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MEMORANDUM OF CONVERSATION U.S. SALT DELEGATION VIENNA, AUSTRIA

DATE:

10 December 1971

TIME:

1:00 - 1:40 p.m.

PLACE: Soviet Embassy,

Vienna

SUBJECT:

SALT

PARTICIPANTS:

US

USSR

Mr. Paul H. Nitze

Academician A. N. Shchukin

Dr. Harold Brown

Brown commented in a jocular way that if they really wanted to remove the MARC problem by reducing the size of the circle around capitals, they would have to go down from 150 kilometers to three kilometers in diameter -- or, since there are several MARCs allowed, a single circle could be of three kilometers in radius. Shchukin replied that, then they would have to defend Moscow from Red Square -- or even from within the Kremlin walls.

Shchukin said he disagreed with Brown's statement on future systems. He thought general definitions where one couldn't even mention the specific system to which they applied were unhelpful. . Brown referred to the general definition in the Outer Space Treaty. Shchukin responded, but in that case, one could specify systems which were within the meaning of "other weapons of mass destruction." These included chemical and bacteriological weapons. Brown said that, in fact, the use of such weapons from outer space was far from clear; similarly, one could specify systems which would be included within the general definition "future ABM systems." These would include lasers and particle accelerators.

Shchukin said he wished to get at the problem in another way; both sides agree that there should not be territorial defenses. The Soviet side has proposed specific language covering this in Article 1; thus, the agreement would have the deployment of future systems in a manner providing a territorial defense. If, however, new technology should make possible components carrying out the same tasks as

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existing components, but perhaps in a more efficient and less costly manner, why should those be prohibited? We are not prohibiting ABM components.

Nitze said that the number and location of ABM components would be limited under Article III and other articles of the agreement. Specifically, in the case of an NCA defense, launchers and ABMs would be limited to 100. If a future system were to be deployed which performed the same function as existing launchers and ABMs, but without interceptor missiles, for example, the limit of 100 could be rendered meaningless. Shchukin suggested that were such future systems to reach a stage where they could be deployed, the question would be referred to the Standing Commission, through which the necessary regulations could be worked out.

Nitze said he wished to see whether he correctly understood what it was that Shchukin had said. Was he saying that the sides would agree in principle that the provisions of the agreement should not be undermined by the deployment of components capable of performing functions similar to ABM components; that, if such components reached a stage of development such that their deployment could be contemplated, the issue of the appropriate manner of their regulation would be referred to the Standing Commission; and that no such deployment would take place until such regulations had been agreed by Governments through the Standing Commission. Shchukin said that if it were necessary, they could agree to that, though it was not clear that he was holding out a commitment in the treaty to that effect.

Shchukin said he would like to turn the discussion to their September 7th proposal. He said that it might be that ABM components as deployed could not effectively defend all the silos in a given field. Let us assume a field containing 100 silos with ABM components so deployed as to defend only ten of them. Under this example, it still would be necessary to count all the silos in the field as being defended, because the radar or radars could be effective in providing a base for a defense of a large number. He said he was not arguing that there is no importance to the number of areas defended; for instance, he was not suggesting that silos all cver the USSR could be defended. He was, however, suggesting

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that the important criterion was the number of silos defended, not the number of ICBM fields defended. Brown said that with a limited number of interceptors, the task of silo defense was interceptor limited, and that neither the number of fields nor the number of silos defended was the significant factor.

Nitze said that he thought the important factor was the capability of the combination of radars and interceptors (and their numbers) used to defend silos. He referred back to Shchukin's remarks during the Smith-Semenov-Shchukin-Nitze discussion during which Shchukin had said that their September 7th proposal was based upon two important distinctions between the defense of silos and the defense of cities. These two distinctions were that silos were hard and therefore permitted intercept at low altitudes, and secondly, that a defense of cities had to be close to 100% effective, while such high effectiveness was not necessary in the case of the defense of silos. If it were possible to agree on definitions of an interceptor/radar combination which would be effective for the defense of silos, but not effective in the defense of cities, even though this interceptor/radar combination were deployed in cities, then, in principle, the number of such interceptor radars deployed would be immaterial as to the possibility of a territorial defense.

Shchukin said that to defend silos it was not necessary to have radars as powerful as a million watts-meters squared. It would be necessary only to be able to see incoming RVs to an altitude of perhaps ten to twenty kilometers. The difficulty, however, was in the radar cross-section of the RV. This depended not only on the shape of the RV, but also upon the aspect from which one viewed the RV and whether or not it was tumbling. Nitze asked whether he had correctly understood that Shchukin had said that it was necessary only to see the RV at ten to twenty kilometers. Shchukin confirmed this. Brown asked whether there was not another factor in addition to the radar cross-section to be considered -- the fact that an RV at a given point in the atmosphere produced ionization. Shchukin agreed. Shchukin continued by saying that, in any event, it would not be necessary to have a specific definition of the power of the radars permitted. For the defense of silos, less than 100 would be adequate. Larger radars

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such as MSRs and PARs located in silo fields would be ineffective in aiding the defense of cities. In any event, the defense of cities was impossible.

Shchukin then turned the conversation to AWACS. He said there were asymmetries between the situation of the USSR and the U.S. in this regard. The United States was surrounded by oceans and friendly countries. It was much easier to distinguish low flying aircraft over water than over land. The USSR could not fly their aircraft over neighboring countries. Furthermore, on their periphery, land-based jammers could be employed around the Soviet Union; this was not possible with respect to the U.S. which is surrounded by friendly countries and by seas we control. He said he did not wish to put design ideas into our heads, but, in principle, it would be possible to radically change the radar on an AWACS so as to see RVs rather than low flying aircraft.

Nitze said that under our proposed Article VI, paragraph (c), it would not be permitted to have phased array radars of greater than 10⁶ power aperture on such planes. Shchukin said that planes could be forward deployed and therefore would not have to be so powerful to have their radars be useful in such a role.

Brown said he was impressed by the vehemence of Semenov's statement on SLBMs and submarines this morning. Would this not make it more difficult to explore a solution making a distinction between a freeze on SLBMs and a freeze on submarines or SLBMs? Shchukin said, no, he thought it still important to explore this subject. He said both sides had made strong arguments with respect to the inclusion or exclusion of SLBMs. He wanted to make clear a particular point which was important on their side. He said that our SLBM submarines were deployed at bases in England and Spain. This greatly increased their time on station; it would take only a matter of days or hours for them to be on station after leaving port; in fact, they were within launching range while at station.

Brown asked whether he was suggesting that a different weight be given to submarines forward-based, than to submarines based on home station. Shchukin said that this was something that might be discussed even on Tuesday.

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