man knows what he's talking about. Some people do that very much. He didn't.

Mr. Sohler: ^{He was not asking} ~~These weren't sort of~~ difficult questions to see ~~X~~

~~Dr. von Braun:~~ No...

~~Mr. Schier, write to me~~ if he could find someone who didn't know the answer?

Dr. von Braun: No. One thing I remember (maybe I'm jumping you a little bit here)...when he was at the Cape on his last visit, November 16, 1963, we had models in the blockhouse and Dr. George Mueller, the head of the manned space flight program, was giving a presentation to him explaining these models and also explaining a few charts and how the whole program was organized and the logic behind it and so forth, and the time phasing...and towards the end, too, he apparently got a little restless and wanted to see these models and ask specific questions...what is this, what is that...and so forth. And he jumped up as soon as Dr. Mueller was through with his talk and said, "See, here's a model of the Redstone." It had been explained to him the missile had carried Shepard and Grissom. This model of the Redstone was maybe a foot tall. And to the right was a model of the Saturn V, the big moon rocket. This model was about six or seven feet tall. And the President grabbed the little Redstone model and held it up to the Saturn V and said, "Are these models to the same scale?" And when we confirmed this, he said, "Gee, I think we've come a long way." (Laughs a little) He was a very temperamental person and there was really almost something boyish about

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him...he did it with great charm. and

Mr. Sohler: During a lot of this time, I gather that he was suffering from a bad back...apparently during that last visit to the Cape...did you notice that ~~sort of~~...

Dr. von Braun: I knew about his back and watched him very closely to see whether he would on any occasion give any signs of it, and I really marveled at the way he managed to hide it. You noticed sometimes, for example, when he was sitting down in the car or so, there was a little jerk in his face for the moment indicating pain, but he was just most cordial and his laughing self all the time.

Mr. Sohler: Going back to the September '62 visit to Marshall-- then you accompanied him to Houston and on to St. Louis, didn't you?

Dr. von Braun: Yes, this was in connection with his official tour of the space centers. It was in September of '62, I believe. He landed in Huntsville first, and went on from here to the Cape, and then from the Cape on to Houston and then to St. Louis and then back.

Yes. And since Marshall was the first center he visited, I was among the greeters in Huntsville, and he spent, I think, three hours with us and at the end of this I had planned to stay in Huntsville. Vice President Johnson invited me to hop

on his plane and go along with the tour. I remember I didn't even have a toothbrush or a clean shirt with me. I was completely unprepared. The flight went on to the Cape and then on to Houston. In Houston, I remember in particular, it was a very hot day and our plane had landed before the President's plane came in. It was always arranged that way-- first the press planes landed, then the Vice President's plane landed, then the President would land. And there was a fleet of cars waiting there for the President and his entourage and I was assigned to a car, seat No. 15 or 20, which was an air-conditioned limousine, riding together with a few other fellows.

Now the President was riding in an open car and we drove from the airport first to the Rice Stadium, and I would say it was at least 110 or 112 degrees with a typical Houston humidity, one of the most vicious summer days you can imagine! And even in our air-conditioned Cadillac we were all awfully hot and sweating and so forth, but the President arrived at the Rice Stadium as chipper as ever and he was seated there in the blazing sun on the speaker's rostrum. Then he gave his speech again ⁱⁿ the open stadium...sat down again...there were a couple of other speakers, and then he

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went back to his open car and drove all the way from Rice Stadium to the Manned Spacecraft Center, which is again something like 45 minutes away, and at that time the group had shrunk together to a relatively small group to which the briefing was given...and Dr. Gilruth and I were among the fortunate few who could stay with the President, so there I spent several hours with him, at very close distance, and all I can say is I was by that time quite tired and felt like having a drink somewhere and the President was just cool, as strong as in the morning.

Mr. Sohler: Did you have any conversations with him?

Dr. von Braun: Well, on that occasion, of course, the President was addressing most of his questions to the Houston people, but here again he asked very specific questions. For example, I remember they demonstrated a pressurized space suit for him. There was a man inside the space suit and he would walk up and down on a little stage, with the suit pressurized, and the President wanted to know exactly how the arm joints, whether it was designed so he could move his arms, and so forth.

Mr. Sohler: Then you went on, I think, to St. Louis...

Dr. von Braun: Yes, we went on to St. Louis. There a presentation was given by McDonnell Aircraft by Jim McDonnell personally. And I remember they walked the President and his

party for miles and miles and miles through that plant, and here again, after all the showing around, when it was over and the group retired in a conference room, the President would ask a great number of very specific questions about the program--scheduling aspects, and so forth--which on that occasion, of course, were answered by McDonnell representatives.

After the St. Louis visit was over, he departed directly for Andrews while I went back to Huntsville from St. Louis.

Mr. Sohler: Did you ever get a clean shirt? I've been worrying about that all along! (Laughs)

Dr. von Braun: (Laughs) No, I bought one. No, upon arrival in Houston, I told the hotel manager that I needed a clean shirt, being in the President's party, and he actually managed to get me a clean shirt at 8 or 9 o'clock in the evening...and later on it even turned out that he refused to accept pay for it.

Mr. Sohler: Then I think you saw the President again at a breakfast in the Mayflower Hotel [in Washington], but I guess ~~that was something that~~ you didn't have an opportunity to talk to him.

Dr. von Braun: The President gave a speech at the Presidential Prayer Breakfast on February 7, 1963...he gave a talk there. I was not at the speaker's table so I saw him only from a

distance. I watched him talk at length with Billy Graham who was sitting right next to him. And, incidentally, I was sitting at a table together with his brother, Ted, the new Senator from Massachusetts. We talked about a few things there. It was pretty obvious from the way Senator Ted Kennedy spoke that the brothers had one favorite topic when they were among themselves, the Kennedy brothers, and that was space flight! Because he was very well informed and asked some questions that were amazingly similar to the questions the President himself had asked, so unquestionably there had been some exchange among the brothers on the subject.

Mr. Sohler: In these discussions, Dr. von Braun, with the President and in the comments that you heard from him in the course of contacts and visits, did you get any inkling as to why, for example, he felt that we wanted to stake out this decade as the period of time in which to land a man on the moon?

Dr. von Braun: Well, I have here before me a memorandum that President Kennedy wrote to the Vice President on April 20, 1961... maybe I should read it.

Mr. Sohler: Either that or...I think that will be photographed for the Library but if it's helpful you might want to mention portions of it.

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Dr. von Braun: Well, he asked in this thing very specifically that he felt the Vice President as Chairman of the Space Council...he asked him to make an over-all survey as to where we stand in space...and he asked questions such as (and I'm quoting):

"Do we have a chance of beating the Soviets by putting a laboratory in space, or by a trip around the moon, or by a rocket to land on the moon, or by a rocket to go to the moon and back with a man. Is there any other space program which promises dramatic results in which we could win?"

And

"How much additional would it cost?...Are we working 24 hours a day on existing programs. If not, why not?...In building large boosters should we put our emphasis on nuclear, chemical or liquid fuel, or a combination of these three?...Are we making maximum effort....? And so forth..."

This letter addressed to the Vice President led to the Vice President asking me to give him some raw material in reply to this question. I replied to this inquiry in a letter dated April 29, 1961.

Mr. Sohler: On the lunar question, putting a man on the moon, what were your thoughts as expressed in that letter?

Dr. von Braun: Yes. The letter says essentially...let me read here from it...it says here:

"Summing up, it is my belief that

* * *

b) we have a sporting chance of beating the Soviets to a soft-landing of a radio transmitter station on the moon. It is hard to say whether this objective is on their program, but as far as the launch rocket is concerned, they could do it at any time. We plan to do it with the Atlas-Agena B-boosted Ranger #3 in early 1962."

← Then it goes on...

"c) we have a sporting chance of sending a 3-men crew around the moon ahead of the Soviets (1965/66). However, the Soviets could conduct a round-the-moon voyage earlier if they are ready to waive certain emergency safety features and limit the voyage to one man. My estimate is that they could perform this simplified task in 1962 or 1963.

d) we have an excellent chance of beating the Soviets to the first landing of a crew on the moon (including

return capability, of course). The reason is that a performance jump by a factor 10 over their present rockets is necessary to accomplish this feat. While today we do not have such a rocket, it is unlikely that the Soviets have it. Therefore, we would not have to enter the race toward this obvious next goal in space exploration against hopeless odds favoring the Soviets. With an all-out crash program I think we could accomplish this objective in 1967/68."

And in the same letter, a little further down...I'm coming to Question 5...the President's question was, "Are we making maximum effort? Are we achieving necessary results?" I answered as follows:

"No, I do not think we are making maximum effort.

"In my opinion, the most effective steps to improve our national stature in the space field, and to speed things up would be to

- identify a few (the fewer the better) goals in our space program as objectives of highest national priority. (For example: Let's land a man on the moon in 1967 or 1968.)"

Then it goes on--

- "- identify those elements of our present space program

that would qualify as immediate contributions to this objective."

And so forth.

Mr. Sohler: And about a month after that, May 28, 1961, the decision was made to go ahead with the manned lunar-landing program. Did the President ever sort of confirm, ~~for example,~~ your thought there that the reason for setting the decade is to set a goal for which we could shoot? Did he express himself on that?

Dr. von Braun: No, he never did. But I think it was pretty clear from the letter dated April 20 that it was really President Kennedy's personal idea that maybe putting a man on the moon and bringing him back was a worthwhile national objective.

Mr. Sohler: Did he ever discuss with you the business of cooperation with the Russians--what we might be able to do with them? ~~You may recall that...~~

Dr. von Braun: Yes, I think he touched on this subject on one occasion. I've forgotten where it was. But there was only a short period available to discuss it, in the car or so, and I think my answer was, when he said, "Do you think we could somehow work with these things together with the Russians?" And I said in my opinion this would depend on how such a plan

was implemented and would obviously, as long as the Russians are so secretive about their hardware...it would be quite difficult to build an American rocket with Russian rocket engines, or vice versa. But if we could agree, for example, on the same area of the moon, where we wanted to establish bases, so that there is a degree of mutual support in case one of the two parties gets in trouble, that this kind of cooperation should be quite easy to accomplish--in fact, there was even a precedence^T in Antarctica where the situation is not very different.

Mr. Sohler: Do you remember if this was before or after the U.N. speech of the President's when he made a specific proposal?

Dr. von Braun: No, this I don't remember. If I remember, it was in Huntsville...so it must have been in September...

Dr. Emme: He made another, I remember, on May 18, 1963...came down for the TVA Dam Dedication.

Dr. von Braun: Yes, I remember.

Mr. Sohler: ~~Do you remember what discussion...~~ I think you had a very brief discussion with him that day.

Dr. von Braun: Oh, yes, this I remember very vividly. He stepped out of his helicopter that brought him over from Muscle Shoals, Alabama, where he had just inaugurated a dam. Incidentally, Governor Wallace came out of the same helicopter.

He had invited him to ride over with him. And I was in the receiving line and the President pulled me promptly out of the receiving line, took me over in a corner, and said, "I have a lot of difficulties with the Congress getting the money for you people." (Everyone laughs) Then he wanted to know how the program was getting along from our end, but he indicated that he had some rough sledding.

Mr. Sohler: Then I guess the last time you saw the President was (we discussed this a little bit already) the November 16 visit in 1963 at the Cape, in which you were among the party that accompanied him on his tour. Are there any other incidents in that visit that you recall?

Dr. von Braun: No, except that I found him in ~~VERY~~ good health; he was tanned and he looked like a man in his very best of health. I ^{noted} indicated that he seemed to have a little pain with the back but he didn't impress me at all as a sick man or anything like this. He was chipper and dynamic as ever. In fact, he was flown in the helicopter over to a Navy ship to observe a Polaris launching and he stood out there on the poop deck of that ship without a Windbreaker or anything for about half an hour.

Mr. Sohler: In your opinion (this is more of a question of an opinion of yours rather than anything the President said, but

it's a judgment that perhaps you formed from your contacts with him) was the development of our effort, the acceleration of the space program, something that was going to happen sort of inevitably? ^{Or} Do you think, on the other hand, that President Kennedy's interest, enthusiasm, pushed us in this direction, ~~or was he pushing us~~ just what was his impact on this?

Dr. von Braun: Well, my personal impression of this is that President Kennedy had one overriding interest that I would like to express myself as follows: I think he tried to rejuvenate the country--give the country new goals, new ideals, set some objectives that not only old men could believe in but particularly youngsters, the youth could believe in...and I think this is a very, very lasting and will prove to be a very lasting effect, probably the ~~most~~ lasting effect of his Administration...that he has kind of rejuvenated the whole country, and I think the space program was very much aimed at that kind of thing. ~~The~~ things that ^{had} kind of ^{ground} ~~grew~~ to a stop in many areas. He wanted to tear loose again and put it back on the road and put steam behind things. I think he did this very effectively.

Mr. Sohler: Did you ever have any personal invitations from the President or Mrs. Kennedy?

Dr. von Braun: Well, we had one invitation, my wife and I, to the White House, to dine with the President and Mrs. Kennedy on Monday, November 25th, 1963, which was the date the President was buried. This was a... Well, I think I have nothing to add to that.

Mr. Sohler: ~~No, no.~~ Thank you very much, Dr. von Braun.