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U.S.-U.S.S.R. STRATEGIC POLICIES

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HEARING

BEFORE THE

SUBCOMMITTEE ON ARMS CONTROL, INTER-
NATIONAL LAW AND ORGANIZATION

OF THE

COMMITTEE ON FOREIGN RELATIONS

UNITED STATES SENATE

NINETY-THIRD CONGRESS

SECOND SESSION

ON

U.S. AND SOVIET STRATEGIC DOCTRINE AND MILITARY POLICIES

MARCH 4, 1974

[Top secret hearing held on March 4, 1974; sanitized and made public on
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NOTE: Sections of this hearing have been deleted in the interests of national security. Deleted material is indicated by the notation "[Deleted]."

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U.S.-U.S.S.R. STRATEGIC POLICIES

MONDAY, MARCH 4, 1974

UNITED STATES SENATE,
SUBCOMMITTEE ON ARMS CONTROL,
INTERNATIONAL LAW AND ORGANIZATION,
OF THE COMMITTEE ON FOREIGN RELATIONS,
Washington, D.C.

The subcommittee met, pursuant to notice, at 2:35 p.m., in room S-116, the Capitol Building, Senator Edmund S. Muskie [chairman of the subcommittee] presiding.

Present: Senators Muskie, Fulbright [chairman of the full committee], Symington, Pell, Humphrey, Case, Aiken, and Percy.

Also present: Donald S. Floyd, Special Assistant to ASD/ISA for Congressional Relations; Maj. Gen. John Wickham, military assistant to Secretary of Defense; Robert Wolthius, Deputy Assistant Secretary of Defense for Legislative Affairs; Richard Shearer, ASD/ISA (policy plans); Benson Adams, Department of State P.M. Affairs; Maj. Howard Graves and Sgt. A. C. Kautz, Office of the Assistant to the Secretary of Defense.

Senator MUSKIE. Mr. Secretary, why don't you proceed as you desire. Would you like to make your presentation without interruption?

STATEMENT OF HON. JAMES R. SCHLESINGER, SECRETARY OF DEFENSE

Secretary SCHLESINGER. No, sir. I have no formal presentation. I am delighted to be here. I think that there are good questions being raised today about the whole national strategy. That is one of the opportunities that we as a nation have. Now that some of the emotions of the Vietnam period have passed away, we should review, in the form of a national date, where we should go as a nation. I had the opportunity of discussing the future of NATO last summer at your courtesy. I am not sure that we all reached similar judgments on the future of NATO, but we did have an opportunity for a better review of those problems than had been the case for a number of years during the Vietnam war. So I stand ready to discuss these matters.

I can open with a few observations that may be helpful to you, Senator Muskie, and Senator Case.

TWO BROAD DISTINCTIONS

We have two broad distinctions, two lines of approach, that should be sharply distinguished. One is the question of our targeting doctrine or targeting strategy, and the other is the diplomatic issues involved

in the SALT [Strategic Arms Limitation Talks] negotiations. It is these diplomatic issues which affect sizing of our nuclear forces.

I have attempted to stress that these issues, while linked, are separable. In order to change our targeting doctrine, we do not require any increase in forces. In fact, we can do it with less forces than we possess today. In a few minutes, I will go into the reason why we think a change in targeting doctrine is propitious for the United States. But the issue of targeting doctrine should be separated from that of force sizing.

We hope that through the SALT II negotiations we can get both sides to hold down the level of forces and maintain essential equivalence between the force structures of both sides.

The issue of our targeting doctrine as it impacts on deterrence is separate from that issue. I shall go into both of these issues for you, but I think that it is useful at the outset to stress the difference.

SIZING QUESTION

Let me talk first about the sizing question. You will recall that there were hopes some years ago that when the Soviets reached a deployment of approximately a thousand ICBM's [Inter-Continental Ballistic Missile] they would cease construction of new silos, they would level off their forces as we had leveled off our forces 5 or 6 years previously, and then both sides would be satisfied with something that appeared to be numerical parity. I think there was widespread disappointment that the Soviets did not choose to level off. Obviously their guideposts for the sizing and composition of their forces happened to be different from ours, or at least different from ours in that period of time.

Despite the growth of the Soviet force structure we entered into the SALT I agreement. That agreement had certain aspects which struck some observers as being unequal in its treatment of the United States. I think that for the time in which the agreement was signed we were in good shape in terms of rough equality of forces. The United States had certain advantages; the Soviet Union had certain advantages.

The problem that we see with regard to force sizing, Mr. Chairman, is that the Soviet advantages tend to be more permanent than ours. Ours are transitory, reflecting at the present time a degree of American technological accomplishment that gives us qualitative offsets to their quantitative advantages.

U.S. AND SOVIET ADVANTAGES ON COMING OUT OF SALT

[Copy of slide follows:]

[Supplied by Department of Defense]

FORCE CHARACTERISTICS PROVIDING BALANCE UNDER THE INTERIM AGREEMENTS

U.S. ADVANTAGES

1. MIRV's and RV technology.
2. Guidance technology.
3. Nuclear weapons technology.

SOVIET ADVANTAGES

1. Numbers of launchers.
2. Throw weight.
3. Ongoing missile development programs.

These technologies resulted in large numbers of small RVs compensating for Soviet advantages in gross megatons and numbers of launchers.

U.S. position and overall balance based on waning advantages.

U.S. objective at SALT I—To limit Soviet advantages by breaking momentum of their deployment programs.

With improved technologies and exploitation of throw weight, Soviet forces could outclass U.S. forces.

This is a slide that I developed initially for the National Security Council when I was Director of Central Intelligence. The situation shown has not changed in any respect. When we came out of SALT I we had the technological advantages listed on the left. The Soviets had the two quantitative advantages on the right in terms of launchers and throw weight; in addition they had an ongoing development program which was, as it turned out to be, staggering to us in its size and depth, though not its pace. I think many people would have expected them to install onboard computers in their ICBM's and potentially in their SLBM's [Submarine Launched Ballistic Missiles] at an earlier point than they did; however, it is the breadth of the program that concerns us, as I shall show in a few minutes.

Senator CASE. Excuse me, could you give me just a word or two as to No. 3, nuclear weapons technology?

Secretary SCHLESINGER. Yes. Particularly in the design of small weapons, we had better yield-to-weight ratios than the Soviets had been able to accomplish. This is especially true of a warhead of the type that appears on the Poseidon. That weapon design is a very impressive technological development.

Senator CASE. You mean in terms of power in relation to size and weight?

Secretary SCHLESINGER. Yes, sir, it is a fairly small device. It weighs [deleted] pounds and it carries a very substantial yield for such small weight.

Now, because of our technology and despite the fact that we were quite limited in throw weight, we could deploy large numbers of RV's [Reentry Vehicles]. These compensate in the short run for the Soviet advantages in megatonnage and number of launchers.

I think SALT I was a fair agreement. We achieved in SALT I the objective of limiting the potential Soviet advantage by breaking the momentum of their ongoing deployment programs, particularly the ICBM program.

PROBLEM UNITED STATES FACES

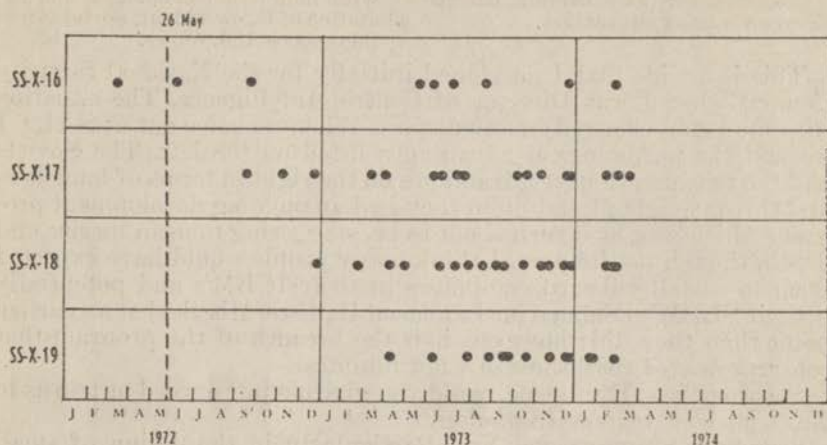
The long-run problem is shown at the bottom of the slide: the U.S. position and, therefore, the overall balance are potentially based on waning advantages. When the Soviets acquire the improved technologies and exploit the throw weight which they are permitted under the agreement, they could outclass U.S. forces.

MOVEMENT OF SOVIET PROGRAM

[Copy of slide follows:]

[Supplied by Department of Defense]

SOVIET OFFENSIVE MISSILE R&D



[Classified version of slide is in committee files]

As you know and as this slide demonstrates, we have monitored very carefully the movement of the Soviet program. The red line at the left indicates the signing of the SALT I agreements. Subsequent to the signing of the agreement we see a Soviet research and development program of astonishing depth and breadth. This is not to say that they deceived us in the agreement or that the program had been designed to emerge after the agreement. Obviously, these developments were in the cards years in advance because the Soviets have the same kind of leadtime problems that we have. But I think it is fair to say that many people, particularly people in the arms control community, have been surprised by the strength of those programs.

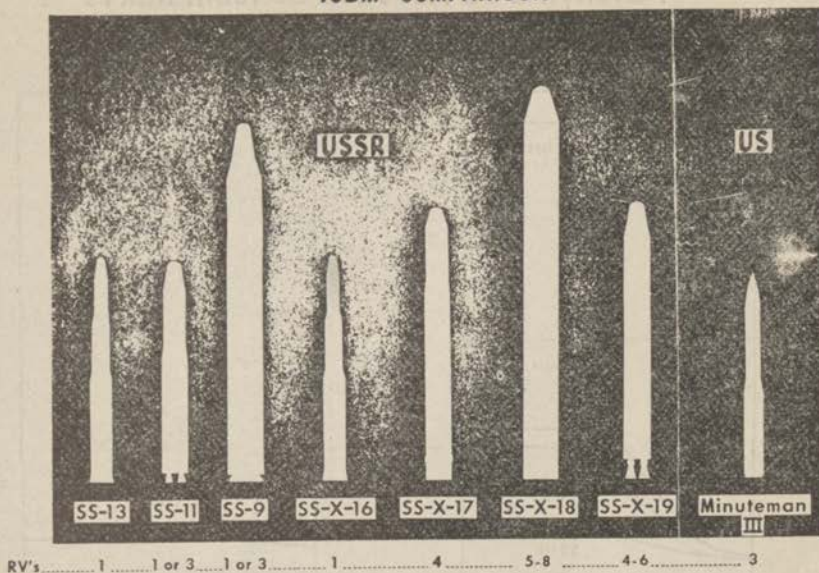
The SS-X-19 and the SS-X-18 in particular appear to be programs that are far advanced. They have difficulties with the SS-X-17, and the SS-X-16 program is not as far advanced.

[Deleted.] What I should like to stress is the significance of the throw weight the Soviets will have in their new missiles.

[Copy of slide follows:]

[Supplied by Department of Defense]

ICBM COMPARISON



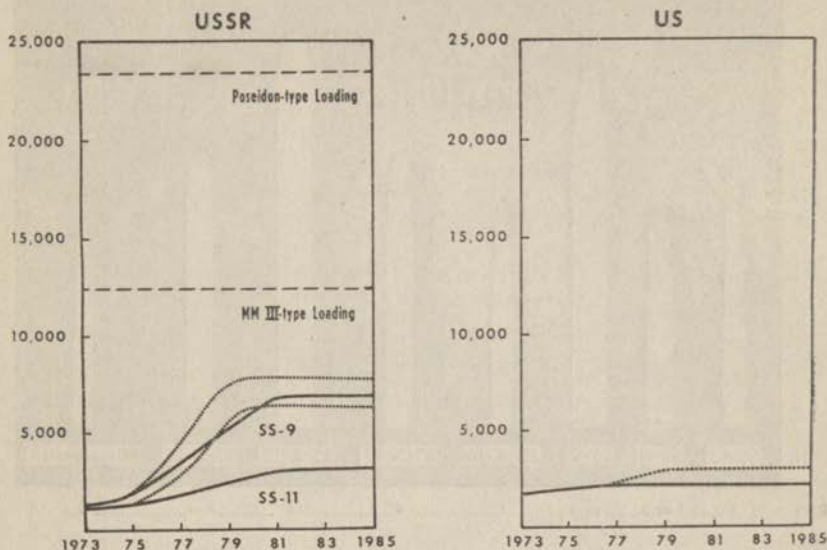
[Classified version of slide is in committee files]

Over at the right of this slide, you see the Minuteman III for purposes of comparison. At the time of SALT I we thought that, if we could get control of the SS-9 or its replacement, we would have a handle on the Soviet throw weight problem. What we were unprepared for was the enormous expansion of Soviet throw weight represented by the SS-X-19 as the potential replacement for the SS-11. [Deleted.] Earlier versions of the SS-11 were of lesser throw weight, but the SS-X-19 has a throw weight of two to three times as much as even the SS-11 Mod 3. Therefore, the Soviets can have a very substantial amount of throw weight in the out years. They can have something on the order of 10 to 12 million pounds of total ICBM throw weight as compared to our own ICBM force of approximately 2 million pounds throw weight.

I am talking primarily now of the ICBM. We must make adjustments for the implications of the SLBM's at a later stage.

[Copy of slide follows:]

[Supplied by Department of Defense]

POTENTIAL SOVIET AND US ICBM MIRV's

[Classified version of slide is in committee files]

If you will recall my first chart and if I may expand upon the point with this chart, one of our expectations at SALT I was that we could have something on the order of six or 6,000 RV's and the Soviets would be confined to 2,300 or 2,500 independent RV's. Therefore, the numerical advantages of the United States in terms of RV's offset the grosser Soviet advantages.

PROBLEM WITH REGARD TO THROW WEIGHT

The problem is that, even with the throw weight that the Soviets had under the agreement of May 1972—as represented by the SS-9, the SS-11 and other missiles—if they put 10 warheads equivalent to our Poseidon warheads on each missile, they could have something on the order of 23,000 warheads. With the additional throw weight which is embodied in the SS-X-19 and SS-X-18 they could have something like 33,000 RV's.

I do not want to overstate the importance of the throw weight of the older missiles. That is just a way of appreciating the magnitude of the throw weight they had available. If they used a Mark 12 type warhead—which is the RV that we have on the Minuteman III—they could have something on the order of 15,000 RV's on their ICBM's.

We do not believe they would go in that direction. That is just a way of gauging the potentiality of their throw weight in terms of U.S. technology. Rather, we believe that they will move in the direction of putting something on the order of five RV's on board the SS-X-19, if unconstrained by SALT. They could also put between four and eight

RV's on the SS-X-18. This would give them between 7,000 and 8,000 one-to-two megaton reentry vehicles.

By contrast the United States has programed about 2,000 RV's for its ICBM's. We could MIRV the entire Minuteman force and have about 3,000 RV's but there still would be an apparent disequilibrium between that force and the 7,000 to 8,000 one-to-two megaton weapons aboard the potential—let me keep stressing that—potential Soviet force. If, in SALT II we cannot get them to put constraints on growth, their potential force would have 7,000 to 8,000 one-to-two megaton weapons compared to the 2,000-3,000 [deleted] weapons that we would have on board the Minuteman.

For the time being our throw weight constraints do not bother us. I do not expect they will bother us until 1978 or 1980. If we are successful in SALT—and I hope we are successful—in obtaining restraints on the Soviet side, we can live with the kind of weapons system we have today.

U.S. OBJECTIVES CONCERNING SALT II

So our objectives in SALT II are hopefully to persuade the Soviets to exercise restraint with regard to the exploitation of their throw weight potential and consequently to avoid the necessity for the buildup of forces on both sides. In order for them to be persuaded, I think that they must believe that we are prepared either to go up in number if they persist, or to restrain ourselves at present levels, or go to a lower level if they will do so.

SIZING ISSUE

With regard to the sizing issue, I believe that we must pace ourselves by the Soviet program. It has only been in recent years that one could say that the Soviet program has become potentially the pacing item in what is referred to as the arms race.

In past years many observers have suggested that it was the United States which was pacing. I think if one talked to most of the people that I have talked to in the arms control community one would find that they recognize the potentiality represented by the Soviet program.

So that is one issue, the issue of sizing.

ISSUE OF RETARGETING

The issue of retargeting, Mr. Chairman—which I prefer to refer to as a change in targeting doctrine—does not require any change in our force structure. The purpose of the change in the targeting doctrine, which emphasizes flexibility and selectivity, is to shore up deterrence. We believe, for reasons that I can lay out in considerable length, that the change in targeting doctrine serves to shore up deterrence across the entire spectrum of risk and consequently reduces the likelihood, which is fortunately already very low, of any outbreak of nuclear war. We want to keep recourse to nuclear weapons as far away as possible. Our objective in all of these matters is, if conflict were to come, to keep that conflict at as low a level of violence as possible. We are using the strategic forces, as it were, to establish a framework within which conflict, if it comes, would be fought at a low level, in terms of the violence of the weapons involved.

It is our judgment that this change in targeting doctrine shores up deterrence. A targeting doctrine which stresses going only against cities is not an adequate deterrent for most purposes when the Soviet Union, as is the case today, has a counter-deterrent which is beyond the capacity and, I believe, the desire of the United States to take away. In fact, this is not the way the forces were targeted, but the overt public doctrine stressed only going against cities.

If the United States were to strike at the urban industrial base of the Soviet Union, the Soviet Union could and presumably would fire back destroying the urban industrial base of the United States. Consequently, the Soviet Union, under those circumstances, might believe that the United States would be self-deterred from making use of its strategic forces. Thus, they might regard themselves as relatively risk-free if our deterrent doctrine, our targeting doctrine, were to stress only going against cities.

Now, in my judgment, the effect of the emphasis on selectivity and flexibility, which I separate from any issue of sizing, is to improve deterrence across the spectrum of risk.

Mr. Chairman, as you know from our previous discussions about NATO, there has been a declining credibility, as the Europeans see it, in the relationship of U.S. strategic forces to European security.

The decline in that credibility was based upon the belief that the Americans would not use their strategic forces if, for example, New York and Chicago were placed at risk in order to protect Western Europe. Consequently, NATO, which is undergoing many travails, was also undergoing the travail of growing European disbelief that the U.S. strategic forces were locked into the security of Europe, despite our having made that pledge repeatedly over a period of many years.

The reaction in Europe to change in targeting doctrine has been uniformly welcoming, even joyous, because they recognize that this means U.S. strategic forces are still credibly part of the overall deterrent for Europe. That deterrent is based upon three components: strategic forces, tactical nuclear forces, and a satisfactory conventional capability.

CHANGE IN TARGETING DOCTRINE

The change in targeting doctrine does not require new capabilities. There are some aspects for which we are asking the Congress this year for additional funding, but the change in doctrine is not dependent upon the additional funding. We are asking money in this budget for improved command and control, and for some improvement in accuracy, but the change in targeting doctrine does not depend for its efficacy upon our getting this money.

Mr. Chairman, I think that I have distinguished between the sizing of the forces and the purposes for which we have changed our targeting doctrine. I hope these comments are useful at the outset, and I am here to respond.

Senator MUSKIE. They are indeed useful.

CHANGE IN ACTUALITY OF U.S. TARGETING

With respect to the targeting doctrine, you speak of it as representing a change of doctrine. The actuality of our targeting practice already includes military targets as well as cities, doesn't it?

Secretary SCHLESINGER. Yes, sir.

Senator MUSKIE. How will this new doctrine change the actuality of our targeting?

Secretary SCHLESINGER. The change in targeting doctrine comes about in the following way: Of course, all our delivery vehicles are targeted against specific targets. The point that is different about the targeting doctrine that I have outlined to you is the emphasis on selectivity and flexibility. In the past we have had massive preplanned strikes in which one would be dumping literally thousands of weapons on the Soviet Union. Some of those strikes could to some extent be withheld from going directly against cities, but that was limited even then.

With massive strikes of that sort, it would be impossible to ascertain whether the purpose of a strategic strike was limited or not. It was virtually indistinguishable from an attack on cities. One would not have had blast damage in the cities, but one would have considerable fallout and the rest of it.

So what the change in targeting does is give the President of the United States, whoever he may be, the option of limiting strikes down to a few weapons. It is to be understood that, if the United States were to strike the Soviet Union in response to some hypothetical act on their part, this would not have to be a massive response. The credibility of a massive response was understandable in the fifties and even in the sixties when the United States had virtually a nuclear monopoly with regard to intercontinental strike forces. But the massiveness of those strikes has reduced the credibility of the deterrent since about 1967-68, when the Soviets began to introduce large numbers of missiles into their force structure.

They now have a deterrent posture that is beyond the capacity of the United States to take away. Some welcome that, some do not welcome that. But I think it is a fact of life. There is no way that the United States can limit damage to itself against a well coordinated strike by the Soviet Union.

Senator MUSKIE. Are you saying that the President does not now have the option of a limited strike against missile silos?

Secretary SCHLESINGER. He does hypothetically in that he could ask SAC [Strategic Air Command] to construct such a strike in an emergency. [Deleted.]

But in order to have that kind of capacity one has to do the indoctrination and the planning in anticipation of the difficulties involved. It is ill-advised to attempt to do that under the press of circumstances. Rather one should think through the problems in advance and put together relevant, small packages which a President could choose under the circumstances in which they might be required—which I stress I do not think will arise.

I think that this will shore up deterrence in those few areas in which there is weakness.

PROPOSED RANGE OF OPTIONS

Senator MUSKIE. So what you are saying is that our preoperational strategic plan is a massive attack on cities and missile silos and other limited targets alike, and what you are proposing is a range of options which would range from attack on missile sites up to a massive attack on cities.

Secretary SCHLESINGER. Yes, sir.

Let me see if I can help your questioning and the questioning of the other members of the committee, if I may.

There are three aspects of this issue: the first is the sizing question. Then with regard to targeting there are two questions: first, is selectivity and flexibility, a desirable thing, and, second, are the particular programs which we of the Department of Defense are advocating this year with regard to accuracy and command control, desirable?

I would like to separate those two items because in talking with many people in the arms control community I find that to the extent that we are talking about greater selectivity and flexibility they are quite content. In fact, they think that this is a step forward in a moral and a practical sense. What they are concerned about are the inferences that the Soviets might draw from a program for greater accuracy. I emphasize this because when you get down to the hard rock of selectivity and flexibility in targeting plans, there really is very little criticism of that. Across the entire spectrum of people who have thought about this issue, there is relatively little criticism.

SOVIET REACTION TO ESTABLISHING RANGE OF OPTIONS

Senator MUSKIE. You seem to imply that if we establish this range of options for the President that this would somehow be reassuring to the Soviets, and they would assume from the fact he has this range that he would not use the option of massive attack against the cities.

Secretary SCHLESINGER. I am not sure it would be reassuring to the Soviets, Mr. Chairman.

Senator MUSKIE. Well, reassuring in the sense of influencing their own selection of a response or their own decision with respect to a first strike and so on.

Secretary SCHLESINGER. Yes, sir.

It might. The reassurance that I mentioned was in terms of the perspective taken by third parties toward the general deterrent effect of the two major strategic forces in the world.

The Soviets would not necessarily draw reassurance from this. It is not our objective to give them reassurance. In order to have deterrence one must have a credible threat. To the extent that this makes the possible use of U.S. strategic forces more credible, it has a beneficial effect on deterrence; but it does not necessarily reassure the Soviets.

What would be the psychological reaction by the Soviets to the announcement of this kind of strategy? They can go in one of two directions: they can, as some fear, say that limited strikes are feasible. That fear has been around for some years. There is no indication that the Soviets really believe that.

On the other hand, they may continue to believe that all wars must inevitably escalate to the highest level. If they believe the latter, then they will continue to be deterred from any action that would conceivably precipitate the start of the use of nuclear weapons which would have this escalatory effect.

Senator CASE. Mustn't they believe either one or the other? Aren't there just two choices, as you said previously?

Secretary SCHLESINGER. Well, I have stated them——

Senator CASE. No, just now.

They will either believe one thing, which you say—as I understand it—that there is, it is possible to have less or there is not. Once you start with nuclear weapons it will inevitably go up.

Secretary SCHLESINGER. In logic they must believe one or the other, but there are relatively few people who take that precise a view of these problems. Many people believe that in all likelihood it must go all the way, but that there is some possibility that nuclear war could be constrained at a lower level. Other people argue that, once three or four or five nuclear weapons are employed, sensible political leaders would look around aghast at the consequences—at the most agonizing consequences—and say, “Let’s stop right here.”

JUST A MATTER OF THINKING ABOUT IT

Senator CASE. This is the part that I think has to be stressed because I think it is the heart of anything new you have brought into this thing but, in fact, there isn’t anything new because already we have targets, we have weapons targeted, individual targets that can be selected.

Secretary SCHLESINGER. Yes.

Senator CASE. It is just a matter of thinking about it, isn’t it?

Secretary SCHLESINGER. Right. That is why I referred to it as targeting doctrine rather than the term retargeting that has been employed. It is the question of firing doctrine, and how you view the problem. You are quite right, Senator, to stress that aspect.

Senator HUMPHREY. And the indoctrination of our own people, isn’t it?

Secretary SCHLESINGER. That is right.

Senator MUSKIE. In other words, you have to position our hardware and command organization to accord with this targeting doctrine. If circumstances should arise tomorrow that would justify selective targeting, how much of an inhibition would we have as a result of our failure to have programed the selective? How much of an inhibition in terms of time constraints and so on?

Secretary SCHLESINGER. Mr. Chairman, could I make some observations to you off the record?

Senator MUSKIE. Yes.

[Discussion off the record.]

POSSIBILITY OF LIMITED NUCLEAR WAR

Senator FULBRIGHT. In answer to Senator Case, do you think it is possible to have a limited nuclear war, just to exchange a couple of weapons?

Secretary SCHLESINGER. I believe so, Senator.

Senator FULBRIGHT. You do? Why do you believe that?

Senator CASE. On this ground that there is a *locus penitentiae* at a time when before it reaches the maximum, both sides would say, “Whoops, boys.”

Secretary SCHLESINGER. Yes.

Senator CASE. Maybe so, and this is extremely important to discuss, because unless you have nuclear weapons used in such relatively small things that they are really not nuclear weapons, if you can imagine such, any destruction of a city is going to be an event that will inevitably, it seems to me, prevent any further rational discussion.

Senator FULBRIGHT. I am not as aware on this as some of the others. Could you visualize the circumstances that would result in a limited war?

Senator CASE. Yes, the model.

Senator FULBRIGHT. Let us not be hypothetical for the moment. Can you think of something real?

Secretary SCHLESINGER. As your question implies, this is not a decision that any President or any political leader of the Soviet Union is likely to take lightly. It is an agonizing situation. It is very difficult to think of circumstances under which nuclear weapons will be employed. I am delighted to say that is the case.

What I am saying is that it is easier to think of the circumstances in which limited use might occur than it would be to think of a massive all-out strike against the urban industrial base of another nation which has the capability of striking back.

One circumstance I can think of is the possibility of the overrunning of Western Europe. This would be a major defeat for the NATO alliance and for the United States. I don't know what we would do under those circumstances in terms of the strategic forces, but I believe that it is necessary for our strategic forces to continue to be locked into the defense of Europe in the minds of the Europeans and of the Soviet Union.

That would be one of the circumstances. It is very hard for me, Senator, to think of other circumstances in which the advantages involved in the use of nuclear weapons could in any way be commensurate with the risks. We are talking about a very low probability about an extremely great horror and, therefore, I cannot think of many circumstances in which this would be the appropriate response.

SITUATION IN WHICH THERE WOULD BE LIMITED RESPONSE

Senator HUMPHREY. Let me see if I understand the chairman's view.

Are you asking him to give us a situation in which there would be a limited response?

Senator FULBRIGHT. In other words, where you would only drop a couple.

Senator HUMPHREY. Yes; and that would not trigger the escalatory process.

Senator FULBRIGHT. I can't think of any. I wonder what circumstances you can think of. You don't think Europe would be a case like that, do you?

Secretary SCHLESINGER. When I think of our overseas interests, Europe is the one preeminent place in which this could conceivably arise. But let me give you an illustration of that.

Senator FULBRIGHT. I don't understand the question. Do you mean that after they have made the decision all-out full force to overrun Europe, that you think one bomb would deter them and they would stop and say, "I am sorry"?

Secretary SCHLESINGER. I was not saying what weapons.

Senator FULBRIGHT. Or two bombs or six bombs?

Secretary SCHLESINGER. What we are talking about is an individual target set. If, for example, under those circumstances, one were to go

after their oil production capacity—just take that as an illustration of a target set—the removal of that capacity would have a crippling effect on the Soviet ability to wage war against Western Europe.

Senator FULBRIGHT: Do you mean that if we did, that you don't think they would respond with nuclear weapons against us?

Secretary SCHLESINGER: They might well. I think that they would.

Senator FULBRIGHT: Sure they would.

Secretary SCHLESINGER: But I believe, Senator, if we were to maintain continued communications with the Soviet leaders during the war, and if we were to describe precisely and meticulously the limited nature of our actions, including the desire to avoid attacking their urban industrial base, that in spite of whatever one says historically in advance that everything must go all out, when the existential circumstances arise, political leaders on both sides will be under powerful pressure to continue to be sensible. Both sides under those circumstances will continue to have the capacity at any time to destroy the urban industrial base of the others. The leaders on both sides will know that. Those are circumstances in which I believe that leaders will be rational and prudent. I hope I am not being too optimistic.

Senator CASE: And you argue further that because this is a possibility, therefore, the Russians won't go into Western Europe with massive conventional force?

Secretary SCHLESINGER: That is our hope.

Senator FULBRIGHT: They won't anyway with our present forces unless they have lost their minds. If they are completely irrational, why none of the theories would hold up. I don't see how it changes that.

CREDIBILITY OF LIMITED TARGETING VERSUS MASSIVE RETALIATION

Senator CASE: I think he says this is a more credible deterrent than the present situation.

Secretary SCHLESINGER: At the present time our forces in Western Europe really in no way threaten the territory of the Soviet Union. The Soviets might perceive it differently.

Senator SYMINGTON: Mr. Chairman, if the Secretary will yield, at that point, I have had the advantage of seeing his classified report to the Armed Services Committee on this subject and I have gotten some of the, I think we will all agree some of the most expert people in this field to help me prepare some questions on just the point that came up.

When the time comes I would like, with the committee's approval, I would like, to ask half a dozen questions.

Senator MUSKIE: By all means.

Before you do that, could I ask this question: On the question of credibility that Senator Case raised, are you saying that our massive retaliatory capability has lost credibility with respect to our commitment to Europe from the Soviet point of view, and that if we have this more limited targeting capability, that the Soviets might regard that as a more credible deterrent?

Secretary SCHLESINGER: Yes, sir; I think that is very briefly it.

Senator MUSKIE: That is your position?

Secretary SCHLESINGER: Massive retaliation, of course, existed in the fifties. It was a somewhat different doctrine from assured destruction in the sixties. Massive retaliation, as adopted by Mr. Dulles, in-

volved the use of strategic weaponry in response to a whole array of possible actions. It involved striking back at any times and places we chose. Assured destruction, to the extent it was elaborated in the sixties, tended to be described primarily in terms of going against cities.

Once the Soviet Union built up a counter-deterrent, assured destruction became a logically incredible kind of threat. It is not necessarily psychologically incredible, but it is logically incredible. That is our problem and that is why we are shifting the targeting doctrine to make it more credible. I believe as long as we have a credible threat there are not going to be hostilities of major dimensions.

POSSIBILITY OF TRIGGERING HOLOCAUST

Senator HUMPHREY. Mr. Secretary, I tend to agree with you, but you open up an option that I think is fraught with some danger, namely that you can have an exchange of one or two nuclear weapons on what is called a more sensible and selective doctrine and that would be it. In other words, the commander in chief of the Soviet Union, or the United States or any country could say, "I have reason to believe that I could use as commander in chief now three to four nuclear weapons on a selected target," and that this would have a deterrent effect because the horror of all-out nuclear war is just too much, and that the selective doctrine and this new targeting concept would give the President of the United States better and more efficient use of our existing weaponry.

The problem, as I see it, goes right back to Senator Fulbright's original question. Suppose once you have let loose that first bomb and it hits the Hiroshima or the Nagasaki of the Soviet Union, that instead of terrorizing the population, instead of bringing it to its knees, or even causing them to stop, look and think, what I would venture would be the immediate reaction is "Well, we can really let them have it." I mean that is the danger. I don't say it will happen. I say this is one we have to think through.

Are we in a sense making it easier to trigger the holocaust or are we, in our doctrine, making more efficient use of our existing weaponry with the same deterrent effect that we had during the fifties and sixties with the massive deterrence.

I happen to agree with you basically on the massive deterrence. I think maybe it has lost some of its credibility in the sense that everybody more or less knows you are not really going to use it. However, it has one thing going for it. For 25, 30 years it has kept us from a major war, and I have reason to believe, as I think you do, that there were many times we could have slipped into one.

Secretary SCHLESINGER. I think your question goes to the heart of it.

Senator MUSKIE. Senator Symington.

AVOIDANCE OF APPEARANCE OF FIRST-STRIKE CAPABILITY EFFORT

Senator SYMINGTON. As a member of the Armed Services Committee, Mr. Secretary, last week I received a copy of your classified defense posture statement in which you discussed the strategic doctrine and from which I would now ask the following questions: On

page 69 you gave a list of the principal features of the proposed strategic posture. The fourth item is the objective and I quote, "The avoidance of any combination of forces that could be taken as an effort to acquire the ability to execute a first-strike disarming attack against the U.S.S.R."

Because this restriction has to be interpreted in the eyes of the conservative Soviet analyst who looks with the same suspicion at the long-range evolution of the U.S. forces as we do at Soviet military developments, why do you believe that the development of a hard target kill capability by the United States will not be interpreted by Soviet analysts to point to the evolution of a United States first-strike capability against Soviet land-based forces?

Kindly note in your reply that the Soviets have concentrated a very much larger fraction of their retaliatory power in land-based ICBM's than has the United States.

Secretary SCHLESINGER. Yes, sir.

That concentration, by the way, is undergoing change. They now have over 650 SLBM's at sea, so the proportion of their forces that we cannot get at is increasing.

[Copy of slide follows:]

PRINCIPLES AFFECTING THROWWEIGHT VERSUS ACCURACY TRADEOFF CALCULATIONS

[Supplied by Department of Defense]

1. No nation will ever know prospective accuracy under operating conditions against real world target system.

2. Each nation will know its own throwweight.

3. Throwweight can compensate in limited but adequate degree for accuracy degradation to be expected in real world exchange.

Possible Inference: United States ought not tolerate in the longrun present 4:1 disproportion in throwweight vis-a-vis Soviets.

Throwweight disparities would lead to an asymmetry in the degree of confidence in reciprocal counterforce capabilities—Both in physical terms and in the perception of the power-political relationships.

I believe that there is some misunderstanding about the degree of reliability and accuracy of missiles. As this chart explains it is impossible for either side to acquire the degree of accuracy that would give them a high confidence first strike because we will not know what the actual accuracy will be like in a real-world context.

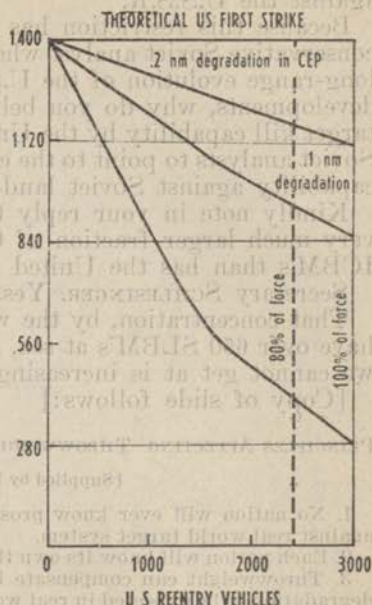
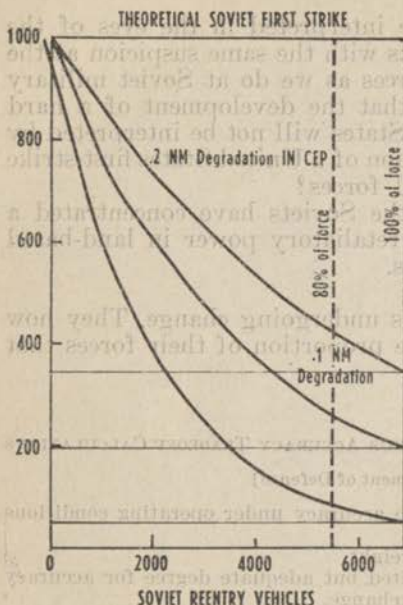
As you know, we have acquired from the western test range a fairly precise accuracy, but in the real world we would have to fly from operational bases to targets in the Soviet Union. The parameters of the flight from the western test range are not really very helpful in determining those accuracies to the Soviet Union.

We can never know what degrees of accuracy would be achieved in the real world. I think that that probably is advantageous for the reasons that your question hints at.

The effect of this is that there will always be degradation in accuracy as one shifts from R. & D. [Research and Development] testing, which is essentially what we have at the western test range, to operational silos. We do not know what the reduction in accuracy would be, but I want to show you the overall impact, if the United States were to launch first with 3,000 delivery vehicles.

[Copy of slide follows:]

[Supplied by Department of Defense.]

HYPOTHETICAL RECIPROCAL COUNTERSILO CAPABILITIES:**SOVIET UNION & US ICBMs**

[Classified version of slide is in committee files]

As you will notice on this slide, Senator, I am giving the United States [deleted] of a nautical mile CEP.

Senator HUMPHREY. What does that mean?

Secretary SCHLESINGER. Circular error of probability. It is the closeness, a miss-distance of [deleted] of a nautical mile CEP. [Deleted.]

If in a real world we were able to achieve that [deleted] of a nautical mile with our present warheads [deleted] we could reduce the Soviet ICBM force structure to 280 missiles using our entire Minuteman force.

With 280 ICBM's surviving in the Soviet Union they can still strike back and destroy everything in the European and the U.S. industrial base.

WHY WON'T SOVIETS BELIEVE WE ARE BUILDING FIRST-STRIKE CAPABILITY?

Senator SYMINGTON. You know what my question was. If we do what you are doing and we do it because we are afraid they are building up a first-strike capability, why won't they be in a position, their analysts, to believe we are building up a first-strike capability? That was my question.

Secretary SCHLESINGER. The point that I would like to make, Senator, is that if you have any degradation in operational accuracy, American counterforce capability goes to the dogs very rapidly.

We know that and the Soviets should know it, and that is one of the reasons that I can publicly state that neither side can acquire a high confidence first-strike capability. I want the President of the United States to know that for all the future years, and I want the Soviet leadership to know that for all the future years. If the Soviet planners sit down and make exactly the same calculations, they will see that even after a U.S. first-to-strike, their ICBM force would have sufficient ability to strike back and destroy the industrial base of the United States.

DOD MAINTENANCE THAT UNITED STATES FACED SOVIET FIRST-STRIKE CAPABILITY

Senator SYMINGTON. If the Soviets have no reason to be concerned about the evolution of the U.S. first-strike capability, could you explain why, throughout the ABM [Anti-Ballistic Missile] debates, which started in 1969, representatives of the Department of Defense continuously maintained that the United States was facing a Soviet first-strike capability in view of the emergence of Soviet hard target kill missiles?

Secretary SCHLESINGER. That is a difficult question to answer, Senator, because I was not in sympathy with the position that was taken at the time.

Senator SYMINGTON. I wish you had been here then. We might have saved \$9,670,000,000.

Secretary SCHLESINGER. That issue can be separated from the issue of whether doing ABM research and development was valuable. We have discussed the role of bargaining chips on other occasions. I believe that the effect of the United States start on ABM was to lead the Soviets to agree in the treaty to restrain ABM developments on both sides. This was in net beneficial. However, I did not believe personally that the United States was facing a Soviet first-strike capability. Given my experience with the accuracy question, I did not believe that the SS-9 was a Minuteman killer.

WITHHOLDING RETALIATION AND LESS THAN MASSIVE RESPONSE OPTIONS

Senator SYMINGTON. Now, on page 56 you make a persuasive case that the United States should have other options in response to a nuclear attack against the U.S. mainland, other than a massive all-out nuclear attack. But then, on page 60, you identify that requirement with a requirement for the need of attacking hard silos.

To what extent do we have an option now to withhold retaliation for an appropriate time of deliberation and to what extent now do we have the option of delivering less than a massive response?

Secretary SCHLESINGER. At the present time, we have the hypothetical option. That is why I indicated that we should separate the change in targeting doctrine from certain funding requests that we are making this year. I think that those funding requests will improve the doctrine, but the doctrine is not dependent on them. We can devise selective, flexible strikes with our existing array of weaponry.

Senator SYMINGTON. Thank you, Mr. Secretary.

LIMITATIONS IN TERMS OF FLEXIBILITY OF RESPONSE

To what extent are the limitations from which we now suffer in terms of flexibility of response, which range all the way from massive retaliation to attacking single airfields or single urban targets, either, (1) limited by defects in our command and control systems or, (2) limited by inflexibility in the computer arrangements which govern our targeting options?

Secretary SCHLESINGER. I think that we are to some degree inhibited by both, Senator. As you know, we are requesting in this budget additional money for command and control. I also stressed in my response to the earlier question that you have to have a different mental approach. That mental approach is not built into the targeting programs which are presently the basis of our attack plans. So I think it is both.

TYPE OF TARGETS OF POSSIBLE CONCERN TO ALLIES

Senator SYMINGTON. On page 62 you make what I believe is your intended case for adding hard target capability to future U.S. strategic forces when you state:

To enhance deterrence we may also want a more efficient hard target kill capability than we now possess. Both the threatened specialized sets of targets possibly of concern to allies, with the greater economy of force, and to make it clear to a potential enemy that he cannot proceed with impunity to jeopardize our own system of hard targets.

What type of targets of possible concern to our allies are you referring to?

Secretary SCHLESINGER. IRBM [International Range Ballistic Missile] sites, to take one example. Conceivably—underscoring the conceivably—we might be talking about certain hardened command and control facilities or weapons storage sites, those kinds of targets.

MAJOR COUNTERFORCE CAPABILITY

Senator SYMINGTON. What do you mean when you say the possible enemy "cannot proceed with impunity to jeopardize our own system of hard targets."?

Secretary SCHLESINGER. That that underscores one of my major concerns which goes back to the sizing and opportunity issue I discussed before. I do not think that it would be advisable for the United States to be in a position in which a potential foe has or had a counter-force capability that was markedly superior to that of the United States. I do not urge the United States to acquire a major counterforce capability, but there is built into the Soviet program, given the recent R. & D. activity, the potential net throw weight for a major counter-force capability. If they move in that direction, I think we simply cannot allow that marked superiority to develop. I stress again that I am not advocating that for either side.

Senator HUMPHREY. Would you permit a clarification? When you say counter-force, are you really talking first-strike capability?

Secretary SCHLESINGER. No, sir. We have to distinguish among disarming first strike, no first use, and counter-force. Counter-force can

go against any military target. It can go against IRBM sites as opposed to ICBM sites. It would go against airfields or Army camps.

Senator HUMPHREY. I see.

Secretary SCHLESINGER. It has a range, and one can go counter-force rather than counter-value without necessarily putting himself into a position of having a disarming first-strike capability. In fact with our capabilities we cannot put ourselves in a position to have a disarming first strike unless we have, not [deleted] of a nautical mile CEP, which we have not achieved yet, but a fraction of [deleted].

Senator CASE. Well, there is a difference between counter-force in the sense of going against small or particular targets as your intermediate range sites or your control for target, missiles targeted to Europe, for instance. You are still for this?

Secretary SCHLESINGER. Yes, sir.

ALL-OUT EFFORT

Senator CASE. You are not for an all-out effort?

Secretary SCHLESINGER. Right. We cannot, and we should not, put in the minds of any political leaders the notion that they have got a serious potentiality for a disarming first strike.

Senator CASE. Disarming so we cannot get at their cities?

Secretary SCHLESINGER. Or they put us in a similar position.

ADVANTAGE VERSUS DISADVANTAGE OF HARD TARGET KILL CAPABILITY

Senator SYMINGTON. Mr. Secretary, has the Defense Department made a necessary assessment about the value to U.S. security of the relative advantage which you claimed on page 62 for a hard target kill capability versus the worst, that is, the Soviets interpreting such a capability as the threat of a future first-strike potential on our part?

Secretary SCHLESINGER. Yes, sir. I believe I spelled out the rationale in my answer to your first question.

Senator SYMINGTON. Yes, sir. Would you supply anything additional for the record which you thought advisable?

Secretary SCHLESINGER. Yes, sir.

[Additional information follows:]

The most important fact is that it is impossible for either side to attain a high-confidence first-strike capability.

POSSIBILITY OF LIMITED ATTACK AND CIVILIAN CASUALTIES

Senator SYMINGTON. On page 56, you talk about a "response to a limited attack on military targets that caused relatively few civilian casualties."

Do you really believe that such an attack against the United States is possible, and just what do you mean in numbers by relatively few civilian casualties?

Secretary SCHLESINGER. I think that hundreds of thousands of casualties, as opposed to tens and hundreds of millions, must be regarded as relatively few in number. But I am talking here about casualties of 15,000, 20,000, 25,000—a horrendous event, as we all recognize, but one far better than the alternative.

EFFECT OF PUBLIC STATEMENTS REGARDING CIVILIAN CASUALTIES

Senator SYMINGTON. Could not public statements by the U.S. civilian leaders like yourself that "military attacks on military targets would cause relatively few civilian casualties," actually decrease the deterrent value of our nuclear forces?

Secretary SCHLESINGER. No, sir, I do not believe so. The reason I do not believe so is that the United States would retain all of the capabilities embodied in the assured destruction notion.

The point is that we would hopefully restrain the use of those capabilities during this hypothetical wartime period so that our potential opponent would continue to have reason to desist from attack on the urban industrial base of the United States.

EVIDENCE OF SOVIET INTENTION TO EXPLOIT ASYMMETRIES

Senator SYMINGTON. On page 66 you state, "The Soviets now seem determined to exploit the asymmetries in ICBM's, SLBM's, and payloads we conceded to them at Moscow."

Where is the evidence the Soviets intend to "exploit the asymmetries" as far as SLBM's are concerned?

Secretary SCHLESINGER. I think that the evidence on that is less than it is in the ICBM area. As you know, the Soviets have recently developed at least a MRV [Multiple Reentry Vehicle] version of the SS-N-6. But I agree with your point that that is more anticipatory and is not based on firm evidence.

Senator SYMINGTON. Thank you.

COST OF RETROFITTING SS-11 FORCE WITH SS-19

Do you have an estimate of the billions of rubles of future Soviet investment which would be required to retrofit the entire SS-11 force with the SS-19?

Secretary SCHLESINGER. Yes, sir, in terms of American dollars we are talking on the order of \$30 billion. This is one of the things we hope to persuade the Russians to save themselves in the course of SALT II. It is one of our major advantages in those negotiations. I hope the Soviets see it that way.

U.S. ADVANTAGE OVER SOVIETS

Senator FULBRIGHT. I do not understand your last comment. Why do we have an advantage over the Soviets?

Secretary SCHLESINGER. The fact of the matter is, that they would have to replace their entire missile force—the SS-11 with the SS-X-17 or 19 and the SS-9 with the SS-X-18. We believe it would cost them on the order of \$12 billion to \$15 billion in our terms to replace the SS-9 with the SS-X-18.

Consequently, if they desire to restrain their military expenditures on strategic forces, the fact that we are in a position to restrain ourselves is an incentive for them. That incentive would not exist if they were not prospectively contemplating a deployment of additional forces, but rather had already made that fixed investment. It is not a

sunk cost for them. They would have to lay out additional resources from the Soviet economy to replace both the SS-9 and the SS-11.

Senator SYMINGTON. Depending on how they view it. If they have the same reason we do, supposing they take the view on this that they have on going to the moon and let us do what we are doing and they do not respond, they do not—I still come back to my base—

Secretary SCHLESINGER. Senator, I hope that is the case because then we do not have to do very much.

Senator SYMINGTON. Yes, but we are doing "very much", tens of billion of dollars.

Secretary SCHLESINGER. I think not. We would not go beyond the deployments of the approximately 1,700 missiles in the U.S. force structure. These are very limited payload missiles.

We have R. & D. money in this budget for a larger throw weight ICBM, but we would fervently hope that, as a result of the SALT discussions, both the Soviets and ourselves would be in a position wherein we could mutually agree that it was to our mutual interest to refrain from deployment of such expanded systems.

REASON FOR WITNESS HOPE IN SALT

Senator SYMINGTON. You have mentioned SALT several times. There has been a general feeling around here there is not much hope in SALT. Why do you have hope?

Secretary SCHLESINGER. I think it is in the interest of both sides to avoid the major increase in armaments which would, if both sides do it, have the effect of greater destabilization. The larger the forces on both sides, particularly when those forces consist of large throw weight missiles, the less the degree of stability. It is in the mutual interest of both sides to refrain from such deployments. I recognize your point that maybe both sides will not recognize or embrace their mutual interest.

UNACCEPTANCE OF PRESIDENT'S DÉTENTE POLICY QUESTIONED

Senator FULBRIGHT. What I was really getting at and was coming to is that the Secretary of State announced the President's policy of détente with Russia. Since that time, evidence on the public record indicates that one of your principal leaders in the Capitol and in the Senate does not accept that policy at all. I think there is a general feeling that the Defense Department does not accept it as a reasonable policy and posture for this country.

Secretary SCHLESINGER. I know that you have expressed your skepticism about the degree to which DOD has embraced this policy, but I hope to persuade you that that skepticism is misplaced. I think that we can make the policy of détente work. I am very hopeful that we can make it work. It is clearly in the interest of the United States, clearly in the interest of the Soviet Union and, I think, fundamentally in the interest of the military establishments on both sides.

Senator FULBRIGHT. I think it is, too, but the evidence of the votes in the Congress, and the House especially, would not indicate that. The way they voted in the House would not indicate that DOD had

any interest in the outcome of the MFN [Most Favored Nation] story. There is nobody who denies your strength if you express it in the Capitol and either House.

Secretary SCHLESINGER. DOD has supported the policies of the administration.

Senator FULBRIGHT. In the House.

Secretary SCHLESINGER. Yes, sir. We endorse the position of the administration.

Senator FULBRIGHT. It is the first time I have ever seen you fall so far short of the majority votes in the House, if you really were interested. It looks like it is in a bad way. There really has been no progress in the Congress about better relations with Russia. The speeches, particularly Senator Jackson's speeches, are all the other way.

Secretary SCHLESINGER. In my statements I have expressed a prudent hope for détente. It is beneficial to both sides. The improvement in political communication, the reduction in some of the more paranoid views that both sides took of each other in the 1950's, and reduction in political tension are all desirable.

Senator FULBRIGHT. I thought so, too. You know that is the way I feel. I do not agree with the idea that we cannot have better relations or normal relations with Russia. I think it is possible, but we have to do some of the things to contribute to it. But two things have happened: One was the rejection of MFN in the House, and the other is this new development.

PURPOSE OF CHANGE OF TARGETING DOCTRINE

I realize, the way you explained it to the committee, you do not intend it that way, but there is a very general impression that this is an oblique manner of approaching first strike. Your predecessor came up and on the first day of hearings before this committee said, yes, he knew Russia was going for a first strike. That was the justification for the ABM.

We went on with that for a year. You have already been asked about it, but there is definitely a feeling that this new doctrine as you call it, is designed to accomplish at least what used to be considered a first strike. You have new rhetoric for all these things now, but it used to be—

Secretary SCHLESINGER. No, sir, I think the rhetoric reflects some very real differences. The change of targeting doctrine is intended simply to shore up deterrence. If we can deter war, that is the result that we all want. We distinguish, as I attempted to do at the outset in the discussion with Senator Muskie, between the change in targeting doctrine and the size of our force. The change in doctrine requires no changes in our force structure, and it even permits a reduction in our force structure if the Soviets would collaborate.

We do not want to expand our forces. We hope through SALT, which is a feature of détente, to restrain the growth of forces on both sides.

OPTIMISM ABOUT SALT

Senator FULBRIGHT. It is a very important feature, but you are the only one I have seen recently who had any optimism about SALT. I am glad to hear it. I hope it is justified.

Secretary SCHLESINGER. Well, sir, I believe that the Soviets have at least equal interest in SALT as the United States has. It is not implausible that countries will follow their interest. They do not always do so.

Senator FULBRIGHT. I do not think we have for about 10 to 12 years. I think we have undermined our interest very seriously.

Secretary SCHLESINGER. I do not say they necessarily have to follow their interest. I say it is not implausible that they might.

REMOTE LIKELIHOOD OF SOVIET ATTACK

Senator FULBRIGHT. I suppose that is a possibility. The likelihood of a Soviet attack upon us is so remote. I really do not see how you can believe that they are going to engage in some action that would justify even a limited strike.

Secretary SCHLESINGER. I certainly hope that you are right, sir.

Senator FULBRIGHT. It is not a question of hoping I am right. I mean it is not me. These are the circumstances that have arisen. You say you think this is a new way of thinking about the situation. You mentioned Europe. Do you really believe if they made a decision to move in force against Europe this would not precipitate a real exchange and that they know it?

Secretary SCHLESINGER. I hope that they believe that. I hope that they know that, but I want to guard against the possibility that they do not know it.

Senator FULBRIGHT. Is there anything to indicate that they do not know it? What have they done in the last 10 or 15 years that would indicate that they do not know that?

Secretary SCHLESINGER. I think that the situation is a new one, irrespective of commentary on whether or not they were developing a first-strike capability or were intending to do so. Their force structure has changed dramatically since 1969, so that the strategic balance in the last 5 years is not what it had been for the period from 1949 to roughly 1966.

[A recess was taken.]

NO NEED FOR MIRV ABSENT SOVIET ABM DEPLOYMENT

Senator SYMINGTON. Why do we need MIRV in the absence of ABM deployment on the part of the Soviet Union?

Secretary SCHLESINGER. We do not.

Senator SYMINGTON. We do not need it?

Secretary SCHLESINGER. We do not. We would not deploy it in the absence of ABM. The reason for doing R. & D. on MIRV is to prepare against the contingency that they might decide to break the treaty. We then would have a means of penetrating ABM defenses. It is our belief that, if they know we can penetrate such defenses, any desire they may have to upset the treaty will be further reduced.

Senator SYMINGTON. I was going to ask why are not our MIRV forces sufficient in this respect, to which your answer implies they are, right?

Secretary SCHLESINGER. Yes, sir; unless they were to undertake a massive ABM deployment.

Senator SYMINGTON. Thank you.

LIMITATIONS ON FLEXIBILITY OF U.S. STRATEGIC RESPONSE

At this time which do you believe would be more limiting to the flexibility of the U.S. strategic responses, the constraints of our command and control system, including the inflexibility of computer hardware and software, or the basic hardware components of our effective weapons themselves?

Secretary SCHLESINGER. The former, sir.

Senator SYMINGTON. Thank you.

WITHHOLDING RETALIATION AND DELIVERING LESS THAN MASSIVE RESPONSE

I have one more question. On page 56 you make a persuasive case that the United States should have other options in response to a nuclear attack against the U.S. mainland other than a massive all-out nuclear attack. But then on page 60 you identify that requirement with a requirement for the need for attacking hard silos.

To what extent do we have an option now to withhold retaliation for an appropriate time of deliberation and to what extent now do we have the option of delivering less than a massive response?

Secretary SCHLESINGER. I believe I indicated the answer to that question earlier, Senator. I think it is in the record.

Senator SYMINGTON. If it is in the record, fine.

POTENTIAL ADVERSE SIGNIFICANCE OF GREAT SOVIET THROW-WEIGHT LEAD

This is naturally an important hearing for us all in understanding. What is the potential adverse significance of a great Soviet lead over us in throw weight as long as we have enough vehicles and destructive power to constitute a second-strike capability sufficient to destroy the Soviet Union?

Secretary SCHLESINGER. The potentiality is indicated by what I said earlier. Both sides will have every incentive not to strike the industrial base of each other if one ever came to nuclear war. Rational political leaders under those circumstances would be seeking ways to restrain the impact of it. Consequently, while the fact that we have a protected capability and can destroy their urban industrial base is an essential ingredient in an overall deterrent strategy, it does not provide us with a sufficient element to engage in the possible types of selective exchanges that I referred to earlier.

THEORY OF OVERKILL

Senator SYMINGTON. What worried me was the emphasis you put on answering me in the Armed Services Committee about any possibility of logic in the theory of overkill.

Secretary SCHLESINGER. I was referring then to overkill in the sense that it has historically been used; that is, the use of the Hiroshima weapon or similar weapons. It is plain if we talk about building up to 30,000 or 40,000 missiles, which have been talked about in the past, then you are beginning to talk about excess forces even in terms of the selective exchanges or countermilitary strikes that I have referred to. One could have redundant forces, but I think that is a different kind of analysis from the overkill philosophy which has been based primarily

in terms of how many Hiroshima or Nagasaki equivalent weapons would be required to eliminate the urban industrial base. For reasons that I have indicated, I would not want to attack an urban industrial base. Therefore, I would want to have the capability to refrain from attacking an urban industrial base. Fortunately, that is what a sophisticated strategic force does, as opposed to less sophisticated forces that are being deployed by—

[Discussion off the record.]

Secretary SCHLESINGER. And in which really have no capability to do anything except to go after cities.

Senator SYMINGTON. This disturbs Dr. York who, as you know, has had a lot of experience in this field and has often proved right after many people disagreed with him. He said he thought that we would not be moving on with the Triad if we had known all three systems would work.

Secretary SCHLESINGER. In my posture statement there is a switch away from what I will call the canonical logic of the Triad.

Senator SYMINGTON. My guess would be that he was worried about the efficiency of the Polaris-Poseidon syndrome development at that time.

Secretary SCHLESINGER. To some extent, I think the rationale of the Triad was a rationalization.

CONCEPT OF MOBILE ICBM

Senator SYMINGTON. I would not want to estimate how many billion dollars those three letters, psi [per square inch] have cost the American people. The record will show that for over 10 years, I have been urging consideration of a mobile ICBM. I notice such a system became quite prominent in recent discussions of offensive weapons with the Soviet Union. I sure hope we do not give up on it, especially as we have lowered the weight so substantially as against blast, and continue to lower it. That makes mobility ever more logical.

Secretary SCHLESINGER. I agree with you, Senator. I certainly have never laughed at the concept of the mobile ICBM.

Senator SYMINGTON. This is something you and I have not discussed.

Secretary SCHLESINGER. I would want to treat this carefully because there are verification problems in a SALT agreement. If the Soviet force were built up to the point where we had serious misgivings about the survivability of our ICBM force, then we probably should go in the direction of greater mobility. If we are able to restrain the growth of the power on both sides, I think that we can avoid mobile land-based ICBM's.

Senator SYMINGTON. Through negotiation.

Secretary SCHLESINGER. And that will have verification benefits. But it is really hard to make abstract rules here. It depends upon the quantitative aspects of the force structure.

Senator SYMINGTON. About 3 years ago, when Senator Pastore, as chairman of the Joint Committee, and I were over in Germany, we found the theory of mobile ICBM's was being carried out by the Army in its tactical situation. As I remember, one base had five or six sites they could move to at any time to launch one missile. So the idea was there even in a limited way. As weight continues to go down, one re-

members the weight of the Hiroshima bomb was 14 kilotons. You get 14 kilotons now with a weight almost unbelievably less.

Secretary SCHLESINGER. Yes, sir.

Senator SYMINGTON. That embraces a lot of my thinking

WHY WOULD SOVIETS DEPLOY 7,000 OR 8,000 REENTRY VEHICLES?

Why would it make economic or military sense for the Soviets to deploy 7,000 or 8,000 reentry vehicles?

Secretary SCHLESINGER. I do not suggest it would make economic sense. My own judgment is that the Soviet Union should find it desirable not to move in the direction that I have indicated here if they know that the United States will take the appropriate counteraction. By both sides taking actions, they do collectively what is in the individual interest of both sides to avoid.

I fear that they will not recognize the need for restraint in view of the throw weight they have acquired. I also fear that there is a momentum about programs, and that it is possible that in the SALT diplomatic activities we would be unable to persuade them to restrain themselves appropriately.

Senator SYMINGTON. Thank you.

PREVIOUS PROPOSALS OF DOCTRINE

Has the type of selective and flexible targeting capability that you are now proposing ever been proposed in the past; and if so, why was it not adopted?

Secretary SCHLESINGER. It has been stated by several Secretaries of Defense. We could probably break out the particular passages of past Defense reports. But nobody at the political level from 1961 to 1971 has put the energy behind developing the doctrine and the plans. Many statements can be found saying that flexibility or selectivity would be desirable. But before this time it has been sort of an aspiration. Now we are consciously basing our deterrent strategy upon the achievement of flexibility and selectivity in the way that was discussed earlier.

[The following information was subsequently supplied:]

STATEMENTS FROM PREVIOUS DEFENSE REPORTS, SOME OF WHICH WERE THE CLASSIFIED VERSIONS

[Supplied by Department of Defense]

EXTRACT FROM FY 1963 POSTURE STATEMENT OF SECRETARY OF DEFENSE ROBERT S. McNAMARA

"Furthermore, it is possible that the Soviet's initial strike might be directed solely at our military installations, leaving our cities as hostages for later negotiations. In that event, we might find it to our advantage to direct our immediate retaliatory blow against their military installations, and to withhold our attack on their cities, keeping the forces required to destroy their urban-industrial complex in a protected reserve for some kind of period of time.

"Accordingly, we should plan for the 1965-1967 time period a force which could: 1. Strike back decisively at the entire Soviet target system simultaneously; or 2. Strike back, first, at the Soviet bomber bases, missiles sites and other military installations associated with their long-range nuclear forces to reduce the power of any follow-on attack—and then, if necessary, strike back at the Soviet urban and industrial complex in a controlled and deliberate way. Such a force would give us the needed flexibility to meet a wide range of possible general war situations."

EXTRACT FROM FY 1964 POSTURE STATEMENT OF SECRETARY OF DEFENSE
ROBERT S. M'NAMARA

"In talking about global nuclear war, the Soviet leaders always say that they would strike at the entire complex of our military power including government and production centers, meaning our cities. If they were to do so, we would, of course, have no alternative but to retaliate in kind. But we have no way of knowing whether they would actually do so. It would certainly be in their interest as well as ours to try to limit the terrible consequences of a nuclear exchange. By building into our forces a flexible capability, we at least eliminate the prospect that we could strike back in only one way, namely, against the entire Soviet target system including their cities. Such a prospect would give the Soviet Union no incentive to withhold attack against our cities in a first strike. We want to give them a better alternative. Whether they would accept it in the crisis of a global nuclear war, no one can say. Considering what is at stake, we believe it is worth the additional effort on our part to have this option."

EXTRACT FROM FY 1966 POSTURE STATEMENT OF SECRETARY OF DEFENSE ROBERT S.
M'NAMARA

"For purposes of this discussion, we can define general nuclear war as a war in which strategic nuclear weapons are launched against the homelands of the United States and the Soviet Union. Such attacks might be directed against military targets only, against cities only, or against both types of targets, either simultaneously or with a delay. They might be selective in terms of specific targets attacked or they might be general."

"NATO should not only have an improved capability to meet major non-nuclear assaults with non-nuclear means and forces prepared for that option, but it should also achieve a true *tactical* nuclear capability which should include a broad, flexible range of nuclear options, short of general nuclear war, and the means to implement them."

EXTRACT FROM FY 1970 POSTURE STATEMENT OF SECRETARY OF DEFENSE CLARK M.
CLIFFORD

"Until technology progresses to the point where an effective ABM defense against the Soviet threat becomes feasible, our major hope for limiting damage if a nuclear war occurs is that it can be stopped short of an all-out attack on our cities. We try to bring this about by providing our forces with characteristics that will permit them to be used effectively in a limited and controlled retaliation as well as for 'Assured Destruction', thereby being prepared for any type of Soviet attack."

EXTRACT FROM FY 1973 POSTURE STATEMENT OF SECRETARY OF DEFENSE MELVIN R.
LAIRD

"In order to maintain needed flexibility, we design our forces so that we have strategic alternatives available for use depending on the nature or level of provocation. This means capabilities that enable us to carry out an appropriate response without necessarily resorting to mass urban and industrial destruction."

EXTRACT FROM FY 1974 POSTURE STATEMENT OF SECRETARY OF DEFENSE ELLIOT L.
RICHARDSON

"U.S. strategic offensive forces have long been designed to carry out retaliatory options appropriate to the nature and level of provocation as well as to maintain an assured destruction capability. Our planning objectives and the sufficiency criteria for deterrence of direct strategic nuclear attack against the United States are currently under intensive review, following the conclusion of the Strategic Arms Limitation agreements and President Nixon's request for a more flexible capability in the application of our strategic forces. In particular, it is our goal to be able to respond to a nuclear attack without having to resort to mass urban and industrial destruction in retaliation. At the same time, we are seeking to maintain a deterrent posture that will not jeopardize the stability of the strategic balance."

RISKS OF CEP THEORY

Senator SYMINGTON. I must say that as a former manufacturer of electronic equipment the theory of [deleted] of a mile CEP, and so forth, is questionable to me in actual operation. I have seen products work well in laboratories, then flop in the field. When you get into this extremely accurate discriminatory concept of military targets, I cannot help but think how close is, say the Whiteman Air Force Base to Kansas City, not to mention the fallout that would come either to Kansas City or possibly St. Louis as the result of a major strike.

Secretary SCHLESINGER. This is not a strategy without risk, I am not even hinting in that direction. What I am saying is that the risks involved here are far less than the risks involved were one to implement the pure Hiroshima strategy.

Senator SYMINGTON. I know you agree we ought to talk this out. In a hearing before the Joint Atomic Committee, the idea advanced as justification for some new nuclear weapons was cleanliness. Then the expert in this field on the staff came over and said, "There just is no clean weapon yet, period." But the whole discussion was premised around the word, "clean." I am talking about a field in which you are far more involved and more knowledgeable than I am.

Secretary SCHLESINGER. The appropriate phrase is not "clean," but "less dirty."

Senator SYMINGTON. That is right. But then you get down to the degree of killing. I remember once you talked about how upset our people were by the killing of 15 people. I cannot remember what 15 it was, but you said there was a revulsion.

Secretary SCHLESINGER. In Cambodia during August, I believe.

Senator SYMINGTON. Fifteen people. People get the idea perhaps you would only kill a hundred people, when actually a tiny shift would make all the difference. I do not suppose anything has been more carefully engineered in world history than the astronaut programs—

Secretary SCHLESINGER. Yes.

Senator SYMINGTON [continuing]. And yet, in fact, they have had many troubles many times; and just a tiny production error would destroy Kansas City when an enemy was going after Whiteman, you see. Great in theory, but in practice, I cannot follow the thought.

ECONOMIC QUESTION

Finally, we never get into the economic questions in these hearings. The national debt is some \$450 billion, is that not right, Mr. Chairman? That is half what we have spent on national defense in the last 12 years, about \$878 billion; and that does not count a lot of hidden expenses you and I know should properly go into military costs.

So I worry about the amount of money involved, and am glad to have you say today, as we discuss this matter, that there is not much additional money involved.

Secretary SCHLESINGER. On the retargeting doctrine, so-called, we are talking about \$100 million in terms of additional expenditures on command and control for a period of several years.

[The following information was subsequently supplied:]

COSTS RELATED TO NEW TARGETING DOCTRINE

[Supplied by the Department of Defense]

The long-term costs of improvements which can be related to the new targeting doctrine are about \$300 million, including \$186.7 million which has already been obligated.

The FY 1975 Defense Budget includes \$33 million to complete development and to continue procurement of the Command Data Buffer; and \$65 million for the following development efforts:

Technology development [deleted] of POSEIDON warheads to give SLBMs an increased flexibility;

Improvements in our ability to detect and process information concerning enemy missile launches;

Development of a survivable nuclear burst reporting system;

Increased data handling and communications capability to improve the flexibility of our forces.

WHAT EUROPEAN GOVERNMENTS ARE DOING

Senator SYMINGTON. I noticed in your statement that you mentioned that, whereas the European governments are doing considerably more in defense today, actually, we were doing less.

Secretary SCHLESINGER. I think that that is right in terms of real resources—in terms of manpower, in terms of equipment purchases. They started from a very low level, as you know.

Senator SYMINGTON. Yes. I noticed Flora Lewis' article today in the New York Times—

Secretary SCHLESINGER. They are still doing less than they should and doing less than we are but they are doing more than they did do.

GOVERNMENTS OF EUROPEAN COUNTRIES

Senator SYMINGTON. I remember in Flora Lewis' article—

Secretary SCHLESINGER. An interesting article.

Senator SYMINGTON. I thought so—the idea that three countries mentioned do not have any government today. Belgium was one, and Britain was one; Italy was the third. Then she mentioned others that have weak governments, Holland and Denmark. She also mentioned there was growing bitter opposition to Brandt in Germany, also to the Government of France.

Senator MUSKIE. Mark Childs had a column yesterday. His thrust was it does not seem to make much difference whether or not there are elections. He referred to the British election particularly. They have had an election, presumably to help Mr. Heath solve the country's problems. Now they have gotten an election, but they have no government. They still have to deal with that coal miner strike, and they will probably have a more generous settlement than the one Heath turned down prior to the election. So the election seems to have been irrelevant to the problems. People seem to be looking at elections as irrelevant to their problems. That is why people do not seem to have any choices. It is rather frightening.

GROWING U.S. ECONOMIC PROBLEMS

Senator SYMINGTON. It is frightening. As Chairman Muskie knows, I have worried for many years and have talked often on the floor about the growing economic problems we are all facing, which all seem

to be coming home to roost. This is the first time in our history we have had heavy unemployment along with steadily increasing inflation.

Secretary SCHLESINGER. Certainly of this magnitude.

Senator SYMINGTON. If you had a \$50 bill in 1932, you were close to rich because of its value.

We cannot figure yet just how much more you are asking for in this budget. Including the supplemental, it would appear between \$6 billion and \$13 billion more. You get into the question of constant dollars and so forth. I also differ on your dismissal of the overkill theory. I think there is more merit in the theory than you do.

Secretary SCHLESINGER. We can discuss that some time.

Senator SYMINGTON. I hope you are giving full consideration to the fact that a sound economy with a sound dollar is just as important to national security as any other aspect of such security.

Secretary SCHLESINGER. Yes, sir, I have stated that many times.

Senator SYMINGTON. Thank you for your tolerance in answering my questions. I am finished, Mr. Chairman.

Senator MUSKIE. I am delighted you had the opportunity to put the questions.

Secretary SCHLESINGER. Could I make two observations, Mr. Chairman?

Senator MUSKIE. Yes, my all means.

NATO

Secretary SCHLESINGER. First, about NATO, as you gentlemen are keenly aware, we have not always seen eye to eye. One of my concerns historically has been, that the Europeans could not provide equivalent forces if U.S. forces were withdrawn from Europe. When we talked about this last summer, Senator, there was no question in my mind or in your mind or in the mind of the members of the committee that the Europeans had the resources to do it. [Deleted.]

DEFICIENCIES OF HARDWARE

The other observation I wished to make was in regard to Senator Symington's point that deficiencies of hardware could militate against the effectiveness of a strategy based on selectivity and flexibility. That point is well taken. I would underscore that that point is even more forcefully applied to the whole notion of full first-strike disarming capability. To get high confidence in that requires far, far more in hardware than is required to get the kind of selectivity and flexibility we want. I think that should be a source of reassurance with regard to the first two or so questions that you asked, Senator Symington.

RETENTION OF U.S. FORCE STRUCTURE IN EUROPE

Senator SYMINGTON. May I make one further comment?

When in the executive branch 25 years ago, during that period, nobody had more respect than I for President Truman, but at that time he not only had the bomb that nobody else did but also \$25 billion in gold; and we owed but \$7 billion redeemable in gold. Today we have some \$10 billion in gold. I have not looked recently at the exact figure.

We owe, in theory redeemable, between \$35 billion and \$40 billion. I know your sympathy with Europe, but this whole situation, as the chairman referred to in that article by Mark Childs, is changing over there. We have an expression in business not to put good money after bad; and our own situation over here, economically, is becoming serious indeed.

Secretary SCHLESINGER. Senator, I agree entirely with that. As Senator Muskie knows, my argument for the retention of so large a force structure in Europe by the United States is based upon my belief that we should have within the Alliance a stalwart conventional capability.

If the Europeans are unwilling to make a major contribution to that capability, we do not need 190,000 men in Germany simply for presence. We can do it with a much lower number of men. Consequently the burden is on the Europeans. Are they going to be serious about the conventional capability or are they not? We should put them to that test.

EUROPEAN ATTITUDE TOWARD CONVENTIONAL CAPABILITY

Senator MUSKIE. What is your present assessment of that? I do not want to spend too much time on that this afternoon, unless members want to, but I did want to know your present assessment?

Secretary SCHLESINGER. Overall, the attitude has improved, but that does not help that much. The Germans are making greater efforts. [Deleted.]

Senator MUSKIE. The rest of us, George, have had a chance to put some questions.

SOURCE OF GASOLINE SOLD BY HOLLAND AND ITALY

Senator AIKEN. I would want to ask a question which might not be appropriate. Where do Holland and Italy get so much gasoline to sell? I heard in the news this morning that they are shipping immense quantities to the United States. Have you any idea?

Secretary SCHLESINGER. I think the embargo is a very leaky kind of thing. The tendency is for the gasoline to flow to the market with the highest price.

Senator AIKEN. Exactly. Who is going to sell it for 50 cents when they can get \$1.50? Does that not explain the situation?

Secretary SCHLESINGER. I think that it is a large part of the explanation.

Senator AIKEN. I guess that is so.

Secretary SCHLESINGER. The reduction in petroleum production, and I am not an expert in this area—I have become more expert since I have taken over the responsibilities from Mr. Clements—

Senator AIKEN. As long as they pay \$6 for exported wheat that will help, unless the bakers, who have a lot of wheat stored away, scare the public into accepting a price rise on bread. People act like human beings and that is the trouble. That is about all I have to say. Relative to the SALT, the price of salt has not gone up so far as I know, but it will.

Senator MUSKIE. I was in Normal, Ill., this morning, and at 8 o'clock I saw 10 gasoline stations open for business and only one car buying gasoline. The same thing was true in Cincinnati yesterday afternoon—

not a single car buying gasoline. I am tempted to call my wife and tell her to drive out to Cincinnati.

[Laughter.]

Incidentally, Mr. Secretary, how much more time can you conveniently give us? I do have a series of questions I would like to get into and I know Senator Pell—

Senator PELL. I do not have any specific questions. I am trying to learn from this exchange.

Senator MUSKIE. Break in any time you would like, but there are two or three questions I would like to get into.

COPIES OF SLIDES

First of all, would it be possible to have copies of the slides that you have used here for the record?

Secretary SCHLESINGER. Oh, yes.

Senator MUSKIE. I think they are excellent slides and I am not really sure why they ought to be classified at all, except for one or two of the things you have seen on them.

Secretary SCHLESINGER. I think some of them could be declassified.

Senator MUSKIE. They are very useful in illuminating the issues.

Secretary SCHLESINGER. The one that shows our intelligence appreciation of the Soviet R. & D. program would, I think, have to be classified, plus the effects of the weaponry calculations. But much of the information on the other slides could well be declassified.

Senator MUSKIE. All right, we will have the staff go over those.

Secretary SCHLESINGER. I have said the equivalent publicly but this just puts it on a piece of paper.

MEANING OF "SECRET SENSITIVE"

Senator MUSKIE. What does "secret sensitive" mean? I noticed that it was a classification you are using. Is that like the old top secret?

Secretary SCHLESINGER. That is a good question, Senator, and I am afraid I am technically not able to give an answer to that. I presume it compounds secret.

Senator MUSKIE. Do you still have top secret?

Secretary SCHLESINGER. Yes, sir.

Senator MUSKIE. This is somewhat between secret and top secret.

Secretary SCHLESINGER. [Deleted.]

CAPABILITIES OF SOVIET SS-17'S AND 19'S

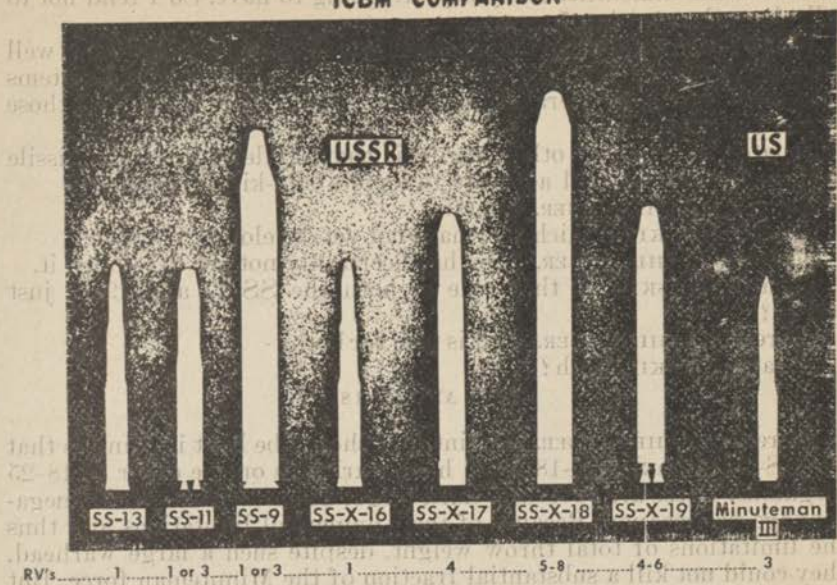
Senator MUSKIE. I wonder if you could tell us something about the capabilities of the new Soviet SS-X-17's and SS-X-19's. They seem to be part of the new Soviet strategic posture.

Secretary SCHLESINGER. Let me show you that chart again.

[The chart referred to follows:]

Senator MUSKIE. I was in Normal, Ill. (this morning, and at 8 o'clock I saw 10 gasoline stations open for business and only one car buying gasoline. The same thing was true in Cincinnati yesterday afternoon—

ICBM COMPARISON



[A classified version of the chart is in the committee files]

Senator MUSKIE. As I understand it, they are replacing their SS-11 with these two.

Secretary SCHLESINGER. They could replace the SS-11 with the SS-X-17 or the SS-X-19. [Deleted.]

The SS-X-19 has, we believe, four to six reentry bodies. The SS-X-17 has four reentry bodies. To the extent we have been able to ascertain the nature of the tests the SS-X-19 has had a remarkable success and it may be the preferred missile that the Soviets would deploy.

As I indicated earlier, there is a tremendous growth in throw weight as between these missiles and their predecessor, the SS-11, which makes it possible to carry four to six megaton-range RV's on-board the SS-X-19.

The critical question is accuracy, [deleted]. Given the size of those reentry bodies even accuracies of [deleted]—if they should be able to attain that later in the decade—could provide a major counter-force capability to the Soviet Union.

I have stressed in my prior remarks that accuracy is easier to contemplate than actually to obtain, particularly on an operational basis.

The Soviets have not had much experience to date with MIRVed systems. Consequently, I believe that they will have difficulties in getting the bugs out of those systems and that they as yet have not ap-

preciated the difficulties that they are going to have. So I tend not to talk about the next 4 or 5 years.

What I am suggesting is that sometime in the 1980's they may well have achieved a degree of accuracy and reliability in these systems that could cause an overall imbalance between their forces and those of the United States.

Senator MUSKIE. In other words, if they do develop a new missile sufficiently reliable and accurate to have a silo-killing capacity?

Secretary SCHLESINGER. Yes, sir.

Senator MUSKIE. Which they have not yet developed.

Secretary SCHLESINGER. They have certainly not yet developed it.

Senator MUSKIE. Is that true of both the SS-17 and 19 or just the 19?

Secretary SCHLESINGER. That is true for both.

Senator MUSKIE. Both?

SS-9 AND SS-18

Secretary SCHLESINGER. A point that should be kept in mind is that the SS-9 or the SS-X-18 could have warheads on the order of 18-25 megatons. These are obviously hard target killers because of the megatonnage per weapon. Because of their numerical limitations and thus the limitations of total throw weight, despite such a large warhead, they could not kill a substantial fraction of the Minuteman force. But they have hard target killers today if they want to use the SS-9 or the SS-X-18 to go after a central target. What they do not have is the redundancy to have a high confidence capability of taking out many, many targets.

Senator MUSKIE. The nine is limited by the agreement.

Secretary SCHLESINGER. They are limited to 313 so-called modern large ballistic missiles of which both the SS-9 and the 18 are examples. That is our perception of the so-called sublimit in the 1,618 missiles that they are permitted under the current agreement.

Senator MUSKIE. Have they now fully deployed those 313?

Secretary SCHLESINGER. No, sir, they have deployed 288, and they have 25 new holes which are being developed into different silos, and of these 25 silos, we believe [deleted] are designed to take the SS-X-18. [Deleted.] But so far as we know, the 18 has not yet been deployed in those silos. They are finishing the construction of those 25 large silos, but as yet they only have 288 SS-9's in silos.

SS-11's

Senator MUSKIE. How many SS-11's have been deployed? The number I have is about a thousand. Is that correct?

Secretary SCHLESINGER. It is approximately 990, somewhere in there.

Senator MUSKIE. They do not have a silo-killing capability, do they?

Secretary SCHLESINGER. No, sir.

Senator MUSKIE. And could not have one?

Secretary SCHLESINGER. As I mentioned earlier, all of these new missiles have on-board computers. It is that change, which manifested itself last summer in their test program, that gives them the potentiality for greater accuracy and MIRVing and which has brought about the potentiality for their upsetting the balance. Until that time they

had a guidance technique [deleted]. They could not get sufficient accuracy to have the potentiality for a major first strike with that technique.

QUESTIONS RAISED BY ARMS CONTROL COMMUNITY

Senator MUSKIE. I would like to put to you some of the questions that have been raised by the arms control community on your new strategic concept, and I am referring to a recent New York Times article by John Baker and Robert Berman, who raised these points and I would like to go through it in sequence so we can have your responses for the record.

Secretary SCHLESINGER. Yes, sir.

Senator MUSKIE. The first point—

Secretary SCHLESINGER. Might I say that the arms control community today is of a divided mind because of the recognition of the potentiality that exists in the Soviet program a potentiality which has never existed before. They are as concerned about the materialization of that potentiality as people in the traditional defense line have been.

Senator MUSKIE. My own view is that raising this issue is a very useful thing to do. It forces us to rethink, and I have not by any means reached the same conclusions you have at this point, but I certainly do want to consider them carefully.

POSSIBILITY OF LOWERING NUCLEAR THRESHOLD OF DETERRENCE

The first problem raised by Baker and Berman in their February 22d article is this:

The capability to destroy the adversary's nuclear forces will lower the nuclear threshold of deterrence by making nuclear weapons appear more useable in the form of surgical or precision nuclear strikes. Such capability will also increase the likelihood that some strategic planners will unrealistically perceive such strikes as an acceptable policy option of the President.

Secretary SCHLESINGER. As I have indicated, I trust there is not much built into that word "acceptable option." I think the decision to use nuclear weapons, either strategic or tactical, would be an agonizing decision for any political leader and certainly for the NATO Alliance collectively.

What I have stressed is that there must be a belief in the credibility of the threat. If you managed to persuade your opponent that you have a threat that is not implementable in practice, then you have lost the deterrent effect of your weaponry. It is my judgment that the fact that one makes one's opponent believe that something is possible diminishes the likelihood of clashes, that is, it improves deterrence.

WOULD PROPOSED STRATEGY BE ATTRACTIVE TO SOVIETS?

Senator MUSKIE. Is this strategy, in your view, one which ought to be attractive to the Soviets as well?

Secretary SCHLESINGER. Their position, I think, is somewhat different from our own. One could say that they have the proximate objective of the domination of Western Europe. They can have a contribution toward the achievement of that objective if they can suc-

cessfully decouple American strategic forces from Western European security. Our strategy tends to recouple strategic forces with Western European security, so our objectives are somewhat different from theirs. Consequently, this strategy must be far more attractive to us than it is to them.

They would like to isolate the United States in the North American Continent. Through this strategy we foreclose that possibility. Therefore, we have a more powerful incentive for going in this direction than do they.

COULD SOVIETS COUNTER PROPOSED STRATEGY?

Senator MUSKIE. Nevertheless, if we were to adopt this strategy, could they not counter it?

Secretary SCHLESINGER. Yes, sir.

Senator MUSKIE. And use it as a cloak for developing a first-strike capability?

Secretary SCHLESINGER. I do not think they need this strategy as a cloak. The potentiality for a perceived major first-strike capability against our ICBM's is built into the weapons that they have under test at the present time, plus the throw weight and numbers that they have as a result of SALT I. They do not have to have recourse to this kind of strategy.

In any event, this strategy is open to them. Part of the problem, of course, is the difference between an open and a closed society. We are more or less obligated to explain to the American public as well as to the Soviets and to third audiences, the calculations on which American security and the security of our alliances rest. The Soviets are under no such pressure. Nobody knows what calculations lie behind Soviet strategic planning.

INCENTIVE TOWARD FIRST STRIKE

Senator MUSKIE. Let me get to the next point made by Berman and Baker. They say:

Although a disarming first strike by one nation upon the other's strategic forces is technically impossible because of the existence of sea-based missiles neither side will find a vulnerable land-based missile force acceptable. In addition, an incentive will exist for both sides to seize the initiative to strike first since the attractiveness of hitting counter-force targets in the second strike could never equal that of the first strike.

Secretary SCHLESINGER. I would like to develop that for you sometime, but I think that is a decade or more off, and so I will confine myself to the first part of that question.

That is one of our concerns. We are hopeful that through SALT we will avoid the buildup of armaments on both sides. That is destabilizing. If one deals with the ICBM components alone, the growth of throw weights has the potentiality for the sort of destabilization that the gentlemen refer to.

Our objective in SALT should be to retain as limited a vulnerability of the ICBM force as is possible, and we are hopeful that we may accomplish that in SALT. But one has to look at deterrence in terms of the overall strategic forces on both sides. In that con-

text, there will never be a powerful incentive for a strike against land-based strategic forces taken by themselves.

I think that there is a danger of irrationality, but these will be agonizing decisions. We agree with the logic and we do not want to go very far in that direction. The authors of the article tend to over-emphasize the ease with which people might slip into the notion of going for a first strike counter-force of the sort which has been described.

ADAPTABILITY OF SLBM TO SELECTIVE STRATEGY

Senator MUSKIE. Is the SLBM currently adaptable to the selective strategy of which you speak?

Secretary SCHLESINGER. It is not as adaptable as ICBM's at the present time.

Senator MUSKIE. Is that because of the accuracy question?

Secretary SCHLESINGER. It is a complex question. It is not primarily accuracy.

Senator MUSKIE. The submarine?

Secretary SCHLESINGER. A submarine like the Poseidon is hard to adapt to it because you have so many MIRV's permissible and so many missiles per boat. As soon as you fire, you expose the boat. Consequently, the ICBM is a far more useful instrument for this kind of strategy than is the SLBM. I should not exclude SLBM's in principle but they are far less attractive in this regard than ICBM's.

Senator MUSKIE. What you are saying then, is that SLBM's still have to be an anti-city missile.

Secretary SCHLESINGER. I think that overstates it. You can go against soft targets with them but you would not have as high a degree of selectivity and flexibility at the present time in the SLBM force as in the ICBM force, because of greater accuracy and controllability of an ICBM. They would be a better weapon, but your statement, I think, is a little too restrictive about SLBM. It points in the direction you are saying, but it is not a preferred weapon.

Senator MUSKIE. And there has been, I think, a growing tendency in recent years to regard the SLBM as the weapon of the future and perhaps to reduce reliance on the land-based missile. Could your strategy buy that?

Secretary SCHLESINGER. No, sir. I have never agreed with that point of view. One can talk about a higher proportion of forces at sea, but I do not think we would be well-advised to eliminate the land-based component.

ENCOURAGEMENT OF ARMS COMPETITION BY COUNTER-FORCE DOCTRINES

Senator MUSKIE. Let me get to the next point made by Baker and Berman.

Counterforce doctrines will encourage arms competition since various factions in each government will push for more sophisticated strategic systems required by a range of exotic war-fighting scenarios.

Secretary SCHLESINGER. I think there is some truth in that. I think we have to go after that issue head-on and attempt. We would do this to limit the tendencies to move in that direction through the SALT

negotiations by seeking limitations on both the aggregation and on certain qualitative features.

But I do not think the doctrine itself leads in that direction. Rather, it is the potentialities in the force structure which do, particularly the potentialities that I have outlined for the Soviet Union.

POSSIBILITY OF IMPEDING CERTAIN ARMS CONTROL EFFORTS

Senator MUSKIE. The next point is this one.

A counterforce capability to destroy the foe's nuclear forces would impede the progress of certain arms control efforts such as limitations of multiple independently targeted vehicles, on MIRVs, and the confidence in test ban which would inhibit further developments of war-fighting capabilities.

Secretary SCHLESINGER. There the cart is before the horse. Once again we should be attempting to limit the incentive of both sides to go in this direction. But it is not a limited counter-force capability that does that. It is the potentiality built into the new Soviet systems that gives you the kind of counter-force capability that they are describing.

Let me underscore, Mr. Chairman, once again, that neither side can achieve the kind of counter-force capabilities that the authors are implicitly assuming. There is just no possibility that a high confidence disarming first strike is attainable for either side, even against the ICBM components of the strategic forces on both sides and certainly not against both sets of forces, SLBM's and ICBM's.

ATTAINING GREATER FLEXIBILITY IN WEAPONS SYSTEMS

Senator MUSKIE. I think this point we have already discussed: it is the question of whether the United States has maintained a substantial counterforce capability for many years. "Only a small fraction of the more than 25,000 targets contained in the strategic targeting plan are cities. The majority of these targets include a wide range of military objectives such as Soviet bomber bases and some missile silos. Greater flexibility in weapons systems appears attainable only by developing an efficient counterforce capability".

Secretary SCHLESINGER. I think the latter part of that statement is wrong. The selectivity comes from the doctrinal planning and command and control arrangements.

The other part of the statement is correct. We have been targeting against other than cities, but not in the selective and flexible manner that I have indicated.

Senator MUSKIE. I think that was made clear earlier.

REQUIRED FUNDING

The two writers take less assurance than you do out of the small amount of funding that is required. Let me quote them:

This is one reason why it is less than reassuring to have Mr. Schlesinger state that while the weapons improvement for greater flexibility remain to be determined they presently do not necessitate substantial additional weaponry. This is essentially true since the accuracy of warhead improvements that would increase the counter-force effectiveness of American missiles would actually require relatively small amounts of funding.

I simply add that.

I think that covers their major arguments.

I do not know to what extent we ought to go beyond this doctrine which, I gather, we have covered pretty well this afternoon.

Secretary SCHLESINGER. Yes, sir.

Senator MUSKIE. Incidentally, is Senator Humphrey coming back? He said he had a list of questions.

POSSIBILITY OF COMPREHENSIVE TEST BAN TREATY

With respect to the comprehensive test ban treaty that was touched on in one of the comments I read to you from the article by Baker and Berman, what is your view of the possibility of a test ban? As you know, a comprehensive test ban resolution is pending on the Senate calendar, and I assume at some point this year we will bring the resolution up to Senate debate. I do not know whether this committee has ever gotten your view on it.

Secretary SCHLESINGER. I think that there are advantages and disadvantages. I do not think that the arguments against a comprehensive test ban treaty relate primarily to the strategic forces. One has to get into the issue of to what degree the United States wishes to improve tactical nuclear weapons. The constraint with regard to strategic weaponry would probably be beneficial to both sides.

PROSPECTS OF SALT II

Senator MUSKIE. Could we get from you now your view of the current prospects for SALT II?

Secretary SCHLESINGER. Well, as I indicated to Senator Fulbright, I may be more of an optimist than he is about it. I think that it is to the mutual interest of both sides to restrain the growth of these forces. The problem is that the Soviets have created for themselves this tremendous potential. Whether the momentum and the pressures within the Soviet regime are such that they cannot be controlled, and they must inevitably swell, the reality to meet the potential is the problem about which I worry.

If the Soviet Government is prudent and has good control, and if they understand their joint interest with us—those are big ifs—I am relatively optimistic about the outcome.

Senator MUSKIE. Well, the history of the SALT talks up to this point shows very little inclination to roll anything back. We hold it where we are at best.

Secretary SCHLESINGER. That is why we must move quickly with regard to these new weapons developments. The cost of these new developments to the Soviet Union must be on the order of \$30 to \$40 billion in our terms. Once they have made those investments and have sunk costs, your point is well taken that there is very little tendency to roll back. The time to nip it in the bud is before they have made such massive investments.

Senator MUSKIE. They have not deployed the 17 and 19 yet?

Secretary SCHLESINGER. No, sir, nor the 18.

Senator MUSKIE. Are we focusing at all on the possibility of persuading them not to deploy those weapons? Do you regard that as unrealistic or unattainable?

Secretary SCHLESINGER. I think to a greater or lesser extent everybody must look toward the nondeployment of some of these weapons or a limited deployment of a selection of these new weapons.

But what we have got to do is to prevent their exercising the full potential of their throw weight within the numbers agreed in SALT I.

SHOULD LATITUDE TO INCREASE U.S. THROW WEIGHT BE SOUGHT?

Senator MUSKIE. Should we be seeking in the SALT agreements to allow an increase in our own overall throw-weight capability?

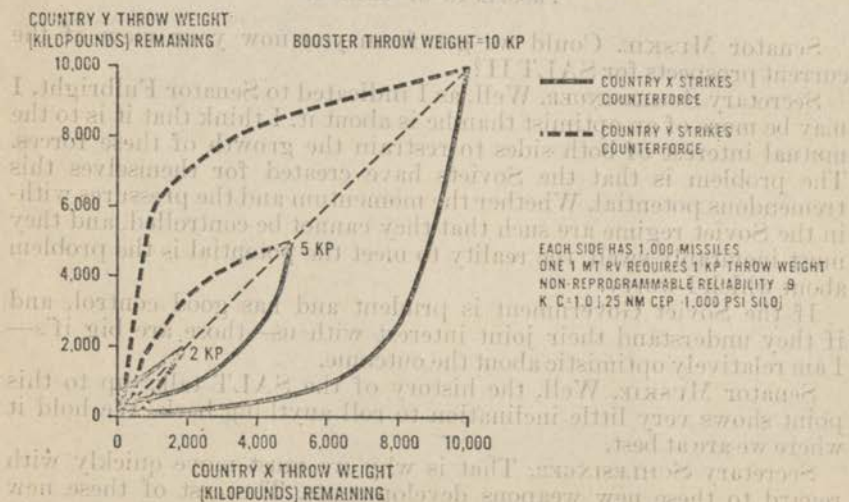
The reason I put the question is that so many, including Senator Jackson and others, feel that the Soviets have a real advantage in throw weight, and that it is an advantage which should cause us concern and ought to be taken into account. Well, if it is, why don't we opt to increase our own throw weight?

Secretary SCHLESINGER. We have got to take the Soviet potential into account. Let me give you this complex view, Senator.

[The chart referred to follows:]

[Supplied by Department of Defense]

RELATIONSHIPS BETWEEN MISSILE SIZE AND RESIDUAL PAYLOAD FOLLOWING COUNTERFORCE ATTACKS OF VARYING SIZE



What this chart shows very simply is the growth of throw weight with a fixed number of sites. If you assumed both sides have certain CEP's, silo hardening is disadvantageous to both sides. In this case there is 10 million pounds of throw weight at a thousand sites so we have 10,000 pounds of throw weight in each site. Down here we have 2 million pounds of throw weight at a thousand sites or 2,000 pounds per site, [deleted].

[Deleted.]

Now, you will note in the high case that when you have that much throw weight at a limited number of sites, the effect is, if country x strikes first by using, say, 20 percent of its throw weight, it can reduce the surviving sites of country y by 80 percent. That is what we call the premium on the first strike. It is disadvantageous for both sides to have so much throw weight piled up at a limited number of aiming points.

By contrast, in the lower case, one discovers that the country that strikes first gives up more of its throw weight than it destroys on the other side. That is an inherently more stable situation.

Now our preference is to say down at this end of the spectrum. Unfortunately, with the throw weights that the Soviets have, they wind up driving in this direction, which would be destabilizing for both sides. We would prefer not to get up there and, therefore, we would prefer not to have to augment our own throw weight. We would only augment our own throw weight as a second best solution to maintaining arms balance if the Soviets insist on making use of the massive throw weights embodied in their present program. It is disadvantageous for both sides to have large-pay-load missiles MIRVed accurately. It is advantageous for both sides to have small-pay-load missiles. Unfortunately, the trend in the Soviet program is in the other direction. We would prefer not to augment our own throw weight if we can persuade the Soviets to refrain.

CAUSE OF STRATEGY CHOICES

Senator MUSKIE. Well, is their choice of strategy and our choice of strategy simply an accident of development that occurs in each country?

Secretary SCHLESINGER. I think there is a large element of truth in that. The Soviets built these massive missiles at one stage of their history. They then designed replacements for those missiles and made good use of the silo space they created, thus creating a momentum in those programs that passes beyond the rational constraints of arms control.

DEFINITION OF "ESSENTIAL EQUIVALENCE"

Senator MUSKIE. This might be a good point in the record to ask you to define what you mean by "essential equivalence." It is a new phrase. We have heard other phrases during the debate on the first treaty, and it might be helpful if we had a definition of this new concept.

Secretary SCHLESINGER. Essential equivalence is a phrase that was used in the President's foreign policy report of last year. What it means is, first, that we do not plan to have our side a mirror image of their strategic forces. We do not have to have a match for everything in their arsenal. They do not have to have a match for everything in our arsenal. But in the gross characteristics of the forces, in terms of overall number and overall throw weight or payload, there should be some degree of equivalency between the two. That does not even mean they have to be precisely the same in terms of throw weight. But, as I indicated earlier, the Soviets have the potential for 12 million pounds of throw weight in their ICBM force as opposed to 2 million pounds in our projected forces. A discrepancy of 6 to 1 in

their favor is not essential equivalence. If it were 3 to 2 it might be quite different.

Senator MUSKIE. That does not mean, then, we have to have the same numbers with respect to each category of nuclear weapons?

Secretary SCHLESINGER. Not for military reasons. Perhaps for political reasons in terms of perceived equality between the two forces, that may be desirable. But from a military standpoint, as that last chart indicated, it is ideal. If we can control throw weight it would be better to proliferate the number of ICBM sites, driving each site down to a lower level of throw weight. It is better to have 2,000 weapons or 2,000 launchers with a thousand pounds of throw weight at each site (that is quite stable) than it is to have, say, 500 launchers with 5 or 10,000 pounds of throw weight on each site (that is less stable). That is the essence of armed civility. We would concentrate in the long run on the throw weight issue rather than on the numbers issue.

The Soviets and ourselves would both have an interest, if we could control throw weight, in adding to the numbers of launchers and reducing the amount of throw weight and destructive potential at each launcher.

SANITIZING TRANSCRIPT

Senator MUSKIE. At this point I ought to ask whether you have any objection to sanitizing the transcript of this session so that this material can be put in the public record?

Secretary SCHLESINGER. I see no problems. I think that some of these areas will have to be gone through carefully.

Senator MUSKIE. I think if we could do that, it would be most useful.

Secretary SCHLESINGER. I see no inherent reason.

Senator MUSKIE. I think if we have some of this discussion today in the public record, it could be the basis for a more sophisticated level of debate on strategic defense issues.

Secretary SCHLESINGER. Good.

MAKING NUCLEAR WEAPONS SEEM RESPECTABLE QUESTIONED

Senator MUSKIE. On this business of making nuclear war seem more respectable, maybe that troubles me more than any other aspect of this proposal of yours—

Secretary SCHLESINGER. I think we have got to make the underlying calculations about nuclear war intellectually respectable. If we understand the underlying calculations rather than avoiding hard thought in this area, I think we can diminish the probability of nuclear war. But if we avoid that and, therefore, do not think through our deterrent strategy somebody might be tempted to do something. We are attempting to remove whatever temptation, however low, to start nuclear war; our objective is to shore up deterrence. If we are effective in that regard and at the same time have made thinking through the underlying calculations respectable, we have reduced the probability of anyone actually using nuclear weapons.

Senator MUSKIE. Do you get any challenge to this thesis of the defense establishment?

Secretary SCHLESINGER. I think basically the answer is "No." I think that everybody has recognized that there are deficiencies in the doctrines that had been sort of carried over willy-nilly from past years.

There was a gradual transformation of the tests of the adequate size of our forces—which was the origin of assured destruction—into belief somehow that that was a deterrent. The assured destruction logic serves to deter attacks against our urban industrial base. But we should not in our own mind feel that it is more effective as a deterrent than is actually the case.

It was mentioned earlier that over the last 20 years the prior strategies had been successful. I think it is a much shorter period of time and the strategic balance has changed dramatically. I hope the belief that something that has worked in the past should not be disturbed will be applied more generally by those who are proponents of that belief, such as to our deployments in Europe.

Senator HUMPHREY. Mr. Secretary, I hope not to take too much of your time. I have some questions which frankly have been worked out as a result of a discussion group with which I sat down one evening. I am going to read the questions to you and if they have been answered just say they have, and I will look over the record.

RESULT OF RETROFITTING OF SOVIET ICBM'S

One of these questions comes out of a report from the Alsop column a day or so ago.

You have stated several times if the Soviets retrofitted their ICBM's with new models they would have something on the order of 7,000 reentry vehicles.

Secretary SCHLESINGER. 7,000 or 8,000 RV's in the 1-megaton range.

Senator HUMPHREY. Therefore, they would have a relative advantage in counterforce capabilities.

Secretary SCHLESINGER. Yes, sir.

Senator HUMPHREY. I wondered if you could explain this arithmetic to me. Let me continue here. If they retrofit their 1,000 SS-11's with the SS-17's or SS-19's, with 4 MIRV's each, this would be equal to 4,000. Converting the 300 SS-9's to SS-18's with 6 MIRV's each adds another 1,800 more for a total of 5,800 RV's. You also said they can't readily fit the SS-18 into SS-9 holes, so really we are really only talking about 25 large silos presumably built for the SS-18.

The point here on explaining your arithmetic is in the latter part.

Secretary SCHLESINGER. Yes, sir. Let me try to explain that.

Senator HUMPHREY. Yes.

Secretary SCHLESINGER. As I indicated earlier we will expect four MIRV's to the SS-17 and four to six MIRV's for the SS-19. If you retrofitted with the SS-19, and that seems to be the preferred missile, one would have up to 6,000 MIRV's in the SS-19 force, leaving out the old SS-7's and SS-8's.

The SS-18's would have five to eight MIRV's each. If you had 8 MIRV's of about 1-megaton each on the SS-18 that would give you about 2,400 making a total of on the order of 8,400.

Now, your point, Senator, was that they would have to retrofit the 288 silos.

Senator HUMPHREY. Yes.

Secretary SCHLESINGER. That is quite correct. In order to house the SS-18 they would have to make at least internal modifications to the silos. [Deleted.] They are permitted under SALT I to increase silo dimensions by 15 percent.

Senator HUMPHREY: They have 25 presumably built for the SS-18's presently built.

Secretary SCHLESINGER: Yes, sir.

Senator HUMPHREY: Are we pretty sure of that?

Secretary SCHLESINGER: Yes, sir; those silos seem to have been designed for the SS-X-18, but we do not believe at the moment they are inhabited by SS-X-18's.

Senator HUMPHREY: In other words, for the retrofitting to take place in the instance of the others there would have to be an alteration of the silos?

Secretary SCHLESINGER: Yes, sir, internal silo modification.

Senator HUMPHREY: [Deleted.]

Secretary SCHLESINGER: [Deleted.]

Senator HUMPHREY: Isn't that limited under the original SALT I Treaty?

Secretary SCHLESINGER: The modifications?

Senator HUMPHREY: Yes.

Secretary SCHLESINGER: They are permitted to increase the silo dimensions by 15 percent.

Senator HUMPHREY: Would the 15 percent be adequate to take care of the retrofitting that is being contemplated?

Secretary SCHLESINGER: Yes, sir.

Senator HUMPHREY: But as of the present—

Secretary SCHLESINGER: [Deleted.]

TIME FRAME FOR RETROFITTING SOVIET MISSILES

Senator HUMPHREY: Let's assume they were going to retrofit all of the missiles they have and thereby enlarge their silos accordingly. What would be the time frame?

Secretary SCHLESINGER: I would think they might start in 1975, possibly a little bit later, and that they might retrofit 15 percent or say a sixth of their force each year so we are talking about 1982 for the completion of that retrofitting.

Senator HUMPHREY: [Deleted.]

Secretary SCHLESINGER: Yes, sir, for the SS-X-19 and for the SS-X-18.

Senator HUMPHREY: OK.

RESULTS OF RETROFITTING SOVIET MISSILES

Thank you. My figure is a little bit different. I had four MIRV's each for the 1,000 SS-11 or SS-17's and SS-19's.

Secretary SCHLESINGER: Our estimate is four for the SS-17's, four to six for the SS-19.

Senator HUMPHREY: Depending upon which you use there.

Secretary SCHLESINGER: Yes, sir.

Senator HUMPHREY: So the figures could expand from my 5,800 to the figure you had of 8,400.

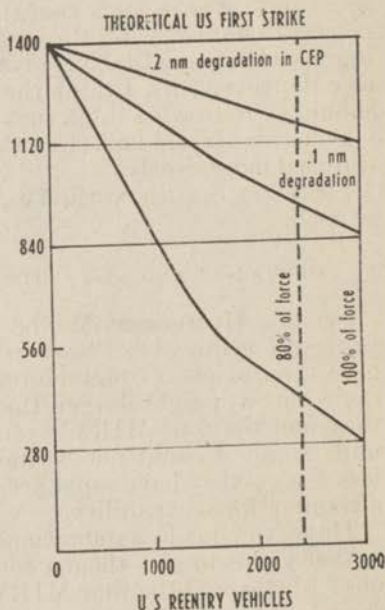
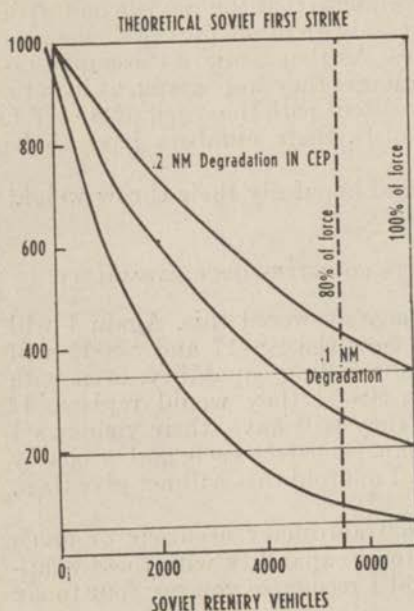
Secretary SCHLESINGER: Yes, it could be less and it could be more, but we are talking on the order of 6,000 to 8,000, something in that ball park, with fairly high-yield MIRV's.

May I show you one slide again?

[The slide referred to follows:]

[Supplied by Department of Defense]

HYPOTHETICAL RECIPROCAL COUNTERSILLO CAPABILITIES: SOVIET UNION & US ICBMs



[A classified version of this slide is in the committee files]

Senator HUMPHREY. I was here on one of those.

Secretary SCHLESINGER. This chart, I think, shows the asymmetries that can develop in reciprocal counter-force capability. We would not want to be in the position of the President who, when told there would be a nautical mile degradation in operational firing, knows he has to fire his whole Minuteman force in order to reduce the Soviet missile force to 840 missiles. The Soviets under similar circumstances would reduce us to about 250 Minutemen with 80 percent of their force. You don't want to have that psychological imbalance. In order to deter use of strategic forces I think you have to have a framework of equality. The political leadership on either side must feel that there are no advantages to be gained from physical actions.

PREVENTION OF PSYCHOLOGICAL IMBALANCE

Senator HUMPHREY. How do we alleviate that condition? I mean how do we prevent that?

Secretary SCHLESINGER. Our hope is ultimately to restrict either Soviet MIRVing or Soviet throw weight so they don't get up here into the 7,000 to 8,000 large-yield range.

Senator HUMPHREY. Yes.

Secretary SCHLESINGER. And if we can have restraints on the Soviet side—

Senator HUMPHREY. On the retrofitting you are talking about?

Secretary SCHLESINGER. On the retrofitting. This would be quite consistent with the protocol of SALT I. You remember that both sides said they will refrain from extracting strategic advantage. It was implicit in that agreement that the advantages that the Soviets had with respect to numbers and throw weight were an offset for the then-existing American qualitative advantages. As they achieve those qualitative improvements, I think the advantages they were given, as it were, should be reduced. I think that is consistent with the spirit of SALT I.

Senator HUMPHREY. In other words, their numbers have to be watched more closely.

Secretary SCHLESINGER. Yes, sir, and hopefully their throw weight as well.

HOW SS-17 AND SS-19 GIVE SOVIETS COUNTER-FORCE CAPABILITY

Senator HUMPHREY. Maybe you have answered this. Again I will just read it quickly: Please explain how the SS-17 and SS-19 will give the Soviets a counterforce missile killing capability, even with their throw weight larger than the SS-11 they would replace. If they had the four MIRV's you say they will have, their yields as I understand it could not be more than [deleted] each and probably less. Unless they have super accuracy I am told this will not give them a counter-force capability.

Have you made assumptions of extraordinary accuracy or much higher yields to give them a counterforce capability with these weapons? I have used the four MIRV's and I recognize you say four to six range.

Secretary SCHLESINGER. Yes, sir, I think we can clarify this. The weight of the re-entry body on the Minuteman II is [deleted] pounds and they have a [deleted] megaton warhead. With [deleted] pounds of payload in the SS-X-19 they could have about six [deleted] pound RV's in excess of [deleted] megaton each, given the nuclear technology they presently have demonstrated.

Senator HUMPHREY. I don't want to take too much of your time. This is a question that really has bothered a number of people and I just noted that down here for you.

Secretary SCHLESINGER. No, I think that is simply a question of data, Senator, and I am happy to clarify that.

ADAPTER FOR SS-X-18

Senator HUMPHREY. Mr. Secretary, you said on August 17 that the SS-X-18 does not appear to fit conveniently into the SS-9 silos.

Secretary SCHLESINGER. Yes, sir.

Senator HUMPHREY. Consequently, while they can perform some adaptation, they may have to have new adaptation for the SS-X-18 hole. What sort of adaptation under the SALT and interim agreement would they have to perform. [Deleted.]

Secretary SCHLESINGER. [Deleted.]

Senator HUMPHREY. On the SS?

Secretary SCHLESINGER. [Deleted.]

Senator HUMPHREY. [Deleted.]

Secretary SCHLESINGER. [Deleted.]

Senator HUMPHREY. So that 15-percent figure we had of being able to alter a silo, 15 percent becomes more meaningful [deleted].

Secretary SCHLESINGER. Yes, sir. [Deleted.]

Senator HUMPHREY. Very good. It is a very complicated business as Ed and I were saying upstairs, when talking about this.

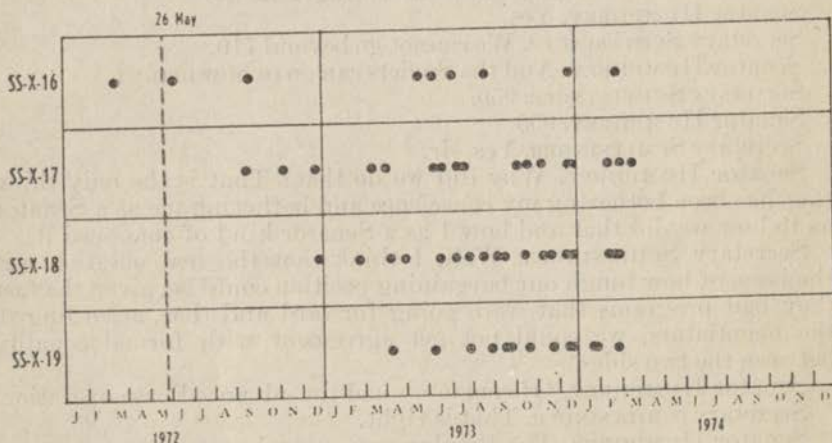
R. & D. ACTIVITY AFTER SIGNING OF AGREEMENT

Secretary SCHLESINGER. There has been a very impressive Soviet R. & D. activity occurring after the signing of the agreement in May of 1972. The SS-X-18, as you can see on this chart has had a large number of [deleted] tests. [Deleted.]

[Chart follows:]

[Supplied by Department of Defense]

SOVIET OFFENSIVE MISSILE R&D



[A classified version of this chart is in the committee files]

Senator HUMPHREY. [Deleted.]

Secretary SCHLESINGER. [Deleted.]

Senator MUSKIE. [Deleted.]

Secretary SCHLESINGER. [Deleted.]

Senator MUSKIE. These are all tests?

Secretary SCHLESINGER. Yes.

These are all tests. There has been no deployment of these missiles as yet, as I mentioned in response to Senator Humphrey's question. I would not expect deployment to start until 1975.

Senator MUSKIE. [Deleted.]

Secretary SCHLESINGER. [Deleted.] The SS-N-6 is the missile on board the Yankee class submarine. Recently we have noted in a number of tests that they had more than one entry body. That is the first time for their SLBM's.

Senator HUMPHREY. So they have kind of a Poseidon class.

Secretary SCHLESINGER. It is more like the Polaris A-3 in all probability, Senator. It is a movement.

SOVIET ADVANTAGE ON UNDERWATER MISSILE

Senator HUMPHREY. One of the things that worries me even though I am an arms control man, is the advantage the Soviets are getting on us on the underwater missile. That really bothers me. I am not much any way for land-based missiles. I think they have limited utility, and to be honest with you, I am not at all impressed with what we call our long-range bomber utility. I don't have any special favorites in defense, but this business of our being caught with limited numbers of the Polaris, Poseidon, or the Trident even though I know I didn't go along with you on the Trident vote in the last defense bill. I figured we were getting conversions; so we weren't in a serious position.

Secretary SCHLESINGER. Yes, sir.

Senator HUMPHREY. Or dangerous position. That worries me.

Are we tied down specifically now to the limits on submarine missiles?

Secretary SCHLESINGER. In the interim agreement?

Senator HUMPHREY. Yes.

Secretary SCHLESINGER. We cannot go beyond 710.

Senator HUMPHREY. And the Soviets can go to how many?

Secretary SCHLESINGER. 950.

Senator HUMPHREY. 950.

Secretary SCHLESINGER. Yes, sir.

Senator HUMPHREY. Why did we do that? That is the only thing that has been bothering my conscience and bothering me as a Senator as to how we did that and how I as a Senator kind of condoned it.

Secretary SCHLESINGER. Well, I think that the real question was the issue of how tough our bargaining position could be, given the fact they had programs that were going forward and that, according to the negotiators, we could not get agreement with formal equality between the two sides.

Senator HUMPHREY. Of course we had the advanced base operation.

Secretary SCHLESINGER. That is right.

Senator HUMPHREY. The Russians are vectoring in on us now.

Secretary SCHLESINGER. That is right.

Senator HUMPHREY. The MIRV at that time.

Secretary SCHLESINGER. That is more of a rationalization. With the new SSN-X-18, of course, they can fire right out of Murmansk and hit the United States.

SOVIET DEVELOPMENT OF STRATEGIC BOMBER

Senator MUSKIE. Incidentally, aren't the Soviets developing a strategic bomber?

Secretary SCHLESINGER. They have developed the Backfire which probably has greater capability than the FB-111. Until such time as they develop a greater tanker capability we think it would not be used primarily in an intercontinental strategic role. But we have to watch that carefully.

Senator HUMPHREY. But surely for a western European type of capability.

Secretary SCHLESINGER. Clearly, most of their medium bomber capabilities are designed for the periphery, China or Western Europe.

U.S. EFFORTS CONCERNING AIRCRAFT CARRIERS

Senator HUMPHREY. As a supplemental or auxiliary question, what are we doing for our aircraft carriers, the helicopter, like the Russians are doing? The Russians have these smaller carriers so they have an amphibious force.

Secretary SCHLESINGER. We have requested, as you know, a start on what we call the Sea Control Ship. It would be a minicarrier, using helicopters and vertical takeoff and landing aircraft.

Senator HUMPHREY. Can't we use any of the old aircraft carriers that we have lying around?

Secretary SCHLESINGER. Our problem in the Navy is that it is 30 years after the Second World War and we have to replace those ships. They are aging. They are 31, 32 years of age.

Senator HUMPHREY. I know just exactly what you mean.

[Laughter.]

Senator MUSKIE. Besides you have a couple of shipyards in my part of the country.

DISTINCTION BETWEEN MAJOR AND LESSER COUNTER-FORCE CAPABILITY

At a news conference on January 24, Mr. Secretary, you said the United States is not seeking to develop a major counter-force capability but in the fiscal year 1975 defense budget, you have included a wide range of programs which will upgrade the counter-force effectiveness in American ICBM's, submarine missiles and even the bomber force. Consequently at what point do you differentiate a major counter-force capability from a lesser one?

Semantics I know.

Secretary SCHLESINGER. The distinction I have attempted to stress from the first is that if you look carefully at the numbers, even with a [deleted] of a nautical mile CEP used in that last example, we could not have a disarming first strike against even the Soviet ICBM's, even if we have that [deleted] of a nautical mile in operational practice.

Therefore, I continue stressing that neither side has such massive capabilities that they can have a high-confidence first strike. Such capability is just beyond achievement and no rational leader will have recourse to such a thing.

SOVIET ASSUMPTION REGARDING U.S. UPGRADING OF MISSILE FORCE

Senator HUMPHREY. Furthermore, once we began upgrading the accuracy of only a portion of our missile force, and I gather that is what you are contemplating now—

Secretary SCHLESINGER. Yes, sir.

Senator HUMPHREY [continuing]. Will not the Soviet Union assume that our entire missile force thus has this improved accuracy?

Secretary SCHLESINGER. Yes, sir, but as I indicated before, even if they were to make that assumption, even with the [deleted] of a nautical mile—

Senator HUMPHREY. We still leave them with 280 missiles.

Secretary SCHLESINGER. If there is no degradation in our operational accuracy, which they must assume, I would assume—and I will assume it for the Soviet Union—they still would have the ability to destroy the urban industrial base of the United States.

Senator HUMPHREY. In other words, what you are saying is if we had the best of all things happen for us they still have over 200 of these land-based ICBM's that they can use against us.

Secretary SCHLESINGER. That is right. And I hope they would not drive us into larger programs.

As I attempted to say to Senator Muskie before, it is disadvantageous for both sides to go for a great deal of throw weight. If one side can obtain it unilaterally it's advantageous for it but if it is matched by the other side both sides achieve greater instability, which is in the interest of neither side.

SECRETARY LAIRD'S POLICY CONCERNING COUNTER-FORCE CAPABILITIES

Senator HUMPHREY. Your predecessor, Secretary Laird, on several occasions disavowed any intention to develop counter-force capabilities which the Soviet Union could construe as having first-strike potential.

Has this policy been changed at all?

Secretary SCHLESINGER. No, sir. I think what I have indicated is we just don't have the potential for a first strike disarming capability. Of course, we have always had counterforce disarming against soft targets, or, if we used larger weapons such as the Minuteman II, we have always had a counter-force capability against a limited number of hard targets. But we cannot destroy large numbers of hard targets.

COMPARATIVE U.S./SOVIET COUNTER-FORCE CAPABILITIES

Senator HUMPHREY. In your statement you mentioned the United States presently has a limited counter-force capability.

Secretary SCHLESINGER. Yes, sir.

Senator HUMPHREY. Does the United States presently have a greater or lesser counter-force capability compared to the Soviet Union?

Secretary SCHLESINGER. It is a very hard judgment to make. There are so many uncertainties. If you believe the results from our own test ranges would be applicable in operational conditions and if you infer what you must infer about present Soviet accuracies, I think one would conclude that we now have greater operational counter-force capabilities than they have. But those are quite a number of iffy assumptions. They do have this massive megatonnage in their force that we do not have, which compensates for inaccuracy.

STRATEGIC AND POLITICAL ADVANTAGES WE COULD LOSE

Senator HUMPHREY. If we had a greater capability at this time what strategic and political advantages do we presently gain from

such a capability that we may lose in the future? I mean assuming that we had it.

Secretary SCHLESINGER. We do not obtain an advantage from that mild edge in counter-force capability, if it exists. If there is a vast disproportion to the benefit of the Soviet Union—given the fact that the United States has pledged its strategic forces for a variety of functions around the world, to NATO and to other allies, and in pursuit of the nonproliferation agreement in which both parties pledge if other nations will not acquire nuclear capabilities that they will come to their assistance—then a major disproportion to the benefit of the Soviet Union and against the United States could lead to a weakening of resolve and a dissolution of our alliances overseas.

ACHIEVEMENT OF ESSENTIAL EQUIVALENCE

Senator HUMPHREY. You have emphasized the requirement that the United States achieve essential equivalence vis-a-vis the Soviet Union's strategic force levels and capabilities. Is it not true that even if the United States had numerical equality in terms of strategic missiles with the U.S.S.R., it would still not have equality in terms of throw weight?

Secretary SCHLESINGER. Correct.

Senator HUMPHREY. On the other hand, if the United States gains equality in throw weight capability, then it would also have a numerical advantage over the Soviets?

Secretary SCHLESINGER. What you are saying is that if the United States acquired enough missiles to match the U.S.S.R. in terms of throw weight, we would have to have 6,000 of them because we have small payload missiles.

Senator HUMPHREY. Yes.

Secretary SCHLESINGER. That would be correct. But I think what we are talking about, Senator, is a limitation on numbers that is fully applicable to both sides and a limitation on throw weight that would be hypothetically applicable to both sides. Both constraints would apply so the outcome that you indicated would not actually come into existence.

Senator HUMPHREY. What I was leading up to was that in light of this dilemma how do you expect to achieve essential equivalence at SALT II, and I gather you have emphasized—

Secretary SCHLESINGER. I have emphasized that you would establish in a permanent agreement two constraints, which would be binding on both parties. They could adjust within those two constraints. They would not have the liberty of adjusting in the way that you hypothesized in phrasing the question.

Senator HUMPHREY. All right.

PROCEEDING AT SALT II WITH UTMOST CAUTION RECOMMENDED

I want to tell you what my concern is. I am an arms control man and I serve on this subcommittee and lots of people think I am maybe more arms control than I really am. But I happen to believe we have to watch our defense budget, as you know. I have talked to you about it. I do hope that at SALT II we proceed with the utmost of caution.

There are many people who are worried today that, because of the desire to make successful agreements, particularly with the Soviet Union, we might become more willing to sign up even for a temporary advantage but a long-term disadvantage. I don't want to believe that, but this you hear.

For example, the other evening I was at a public meeting where somebody said:

Aren't you worried at these conferences with the Soviet Union on arms control that the administration, which is in serious difficulty, knowing however that its foreign policy has been its great asset, would be willing to make arrangements that appear on the surface to be salable and acceptable. But when they are examined more carefully, people who are hard-minded and understand what it is all about, would be able to judge that 10 years down the road or 5 years down the road they would be to our disadvantage.

I don't care whether you comment or not, but I have to express my concern about that.

Secretary SCHLESINGER. I understand the point, Senator. We must insure against that outcome.

Senator HUMPHREY. We simply have to do that. Once we set a course these things have their own momentum. You get caught and there is no way you can get out. I hope and pray SALT II will be effective. I said a year and a half ago—and I wasn't wrong—that once we started to MIRV there was no way to get an agreement until the Soviet Union had MIRVed. And once either side gets into a new technology, it is off to the races again, and that bothers me.

Secretary SCHLESINGER. May I say, Senator, that if we have effective aggregate constraints some of those qualitative problems become manageable. I am not arguing for qualitative improvements as such. But, as I attempted to show before, large throw weights and limited numbers of launchers are just destabilizing. I agree entirely with your comments on arms control agreements which are beneficial to both sides, but in order to have arms control we must prevent instability and we must also retain an overall balance. I think that was the thrust of your comments.

ADMINISTRATION POSITION CONCERNING BENEFITS OF SALT I AGREEMENTS

Senator HUMPHREY. The United States agreed to the 5-year interim offensive weapons agreement in May 1972. In recent months there have been an increasing number of statements in many quarters, including Defense officials, which imply the interim agreement was a mistake, to the disadvantage of the United States, even for a short period of time.

Has the Nixon administration changed its position concerning the benefits of SALT I agreements for American security?

Secretary SCHLESINGER. No, sir. I think that the SALT I agreement, as I indicated at the outset, was based upon an equilibrium. It was a transitory equilibrium where certain qualitative advantages the United States had were offset by certain quantitative advantages that were given to the Soviets.

What we must insure is that as the Soviets obtain those new technologies, that the quantitative advantages that they were given on a temporary basis are reduced or are offset.

Senator HUMPHREY. I base my support of that agreement very much on that doctrine or upon that reasoning. I said my only concern, as I look back over it, was on the Polaris and submarine-type missile. I still have that concern.

ARE SOVIETS LIVING UP TO SALT ACCORDS?

Since May 1972, have the Soviets done anything prohibited by the SALT accords?

Secretary SCHLESINGER. No, sir; I think they are living up to those accords.

HAS SOVIET UNION DEVELOPED ANYTHING NEW?

Senator HUMPHREY. Has the Soviet Union developed any new weapons system or technological capability that the United States was not aware of previous to the signing of SALT I insofar as you know?

Secretary SCHLESINGER. No, sir. The points that I have made are about the breadth and depth of their R. & D. program. Even then it is only the quality and the breadth of that program that are striking, rather than the fact that there have been new developments.

Senator HUMPHREY. [Deleted.]

Secretary SCHLESINGER. [Deleted.]

Senator HUMPHREY. I understand General Brown, Chief of Staff of the U.S. Air Force, has stated recently that the U.S. [deleted].

Secretary SCHLESINGER. Yes, sir.

Senator HUMPHREY. These are some questions, Mr. Secretary, that a number of people with whom I have worked joined in helping me to formulate, knowing that you were going to come here.

I have no other questions to ask at this time except to say you sure have a big job. I will tell you that. It is a tough one.

MAINTAINING EQUILIBRIUM

Secretary SCHLESINGER. May I say, Senator, that arms control is, of course, a vital issue. It is also a very tough issue. Maintenance of an equilibrium under dynamic conditions requires us to be always watchful. We cannot obtain an equilibrium by closing our eyes to certain developments. We must use our bargaining pressures to deal with it.

Senator MUSKIE. Senator Pell?

Senator PELL. Thank you, Mr. Chairman.

I look forward to going over the transcript for catching up with the portions I missed. If my questions touch on anything which you have already covered, tell me.

LOWERING FIRST LEVEL USE OF NUCLEAR WEAPONS

First, in connection with this idea of the movement toward the lowering the first level of retaliation or first level of use of nuclear weapons, I find this a hard idea to absorb. I guess your arguments have been so good in the past about massive destruction that I find it hard to change. I think I understand what you say.

NUCLEAR MINES IN GERMANY

Senator Fulbright asked you to cite a specific incident that might illustrate your concept of a limited use of nuclear weapons. Could such incident be a Soviet invasion of Europe?

Secretary SCHLESINGER. Massive.

Senator PELL. Massive invasion of Europe. My understanding is that, in such an event, you would create a radioactive nuclear belt in the German border area across which people can't march.

Secretary SCHLESINGER. No, we have no current plans for that.

Senator PELL. What are the nuclear mines there for?

Secretary SCHLESINGER. Those are designed to destroy particular points of access. They would destroy roadways if you found a declivity in which the destruction of the roadway were an effective measure. It would not provide a belt of radioactivity. It would block access to certain lines of communication by the size of the crater.

Senator PELL. Wouldn't that in effect, if they were all used in Germany, be a belt of radioactivity?

Secretary SCHLESINGER. No. The intention would be to bury these weapons, when needed, at various depths to prevent substantial fallout and to make use primarily of the blast effects. These are fairly small weapons, as you know, [deleted]. The consequences would not be the belt of radioactivity that you describe. In fact, one of the reasons for talking about atomic demolition munitions is because the consequences of collateral damage to bystanders is quite limited. We shall submit something for the record in that regard.

[The information referred to follows:]

Consequences of Detonating Nuclear Mines In Germany

[Supplied by Department of Defense]

If there were no wind at the time of detonation, there would be an unsafe zone for 2 or 3 days. In the context, the definition of safe or unsafe depends on the degree of risk one is willing to accept. The zone would be of racetrack shape, and would be centered on the ditch described earlier. In the presence of wind conditions, this zone would be shifted, distorted, and a certain amount of dilution would occur.

[A classified version of this insert is in the committee files.]

Senator PELL. This makes, you can imagine, the Germans very uneasy.

Secretary SCHLESINGER. If I may go off the record.

[Discussion off the record.]

Senator PELL. Wouldn't it be a correct statement that if all the nuclear mines in place there were detonated, the effect would be that there would be a zone for the next few days which it would be unhealthy to cross? Maybe you would want to submit this for the record.

QUESTION OF LOCATION OF WEAPONS

Another question that bothers me is this. In connection with where the weapons should be, I had always understood that when they are at sea, they are much harder to pinpoint and destroy. They are also a little less accurate; isn't that correct?

Secretary SCHLESINGER. That is true.

Senator PELL. So they are better for massive retaliation?

Secretary SCHLESINGER. That is basically correct, and once again I would like to go off the record.

[Discussion off the record.]

Senator PELL. Understood, but nevertheless the Trident, when it is worked out, or Polaris-Poseidon today is a spot less accurate, as I understand it, than land-based missiles. Therefore, if we had stuck with the idea of massive retaliation, a good argument could be made that all nuclear weapons should be in the oceans. This was an argument some of us were making a couple of years ago.

I gather the argument has changed, that we shouldn't go for massive retaliation, which, to my mind, makes still a logical argument as making war impossible. What you are saying is that it makes it possible.

Secretary SCHLESINGER. I would say, first, that I would not advocate going entirely to sea in any event. I think you don't want to be that dependent on one medium. You don't want to have all your eggs in one basket because if you have a breakthrough in ASW [Anti-Submarine Warfare] capabilities your deterrence goes rapidly downhill.

My own judgment is that the ICBM forces always had a role to play except in the assured destruction notions which were regarded by some as a *deus ex machina*, as a substitute for thinking about the program.

MAKING WAR MORE POSSIBLE SUGGESTED

Senator PELL. I am still bothered by your basic thought here. I think your doctrine is making war, which has been impossible until now, more possible.

Secretary SCHLESINGER. What we are trying to do is to make the calculations regarding nuclear war clear, so that people will reflect on them. If we think through the underlying calculus of nuclear warfare it is my judgment we will reduce the probabilities of nuclear warfare.

I fear that people will not think these things through and will reject them emotionally and, therefore, we will end up with an inadequate deterrent posture. My objection to the doctrine as it has been understood in the past is that it does not give us the deterrence across the entire spectrum of risk which I think is desirable for the United States. If we have that deterrent across the entire spectrum of risk we are not going to have war. If we don't have the deterrent across the entire spectrum of risk then somebody may be tempted through a miscalculation to do something that could escalate into nuclear war. It is by thinking through these things that we diminish the risk of major conflict.

I might add that for deterrence one has got to have an implementable threat. If one says that a deterrent is based upon a nonimplementable threat, such as both sides going after each other's cities, what one is saying is that the deterrent is logically unsound. Now, it may be psychologically sound at the same time it is logically unsound, but I would like to have deterrence based upon a logically sound notion.

EQUIVALENCE OR SUFFICIENCY

Senator PELL. I remember spending a couple of hours once with Senator Gore and Kosygin in Moscow. This was just after President

Nixon had talked about nuclear sufficiency. That was a wonderful phrase which both sides seized upon at the time. I see some semantics again here because in the Defense Department you are now talking about, as I understand it, equivalence. Until recently it has also been American balance. These all mean different things and I am curious as to what your own concept is. Should we have sufficiency which means we have the power to destroy the other man's potential, numerical balance or equivalence.

Secretary SCHLESINGER. I think equivalence. I think for equivalence, for a deterrent posture that is adequate, we need to have three elements: One is the traditional invulnerable second strike capability, though we would not want to use it against the enemy's cities until we have been struck ourselves. We would want to use that as a way of deterring into the wartime period strikes against cities.

Secondly, as indicated earlier, we must not allow a great asymmetry with regard to counter-force capability such that they may think they have an advantage.

And, thirdly, there should be perceived equality.

When the assured destruction calculations were done in the early 1960's, it was a period of time in which the United States had five or six times as many missiles as the Soviet Union had. Those were circumstances in which you didn't have to worry about things like the perceived equality, which Senator Humphrey referred to and is in the Jackson amendment.

Now, we have to think through these other elements of an adequate deterrent posture.

David Packard once observed that sufficiency was an ideal word because everybody thought he knew what it meant, yet it didn't mean a thing. He was always rather outspoken about these things, but there is certainly a latitude in interpreting of what sufficiency means.

Sufficiency to my mind means something more than a protected second-strike capability that can attack cities. It incorporates these other elements, and those other elements when you have perceived equality means equivalence. So, I think all of these terms converge, depending on the strategic perspective of the individual.

OUTLAWING WEATHER MODIFICATION WEAPONRY

Senator PELL. Finally, and this is still within, I think, the ball park this afternoon, because you are talking about nonconventional weaponry. As we move ahead we are going to find other elements coming into the equation. China and other countries are obviously going to change some of these views. We will find ourselves completing the circle twice. But I am also very interested, as you know, in this question of unorthodox weaponry, geophysical modification, weather modification. I am curious to know what the reason is for the Defense Department's reluctance to move in the outlawing of those weapons or does this come into the idea of new weapons development?

Secretary SCHLESINGER. Well, I am not fully versed in an answer, Senator. Once again I think one has to indulge in gradations. May I go off the record here.

[Discussion off the record.]

Senator PELL. There has been a good deal of thought given to it. As you know, the North Atlantic Assembly adopted a resolution to this effect unanimously. The Senate adopted one, I think, 82 to 10 to move in this direction. If rainmaking is excluded other things may not be excluded. Rainmaking can be used for two purposes. It may be used for getting rid of a cloudcover to rescue people. On the other hand, it can be used for aggressive purposes. What we are saying here is to use it for aggressive purposes would be wrong. I think every administration wants to find more areas of agreement that they can point to with pride. What I have not been able to understand is why your Department has been the sticking point on this really for several years. It really is just DOD.

Secretary SCHLESINGER. It is a relatively new subject for me. I think it is a question of definitions, what should be excluded and what should not be excluded. You mentioned aggressive use. I think that brings us to the question of offensive versus defensive use. If one uses rainmaking in order to interdict roads that may be offensive, but someone would regard it as defensive and as far less destructive inherently than the use of other ways of interdiction.

Senator PELL. But it opens up the Pandora's box so that the next step is the development and pointing of typhoons. Then it would be better to go back to orthodox interdiction.

Secretary SCHLESINGER. I think the Pandora's box element is a point well taken.

Senator PELL. So I would be very grateful if you could give it consideration.

Secretary SCHLESINGER. I cannot say that I have more than a most casual acquaintance with this subject.

Senator PELL. Thank you, Mr. Chairman.

Senator MUSKIE. We went through a typhoon in World War II in Okinawa and I am not sure at this distance whether it was more benign or less benign than some of the other things that were happening in that same area at that time or that happened within 2 months thereafter.

I appreciate the time you have given us, Mr. Secretary. I think it has been very useful and I think the record will be useful. I look forward to the public discussion now which we are planning with Senator Symington's subcommittee.

You have given us something to think about.

Secretary SCHLESINGER. Thank you very much, Senator. It is a pleasure to be here.

[Whereupon, at 5:45 p.m., the committee adjourned, subject to the call of the Chair.]

