

INTERVIEWEE: DR. EDWARD C. WELSH

INTERVIEWER: T. H. BAKER

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B: This is the interview with Dr. Edward C. Welsh, Executive Secretary of the National Aeronautics and Space Council from '61 to '69.

Sir, to start back before you joined the Space Council, back when you were the legislative assistant to Senator Symington, you participated then in the post-Sputnik Preparedness Investigating Sub-committee and then in the Senate special committee drafting the Space Act, didn't you?

W: Yes, that's correct.

B: I know a good deal of that has been covered, but a couple of points. First of all, whose idea was it to have the Preparedness Investigating Sub-committee hearings?

W: To the best of my knowledge, it was Senator Dick Russell who contacted Senator Johnson suggesting that it would be fine to have such an investigation and it should be undertaken very promptly as an urgent matter. Senator Johnson, of course, already had shown interest in the space program even before Sputnik, so that it was an appropriate source of investigation--means of investigation--because not only was Mr. Johnson somewhat experienced in this field but also the Preparedness Investigating Sub-committee was an appropriate vehicle. It was the vehicle that the Senate had for such investigations.

B: You mentioned the prior interest in the space program, notwithstanding the fact that there had been some interest in it, did the Sputnik come as much of a shock to people like yourself and Senator Johnson as it did to

the public at large?

W: We were shocked in the sense that--we were more stunned than shocked, I suppose--because it is very hard for anybody in the United States to find that anybody else can get ahead of us in anything. I think it is fair to say that one thing we can produce more rapidly than anything else and in greater quantity is complacency and self-satisfaction, so that, yes, it came as something of a shock and we were stunned by it--not to learn that they were engaged in space activity because we knew that. The records of the Soviets in space science is a much longer one than the United States as far as any real activity is concerned. In fact, I believe the Soviet Academy of Science, and its predecessor, is as old as the United States itself.

B: Was the shock in the big booster rather than the satellite itself?

W: No, we knew they had the big booster. The big booster was developed just as our early boosters were developed as missiles for national defense, or at least as weapons systems. We knew the size of their weapons systems, and interestingly enough it was one of their most successful mistakes, I suppose, to build such a big booster, because they really didn't need it for their missiles. But they had built it before the real nuclear development and the relatively lightweight weapon warheads that had been created.

B: Was there any temptation at that time on the part of anyone in the Senate to indulge in a little recrimination against the Eisenhower Administration for political advantage?

W: Yes, there was, but not by Mr. Johnson. Mr. Johnson indicated that the Congress itself had been ahead of the Administration in urging action, and he did that all the way through. But his record is a very interesting one

so far as not trying to blame anyone. When he started the investigation after Sputnik, he made some such comment to the effect that the purpose is not to point the finger at anyone but to see what we can do in order to get us back into a position of leadership.

B: What was Mr. Johnson's attitude at the time toward military?

W: Well, Mr. Johnson, of course, was a member of the Armed Services Committee, and, as we have just said, was the chairman of the Preparedness Investigating Sub-committee. Of course he was very favorable to the military, because that was the only place where we had any of the potential at that point--potential to compete with the Soviets in the space program.

B: Then, sir, on into early '58 when the Blue Ribbon select committee on the draft of the Space Act was set up, did you participate in the drafting? I believe you had some connection with drafting the Space Act.

W: Yes, I was one of the few that worked on the drafting all the way through. I wouldn't want to claim any special authorship. We all worked on it. Again, I would have to emphasize the leadership that Senator Johnson showed in this.

B: Who was the principal drafter, Jerry Siegel?

W: I think Jerry Siegel. Jerry Siegel was the lawyer in charge of the drafting. I think it's fair to say that he had more to do to lead or at least direct the flow of the changes which we were working on at the time.

B: Where did the ideas come from or can you pin it down?

W: The idea for legislation.

B: No, the ideas in the bill. For example, one of the major things you set up was a brand new civilian agency taking over the old NACA. Was there

ever any thought of a crash program with the military in charge of it?

W: I suppose there was thought of it, but it didn't get very much attention as we were drafting. The idea was that there is room for military activity with missiles and in space. There is also room for civilian activity. And there is no point in getting an agency involved in the development of weapons systems when it has no role at all with weapons. I think that if you study the Space Act as it was finally passed, you will note something that generally is overlooked, and that is that it says all of the space activities are for peaceful purposes, some to be handled by a civilian agency in the new administration called NASA and some for involving weapons systems and research and development in the weapons systems on national security matters by the Defense Department. I point out that, so often overlooked, is the fact that in drafting that legislation we conceived of the idea that the Defense Department could engage in peaceful activities, too, if for nothing more than keeping the peace, which is one of the most peaceful things you can engage in.

B: Did the Administration participate in the drafting? That is, was Mr. Johnson or anyone else in contact with representatives of the Administration?

W: Yes, the Administration sent up a draft--made a proposed draft. It was, in my judgment, a rather weak proposal. It wanted to have what became NASA. It was suggesting that it be handled by sort of a committee rather than by an agency with operating authority. It didn't provide for the Space Council which was created in the new legislation. It was rather hazy on the distinction between who would do what in regard to military and civilian activities. But it was sort of a development on the NACA without making very much of a change.

B: Who was responsible for that draft?

W: I can't tell you who was responsible in the Eisenhower Administration.

B: What was the original intent of the Space Council? Now I know both its structure and its functions change later. But in the original bill, what did you drafters intend for the Space Council to do?

W: It spelled out in the legislation itself. It was supposed to be a coordinating body. It was supposed to try to eliminate duplication between the various agencies which would have some role in the space program. It was supposed to keep the President advised, informed and in a position to make necessary decisions with knowledge so that I don't think the role of it has changed very much over the years. At least, the legislation hasn't changed. It spelled out what it was to do. But during the Eisenhower Administration it didn't do it.

So in December 1960--I believe it was December 20, 1960--a press conference was held down at Palm Beach by President-elect Kennedy, and Vice President-elect Johnson was there, in which Mr. Kennedy stated that he wanted to do more in the space program than had been done. And he wanted Mr. Johnson to take over the leadership and the chairmanship of the Space Council. The Vice President wasn't even on the Space Council at that time. So that one of the first things that I had to do was draft legislation and get it passed, so to speak--go up and testify for it.

B: Before we get into that, is there anything else about the investigation or the drafting of the bill that you feel ought to be recorded?

W: I think it was an unusual committee that was set up--this so-called Blue Ribbon Committee--because it had ranking people, chairman and ranking members of a whole series of the major committees in the Senate. It was

so chosen by Senator Johnson so that when he did have a piece of legislation drafted he would be pretty certain to have full backing in the Congress.

B: I gather the fear was that, in a sense, the new Space Act was going to take some functions from certain of those committees.

W: Yes, I'm certain that jurisdiction does direct the activities of a-- jurisdictional questions--the activities of a lot of people in the Congress and understandably so. And actually it does have some overlapping roles there. This over-lapping got involved in the communications satellite issue. You had the Commerce Committee that was involved with communications. In the development of big rockets and engines and that sort of thing the Armed Services Committee has a definite interest. Yes, there was some concern of impairing the jurisdictional authority of some of the people there, but it didn't show up in the meetings that we had going over the draft. I can remember very well Mr. Johnson rather forcefully leading the meetings after we had gone over some of the drafts, or some of the language of the draft. Jerry Siegel, as a matter of fact, would read a certain portion of it, and then there would be some discussion and we would go on in that fashion.

One of the curious and little personal asides was that in that early draft, there was a proposal for a joint committee in the House and the Senate rather than a separate committee for Space in the Senate and a separate committee in the House. When this proposal was read and the discussion began on it, there was immediate reaction--adverse reaction--by some of the members of the committee. Mr. Johnson said, "Don't worry about that. I will reluctantly give in on that when we get all the rest

of the things that we want in conference with the House."

B: Then, sir, in 1960, did you participate in the Democratic politics of that year? I ask because not only was Mr. Johnson trying for the presidential nomination but so was Mr. Symington for whom you worked.

W: I was engaged in some of the political activities in a sense. I was not a politician in the real sense of the word but I did draft things and write things and so forth. I went out to the nominating convention in Los Angeles and was there as part of the staff for Mr. Symington. But once the nomination had taken place and the ticket was set, well, then I was helpful to the ticket and did some of the writing for Mr. Kennedy on his position on the space program.

B: Did the Symington staff think there was a possibility that Mr. Johnson would be offered and accept the vice presidential post?

W: I can't tell you about whether he would be offered or accept. But there was certainly a good deal of talk about it. I think that there was some consideration that he might be offered this post. Whether he would have accepted it or not, I don't know.

B: Did that leave any unhappiness between Mr. Johnson and Mr. Symington?

W: Not that I know of. Both Mr. Johnson and Mr. Symington are sensitive people and able people. They have had some points on which they have disagreed, I'm sure, but they have been long-time friends over the many years.

B: I know that immediately after the election, as you said, you had been working--doing some writing for Mr. Kennedy--and I know you were staff director of the task force on reorganizing the Pentagon. But when were you first notified or asked to become executive secretary of the Space Council?

W: The first I even heard about it was some little item in the New York Times that I was one of several people who were being considered for this post which I hadn't even been aware of. But it was just in March. I would say that I heard about it sometime right around the eighteenth or twentieth of March.

B: I believe it was announced officially on March 21.

W: Yes.

B: Did Mr. Kennedy or Mr. Johnson talk to you about the post--outline what it was?

W: There wasn't much to talk about, because you had to plow new furrows because there hadn't been any cultivation to speak of to that point. Mr. Johnson's primary conversation had to do with the fact that if I were going to be so closely associated with him I would have to be accustomed to the fact that he was a very difficult man to work with and things of that sort. He was trying to warn me but didn't want to scare me.

B: Did he phrase it that way?

W: He phrased it a little more outspokenly than that, but it was that general kind of a thing. And he sent someone up to see me from his immediate staff on it. It seems to me it was George Reedy. Then the next thing was it was suggested that I go down and talk with Jim Webb, who had already been appointed.

B: May I ask here, sir, [had] the decision to have the Vice President as head of the Space Council already been made prior to this time.

W: That announcement was made on the twentieth of December.

B: Legislation had not yet been done?

W: No, that was the job that I had to fare. But it was taken for granted



that the legislation would, in effect, have that--would be done--and it would be passed, and so forth.

B: And then you went to talk to Mr. Webb.

W: I went to talk to Mr. Webb which means, of course, pretty much to listen to Mr. Webb. But he was interested in my ideas about the Council. Since I had had something to do with drafting the legislation he wanted to probe into that, primarily to see whether I thought that the Council should really be controlling and running the operating agencies and to stand between the head of the agency and the President on direct contact, things of that sort.

I made it very clear that I thought there was no role at all for an operating agency in the form of the Council. The Council had these functions laid out. It was to guide and prepare policy recommendations and to advise and assist the President on any matters that came up, to take care of the duplication and the questions and issues of that sort. Later on I developed a function that hadn't been thought of at the time, and that was to do a certain amount of public relations work in explaining to the general public what the role of the space program was and also to undertake the annual report for the President that hadn't been handled in accordance with the requirements of law.

B: Did Mr. Webb seem seriously concerned about his relationship to the President and to the Council? One would assume that he had already talked to Kennedy and Johnson about that, too.

W: Well, he didn't seem to be particularly concerned, but he wanted to see what my ideas were. Had I come up with a different reaction he might have then wanted to veto or try to veto the appointment. I don't know. I'm

just guessing now, but I would have if I had been in his position.

B: At this time did Mr. Johnson share your ideas about the Council as a coordinating kind of function rather than a direct operating control?

W: I don't think there's any question that he did. He's rather well versed in the role of the Vice President under the Constitution and he was at that time. There is no provision for a real operating role for the Vice President other than his role in the Senate as being an operating function.

B: The legislation that you said you drafted which would set up the Vice President as Chairman of the Space Council also changed its membership.

W: Yes, this we did. I had one conversation with Vice President Johnson in regard to what he thought would be good to have in the modification-- in the amendment--to the act, and we talked about it. One of the things that he wanted was as small a group as we could usefully have and still have it represent the major agencies with functions in space. At that time the provision in the law was for nine members on the Council, some of them from the general public. Both Mr. Johnson and I felt this was an awkward thing to do. We would want to call meetings maybe very quickly and on short notice. We might want to take up highly classified matters. It seemed to us to be an awkward arrangement to have people from the general public. So we cut down on the membership, and made it a membership of five with the major agencies being State and Defense and NASA and AEC, plus the Vice President.

B: Why AEC, incidentally? Was there still talk then of nuclear powered rockets? There certainly is now, of course.

W: Oh, yes. The AEC has had pretty nearly a quarter of a billion dollars of the space budget every year. You see, there are two major areas in which the AEC operates in the space program. One of them is nuclear

propulsion, and the other is nuclear power, on-board power--little snap devices that we talk about. They have been very useful, and, of course, they are rather expensive. But they are very useful. So the AEC seemed to belong on there; there is no question about it.

B: Did President Kennedy agree without any difficulties about the idea of a reduced Council?

W: As far as I know he didn't have any views on it. The draft was submitted to his office, before President Kennedy sent it up to the Hill. Very promptly thereafter, dates were set for me to testify in the Senate and in the House. But the President had no objection at all to any of the language--and suggested no changes on any of it.

B: While all of this was going on, there was also going on simultaneously the process of deciding to try for the moon in this decade. I guess most people know about President Kennedy's famous memorandum to Senator Johnson on the twentieth of April with the questions about it. But had discussions on this started earlier?

W: There had been some prior discussions. Certainly the fact that even during the campaign Mr. Kennedy had indicated that not enough was being done in the space field and we needed to take a more positive role in space, that we shouldn't take for granted that we should be a second-rate nation in such technological development. So had Mr. Johnson, so that there was a general agreement that something needed to be done. I mention that simply as a basis for the question that came up then for what should be done. As far as I understand it, though I wasn't there, Mr. Johnson suggested that the Space Council be asked to look into this. You may know, that the short document--the short memorandum

of April 20, the President Kennedy memorandum to Vice President Johnson on space of April 20--does start out as making reference to their previous conversation which was the conversation of the day before.

B: When did Mr. Johnson come to the conclusion about specifics--big boosters, manned flight to the moon in this decade?

W: The first thing he did after he got the memorandum from President Kennedy was to ask me to set up a series of meetings of the Council and to invite others to come, too. So the meetings started on April 22 and went on for some time.

B: What I was really wondering was if Mr. Johnson had already made up his mind and was seeking reinforcement or still had an open mind and was seeking other opinions.

W: He still had an open mind as far as a specific major project like the lunar project is concerned.

B: In addition to his Council meetings he saw other people, too. He asked [Wernher] von Braun for his opinion.

W: As a matter of fact, we had Dr. von Braun, Admiral Hayward, and General Schriever at the first of our meetings. So they were in and had an opportunity to express themselves at that very first meeting on the twenty-second of April.

B: There was also a group composed of Frank Stanton, Don Cook, George Brown.

W: That wasn't a group either. They also were invited to several of our meetings. As a matter of fact, we had those three people, as Mr. Johnson said, to give us a feeling, reflection, reaction of members of the general public and very responsible members of the general public as to what they would think would be the public reaction to any kind of a major project of this sort. They did indicate very

strong public support for it. Now these were very responsible persons, not that I chose them, although I set up the meetings. These were persons suggested by Mr. Johnson. They were people whom he knew real well, had a great deal of confidence in, had worked with before. Now, we also had representatives from the Hill who were involved in discussions. In one of the meetings Senator Kerr and Senator Bridges attended. The House representatives were invited but couldn't come. Congressman Overton Brooks, who was the chairman of the Space Committee in the House, was unable to come but he did write a memorandum of some length.

B: Was Mr. Webb invited to these, too?

W: Yes. You see, the whole Space Council membership was invited.

B: That's right, and Mr. Webb, of course, is on it.

W: And of course the outstanding contribution in these meetings from NASA was Hugh Dryden, Dr. Dryden, because at this time Mr. Webb was relying so heavily on Dryden--who had been in the business for so many years and was so highly respected--on what can be done and what can't be done.

B: Among these people, was there any significant dissent from the idea of manned space flights?

W: I don't recall any dissent. Certainly there was discussion about how much will things cost. But we were really challenged to find some area of major significance where we could have at least a fifty-fifty chance of surpassing the Soviets. That meant, if it was going to be a major significance, immediately our attention drew toward men in space. Then the only thing we thought that had a reasonable chance at all of beating them on, or getting ahead of them, was a man landing on the moon within a reasonable time.

Of course, there were many other things that nobody could do. The lunar project was something that neither the Soviets nor the United States could do at that time, so with that knowledge we felt it was fairly reasonable that we might be able to beat them in it.

B: At these meetings discussing this kind of thing, did Mr. Johnson listen or talk?

W: He did both. As the meetings continued over those several days, there is no question that he became more positive where he saw any weakness in support. But he listened a great deal in the first few of the meetings, finding out what Dryden believed could be done and what von Braun and Schriever and others, who were very knowledgeable in this field, what they thought could be done. So he did a lot of listening.

As the thing began to develop and he and I had separate meetings to discuss what had taken place and what we should take up the next day--the next meeting--why you can see that he was beginning to firm up pretty positively that here was something that we could put our teeth into, could move on, and go ahead and do. So that he was increasingly emphatic, and when anybody, as I say, seemed to be a little hesitant he would go around the room and he would point to that individual and say, "Now, would you rather have us be a second-rate nation or should we spend a little money?" And this is a very difficult question, a little bit like when did you stop beating your wife?

B: It would be almost impossible to argue against it. In a sense it may be a little unfair question.

W: It depends on whether he justifies the objective by the means he used to obtain it.

B: Incidentally, I know you've been asked about this before, but this series of meetings you are talking about is taking place within a few weeks after Yuri Gargarin's flight and within about a week of the Bay of Pigs. Were these factors in the discussions?

W: The Bay of Pigs was no factor in the discussion. I will amend that only to this extent: to say that to the extent that it was a factor, it was a deterrent. It was not anything that urged us to do more in the space program. There were those who were hesitant about maybe we ought to go a little more slowly, we don't want to risk something going wrong. The Bay of Pigs might have been in the minds of some of those people that "Let's hold off a little bit on space, particularly manned space activity." So that I would say that it had no real stimulating effect, contrary to what has been written by a good many people.

B: Why?

W: In no meeting that I was in was the Bay of Pigs even mentioned, so that I have to assume that since there were people saying, "Well, maybe we ought to go a little slower-" that it could have had that kind of an impact. But it certainly wasn't used as a factor. As you may have heard-- maybe it is in one of the records that you have or seen--even when it came to the [Commander Alan B.] Shepard [Jr.], [May 5, 1961] flight, there was a hesitancy there. In a meeting in the President's office one of his staff people raised the question about whether it should be postponed.

B: For fear of another disaster?

W: Of another disaster. This was when I spoke up and said, "Why should we postpone a success?" which was a rather self-confident kind of comment to make but now that everything went well I am pleased that I made it.

B: While all of this was going on, was President Kennedy getting different advice from other areas? Mr. Wiesner comes up.

W: I would assume that he was. I would assume that he was getting advice from people who headed other agencies and were concerned about funds and whether this would take funds that they might otherwise get. Jerry Wiesner sat in these meetings that we had, [but] he was not in any way a deterrent to our coming to the conclusion that we did come to, but he had as you know [been] in charge of writing a report earlier for Mr. Kennedy where he was less than enthusiastic about manned space flight. But the overwhelming force of argument and logic, plus the persuasiveness of Mr. Johnson, did not leave too much room for Jerry Wiesner to get up and argue very much the other way.

B: I believe you drafted the April 28 memorandum from Johnson to Kennedy that, in effect, was the answer to the questions of the week before.

W: Yes.

B: The short answer, I should say.

W: It's the five and a half page reply that went back on April 28. Interestingly enough it's in that document where, by looking at it again, I recall is where the term "in this decade" comes. This is in that document that I drafted and which Mr. Johnson sent to Mr. Kennedy without change, that has this phrase "in this decade." As a matter of fact, we both came across that when I was down at the ranch a couple of weeks ago.

B: I was going to ask you later on if you had played a part in writing the speech to Congress later in which--

W: Yes, a little bit, and, of course, it was written in part by using this short memorandum.



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B: Incidentally, I must insert here into the record, it is now July 18, 1969, and Apollo 11 is right now a little more than halfway on its way to what we hope will be the first moon landing [Apollo 11 did land on the moon].

W: Yes, it is more than halfway. It was more than halfway yesterday.

B: Well within this decade.

W: Well, we haven't finished it yet.

B: As I said, "hopefully" will land.

Sir, this may be an impossible question to answer, but can you pin down the degree of influence of Mr. Johnson in encouraging the manned flight idea? That is, did he play the major role in convincing Mr. Kennedy, or did Mr. Kennedy, indeed, need convincing?

W: Mr. Kennedy seemed not to need much convincing. He had requested Mr. Johnson to come up with a recommendation. Mr. Johnson held these meetings, sent back a recommendation to him, and he accepted it. Actually, the time element between when that recommendation was made to Mr. Kennedy and the time it went up to the Hill in the message on May 25, that delay was not due to any hesitancy about the space program. It had to do with the other items that went in that message--foreign aid, a whole series of other things that they wanted to put together in a composite presentation--with the idea that space would be so popular maybe some of these other things would be carried along with it.

B: Anyone working on this would have to read that. Actually space at the time was a comparatively minor part of that message, the second State of the Union message.

W: Right. I would say that there was good solid support.

B: There was no time in there where there was holding back or hesitation?

W: Not that I know of. Of course you can't tell what would have gone through the minds of some of Mr. Kennedy's assistants and then were not expressed in my hearing. But I would say that the support was pretty good. Now remember this. This could not have been done so quickly, might not have been done at all, or certainly wouldn't have been done within months and months if it hadn't been for the role that Mr. Johnson played because he was a leader in this thing. This was not an area where Mr. Kennedy thought that he had the knowledge or the experience or had been studying it carefully enough to take a leadership role. He would make the necessary decisions. But he wanted the recommendations of Mr. Johnson. You may recall that in the May 25 speech by President Kennedy, he says when he gets to space, that "with the advice of Vice President Johnson, who is chairman of the Space Council, I come up with these recommendations."

B: Also at the same time--well, before the speech you just mentioned--on May 8 there was a second larger memo to Mr. Kennedy from Webb and McNamara by way of Johnson, outlining the financing.

W: Let me straighten out on that. Yes, that's correct. I believe it was May 8 a detailed, largely budgetary, analysis of what funds would be needed, both for Department of Defense and for NASA for the space program immediately. This was requested by Mr. Johnson of Messrs. Webb and McNamara. The report went from them to Mr. Johnson. Mr. Johnson in turn sent it on to President Kennedy. This in no sense changed what we had already recommended. This was a detailed study worked up under very intense working conditions. They worked over weekends and things of that sort trying to get these details, these facts, a budgetary picture down in some semblance of usefulness for the President.

B: Any problems there. Was Secretary McNamara at that time wholeheartedly behind the idea?

W: I don't think we would say that Secretary McNamara was wholeheartedly behind the manned space program, but he wasn't in opposition to it either. It wasn't his function at that point or his responsibility. He wanted to be sure that when a presentation was made that what he thought was needed by the Defense side would fit into this picture. So I would not say that Mr. McNamara was opposition. He just wasn't an enthusiastic supporter because it wasn't in his area of responsibility.

B: All right, sir, is there anything else about that decision that is not elsewhere recorded as it should be?

W: I can't think of anything.

B: This account by John Logsdon which I believe you were interviewed by Mr. Logsdon.

W: Oh, yes, I saw quite a bit of Mr. Logsdon, and, one way or another, heard from him, phone calls, and so forth. He worked pretty hard on that. I have not seen the final draft of the thing.

B: I haven't either, although--

W: I have seen it, but I haven't read it. I've seen it in the hands of other people.

B: I understand that he emphasizes the decision as a kind of political public relations. I shouldn't say that because I haven't read it. I may be misjudging it.

W: I don't know. I read portions of it in draft. But I haven't read the book.

B: If I may now, sir, some general questions, really mostly involving subjective opinions and personalities because again I don't want to make you

repeat things I know are written down in these other interviews and the Space Council history and so on. But did you see much of the relationship between Mr. Johnson and Mr. Kennedy in the vice presidential years?

W: When you say did I see very much of it, I know something about it. I don't know that I have anywhere nearly a full picture in my mind. But there was a very cooperative relationship between Mr. Kennedy and Mr. Johnson. Mr. Johnson knew his position as Vice President and believed that he was to be helpful to the President, and was. So that there was a good deal of contact.

As you know, Mr. Johnson was given functions which had not previously been given to vice presidents. He was asked by the President to go around and visit various installations and that sort of thing in the space program, and he did. He was given the role of meeting astronauts and dealing with them, and a very wide range of things in the space program. I would say that the relationship was rather good.

B: How about between Mr. Johnson and Mr. Webb? One can imagine a little awkwardness there because of the--not the personalities maybe--well maybe so--but the titles, the head of the Space Council and the head of NASA, and the President.

W: I don't know that there is any trouble. You remember Mr. Webb was Mr. Johnson's choice for that position. The President-elect had asked Mr. Johnson to interview people. I believe Mr. Johnson said that he interviewed nineteen people or something of that sort, and all of them turned it down. He went back to some, and anyway he persuaded Mr. Webb on the basis of patriotism to undertake the job. Generally I think they got along very well. There isn't any question that Mr. Webb knew that Mr.

Johnson was the Vice President. On the other hand, that Mr. Johnson knew that Mr. Webb was the head of the National Aeronautics and Space Administration. I would say that the relationship was generally good.

B: Was Mr. Johnson ever tempted to involve himself in the operational affairs of NASA?

W: To my knowledge, no. As a matter of fact, one of the things that we decided very quickly and very early in the business of the Space Council activity was that the Council would not, nor would the chairman, involve himself in any contract awards, any decisions of that nature--wouldn't be involved in them at all. As a consequence, we just didn't get down into the contract activity, nor even in the choice of where facilities were established.

B: I've got that listed right down here to ask you. Was Mr. Johnson involved in contract awards, site selections. There was a good deal of talk at the time particularly about the Manned Center in Houston.

W: To my knowledge--and certainly as far as being in any Space Council activities, or any consultation with me--Mr. Johnson was not involved in the choice of sites nor in the award or even any recommendations in regards to contracts. The chairman of House sub-committee of Appropriations for space was the individual who had the most to do with the choice of Houston for the space center.

B: Congressman Albert Thomas of Houston.

W: Albert Thomas. If he were still alive all you would have to do would be to ask him, and I am sure he would tell you that he was the one who influenced that decision.

B: Did Mr. Johnson involve himself in technical matters, such as the early decision to have the lunar orbit rendezvous system for the lunar--

W: No, he didn't. He was present when that came out into the open in a discussion, as was I, down at Huntsville with President Kennedy, Vice President Johnson, Werhner von Braun, Jerry Wiesner, several others and myself. But he didn't really feel competent nor did he feel deficient because of the lack of competence on such decisions.

B: How about internal rivalries within the NASA structure? I noticed, for example, that when the debate between Brainerd Holmes and Mr. Webb reached the White House level, Mr. Johnson apparently was not in the meeting. You were, I believe, but Mr. Johnson was not.

W: Mr. Johnson was not in that particular meeting, no. Incidentally, this is a curious thing. There was a difference of opinion on how much money was needed, a difference of opinion between Mr. Webb and Brainerd Holmes as to how much money was needed for NASA for the manned space activity right away.

B: You mean immediately?

W: Well, the immediate budget.

B: We'd better clear that up. In the immediate budget which would have been of '62.

W: Yes, that would have been in '62, maybe for '63. I'm not sure.

B: So the budget that was given preparation in '62.

W: Yes. And so a presentation was made sitting around the table in the Cabinet Room, a NASA budget presentation was made to President Kennedy. Jim Webb made the presentation. But President Kennedy then turned to Holmes who was sitting there and said, "Well, Mr. Holmes do you think that's enough money?"

And Mr. Holmes said, "No, I think we need [so much] more."

Now this was already known to Webb, but I wanted to make it clear that Holmes did not vouchsafe that information. He didn't interrupt. He wasn't taking issues until the President of the United States asked him whether he agreed and then he wasn't going to lie. But this was a little abrasive factor in the relationship there between Webb and Holmes. I know as far as Holmes is concerned--I have seen him fairly recently--he doesn't hold any resentment.

B: He did leave the NASA program a year or so after that, I believe.

W: Yes.

B: Did Mr. Johnson participate in the preparation of the NASA budget, or was that strictly within the NASA organization?

W: That was within the NASA organization. However, it was taken up before the Space Council each year when Mr. Johnson was the chairman.

B: At what stage? After NASA had--

W: Not after it was submitted but after they had drafted and prepared. So we wanted to take it up and wanted also to have other agencies within the Council to know what was being asked by NASA, and what was being asked by Defense, or what was being asked by AEC. We had all three of them make their presentations and see how much it added up to. But to see what we could do and what speed we would get with that amount of money.

B: Did the Council ever suggest any changes?

W: The council as a council made some recommendations to go back and look at this or that. [It] didn't make any formal recommendations to the President on budget. I as an individual, as the executive secretary, would

attend the budget hearings, that is, the budget in the Director of the Bureau of the Budget's hearings where they would have people from the agencies in. Then I would raise questions in there whether this was enough, whether that was enough, or duplication.

B: Did Mr. Johnson work with Congress on affairs involving NASA and the space program, including its budget?

W: Yes, he was undoubtedly the most effective contact that the administration had with the Congress. He knew so many of the people who were ranking in the House and the Senate on the space committees and on the appropriations committees. Yes, he was effective, I'm sure, in trying to get what had been asked for, not to try to get more than had been asked for.

B: Did you do that kind of work yourself, too, sir?

W: I did some. I was asked particularly by the House Space Committee, from time to time, to come up and have a so-called information presentation to the committee--closed session--in which they seemed to think they could get an objective view rather than what they thought was the self-interested view that they got from NASA or the Defense Department or AEC. So that, while I had to be very careful not to seem to differ from what the Administration had requested, I would stress certain things that I thought for sure ought to be done.

B: That could put you in an awkward position, conceivably. One wonders what Mr. Webb would think of that, for example.

W: In any event, so far as I know, I didn't get into any difficulty about it. Or at least it didn't rebound to any discredit that I know.

B: Through all these years, from Mr. Johnson's vice presidency on to his



presidency, were the committees generally cooperative and prudent?

W: The space committees in the House and Senate?

B: Yes.

W: Yes, generally very cooperative.

B: Of course, Senator Kerr was a good friend of Mr. Johnson, and after his death another good friend, Senator Anderson, took over in the Senate.

W: Yes.

B: I gather that Senator Anderson has been, in recent years, ill or ailing. Has that affected your project?

W: It's a little hard to say that it has affected it adversely. He hasn't been able to give the time and attention and vigor to the program which he otherwise would be doing. He isn't well. He has had heart difficulties, and he has had other troubles, and a little paralysis, and things of that sort. However, he has been a very strong supporter of the space program. On the House side Chairman George Miller is a very strong supporter of the program.

B: Plus a gaggle of Texans--Albert Thomas before his death; and Teague and Mahon. I gather they have been among the supporters, too.

W: Yes.

B: Where has the opposition come from in the Congress?

W: There hasn't been much opposition until fairly recently, as far as funds are concerned for space. But such as there has been, most of the opposition has come from the Republican side. The Republicans have never been quite as eager to spend as much money on space as the Democrats, generally. I'm generalizing there. So that I would have to say that there have also been those on the Republican side more than on the Democratic

side that have been inclined to want to join manned space projects in the military with manned space projects in NASA.

B: The Space Council handles other things, too. Am I correct that you have given an interview similar to this in connection with the Communications Satellite Bill in '62.

W: I did cover that, yes, in my oral interview for the Kennedy Library. Of course, you see, I was in charge of the writing of the Communications Satellite Bill.

B: Is there any particular connection with Mr. Johnson there? Did he try to work out a compromise when it began to get controversial?

W: I don't know what role Mr. Johnson played. But you have to realize that the Communications Satellite Bill didn't get controversial in the sense that even in the Senate there were no more than eight votes against it. It didn't get changed.

B: Well, it attracted a good deal of public attention.

W: That's a different thing. If everything were no more controversial than that, the Senate and the House sessions would be over sometime in April every year. There was a lot of talk about it, and there were some objections. But, generally speaking, we had no question at all that it was going to go through and go through effectively. I don't think it was the sort of thing that Mr. Johnson needed to give attention to because it was so certain that it would pass--and did.

B: Then, the Council also handled the matter of the early planning for the supersonic transport, too, in Mr. Johnson's vice presidency.

W: This is correct. We had five Space Council meetings with others, in addition to the Council members, attending.

B: I gather from the written record that there was some disagreement on both the need for such a thing and the extent of federal financing.

W: There was some difference of opinion on it. But by the time Mr. Johnson got through leading it toward a consensus, why we had practically arrived at one.

B: That was going to be my question. How did he get agreement? How does he do that kind of thing?

W: First of all, he does his homework. I would assemble information and materials, factual comment and persuasive arguments sometimes, and he would study them. He would study them at night. He would come in and, instead of just conducting a meeting with him as a chairman, he would conduct a meeting with him as an informed chairman. He would go around the room and he would ask these questions. He would have answers in his mind pretty much on facts before he asked them. Then he would debate them as needed, but generally he didn't need to. Occasionally he would catch somebody in an error, and he wouldn't let them down until he had gotten all that he wanted out of it.

We had a certain amount of interesting sources of support for the supersonic transport in these meetings. Of course, the FAA was very strong for it, and that was known clearly. But the strong support and the persuasive support from other sources came from such as the State Department--very strong for it--and the Treasury Department--very strong for it. The Treasury Department just said that the impact on the international balance of payments was such that we can't afford not to do it.

B: Because others were beginning to build them; the Anglo-French Concorde was already underway; and a Russian plan, I believe.

W: Yes, although these really didn't worry us too much. The Russians didn't worry us at all because we didn't believe that they would have a market for it. Even if they did they wouldn't be able to supply parts and things of that sort. The Concorde was, of course, of concern. But it was of concern largely as to the timing of ours, how fast we should move on it rather than whether we should move. But there were differences of opinion from the Council of Economic Advisors and the Bureau of the Budget.

B: Mr. McNamara on Defense.

W: Mr. McNamara did not oppose it. Mr. McNamara indicated that he had no use for it in the Defense Department, and therefore it wasn't any of his area of responsibility. He tended to cite figures and so forth and thought that the claims of a viable profitable plane were probably exaggerated, overstated. But he wasn't really opposed to it, as I recall it.

B: We are just now getting into Mr. Johnson's presidency. That November and December of 1963 when Mr. Johnson became President--one of the first tasks was budget that was under way at that time. I have heard indications that in Mr. Johnson's first budget prepared then, NASA did not get as much as Mr. Webb would have liked. Is that correct?

W: I think that's probably correct. You see, there is a difference between being a President and being Vice President. When the Vice President is chairman of the Space Council and has a limited number of areas in which he has any primary concern about budgets, he is able to give full attention to the space budget and not give very much attention to some other budgets--which meant that he could give major attention to AEC and NASA and the Defense Department, but not very much attention to Agriculture

and Commerce and so forth.

So when he became President and he had the responsibility for the whole budget, then he had to, of course, set this one off against that one and try to keep the total down. I don't know anybody, with the possible exception of former President Truman, who ever studied the budget as carefully as a President as Mr. Johnson. Probably he studied it more carefully than even Mr. Truman, I don't know. So that, yes, it's true that people didn't get what they wanted when they sent in their submissions.

B: What kind of a position did this put you in, sir? For more than a year there you must have been de facto head of the Space Council.

W: Mr. Johnson, as President, at a press conference said that, when he was asked about this--I'm not sure whether he was asked or his press secretary was asked -- but the question was asked and he said that Dr. Welsh was sort of acting chairman.

B: Which is about the way it must have been, sort of acting chairman.

W: It had certain interesting aspects because the National Space Club, which holds the Goddard Memorial Banquet each year, had the Vice President give the banquet speech. Mr. Johnson did it the two years he was Vice President during the time of the speech. Then after the assassination of President Kennedy, there was no vice president, so I was identified as the person to give the speech that particular year. Then Mr. Humphrey gave it the following years.

But I don't know that it was awkward. The thing was I continued to do much of what I had been doing in any event except for the formal Space Council meetings, because I would hold meetings of people representing the

agencies that were on the Council at about the assistant secretary level-- something of that sort--responsible officials in the government, in the agencies, and come up with recommendations on various things. Then I would just make them. We didn't have to have Council meetings and didn't have but one that I conducted. I did hold one Council meeting as a sort of active acting chairman of the Council. But other than that, all the meetings that were held by the Council as long as I was executive secretary--and I have been the only one--it was chaired by the then Vice President each time. Mr. Johnson didn't miss a meeting, and Mr. Humphrey didn't miss a meeting.

B: Did Mr. Johnson in that first year of his presidency get involved in the question of what [comes] after Apollo?

W: He got involved in it as a budgetary exercise rather than one in which he made public announcements, other than we would study the solar system and go after the stars and that sort of rhetoric. But he got into it in a budgetary exercise.

B: This is kind of unclear to me in what I have read on it--am I correct that in effect nothing much has been done beyond the bare Apollo Applications Program in the way of planning and preparation for post-Apollo activity?

W: I don't think that it is correct to say that nothing has been done. If you want to say nothing has been firmed up and finalized as a clearly approved program, why you might be right. But a lot has been done as far as permanent space station planning is concerned. The Apollo Applications Program is a fairly unlimited program, too. There are a lot of things that you can do. You see, one of the ideas in the Apollo Applications

Program is that you send these various parts up and you join them together. You build a bigger and bigger station. There has not been any project for manned exploration of the planets, and I think properly, that there has not been.

B: But to firm up and finalize these plans requires budgetary expenditures far in advance of their realization.

W: This is true. It depends on what you are talking about, of course. But it is true that there is a lot of advance spending that is needed for any kind of a project before you can carry it out. Particularly this is true where there is a lot of technological development,--research and development--required.

B: What I am really getting at is the fairly blunt question of how interested was President Johnson in the space program beyond the Moon landing?

W: He was pretty interested. It was required all during the time that he was President that I make a report to him directly, once a week, on what was going on in the space program and how we stood vis a vis the Soviets on number of launches, types of activities, things of that sort. So I gave him a written report once a week on just how we stood on the program. Sometimes I would get additional inquiries back and I also sent a copy of that to the Vice President because he was Chairman of the Council.

But he was interested. Let me put it this way. He got increasingly impressed with the benefits of the space program rather than the planning for new projects in space. Now he has more recently gotten quite enthusiastic about the potential of the natural resources satellite and what can be done with that--which is not as big a project, of course, as a manned space program.

B: How did Mr. Humphrey work out as Chairman of the Space Council?

W: As you would expect, very active, very enthusiastic, very articulate, a very quick learner about the program. He did very well.

B: Did Mr. Johnson have a tendency to do things himself in that area and sidestep Mr. Humphrey?

W: I don't think so. Remember, though, that certain of the major decisions had already been made. Major decisions had been made as far as the manned lunar landing is concerned, the Apollo Applications Program is concerned, the MOL was concerned, and the supersonic transport. A whole series of major decisions had been made. Now it was a question of what pace do you go to, so that the role of Mr. Johnson in this area came to how fast would he go in making available funds through his budgetary control.

B: Was there ever a time in those years when Mr. Webb considered resigning before his actual resignation in '68?

W: I can't tell you. I just don't know. I assume so, yes.

B: I ask because there have been rumors.

W: I don't know enough about that to be able to tell you. I guess he would have talked it over with Mr. Johnson, but he wouldn't have talked it over with me.

B: I gather Mr. Webb and Mr. Johnson became increasingly close to each other in the presidential years.

W: I know that Mr. Johnson had a very high regard for Mr. Webb, and vice versa, I'm sure.

B: What was Mr. Johnson's reaction to the Apollo fire in January of '67?

W: He was terribly shocked. I happened to be at a meeting of the major



contractors at the International Club. Mr. Webb and others were there. So when the call came in to Jim Webb from the Cape to tell him about the fire, he wasn't really certain whether it was a back-up crew or was the original crew, but he knew that they had been lost. So he came in and announced it to the people. Then he rushed off to get a phone and call the President. I rushed off to get a phone and call the Vice President. That's about what happened.

B: Was there ever any thought of having an investigation by someone other than NASA?

W: I'm sure that the committees in Congress think that they conducted some investigations.

B: Yes, but I meant outside-type agencies.

W: I haven't ever heard of any such thing. It would have been a very unfortunate thing to do because it would have taken so much longer. The individuals outside of NASA would have had to go so long to learn all that NASA knew about what had been done, what decisions had been made, and what hadn't been done and so forth. The fire, of course, was an unfortunate way to obtain improvements, but we do have a safer spacecraft as a result it.

B: By the time of the fire, although not necessarily because of the fire itself, the manned space program had begun to get a good deal of public criticism, partly on the grounds that it was unnecessarily dangerous but mostly on the grounds of the question of priorities. What was Mr. Johnson's reaction to that kind of public talk?

W: I think that he considered them based on inadequate knowledge or based on poor reasoning. He has been, as far as I know, all the way through--

Mr. Johnson believed that the space program and certainly the manned space program has been a challenge which has lifted this country up. Not only has it improved our Gross National Product but it has raised us in prestige throughout the world. He is convinced that anybody who is opposed to the program as being a poor use of money just doesn't know the facts or isn't reasoning clearly. He had been in the Congress for so long and he knows that you can't just shift money from one thing to another automatically anyway. Generally, those who vote against money for space would vote against money for public housing, too.

B: Did Mr. Johnson take a lively interest in the manned shots when they were going on?

W: Oh, yes.

B: Did he watch them on television?

W: He watched them on television. He visited the Cape.

B: I don't believe, not until this week, did he ever visit the Cape for a launch.

W: I thought he was there for a launch; maybe not. I know Mr. Humphrey was, but maybe Mr. Johnson was not.

B: I may be wrong.

W: You may very well be right. Anyway, he followed them very carefully on television, I know. He had the astronauts in to see him at the White House. He had them to the ranch. He followed them with a real sense of personal interest. As a matter of fact, he said that he really in a sense flew with them on every flight from the beginning of the launch till they landed safely. I believe that that is exactly what he felt he was doing.

B: You would kind of assume that he would worry about the danger involved, too.

W: One has to be worried about risk, of course, but Mr. Johnson is not one to be deterred just because there's risk.

B: You have been with Mr. Johnson since January 20 down at the ranch, working with him mostly on these CBS interviews which are going to be broadcast.

W: I was down for about six days a few weeks ago, largely to be of such help as I could be on preparation for the interview on the space activity with Walter Cronkite. Mr. Johnson called me and asked me to come down, so I was down there and kept busy about twenty hours a day while I was there.

B: I was just going to ask you if he has changed much, but it doesn't sound like he changed much.

W: He hasn't. He, of course, seems to be a little more relaxed as we rode around the ranch and as we swam in the swimming pool and so forth. But he is just as alert and demanding and so forth as he ever was.

B: In that week you were there, did you and he rehash any of these old decisions and problems?

W: We talked over all of the things. That was one of the purposes that I had in mind there and that he wanted me to be there for. But most of the time and attention was devoted to the time from Sputnik on through the decision to go to the moon, in that area--in other words, from '57 through '61--although we did have a considerable amount of discussion on a wide range of benefits that flowed from the space program.

B: I believe that Mrs. Johnson has made speeches on the domestic benefits of the space program.

W: Yes. She is such a charming person, and she is really enthused about the space program and the people in it. She gets all wrapped up in it.

B: Sir, I have taken a lot of your time. Is there anything else about Mr. Johnson and space you think should be on this record?

W: No, I don't think so. I know that Mr. Johnson felt that in President Kennedy's administration--and of course he didn't expect it to be terminated when it was--in that administration he was so convinced even when the decision was made to go to the moon that this would be the most important long-lived event that could happen in a man's administration. He was very impressed that that would be the one thing--one of the highest prestige items on which Mr. Kennedy would be known as a President.

B: Was this one of the arguments that he used back when the decision was being made?

W: No, I don't know whether he did, I don't know--I just picked that up in conversation between the two of us.

B: It's a persuasive argument, incidentally. As everyone is saying on television, now, he left a monument of that kind.

W: Actually, Mr. Johnson is rightly called, I think, the father of our manned space activity and to a certain extent the leading top-level proponent of space in our history.

B: Actually, it is a kind of a unique combination of circumstances to have been in Congress at just the right time and then to be Vice President and head of the Space Council immediately following, and then President.

W: Yes.

B: Thank you very much, sir.

W: Thank you!

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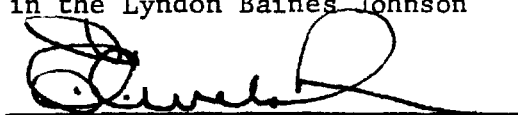
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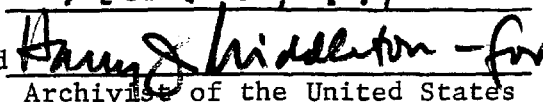
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