

DEPARTMENT OF STATE  
APR 8 1960  
Memorandum of Conversation

Approved by White House -  
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4/18/60  
4/11/60

DATE: March 29, 1960  
10:30 a.m.  
Camp David

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SUBJECT: Geneva Nuclear Test Negotiations  
OFFICE OF DIRECTOR  
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PARTICIPANTS: United Kingdom  
The Prime Minister  
Sir Norman Brook  
Mr. Con O'Neill  
Sir William Penney  
Ambassador Caccia  
Lord Hood  
Mr. Wiggin

United States  
The President, The Vice President  
Secretary of State  
Under Secretary of State  
Acting Secretary of Defense Douglas  
Mr. McCone, Chairman, AEC  
Dr. Kistiakowsky  
Gen. Goodpaster  
Mr. Kohler  
Mr. Berding  
Mr. Farley

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At the suggestion of the Secretary, Dr. Kistiakowsky reviewed discussions on the previous day concerning a possible coordinated research program to improve methods of detecting underground seismic events. He said that, if such a program went well, then in 18 to 24 months the capability of a 180 station control system might be restored to that estimated by the Geneva Experts in 1958; i.e., 90% chance of detecting and identifying 5 kt events. This estimate left possibilities of decoupling out of account. Since the 180 station net, even with improvements, could not handle muffled or decoupled shots, research and testing should also be devoted to the approach of using unmanned or robot seismic stations. He emphasized that the results of any such program could not be forecast with assurance at this time. In response to the President's question regarding possible addition of more stations to the 1958 Experts recommendations, Dr. Kistiakowsky said that technically it might prove feasible to add any number of single unmanned seismic devices set on pillars with appropriate communications or recording devices. Such an expansion might raise political and negotiating problems however.

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The President said that he did not expect 100% certainty of detection. He asked whether such a system would make it unlikely that any one could or would try to conduct clandestine explosions. Dr. Kistiakowsky said that, provided a reasonable number of on-site inspections were permitted and there was free choice of the particular events to be inspected, then he thought any potential violator would face a real risk of getting caught. A quantitative estimate of the degree of risk could not be made. We had to recognize that on-site inspection is a physical and uncertain thing, much like prospecting for oil.

Mr. McCone commented further on the research and tests which might be conducted in 6 to 8 months and in 18 to 24 months. He emphasized the difficulty of forecasting whether the net result would be favorable or unfavorable. Research would answer some questions but would raise others.

The President asked about the organization of a joint research program. Dr. Kistiakowsky explained the concept of "coordinated" research activities which would provide for exchange of views on research plans, observation of experiments, and exchange of results, but would not risk delay in getting ahead with U.S. and U.K. research activities by requiring that joint agreement with the Soviets be obtained before undertaking research.

Mr. McCone emphasized the need for some nuclear detonations as part of the research program. In response to a question by the Prime Minister, Sir William Penney said that he agreed that a few nuclear detonations--1, 2, 3 or 4--would be needed if only to see whether nuclear and HE explosions give the same signal. Mr. McCone said that precautions could be devised to give assurance that such detonations were not weapons improvement tests. These might include using devices previously placed in supervised storage, limiting instrumentation to such a degree that diagnostic information for weapons development purposes could not be obtained, and permitting observation of the experiment and the externals of the nuclear device. Dr. Kistiakowsky recalled that the Soviets objected to the concept of using devices placed in "escrow" or supervised storage and wanted all such devices to be open to internal examination. Mr. McCone said that this raised a classification problem under the Atomic Energy Act.

The Prime Minister said that he could foresee certain Soviet objections but thought they could be met. The Soviets would probably call for joint research, but we should have a set position by presenting our approach constructively as an agreed program of coordinated

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effort. The President pointed out that there would be joint observation of experiments and analysis of results. The Prime Minister continued that the Soviets would be suspicious of the possible weapons advancement from nuclear detonations, which might be met by the precautions described by Mr. McCone. The President suggested that we might meet such suspicion by using each other's nuclear devices in any such detonations. The possibility was also mentioned of using U.K. devices, though Mr. McCone warned that the U.S.-U.K. agreement for cooperation should be studied before trying this. Dr. Kistiakowsky said that another possibility would be to declassify and use a simple gun-type of nuclear weapon which would be of little value to a potential Nth country.

The Prime Minister speculated that in addition the Soviets would question the need for nuclear detonations. Here the reasons were the need to know what the nuclear signal was, and also the practical argument of the inconvenience or even infeasibility of very large TNT explosions.

The President said that basically the position depends on whether the Soviets want a fair agreement. Honest men could get together along the lines that had just been discussed.

The Secretary asked what contribution to a research program could be expected from the Soviets. It would have a bad effect in the United States if they contribute nothing. Dr. Kistiakowsky said that we had no knowledge of what they had in mind; they too have competence and experience in seismic research. The Prime Minister observed that they may well be passive, since they claim that they don't believe there is a detection problem. He expressed agreement with the President's thought that the basic question was whether the Soviets want a sound agreement. He thought there was evidence that they did, and that in particular they were concerned over the dangers of the spread of nuclear weapons to additional countries. In this connection Mr. McCone referred to the development of the gas centrifuge for producing enriched U-235.

The President observed that, in preparing and presenting our research program and its objectives, it was important not to stress the difficulties and uncertainties to the extent that we appeared to be backing away from resolution of these difficulties and reaching agreement. Dr. Kistiakowsky warned that it would be misleading to give the impression we expect to solve the detection problem in two years through research. The President said that he was sure we would never have a perfect control system. He envisaged that, if progress

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in a year or two of research is satisfactory, we would go ahead. If the results are negative and if there is no Soviet cooperation, we can get out.

The Vice President asked whether the two-year period of research and of voluntary moratorium was a floor or a ceiling. The President said that Khrushchev proposes 4 to 5 years with indefinite continuation after that, regardless of results. He preferred offering one year and then extending for a year if necessary. The Prime Minister asked whether the opening bid should be one year, two years, or one to two years. The President said he thought we should offer a one-year research program and moratorium and stand stubbornly on that for sometime before going on to two years.

Dr. Kistiakowsky suggested that we might use the number of inspections below the threshold as a bargaining point. To put ourselves in a good position, we should make it clear that we expect a number of inspections below the threshold in addition to the approximately 20 we have already asked for above the threshold. Mr. McCone pointed out that, for about two years while the control posts are being installed, there will be no basis for instituting on-site inspection. The President acknowledged that the question of quota of inspections would be moot during that period.

Mr. Douglas pointed out that the subject of number of inspections would have to be covered in the treaty. Mr. Herter recalled that Tsarapkin had reiterated that the quota had to be settled as a political matter at a higher level than the Geneva negotiators. The Prime Minister proposed that we get an agreed quota useable at our option above or below the threshold. The President said that the number he thought of beginning with was 100.

The President commented that Gen. deGaulle has already said he does not expect to adhere to a treaty. He asked what other countries were potential nuclear powers. The Secretary referred to West Germany and Communist China.

The Prime Minister again suggested that the bidding on duration of the voluntary moratorium ought to begin with an offer of one to two years. The Vice President and the Secretary argued for one year as the initial offer. The Prime Minister suggested that we might say the moratorium would have the same duration as the coordinated research program. The President said that he wanted to be able to check progress every year. The Secretary referred to the provisions of the agreed duration article of the draft treaty. The President said

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that he thought we could argue effectively that the period should be as short as possible, since we want to get to a sound comprehensive treaty.

The Prime Minister said that the question would undoubtedly be raised as to why the obligation not to test below the threshold should be unilaterally declared rather than in the treaty. He thought the best argument was the United States constitutional process.

The Secretary and Mr. McCone referred to the talking paper on a coordinated research program which had been summarized and discussed, and pointed out that it was an initial paper put together on short notice and would undergo further review.

The meeting reconvened at 3:30. Draft instructions to the delegations at Geneva were reviewed and agreed for subsequent dispatch.

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USDel, Geneva - Ambassador Wadsworth  
 Amembassy, London - Ambassador Whitney  
 AEC - Mr. McCone  
 Defense - Mr. Douglas  
 White House - General Goodpaster  
                   Dr. Kistiakowsky

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