A REPORT FROM STOWE

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Introduction

I was on the scene from September 5th to 16th, 1961, at Smugglers Notch, near Stowe, Vermont, for the Seventh and Eighth Conferences on Science and World Affairs. My status was that of a "college aide," which meant that I was expected to be a general assistant to the Conference staff, headed by Dean Arthur Singer of M.I.T. I had unlimited access to the Conference sessions, both the plenary sessions and the meetings of Working Groups, and took notes throughout. I was also allowed to take part in all of the informal activities arranged for the delegates (a boat ride, concerts, movies, etc.) and ate all my meals in their company. Especially at meals, but also on several other occasions, I was called upon to interpret conversations between Russian-speaking and English-speaking participants.

The entire Conference, except for the opening plenary session, was closed to the press. Although only one press briefing was held each day, a number of reporters, including Harrison Salisbury of the New York Times, haunted the environs continually. For this reason, the Conference adopted ground rules to the effect that 1) during the Conference no one was to provide the press with comments of any kind - neither

direct accounts of what was being said in the Conference sessions, nor subjective reactions to the Conference proceedings as a whole, and 2) after the Conference was over, participants would be free to make their impressions public in any way they wished, but with the understanding that they would restrict themselves to general comments and refrain from attributing particular remarks and particular positions to specific participants at the Conference. While what follows is in the nature of a semi-private communications, I would still like to keep within the spirit of the second ground rule whenever possible. Furthermore, while I see no reason to restrict the circulation of these notes within RAND, I would still ask that they not be shown to people outside RAND without first obtaining my permission.

The Setting

The site of the conference was the tiny town of Stowe, Vermont, or more precisely, Smuggler's Notch, six miles away on the wooded north slope of Mount Mansfield. From the conference site, it takes nearly an hour by car to reach each of the three major cities of northern Vermont: Burlington, on Lake Champlain; Montpelier, the State Capital; and Barre, home of the world's largest granite quarries. Early September is off season for this region, for the summer camps and lakeside resorts have closed, and it is another month before the tourists arrive "to see the colors," when autumn sets in and the leaves start turning. In the winter months Stowe is a busy and popular ski resort, made famous by the slogan, "There's always snow in Stowe, you know." But during the conference the weather was fairly hot. Most of the participants walked around during the day without jackets, and at lunchtime sat in the sun beside the twenty-five yard swimming pool. The peacefulness and natural beauty of the setting had a relaxing, salutary effect on the participants. Pravda and the New York Times, which were flown in daily, were the only reminders of the tense world outside.

The activities of the conference centered around The Lodge and The Toll House, and several acres of

rolling lawn which run between them. Most of the delegates, including all of the Russians, were housed at The Lodge, a first class resort hotel known throughout New England for its exceptional cuisine and exceptional prices (daily rates begin at twenty dollars a day). The Conference took over the entire lodge, and still two motels, over a mile away, were required to house some of the participants. All meals were served at The Lodge, where people spoke of diets but paid little attention to them. The various lounges served as meeting rooms when the participants divided into working groups, and the game room became a "Secretariat," where two mimeograph machines, perched on top of a ping pong table, churned out the documents which kept the Conference going. Nearby in the Secretariat a group of interpreters worked continually to supply the Conference with English translations of all the Russian documents and Russian translations of all the important English ones.

The plenary sessions were held in The Toll House (so called because it stands at the beginning of the toll road which runs to the top of Mount Mansfield) in a large meeting room with a gabled ceiling and pine wood walls. The room was wired for radio transmission of simultaneous translation of all the speeches,

and all sessions were recorded. The participants sat around three long tables arranged in the shape of the Greek letter pi, which were covered with green felt. Opposite the open end were two glass-walled booths for the interpreters. Seats were not assigned, but the Russians sat together in the same area regularly. Prepared speeches were given from a rostrum, but discussion was carried out from people's seats, with the help of microphones placed at regular intervals along the tables.

Organizational Matters

The "Conference" referred to was in fact two Conferences, one lasting from Tuesday, September 5th, to Saturday, September 9th, known officially as the Seventh Conference on Science and World Affairs (COSWA VII), which dealt with scientific cooperation, and the other, beginning on Monday, September 11th, and lasting until Saturday, September 16th, known officially as the Eighth Conference on Science and World Affairs (COSWA VIII), which dealt with disarmament and world security. The first conference had forty-four participants, the second forty-eight; in each conference just under half of the participants

were Americans, eleven were Soviets, one was Bulgarian, one Hungarian, and most of the rest were from Western Europe. (See the Conference lists, which are appended.) Whereas all eleven Soviets, the Bulgarian, and the Hungarian attended both Conferences, the Americans used a two-platoon system: only four American participants out of a total of thirty-seven attended more than one Conference. (These four were Harrison Brown, Paul Doty, Bentley Glass, and Eugene Rabinowitch.) This two-platoon system left the Soviets bewildered, and was one of the reasons why there was very little social contact between Eastern and Western participants. It also made the Soviets feel like the hosts, for at the second Conference they were more at home than their American counterparts, both as regards the surroundings and as regards the tone of the Conference. As one American put it: "We need the first couple of days to get calibrated."

At both Conferences a three-hour working session was scheduled for each morning and afternoon. About half of these working sessions were plenary sessions, involving all of the participants and described briefly before. During the rest of the working sessions, the participants broke into "working groups," and discussed specific problems. At COSPA VII, the

working groups divided according to the specialization of the participants, to discuss cooperation in the biological sciences, cooperation in space science, etc. At COSWA VIII, the areas of concern of the working groups were defined topically: one dealt with nuclear production and stockpiles, another with delivery systems, etc. The setting up of working groups was an innovation in the procedure followed at previous Conferences and, as I understand it, represented a concession on the part of the Soviets, who had hitherto preferred to limit the Conferences to plenary sessions. Here, at COSWA VII and COSWA VIII, the plenary sessions, except for each opening session, were taken up primarily with discussion of working group reports and discussion of a final statement. At COSWA VII, the final statement ran twenty-seven pages and represented a synthesis of the final drafts of six working group reports. At COSWA VIII, the final statement ran two and a half pages, and therefore little indication of the contents of the working group reports of this Conference was given to the public.

The official languages at the Conference were Russian and English. No other interpreting service was provided, which made the going a little rough for a few of the European participants. Bogolyubov and

Tamm were the only Soviets who could speak English, though Sissakian could speak German and Nadjakov, the Bulgarian, could speak French. The only Russian speakers among the Western participants were Rabinowitch, Kistiakovsky, and Lipson.

The participants at the Conference had been invited individually, and were not considered to be members of delegations. The Soviets, nevertheless, acted as if they were a delegation and, when a matter was subject to a vote in a plenary session, always voted as a bloc. As is the case whenever Soviets travel abroad, they functioned as a unit. Whenever a concert or a play was scheduled which they felt they were expected to attend, all of them went to it. And evenings, at some appointed hour, suddenly all of them were in their rooms.

Although the Soviets caucused occasionally, there was little doubt that Academician Topchiev was in charge. He made both of the important opening addresses and acted throughout as if he had full control of his own group. I had heard beforehand that his sidekick, Pavlichenko, a bright young political type who was listed as an observer, might turn out to be running the delegation from the wings. But I could find no evidence for this. Pavlichenko seemed to be

around mainly to handle administrative details and to produce clear statements of official Soviet policy when they were required, but his role in determining Soviet behavior at the Conference seemed nowhere near as large as Topchiev's. Pavlichenko, however, broke two ribs in a fall at the start of the Conference, and there is no way in which I can estimate what effect this injury may have had on his usual demeanor. But Topchiev was by far the most imposing Soviet figure at this Conference, the one who went around from group to group "checking up" when several sessions were meeting simultaneously, and the one who turned up at odd times when another Soviet found himself in a discussion more serious than he had intended.

The Americans, by contrast, were at least as undisciplined as the Soviets were disciplined. Even though some of the Americans had met in Washington before the Conference, and all of the Americans present at COSPA VIII did caucus once to avoid a particularly serious open conflict, still the Americans could in no sense be considered a delegation. In fact, the strongest impression which the Soviets must have carried away with them was the impression of a diversity of opinion in the United States. Hardly an issue was raised during the entire two weeks on which it was not

possible to find American participants taking both sides. The Americans generally pointed out that they were only speaking for themselves, and one of the major formal statements by an American began, "My remarks are entirely personal. I am sure there will be some disagreement even among my own colleagues..." And disagreement abounded. The Soviets heard one American scientist assure them that their resumption of nuclear testing was not a more bellicose act than Kennedy's July television speech on Berlin. Only minutes later, they heard another American scientist, after chastising them for their secrecy, say, "Do not expect us to make ourselves into a dictatorship - we like our society the way it is. But we hope you will become more like us."

Yet though political divergences were large within the American contingent at the Conference, divergences in conception of the purpose of the Conference were perhaps even larger. Some of the Americans considered themselves participants at a Conference, had come because they were invited and because they were curious about what the Soviets would be like. Others felt themselves part of an international movement, the Pugwash Movement, with a charter and a history. As I have been writing this report, I have been wondering

what to do with the word "Pugwash." All through the meetings the Russians referred to the "Pugwashnoe" Movement, but in the English documents "Pugwash" always came out "COSWA." Pugwash is a name associated with several earlier conferences of scientists, which many of these participants had attended, and with Cyrus Eaton, who had subsidized them. The Americans have officially dropped the name Pugwash, in order to give the meetings greater respectability in this country. "COSWA," however, cannot hope to compete with "Pugwash" for euphony, and most of the Americans, as well as all of the Europeans, regularly referred to this meeting as a Pugwash Conference. Thus, I am forced to take a stand, and throughout this report I refer to "participants," a "Conference," and "COSWA," not "delegates," a "Movement," and "Pugwash." It seems to me that the former set of words characterize the meetings more accurately.

But was this a Conference or a part of a Movement as far as the participants themselves were concerned? Depending on where each of them stood on this issue, he would take a very different view of the objectives of the meeting. Those who thought of this meeting as a Conference, looked upon it as an opportunity to communicate preponderant American attitudes and

official United States policy positions to important Soviet figures. They put first the accurate communication of the United States position, and second the spirit of good fellowship. Those who thought of this meeting as a part of a Movement, put first the preservation of that Movement. They felt that keeping open the channels of communication between East and West which this Movement represented overweighed all other objectives which the Conference might have, and they expressed a frank concern that if things went badly the Russians might call an end to these meetings. Their attitudes, moreover, were shared by most, if not all, of the Europeans. Thus, though two conceptions of the purpose of the Conference came into frequent conflict, the group which was primarily concerned with maintaining the spirit of a Movement, containing as it did the Soviets, the Europeans, and a substantial number of the Americans, nearly always carried the day.

My Duties, Activities, and Opportunities

My principal duties were those of a chauffer, and in that capacity I made on the average of one trip a day to either the Burlington or the Montpelier-Barre airport, to deliver or pick up one or more of the Conference participants. On these occasions I had an

opportunity to speak with a number of the participants at considerable length - among them Rabi, Wigner, Pauling, and George Fischer (an observer). I also worked occasional evening hours in the Secretariat, helping with the mimeographing and collating of materials being prepared for the conference sessions. I was asked to act as interpreter at the working group on cooperation in the physical sciences at COSWA VII, and also did some informal interpreting nearly every day.

I found it possible while exercising these duties to attend more than half of the plenary sessions and several of the working groups. At COSWA VII, I sat in on meetings of one working group on cooperation in the physical sciences and another on cooperation in assistance to developing nations. At COSWA VIII, I attended all of the sessions of a working group dealing with "selected next steps in arms reduction."

I ate all my meals with the participants, and also attended many of the social functions which were arranged for the participants. The functions I attended included a chamber-music concert, an excursion to the top of Mount Mansfield by chairlift, a Sunday chartered boat ride on Lake Champlain, and the final banquet. In the course of the two Conferences

I met and had a chance to chat with nearly all of the participants.

The Timing of the Conferences: Nuclear Testing

On August 31st the Soviet Union announced its intention to resume the testing of nuclear weapons; on September 5th COSWA VII began; and by the time COSWA VIII had concluded, the Soviet had exploded more than ten nuclear devices. The Soviet participants were in a position clearly no one could envy, and for a number of reasons. First of all, the previous COSWA Conferences had taken a strong stand against the resumption of nuclear testing, and had called a nuclear test ban treaty the cornerstone of any disarmament agreement. Second, several of the Soviet participants had been outspoken advocates of a nuclear test ban treaty and had made public statements to the effect that the Soviets would never be the first to resume nuclear testing. The September 1961 issue of the Bulletin of the Atomic Scientist, which was circulated at the Conference, contains a letter from three Soviet high officials, including General Telensky, who was one of the participants, which stated in part: "The Soviet Union has unilaterally discontinued nuclear weapons tests and passed a decision not to resume

nuclear explosions, if the Western powers do not resume tests of atomic and hydrogen weapons. Consequently, it is up to the Western powers and the Western powers alone to see whether dangerous experiments with nuclear weapons are continued or ended for all time." (p. 295) Telensky had a choice of confessing hypocrisy or admitting that he had failed to influence Soviet policy. Third, the Soviets were cut off from Moscow, and from the party line about test resumption which was in process of formation. They relied heavily on the New York Times reports of statements made by the Soviet government, especially on the account of the long interview between columnist Sulzberger and Khruschchev, which was printed during the Conference. Topchiev also spoke regularly with Moscow by phone. Fourth, many of the Western participants at this Conference were known to have actively supported the continuation of a test ban in their countries and to have devoted considerable time to making their point of view effective. Each of these men was operating under assurances that the Soviet government was serious about signing a test ban treaty. Their Soviet colleagues had let them down. At least two Americans were in the throes of a psychological readjustment, an agonising reappraisal, a disenchantment

with the Soviets, while the Conference was in process. One of the more detached Americans commented that the resumption of nuclear testing by the Soviets had hurt this group of Westerners more than any other action the Soviets could have taken, "even more than, say, an invasion of Finland."

The Westerners, presented with this tactically advantageous timing of the Conferences, reacted in various ways. At one extreme were a few Europeans who argued that it wasn't polite to discuss the Soviet testing in the working sessions: when a fellow's in a hole, you don't throw dirt on him. At the other extreme were a number of Americans who felt that it was extremely important for the Soviets to understand that the West was really incensed about test resumption and therefore tried to castigate them directly or indirectly at every available opportunity. Somewhere in the middle were a group of "realists" who identified with the Soviets' position - there but for the Grace of God go I. One American even told the Russians that the U.S. decisions not to resume nuclear testing had been very close decisions indeed.

The Soviet response to the uncomfortable situation in which they found themselves was a defensive one, and, at that, not handled very skillfully. Not only were

they not reticent about their country's resumption of testing, but they even brought the subject up a number of times in the midst of discussions of quite different matters. They justified their country's resumption of testing on the grounds that 1) France had been testing throughout the period of the test ban negotiations, and had therefore been supplying the West with important military information; 2) the West had made four times as many tests of nuclear weapons as had the Soviet Union, and therefore had an advantage which it was only right that the Soviet Union should try to neutralize; 3) the moratorium on testing had followed a series of American tests, and it was only right that the Soviets should now have "last licks"); and 4) provocative acts on the part of the West had aggravated the political situation to a point where the Soviet Union was compelled to resume testing. No mention was made of internal military considerations which might have driven the Soviets to resume testing. The reasons above are listed in order of <u>decreasing</u> frequency of occurrence in Soviet statements; it would seem to me that this order is also one of <u>increasing</u> plausibility.

COSWA VII: Scientific Cooperation

The Soviets were interested in extending scientific cooperation and so were the Westerners. Thus COSWA VII was able to compose, sign, and make public a twenty-seven page document which spells out the areas where scientific cooperation should be extended and proposes methods for accomplishing this. Yet despite this demonstration of common interest, it was clear that substantial disagreement existed between East and West about what scientific cooperation meant. At the opening session Topchiev presented a paper, "International Scientific Cooperation and the Prospects of its Development," which was a forthright and relatively apolitical appeal for the expansion of scientific cooperation. Much of his paper is concerned with increasing contact between existing institutions; far less is concerned with the implementation of new, joint research projects. And when Topchiev does call for new, joint research projects, a close reading of his paper reveals that he has in mind a coordination of national research programs, not the creation of new international institutions for scientific research. However, the creation of new international institutions for scientific research was exactly the goal set forth by a number of the Western participants in the working

group sessions which I attended. The Western participants proposed an international center for ultra-high energy physics (energies in excess of 200 bev.), an international center for research on the structure of macromolecules of importance to biology, an international center for the study of computing machines, and others. In the working groups, the Western scientists discussed among themselves such specific details as the location of such centers and the nature of their finance. The Soviets were passive throughout these discussions; they responded to the Western proposals with politeness ("a very good idea"), but did not show any interest in discussing details. Occasionally they would insist that administrative matters were beyond the competence of scientists. It is hard to conclude otherwise than that these Soviets had little interest in the creation of new institutions for scientific research. The Soviets' model for scientific cooperation appeared to be the International Geophysical Year (IGY); the Western model for scientific cooperation appeared to be the European Council for Nuclear Research (CERN). As a result, communication between the Soviets and the Westerners was often more imperfect than it seemed. The final statement of twenty-seven pages includes, to be sure, proposals calling for both IGY-type and

CERN-type cooperation. I would urge, however, that the Soviet acquiescence to CERN-type cooperation was more a sign of good manners than of genuine enthusiasm, and that therefore Soviet agreement to the establishment of international research centers should be treated with some skepticism.

I regret that I have but little information about the discussions in the working group on cooperation in space research. I know that Rabinowitch and Blagonravov were particularly active in these discussions, as one wrote the interim report of the working group and the other presented it to the plenary session. I am aware also that one of the European participants presented a short paper which urged the Conference to come out publicly in opposition to the present race to put a man in space and in favor of more leisure and less extravagance in the various national research programs. He circulated his paper to all the participants, and was granted permission to read it at one of the plenary sessions. But, as far as I could discover, his proposal was politely ignored. I can't recall even one discussion about it.

Topchiev referred to cooperation in space research in his opening address, and for the most part his suggestions formed a framework for the subsequent reports

of this working group. It is clear, however, that a number of proposals appear in the final statement, made public at the conclusion of COSPA VII, which did not appear in Topchiev's opening paper. Among the proposals which originated in the working group is one which states, "We recommend the orderly assignment and use of radio frequencies in space. We support the initiative in this direction taken by the International Telecommunications Union, and hope that a final solution can be reached within two years." (Proposal II C.) It appears in some instances, in fact, that Topchiev's initial proposals may have been toned down in the working group discussions. In the opening plenary session Topchiev proposed "a single international program providing for the use of artificial satellites and cosmic rockets to carry on astronomical observations outside the atmosphere, for the creation of a global system of retransmission communication, television, navigation, and meteorological services, (and) for the further experimental study of the conditions of manned flight into outer space." In the final statement the participants "endorse in principle the desirability of international world-wide systems of communications satellites and of meteorological satellites, since these would clearly be in the interests of all mankind.

We realize that certain difficulties now stand in the way, but we hope that the governments of the United States and the USSR, as well as of other nations embarking on rocket and satellite programs, will undertake a common study of the ways to overcome them." (Section II.G.)

The working group on Assistance to Developing Nations for the most part found itself beyond its depth. This was the first time that one of these Conferences had included these problems on its agenda, and I would not be surprised if it will be the last. The Conference had invited at least one expert in this field, Dr. Eugene Staley of the Stanford Research Institute, but for most of the other participants the problems were unfamiliar. The Soviets were even less equipped to discuss these problems than the Westerners, though it would be only fair to remark that the Soviets may have originally counted on having Arzumanyan with them, but Arzumanyan, an economist, and expert in this field, had fallen ill and had not come to the Conference. The net result, at least at the working group session which I attended, was a diffuse and undirected discussion. The participants agreed that the subject was important, and urged support for two conferences on science and underdevelopment, one in Geneva and one in

India, which are scheduled for the coming year. Some of the Americans spoke of the "splendid opportunities" which these problems afforded for East-West cooperation. The Soviets responded by stressing the importance of working with the scientists in the developing nations, and insisting that an enormous increase in aid to the developing nations would become feasible once general and complete disarmament was achieved. But the Western scientists were really startled to discover that the official Soviet position is that a population explosion is a figment of the capitalist bourgeois imagination. One Soviet asserted that by the time the population problem became severe we would be able to populate the moon and neighboring planets, and urged his colleagues to put their trust in technology.

COSWA VIII: Disarmament and World Security

There were forty-eight participants at the Eighth Conference on Science and World Affairs, whose special topic was Disarmament and World Security, and I doubt that a reporter could get from any two of them the same account of what happened. Some of the participants were stunned, some were pleasantly surprised, some found what they expected. Some found the opposite side conciliatory, some found it uncompromising, some found it willing to listen to reason. I could not even guess

the proportion of the participants who could be put into each category. What I can do is give some of the reasons for the variety of opinions.

Throughout the first week, at COSWA VII, there were murmurs that COSWA VIII might not take place at all. Some of the key Americans were contemplating withdrawing from the Conference, if it turned out to be a forum for empty declarations of international good will; the contrast between such a "circus" and the tense situation of the world outside would have made them feel altogether too hypocritical. Nearly all the Americans assumed that the Soviets also were discussing, both among themselves and with Moscow, whether to withdraw from the second conference. Some of the Americans expected the Soviets to do so, as yet another in the series of moves designed to frighten the West about the seriousness of the Berlin problem. After all - these were the weeks of the war of nerves.

Thus, when the Conference did come off, many of the Westerners were relieved. As the final statement of this Conference states: "It is gratifying that in such troubled times it proved possible for forty-eight scientists from eleven countries to meet in a friendly atmosphere and to examine together carefully the dangers which face the people of the world." There were no

dissents when that sentence was proposed to the plenary session.

The assumption had been nearly universally held that the Soviets could ruin the Conference or make it a success. One can say with certainty that they chose not to ruin it, and in so saying, one casts about for explanations. The most plausible explanation I heard was that the Soviets were anxious not to lose the good will of the Western "peace mongers", and realising that the resumption of nuclear testing was threatening to do just that, they decided to be earnest and agreeable at Stowe in order to preserve in some cases, to restore in others, some of the good will which they had previously enjoyed from this group. The continued existence of a group of influential men predisposed to believe well of Soviet intentions was of importance to the Soviets. As many of the most influential men in that category were at this Conference, and as some of them were very seriously disturbed by Soviet actions of the previous weeks, it appeared a matter of elementary good sense for the Soviets to do what they could to keep these particular relations warm and friendly. Hence, the Soviet participants remained courteous and attentive throughout the discussions, admitted freely the difficulty of the problems being faced, and went out of their way to

compliment the Westerners on their sincerity and their hard work. I have little direct evidence to support the interpretation I have given here; all I can say is that it is the only interpretation I have heard which appears to fit all the facts.

More than good behavior contributed to the friendliness of the discussions, for both sides, taking advantage of the obviously unofficial character of the discussions, made substantial amendments to their countries' unofficial position. The Americans, for example, admitted freely that official United States pronouncements on disarmament had been inadequately specific about control measures and unreasonably preoccupied with them. They conceded that the Soviets were justified in asking them to spell out the details of any control agreements. The Soviets, in turn, appeared to accept the principle of mutual distrust, and accordingly consented to the concepts of veto-free inspection and of residual deterrence. The Britishers caught the spirit too: I heard more than one of them state that he thought the Thor bases in his country had now outlived their usefulness.

But for all the cordiality and reasonableness of the discussions, there was little actual progress in the working sessions. Only the working group on

Nuclear Production and Stockpiles produced a report which contained much agreement on matters of substance rather than simply on matters of principle. (This particular report contained a remarkably detailed discussion of the problems involved in estimating stockpiles of fissionable materials, cutting off their production, and denaturing the existing stocks.) At the sessions of the working group dealing with Selected Next Steps in Arms Reduction, substantive matters were discussed, but little genuine agreement was achieved. Nevertheless, the discussions themselves were illuminating, and, having sat through a full two days of sessions of this group, I feel called upon to make a number of comments about them.

I was surprised, first of all, to find that nearly all the participants in this working group felt that the "first stage" of any agreement on general and complete disarmament must provide for large alterations in the existing levels of armaments. This may be called a preoccupation with big steps. At the outset of discussion one afternoon, an American participant presented a quite detailed list of objectives for a first stage, including destruction of "about half" of the existing stockpiles of nuclear weapons and delivery systems, and suggested that the first stage be

had described would probably take four or five years to carry out. At this, not only the Soviet participants in this working group, but also one of the other Americans and a number of the Europeans announced that such a first stage was both too long and too small. Both sides were left, these people held, with forces large enough to wipe each other out by surprise attack, and such a situation was clearly intolerable. One American said in so many words: "A small first step is worse than none." It seemed to me that the foundations of this fascination for achieving disarmament by a series of brisk giant steps were emotional, not rational, and were marked even by a tinge of megalomania. I remember Telensky, a man in his sixties, saying: "Your plan is too slow. I want to live to see disarmament." He may have been speaking for many men there, for, I repeat, the fascination for quick, drastic action ran deep among not just the Soviets, but among a majority of the Western participants as well.

I heard only one persuasive defense of the desirability of designing drastic rather than moderate first steps. This was the argument that it was easier to get one large bill through the American Congress than twenty small ones, e.g. that an agreement to allow the supervised destruction of ten U.S. and ten Soviet

missiles would be nearly as hard to ratify as a disarmament treaty which called for supervised destruction of nearly the total stock of U.S. and Soviet strategic weapons. But nullifying this argument is the simple fact that an agreement providing for drastic changes in the present levels of armament has negligible probability of being concluded at the present time. Instead of thinking of the immediate elimination of, say, eighty percent of all armaments (which is close to the figure most of the participants at this working group seemed to have in mind), should we not think of more conservative steps, but ones which have a higher probability of realization associated with them. The point is to reverse the direction in which the arms race is now going. In the process, in my opinion, forces will be generated which will allow the evolution toward a disarmed world to proceed even further.

Yet, strangely enough, in planning for the destruction of the weapons which were built in the nineteen fifties, the participants at the sessions I attended gave little attention to the new weapons of the nineteen sixties. The issue of weapons in orbit, for example, received a strange hearing. When the subject was first raised, the chairman, not a Russian, dismissed it as a problem of minor importance. During

the coffee break, a number of participants urged him to allow the matter to be discussed. He said his own personal opinion was that a nation would have to be completely mad to build such weapons, for an enemy nation could always bring them down on the soil of the nation which originally launched them, but he consented. The result was a chance to hear the Soviet position put forth - a position which holds that the demilitarization of outer space must be linked to the liquidation of foreign bases. The Soviet spokesmen stated this position as if it were an incontrovertible fact: this had been the Soviet position since 1958 - take it or leave it. The Soviet spokesman was frank about the reason for linking the two subjects: the Soviets have a superiority in outer space, the West in bases operated abroad, and certainly no one could expect the Soviet Union to give up an advantage without obtaining a quid pro quo. Though a number of Westerners protested that linking these two issues was not logical, none of them, so far as I know, tried to pursue the matter further. To do so would have exacerbated tensions, and the purpose of the Conference was to look for areas of agreement, not areas of dispute. And so a chance to try to persuade the Soviets that their former policies were shortsighted and not even in their own self-interest was sacrificed in order not to negate the

spirit of the Conference.

Self-restraint was not the only factor making for incomplete communication; language difficulties were another. For example, conceding that the Soviet anxieties about inspection were entirely legitimate, the Western participants discussed various statistical sampling procedures. But the concept of "statistical sampling" was not getting through to General Telensky, one of the Soviets sitting in on this discussion. A number of Westerners gave theoretical explanations of what the concept meant and what it entailed, but there was still no sign of comprehension on the General's face. Finally, Professor Louis Sohn took the floor and explained: "Suppose, General, that you are a cavalry officer (which Telensky once was) and you want to make sure that your men are doing a proper job grooming the horses and keeping the stables clean. You do not need to inspect your stables every day in the year. It would be sufficient for you to arrive unannounced perhaps once a month at one of the stables and give it a thorough inspection. Provided that you regularly found nothing amiss, you could feel pretty sure that the stables were being kept in proper condition even when you were not there to check up." Throughout this explanation Telensky's face was lit up by a wide grin. When Sohn finished, Telensky said,

"Now I understand. Please be assured. Surprise us whenever you like. We will have no objections." Out of the concept of "statistical sampling" Telensky had extracted the element of surprise, but not the concept of sampling. Still, more understanding may have been communicated by that parable than by all the speeches made by both sides at the rest of the Conference. Had each Western participant thought of his role at the Conference more as that of teacher than student, the Soviets might have obtained a less cursory understanding of Western thinking or arms control. As this example suggests, the task of educating the Soviets is not an easy one. Given the particularly favorable circumstances of this Conference for East-West communication, it is regrettable that even partially successful exchanges like this one between Telensky and Sohn were not attempted more often.

It is regrettable also that the conversation between Sohn and Telensky was dropped at this point, when Telensky still only half understood what the West really meant by statistical sampling. For there was strong indication at these working group sessions that any agreement on disarmament which had much hope of being negotiable would have to contain some kind of sampling arrangements at its very core. This conclusion

is based on the following two observations. First, the Western participants I spoke with appeared to accept the Soviet contention that the Soviet Union could not be expected to open its interior to full inspection, both because these participants found no Western advantage which could be considered equivalent to the advantage the Soviet Union gains from its secrecy, and because the participants took seriously into account the psychological components of the Soviet hostility to inspection - the fear of being critically judged and, particularly, the fear of having the vestiges of backwardness and poverty exposed to general view. And second, both sides appeared to accept the principle that some inspection must be included in any agreement. (The official Soviet position appears to be that inspection is only required over disarmament, i.e. over the destruction of weapons, and no inspection over armament is necessary. But this position is too ludicrous to be taken seriously.) Hence, if every disarmament agreement is to provide for some inspection, but less than complete inspection, then both East and West had better start taking sampling procedures seriously.

No matter where or how further work is done on disarmament, it is important that the measure of

agreement reached at COSWA VIII be made known. It is important, in particular, for people to appreciate that the Eastern and Western participants agreed to the following format for a disarmament procedure: Part 1) An open declaration by both sides of inventories of all weapons, troops, and means of delivery, specifying precise number of weapons but imprecise locations (e.g., 25 missiles in the State of Utah, 60 fighter planes in Smolensk oblast, etc.). Part 2) The destruction of a substantial percentage of the declared inventories, to be carried out in front of inspectors from the other side. Part 3) Inspection procedures to verify the veracity of the original inventories, by some kind of partial check on those inventories, thereby to enable further destruction of weapons to proceed. The principle was adopted that the amount of Part 3)-type inspection should be proportional to the amount of inventory destroyed. When only a small part of each inventory has been destroyed, only a partial inspection of the enemy country to verify this inventory will be allowed. But once a reduction of weapons stocks to agreed minimal levels has been accomplished, a more complete access of each side to the other side's territory is to be permitted. In other words, Part 2) and Part 3) are to proceed simultaneously, growing in scale

of operation in some kind of coordinated way. From these discussions at Stowe, it seemed as if this three-part format had a real chance of working, and that no other kind of format had much chance at all.

The Soviets at Stowe gave their approval of the three-part format just outlined. On the other hand, some of the Western participants expressed privately their doubts about whether the Soviet government was serious about disarmament at all. In the past the Soviets have been able to object to U.S. disarmament proposals on grounds which have seemed legitimate to a large number of people. It is safe to say that the Soviets are not generally considered to be substantially more to blame than is the West for the failure of all disarmament negotiations to date. In particular, the Soviet objections to American inspection provisions, on the grounds that these are mere fronts for espionage leading to surprise attack, are widely regarded as legitimate objections. It would seem that the least the West should be able to do is to design a disarmament proposal, along the lines of the three-part format just stated, which could answer once and for all whether the Soviet government is serious or not, i.e. which could call their bluff. Such a disarmament proposal would, of course, also have to be compatible with

U. S. interests. Thus, the United States must develop a disarmament proposal which satisfies two requirements: 1) if the Soviets are not serious about disarmament, it leads to a situation where the blame for failure to reach agreement falls on the Soviet Union unambiguously, and 2) if the Soviets are serious about disarmament, it leads to a disarmement treaty which the West is ready to sign. Such a disarmament procedure, based on the three-part format of the Stowe Conference, is suggested below:

The United States proposal should call for initiating disarmament by an open exchange of inventories of weapons, troops, and means of delivery, giving precise numbers but only approximate locations. (This is identical to Part 1 of the Stowe format. The reason that only approximate locations should be specified is to avoid destabilizing the balance of power.) Following this exchange of inventories, each side is to destroy, under inspection by the other side, a <u>small</u> percentage - for the purpose of this example, say five percent - of its declared inventory. (Except for indicating the percentage, this is identical to Part 2 of the Stowe format. The percentage destroyed before inspection cannot be large, for neither side will be willing to destroy a large percentage of its

weapons until it knows whether the other side has prepared an honest inventory; making the percentage too large increases the likelihood that the original inventories will be falsified. On the other hand, the Soviet government is not likely to alter its present position refusing to tolerate any inspection which precedes disarmament, and since some destruction of weapons can precede verification of inventories, the solution would seem to be to make the percentage small.) While this destruction of weapons is going on, each side is to prepare a list which apportions its territory among twenty fragments, called zones, and is to present that list to the other side. All of the territory controlled by each side must be included in one or another of its zones. Then, when the destruction of five percent of the weapons declared on the inventories is completed, each side is to choose freely any one of its opponent's twenty zones and is to be allowed to inspect it fully. In so doing, each side will have the opportunity to verify that part of its opponent's original inventory which dealt with the zone he has just chosen. If both opponents prove to have presented honest inventories for the zones which have been inspected, destruction of another five percent of the weapons will proceed, followed by

inspection of another zone, etc., until both sides have reduced their armaments to an agreed upon "minimum deterrence" level. In reaching this level, some later stages may involve the destruction of a larger percentage of weapons than five percent, if mutual confidence has been built up by repeated verification of each other's original inventory declarations.

If inspection of an opponent's zone reveals that he has falsified his inventory, sampling schemes generally call for the cancelation of the agreement; hence, most disarmament proposals have an all or nothing sound to them. However, this does not have to be the case. A proposal of this kind could include a proviso to the effect that if the inspection of a particular zone of territory should reveal some falsifications in the inventory, then the other side must be allowed to inspect more territory, say another three zones, as a penalty. If further violations are revealed, the agreement is to be canceled, but if the inspecting side happens to have chosen the one zone which contained undeclared weapons, then it would be possible that the agreement might still proceed to completion.

The agreement might allow the offending side to present a new, "corrected" inventory while the inspection of "penalty zones" was proceeding, or it

might not - there can be many variations on this simple proposal. The point is for the proposal to introduce some alternative responses to the discovery of an enemy violation of the agreement, midway between ignoring the violation and canceling the agreement. Such alternative responses are desirable because they give both sides greater flexibility during the crucial early stages of disarmament and thereby increase the likelihood that an agreement can actually be fulfilled. The alternative response suggested here - inspection of additional territory - is one which takes advantage of the two asymmetries in the present balance of power: 1) the Soviets have more opportunity to cheat on the inventories, since less is known about their armaments than about those of the United States, and 2) the Soviets have more to fear from inspection than does the United States, taking into account the anxiety the Soviet leaders must feel over the prospect of having Soviet society appear stripped of all pretense before the gaze of the world. The Soviets have insisted, at formal disarmament negotiations and at Stowe, that no one would dare falsify an inventory. This proposal penalizes such a falsification in a way the Soviets should find particularly unpleasant, because of their general dislike of inspection. At the same time, the

Soviets should also find this proposal a particularly awkward one to refute, for they could not, with credibility, call this proposal a facade for spying, since inspection would be closely meshed with trust, not left with an independent role. The United States could emphasize that it was making a large concession to the Soviet Union in agreeing to forego extensive inspection of Soviet territory if the Soviets proved to have provided an honest inventory, thereby depriving the espionage issue of all its force.

In conclusion, the three-part Stowe format for disarmament, modified by some suitable sampling procedure like the one involving penalty zones suggested here, represents a promising and safe course for the United States to follow in future disarmement negotiations with the Soviet Union.

The working group discussions of the three-part format for disarmament, and my elaborations of them here, leave a lot of questions unanswered. Sampling procedures have a clear value in political terms, but are they technically feasible? How does one seal off a given zone of enemy territory while inspecting it? How does one find a hidden submarine, missile, or isotope-separating centrifuge? How does one count the number of soldiers under arms? These are problems

which remain to be investigated, and they are difficult technical problems. There is a lot here that the U.S. can do unilaterally, through laboratory research and through combat games in the field. (See Amron Katz, "Hiders and Finders," Bulletin of the Atomic Scientists, Dec. 1961.) There is a lot here also which can be worked on internationally.

Having recognized the urgent need for further work on such technical problems at an international level, the COSWA participants took steps to establish international study groups on a semi-permanent basis. The public statement issued by COSWA VIII announces plans "to form continuing unofficial East-West study groups in order to devote more detailed attention to problems of the nature of those considered at the present Conference." Topchiev, speaking for the Soviet Academy of Sciences, said the Academy would be willing to give such study groups financial support, and the Americans were able to announce that the Ford Foundation was giving the same matter serious consideration. The plans called for small groups of experts to meet regularly over a period of months, half of the time in Moscow and half at some location in the United States, for the purpose of considering in detail technical and political problems like the ones I have

mentioned in the paragraphs above. The consensus of the Western participants was that if both the United States and the Soviet Union took such study groups seriously and sent qualified representatives to them, valuable results would be forthcoming. Their optimism was based on an expectation that the Soviets would function differently in a less official environment - that they would show a greater willingness to examine difficult problems empirically rather than from a prior commitment to a position. In particular, it was felt by most of the Western participants that the pressure to produce a public statement had had an enervating effect on the Conference and that therefore an environment where there would not be any need to spend time on the preparation of public statements would be more conducive to constructive discussion of specific issues. Furthermore, all of the participants acknowledged that five days simply was not sufficient time to go at all deeply into the complex subject of disarmament, and hence expected semi-permanent groups to do a better job. Finally, most of the Western participants felt that study groups of long duration would provide a better opportunity for making sound judgments about the seriousness of the Soviet intentions than had the Conference itself.

For it is a curious fact that the Soviet conduct throughout the Conference was so ambiguous that, by and large, the Western participants left the Conference with their most important questions about the Soviets still unanswered. Are the Soviets serious about disarmament? If so, why aren't they more conscientious about trying to understand the complexities of the issues related to disarmament? If not, why have they come here? How influential are they in their own government? Do their views represent those of their government, or only of a liberal element in Soviet society? In the coming study groups, the Western participants hope to find out.

List of Participants - COSPA VII

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Sir Edward Bullard - Great Britain
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Sir Ben Lockspeiser - Great Britain
Professor J. Rotblat - Great Britain
Professor F. B. Streub - Hungary
Dr. G. Bernardini - Italy
Professor T. Toyoda - Japan
Professor B.V.A. Roling - Netherlands
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Academician N.N. Bogolubov - Soviet Union
Academician M.M. Dubinin - Soviet Union
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List of Participants - COSWA VIII

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Sir John Cockcroft - Great Britain
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Mr. Philip Noel-Baker - Great Britain
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