[EXECUTIVE SESSION]

REVIEW OF THE SPACE PROGRAM

WEDNESDAY, FEBRUARY 3, 1960

House of Representatives, Committee on Science and Astronautics, Washington, D.C.

The committee met at 11:30 a.m. in executive session, Hon. Overton Brooks (chairman) presiding.

The CHAIRMAN. The committee will come to order.

Mr. Secretary, we are very anxious to talk to you in executive session. Yesterday we were anxious to speak with Dr. von Braun in executive session. We let it go over until the afternoon, and we missed him entirely. He had to go to Canaveral last night, and we missed him. We don't want to miss this opportunity with you.

Mr. Fulton is very anxious to ask you a question.

Mr. Fulton?

Mr. Fulton. I have been one of those who for about 3 years has been talking about the strategic difference between knocking down missiles and intercepting them, or simply affecting their velocity, either slowing it, keeping it the same, or increasing their velocity,

or diverting their guidance control so that they go off course.

Now, I have talked a good bit about energizing, maybe, from beneath the missile, or from the rear, and I have asked why we don't have such programs. Now I find, through Mr. Teague yesterday, that there is actually such a program that is in concept and has been started on research and development, although I have been given no particular notice of it at any time. And I have said this at many, many hearings.

And, secondly, I further understand that the program is now in the process of being blocked. When that situation exists—and I think it is such a fine research and development field as an alternative to Nike-Zeus, which everybody admits can easily be saturated, and nobody even claims complete coverage for—why has that situation arisen?

A part of the question I had this morning was, Are you open with

the other departments of Government?

Honestly, with me on this, somebody should have come to my office, or somebody should have said, along the lines that you are talking, "Yes; we have a practical program"; and if there is a dispute over it, which I understand there is, this committee should have known about it first, rather than find out through private sources.

Would you comment, Mr. Teague, if you would like?

Mr. TEAGUE. Dr. Charyk, the program he is talking about is one that VARO in Dallas—is there a Dr. Ruina under you someplace?

STATEMENT OF HON. JOSEPH V. CHARYK, UNDER SECRETARY OF THE AIR FORCE—Continued

Dr. Charyk. Yes, sir; there is.

Mr. Teague. I don't know whether you have been familiar with this or not.

Dr. Charyk. Yes, I have been familiar with this particular effort. Mr. Teague. I understand you have put study money into it, but you have closed it down to a great extent. In other words, money was in the appropriation for this last year, but somebody along the line decided not to use it.

Dr. Charyk. I think I could clarify this situation: The idea to use energy sources for the destruction of incoming ballistic missiles is an idea that is not a new one. It has been studied for a good many

years.

There are major technical difficulties involved. We have endeavored to review during the last few months the complete technical situation and try to determine the critical problems on which efforts should be pursued in order to determine once and for all whether the idea can be exploited or not.

The result of this deliberation has been to come up with a research and development program that addresses itself to the major technical

uncertainties that exist in regard to the concept.

It is true that certain individuals had requested funds to proceed with a complete facility. We felt this was premature until we had pinned down in a better fashion, some of the major technical uncertainties and to my knowledge, the program is being funded at a maximum level consistent with the technical state of the art.

I may add that in order to be sure of our ground, we actually set up a special scientific advisory committee to help us in looking at the

overall effort

Mr. Teague. Who advised you to go ahead?

Dr. Charyk. Who advised us to pursue just the type program we are pursuing?

Mr. Teague. That isn't the information I have.

Dr. Charyk. I think it would be possible to make available to you the report of the scientific group that looked at this particular thing.

Mr. Teague. Mr. Daddario and I saw this thing in Dallas and we asked these people to show it to the committee yesterday and that is how it was shown.

We have now asked Chance Vought to show their proposal on a nuclear-powered missile in which you people are very active. But that is how this thing came before the committee.

Dr. Charyk. I think it would be of interest to you to actually see the review of the program by the Scientific Advisory Committee.

Mr. Anguso. I am also interested in this project. Would you give me that opinion of the Scientific Committee that you speak of?

Dr. Charyk. I would be very happy to.

Mr. Anguso. You also mentioned that at the present time you are studying some major technical difficulties; is that right?

Dr. CHARYK. That is right.

Mr. Anguso. Do you expect to have a report on that soon?

Dr. Charyk. Well, the program is being activated and we will, of course, keep in close touch with the program to see how the problems are being resolved and it is our intent that if there is promise,

to step up the program accordingly.

The Charman. Mr. Secretary, too, I sent a man over this morning to the Air Force to talk to you about a program he has of using natural gas to get these missiles out of the well, or out of the silo they are in, and get them up in the air. I am no technical man and there are not many on the committee who are technical, but his reasoning seemed to be good. He thinks the Air Force can save a lot of money by the use of natural gas to get the missile started before its actual flight.

Could that be looked into?

Secretary Sharp. We would be interested in looking into that.

The CHAIRMAN. Mr. McCormack suggests coal, too.

He didn't suggest coal, but if coal could be used, that would be all

right.

Mr. Fulton. Could I just finish on this one point, Mr. Chairman: Would you include a broader statement in the record on this history on the item we are interested in, bring it up to date and give us the projection for the future?

Dr. Charyk. I would be very happy to.

(The information is classified.)

Mr. Quicley. I think the members who sat in on this briefing yesterday were quite impressed. We recognize it is, in their words, a

gamble, a calculated risk.

You say that the program—you said here today that the program was being activated. That if it shows promise it will be moved forward. Now, it was my understanding on the basis of what we were told yesterday that the budget for the current year provided for some \$10 million that was to be used for the construction of this facility to be erected out at Yucca Flats, at Indian River Air Force Base, which is not now being used, and the decision was long since made in the Air Force to go ahead on this project. Congress voted the money and everybody approved it, but somewhere along the line someone or a few persons have just said, "Let's not. Let's wait a while."

Dr. Charyk. Actually this particular item falls within our applied research program which includes several thousand projects. This pro-

gram experiences continuous changes as we go along.

It is true that the group that was concerned with this particular effort recommended going ahead with a facility. This is what led to the review that I made reference to, the review by the Scientific Advisory Board and we are essentially, to my knowledge, implementing the spirit and the recommendations of this group.

Mr. Quigley. May I ask when that review was made?

Dr. Charyk. It was made in the last few months.

Mr. Quigley. Subsequent to congressional action and the appro-

priation for the money to build the facility?

Dr. Charyk. I think it is true that the money wasn't explicitly marked out for this particular item. This comes under the applied research program and it is true, of course, that the total dollar amount there was authorized by the Congress and is being used for applied research.

Mr. Quigley. Well, like the other members, I think we would like to have as much information on this as we could possibly get. This appears to all of us, as laymen, as one of those areas where maybe

we ought to take a gamble.

Dr. Charyk. I think I should also add that our activity here is really a supplement to work in this area being undertaken in the Advanced Research Projects Agency. In other words, it has been our judgment that augmentation beyond the ARPA effort was desirable and this has led to the program to which I referred.

The Chairman. Let me suggest this: I was impressed too by the demonstration yesterday of these people, and I hope the Air Force

will not likely turn aside their request for investigation.

Now, it is 11:45. If we are going to get anywhere with the Sec-

retary in executive session I suggest we proceed.

Mr. Secretary, can you tell us here in executive session what really is the situation in reference to the capability of the Air Force in contrast with Russian capability and what is the situation in reference to the missile program in contrast with the Russian missile program?

You said you had confidence in General Power. He is a great officer and a great American. I have confidence in him, but now what is

behind all this?

Will you tell us in executive session or if you have any other statement you want to give us in executive session?

STATEMENT OF HON. DUDLEY C. SHARP, SECRETARY OF THE AIR FORCE—Continued

Secretary Sharp. I don't quite understand what you mean by what is behind it all, other than that General Power stated a hypothetical situation that he said could come about and that he was worried about it unless we did certain things. Unless we got an early warning system, unless we put our bomber fleet on an airborne alert as he suggested, that we might be subject to the kind of attack that he was talking about at some period in time.

In one of his speeches he mentioned a period of about 2 years hence, in his second speech. In his first speech he didn't indicate any time

element.

As I say, these are not new considerations for the Defense Department. We have realized for quite some time that we have had to prepare ourselves for an airborne alert so that if things looked as though they were tending in this direction, that, as General Power indicated, we could do something about it.

We are moving and we have been for some time moving in the direction of training and buying spare parts for an airborne alert.

The CHAIRMAN. If you have any general statement you want to

give us in executive session, we would like to have it.

I would like to also note in the projects which you referred to in your opening statement—are we properly funded on those projects to push them ahead with the utmost practical speed?

Secretary Sharp. I think we are; yes, sir. I think it is generally agreed in the Air Force that we have sufficient funds to move these forward as rapidly as it is technically possible to move them.

If we find later on that they can be moved forward more rapidly than we now suspect, I am sure we will request of Congress some additional funds for this purpose. If it seems advisable, that is.

Mr. Anfuso. Would you yield, Mr. Chairman?

The CHARMAN. I yield.

Mr. Anguso. Mr. Secretary, I want to sincerely congratulate you for your honest and forthright statements.

I have made the statement I have made because I sincerely fear the

trouble we are in.

Isn't the whole trouble—rather, doesn't the whole trouble lie in the fact that the administration—I am referring to any administration—the administration says, "Here, all that you can spend is \$40 billion for defense. You fellows in the Air Force, you in the Navy and the Army, you just fit yourselves under that."

Now, as a result, you in the Air Force have to skimp a little. You may have some projects that you think will make us more secure, but you have to just lay them aside and take others that you think

you can pass or get through.

Isn't that really the whole trouble?

Secretary Sharp. Well, I wouldn't say—I wouldn't put it that way. I would say it is the responsibility of any administration to afford us with an adequate defense system at as reasonable a cost as it

seems sensible to provide it with.

If we accumulated all the desires of all the commanders in all three services and in the fourth service, the Marines, and put them all together, we would have a fantastic figure. The only practical way that I can see of arriving at something that seems to be reasonable is to give us in the departments a general mold that they would like to have us put our portion of defense into. The mold must necessarily be tighter than what everybody wants or we won't exert the kind of decisionmaking effort that is necessary to be made to try to keep the

things within the bounds of reason economically.

Now, when we get through with trimming and cramming everything we can into the mold and exercising all of the economies that we can uncover in our services—and we continually find them when the pressure is great enough, that we can do without some things that were really not necessary at all—after we do all this and get the product in this mold we turn it over to the Secretary of Defense and the Joint Chiefs, and finally the President and the Security Council. Then I think they have to look at the product of this mold and say, "Is this an adequate defense?" If it is not, I think they would come back and say, "No, we haven't an adequate defense. I guess we will have to enlarge the mold."

But certainly so far it seems to me we have been able to hold the expense of our defense within the bounds of reason through this process and I don't know of any other process that would work.

I am sure that if the Joint Chiefs and the Security Council and the Secretary of Defense all advised the President that the product of this mold is not adequate, that he would relax the size of the mold, but I don't know how we could ever arrive at the kind of a product that we try to turn out unless you go at it that way. I know of no other way to go about it.

Mr. Anguso. General Taylor was Chairman of the Joint Chiefs

of Staff, wasn't he, for some time?

Secretary Sharp. No; he wasn't chairman.

Mr. Anguso. What was his capacity?

Secretary Sharp. He was the Army Chief of Staff on the Joint Chiefs.

Mr. Anguso. Anyway, if that was his criticism, what I just said—and he said we would require \$55 billion to \$65 billion to really put us ahead of the Russians, that is in the book. You have read his book, haven't you?

Secretary Sharp. Yes. That is his opinion. It isn't agreed to by

a lot of other very knowing people.

Mr. Anguso. We have asked that question of the Joint Chiefs of Staff many times and the answer is, "The administration says, 'all you

can spend is \$40 billion and you boys come under that."

Secretary Sharp. They have given us money for an adequate defense—I say apparently we have been able to come up with a product out of this mold which satisfies our leaders that it is an adequate product, that we in this way have adequate defense, looking at it from the overall picture.

As I say, I don't know of any other machinery that you can think of that would carry out responsibilities of any administration to offer an adequate defense at as reasonable a cost as it is practical to

do it.

Mr. Anfuso. Now, I don't think you have complete agreement on

that, Mr. Secretary.

For example, Dr. von Braun said yesterday we could have spent more on research before and we are not making an all-out effort today. You don't have general agreement on that.

Secretary Sharp. I am sure we don't have general agreement. We

don't even have general agreement in the Joint Chiefs of Staff.

I am sure that you would find that other members than the Air Force member of the Joint Chiefs of Staff are not particularly enthusiastic about an airborne alert at all that General Power is recommending.

This kind of disagreement is normal and it doesn't mean that everybody agrees with every statement that every individual general makes that he ought to have more money, or that every individual scientist

makes that he ought to have more money.

Mr. Anfuso. Mr. Secretary, someday if we could just have the heads of all these departments come here in executive session and answer just one question: What more can you do and let them each tell us what more could be done. I would be satisfied then that we are not in the great danger that I think we are and I think the people would be more reassured.

That is all, Mr. Chairman.

The Chairman. Mr. Secretary, am I correct when I say that the Strategic Air Command is thoroughly sold now on the airborne alert, and General Power expresses the view of the Strategic Air Command, not his own views so much, but they are thoroughly sold on that?

Secretary Sharp. His view is as commanding officer of the Strategic Air Command. I am sure the rest of the members of the Strategic Air Command pretty well agree with him, but, then, all the members

of the Joint Chiefs of Staff don't necessarily agree with him.

The Chairman. But the burden of countering a major sudden attack falls on the Strategic Air Command. The initial burden of it is there, and we have that problem that we give them and they say they need this. Now, when we don't give them that, are we backing them up as we should?

Secretary Sharp. I think we have to give them the capability of an airborne alert. I don't think there is any question about it.

The CHAIRMAN. I am glad to hear you say that.

Secretary Sharp. We are doing it. We are preparing for it at present.

The Chairman. Mr. Bass, you lost the floor there. We recognize

you.

Mr. Bass. Referring back to my good friend, Mr. Anfuso, I am sure you don't think we should give these Chiefs of the various services a blank check.

Mr. Anguso. I never said that.

Mr. Bass. That is the way you are talking. "Give them all that they want."

Mr. Anfuso. Now, Mr. Bass, I think we ought to examine this. We

ought to examine this viewpoint.

For example, I have read in General Taylor's book that certain things which are absolutely essential were denied because they couldn't

be fitted in under the budget.

Now, I don't know whether that is true or not, and I think, I say, that I would like to see from my own safe assurance, I would like to see each administrator come here and say, "Well now, let's see what more can we do." And if we are all satisfied at the end that we can't do any more, then let's tell that to the American people.

Are you satisfied that we are doing all that we possibly can to catch

up with the Russians? All the witnesses say that we are not.

Mr. Fulton. Could we go back to the Air Force while we have him here? We only have 4 more minutes. This is very interesting, but I think the two witnesses should be sworn before they get into their—

The CHAIRMAN. They have been sworn.

Mr. Fulton. I mean Mr. Bass and Mr. Anfuso.

The Chairman. I think we could continue this with probable profit to ourselves but not in the presence of our two distinguished witnesses today. Let's get what information we can out of them.

Mr. RIEHLMAN. May I ask the Secretary a question?

The CHAIRMAN. Mr. Riehlman.

Mr. RIEHLMAN. Now, certainly every one of us has great respect for General Power and his deep interest in SAC and his great responsibility, and that is exactly, I think, his position. He has this tremendous responsibility of destroying a nation should we be called into war suddenly.

Now, he has to face that situation. I have heard his predecessor talk in pretty hard terms about what his job was. He has told me on occasion before committees, "My job is to kill. That is exactly what my assignment is, and I take this responsibility seriously and I want everything I have to have at my command if that hour comes."

Now, General Power has taken in his statement a hypothetical situation; that he finds himself without any other help and our strategic airplanes are on the ground, and that he takes into consideration that Russia at some time in the future is going to have 300 intercontinental ballistic missiles that will be shot over here and hit every one of our bases. That is the position he is taking, isn't it?

Secretary Sharp. Yes.

Mr. Riehlman. You and I just don't believe that sort of thing is going to happen in this country, but we don't want to close our eyes to it either. So we are preparing to put a certain portion of the Strategic Air Command on an alert basis. Taking into consideration that we have other defenses located in other parts of the world, and I don't believe that the general has taken all of that phase of our defense program into consideration when he has made his presentation.

Secretary Sharp. No, and you must remember that we also have this ballistic missile early warning system for just exactly that reason. It was started a number of years ago and is supposed to amount to something in the neighborhood of \$800 million of expenditures when

it is completed.

Mr. RIEHLMAN. Well, that is the point.

Secretary Sharp. You see, the ballistic missile early warning system is not under the control of the Strategic Air Command; it is the Air Defense Command's responsibility. He somehow or other doesn't take this into consideration as much as I would like him to take it into consideration; that these things are coming in right away, very shortly, and before we think the Russians will ever have this capability.

Mr. Riehlman. I would like to see them, too, but I am not arguing with his position to any great degree. I go back to what I have previously said, that he takes this position of his and his responsibility seriously and we want him to, but here is the other point, and I want your comment on it: I have heard it on television and you have and many of our friends around the table here; we are all concerned about it—these drastic statements, and what does the ordinary person garner from all of this? What is his conclusion?

Well, the responsibility rests upon the administration and the Congress, and that we apparently are apathetic about it; the committee isn't. We are trying to do everything we can, but we are concerned

about our Nation and want to do everything we can to be done.

Mr. Anfuso has said before this committee that he has some figures that Russia will have a thousand intercontinental ballistic missiles in 2 years from now.

Now, have you ever heard such a figure given anywhere?

Secretary Sharp. I have never heard a figure of that magnitude.

Mr. RIEHLMAN. Well, I haven't, and I just wondered about it because, listen: He is just as great a patriot as I am, but it is this type of information that destroys the faith of our people and our country and puts us in the category of a second-rate nation where we will never catch up.

Secretary Sharp. You asked me the question had I ever heard of a figure like a thousand missiles in 2 years and I categorically say that I never have heard a figure that even approaches that amount.

Mr. RIEHLMAN. We have had the advantage of having intelligence people before us too.

Secretary Sharp. I want to make it clear that this must be limited

to intercontinental ballistic missiles.

There have been some statements that they might have quite a number of intermediate range ballistic missiles. I don't remember the number, but I do remember the number of intercontinental ballistic missiles and it is only a fraction of that figure.

Mr. Riehlman. With our present strength, and the great responsibility that rests upon your shoulders as Secretary of the Air Force, do you have any fears as to our striking ability today or within the next 2 or 3 years ahead?

Secretary Sharp. No, I do not if we continue on our program. I think it is perfectly adequate and I think there will not be what is called a deterrent gap in this period you are referring to at all if we

follow our programs as we fully intend to.

Mr. Anfuso. I want to say to my distinguished colleague from New York that I have never stated anything which has not been publicly stated before. I will find you that statement. I didn't say now. Where in 1962, when we will have 150 to 300 ICBM's, the Russians will probably have a thousand. Now, getting back to public statements, I want to also tell the gentleman that General Power's statement, the speech that he made in New York was cleared according to him, according to his testimony yesterday, before the Senate Preparedness Committee, it was cleared with the Pentagon and State Department before he made it and there he had said what he was going to say, that 300 ICBM's could destroy-

Mr. RIEHLMAN. We are not arguing that point. Mr. Sisk. Mr. Chairman, a point of order.

I have a great respect for my colleagues here, but I thought we were going to have an opportunity to question this gentleman from the Air Force. I have not had a single opportunity to ask a question. All I have heard this morning mostly is argument between members of the committee.

So far as I am concerned, Mr. Chairman, I move that we now

adjourn.

The Chairman. I was going to recognize the gentleman because through error I overlooked recognizing him to ask a question.

Mr. Anguso. I think the gentleman should be recognized. The CHAIRMAN. The Chair will recognize Mr. Sisk.

Mr. Sisk. Mr. Chairman, I will ask no questions. It is after 12 o'clock and I have made a point of order. The House is in session.

The CHAIRMAN. There has been a point of order and the committee will adjourn until 2 o'clock. Thank you very much, Mr. Secretary.

(Whereupon, at 12:10 p.m., the committee adjourned, to reconvene

at 2 p.m., the same day on another subject.)