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DEPARTMENT OF STATE

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Memorandum of Conversation

APPROVED RCB 6/19/59

DATE: June 17, 1959
*List made in c/s
4/23*

SUBJECT: Geneva Nuclear Test Detection Negotiations

PARTICIPANTS: Department of State
Mr. Dillon - Acting Secretary
Mr. Farley - S/AE
Mr. Spiers - S/AE
Mr. Borg - S/S

Department of Defense
Under Secretary Gates
General Loper

Atomic Energy Commission
Mr. McCone
Dr. English

~~COPIES TO:~~

The White House
Dr. Killian
Dr. Kistiakowsky
Mr. Gordon Gray
Mr. Keeny

Central Intelligence Agency
Mr. Allen Dulles
Dr. Scoville

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S/AE - 4 (lcc:4A)
S/P IO US Delegation, Geneva-Amb. Wadsworth Defense: Mr. Gates
EUR H The White House: Dr. Killian AEC: Mr. McCone
Mr. Gordon Gray CIA: Mr. Allen Dulles

Mr. Dillon suggested that before getting to the major problem before the meeting, i.e. the level of inspection which the U.S. would require in connection with a nuclear test cessation treaty, Dr. Killian report on the status of preparations for the high altitude technical discussions scheduled to begin in Geneva on Monday, June 22nd. Dr. Killian said that the panel, which will be headed by Dr. Panofsky of Stanford University, has been assembled and held a preliminary meeting in California on June 15. He asked Mr. Keeny to report on the work accomplished and the problems faced.

Mr. Keeny identified the members of the panel and described the general approach which the group would use in discussion with the Soviets. The group planned to use the summer experts' report as a take-off point, first reviewing knowledge which had been obtained since that time. The group would cover both satellite and ground-based techniques and would avoid either minimizing or stressing the problem of concealment, attempting rather to lay out frankly the limitations and capabilities of all of the possible techniques. A plan of work has been developed and responsibility for preparation of papers has been assigned to members of the delegation. With respect to the matter of classification, AEC feels that the Restricted Data problem will present no difficulty. Defense information is a more difficult problem and the Department of Defense was presently conducting a review of the second Panofsky report. Mr. Dillon asked Mr. Gates to do what he could to expedite this review.

Mr. Dillon asked about the status of consultations with the U.K. Mr. Farley said that the U.K. has been given the reports and that he had explored with the

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British Embassy the possibility of Sir William Penny chairing the British experts in view of his experience in this kind of meeting.

Mr. Keeny, continuing, said that a summary of the Panofsky reports had been prepared for public release but that the panel members were unanimous in regarding such a release as undesirable. These reports were basically different from the Berkner study in making a specific system recommendation and got into a discussion of costs. Publication of a summary would entail laying out our position in toto at the beginning of the discussion with the Soviets. There was no intention to table the reports as a whole in Geneva, and the objective was to move slowly into the problem as the U.S. experts did in last summer's meeting. Publication of a summary would be at cross purposes with this objective.

Mr. Dillon observed that there appeared to be no real public demand for the release of these reports and Dr. Killian and Mr. McCone agreed that they should not be released, in view of the circumstances described by Mr. Keeny, ~~until it was clear release would not adversely affect the technical discussions.~~

Mr. Dillon then suggested the group turn to the inspection problem, and said that the question to be explored was the best approach to deciding what kind of a quota the U.S. would require, and what would be the best means of making a decision under either a quota or percentage approach that a given event should be inspected. He asked Mr. Dulles to outline the contribution which could be made by intelligence in this process. Mr. Dulles said that intelligence could make a considerable contribution. Any Soviet attempt at violation would inevitably involve a large number of Soviet nationals. The Soviets realized that we have penetrated their security in a number of ways, although they do not know the precise extent of this penetration. The Soviet uncertainty about this would serve to keep them off balance. Mr. Dulles then reviewed a number of special ways in which the information available through covert intelligence could be applied to increase the effectiveness with which the U.S. would use any given number of inspections. After reviewing these methods Mr. Dulles concluded that it was possible to do enough by intelligence to make violations uncertain and dangerous, especially any violation which involved digging holes, since earth moving was easy to spot by various means. There was, of course, no guarantee that intelligence techniques would detect violations, but it must be considered an important adjunct to the system. Mr. Dillon asked whether the techniques described by Mr. Dulles could be used without compromising our sources. Mr. Dulles replied that this would be the case only if the U.S. were able to select itself the events to be inspected. Mr. Scoville said that Mr. Dulles' observations pointed up the relevance of Prof. Tukey's thoughts on maximizing the effectiveness of a choice of inspections, and he showed how intelligence could help in assigning weights under the Tukey system. Mr. Gates observed that a control system permitting on-site inspection in the Soviet Union would be of substantial intelligence value in itself. However, he reported that some of his people felt that there were some concealment techniques which were so simple that they would create no substantial indications which intelligence sources could pick up. The problem may be so great that intelligence will not be a help.

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Dr. Killian suggested bringing a working group together to review the whole problem of inspection and the various approaches to it, as well as to study precisely what the risk would be for the U.S. if it were possible for the Soviet Union to conduct a small number of tests clandestinely. Such a group would, of course, look at the Tukey approach, as well as at the effectiveness of the intelligence contribution. The objective would be to get a true overall picture of the problem rather than isolated bits and pieces, which are all we presently have. Mr. McCone agreed that such a study would be highly desirable and Mr. Dillon asked that Dr. Killian take responsibility for getting it started.

Dr. Killian observed that the Soviet proposal for selection by each side of events for and better the more he thought about it, and that he did not understand why the Soviets made it. He felt that if we had a budget of 100 inspections per year to use there would be a high probability of catching any violation. He felt that it was possible to reduce this number and still have a high probability, but that 100 was a reasonable figure to start with. He said he felt that any figure as small as 25 would not be acceptable to us.

Gen. Loper said that the advantages of allowing the "other side" to choose the event to be inspected would not necessarily argue in favor of the quota approach, since it was equally applicable to making choices within a percentage. Mr. McCone said that the probabilities of detecting a violation appeared to be greatly improved if each side was able to choose the events to be inspected. He suggested that the Killian group might take various assumed numbers of allowed inspections a year, and, taking everything into account, see how effective it would be and what risks it would mean for the U.S. Mr. Dillon said that it was vital to have informed conclusions on these questions before we make up our minds on what to do in the negotiations. Every indication is that the Soviets will not be willing to talk about technical matters such as these but that we ourselves should still have this information as a basis for determining our own objectives.

Mr. Dillon asked Mr. McCone to report on his visit to Geneva. Mr. McCone said that he had been graciously received by Tsarapkin who then turned around and told the press that he had come to scuttle the agreement. He said that Amb. Wadsworth was doing a superb job, displaying great skill and patience. Amb. Wadsworth was troubled, however, by the degree of turnover on the delegation staff, as well as by the problem of communications, which was no doubt a temporary one caused by the heavy traffic of the Foreign Ministers meeting. Amb. Wadsworth continues to believe that the Soviets do want an agreement and was troubled by the message sent by the Secretary regarding the possibility of a change in direction in three or four weeks. Mr. McCone thought that the delegation itself felt that agreement on the April 13 proposal was, all things considered, the most desirable end result of the negotiations. The Joint Committee apparently shared this view. Mr. McCone said he believed, in the long run, the Soviets will be willing to discuss technical aspects of the underground problem.

Mr. McCone said he wished to raise one final point that was occasioned by an inquiry from the Joint Committee as to how often the principals meet to consider

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the course of negotiations. He felt that these meetings should be held quite frequently. Mr. Dillon agreed that they should be convened whenever there was a concrete need. Dr. Killian said that one of the next problems that would need discussion related to just how much of a high altitude system we will be prepared to press for, in view of the great costs involved and the conflict with other high priority satellite and missile objectives. He suggested that there should be an early meeting to discuss this problem after the staff had been able to lay out the relevant considerations.

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