

**CONFERENCE OF THE EIGHTEEN-NATION COMMITTEE
ON DISARMAMENT**

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13 March 1963
ENGLISH

FINAL VERBATIM RECORD OF THE ONE HUNDRED AND EIGHTH MEETING

Held at the Palais des Nations, Geneva,
on Wednesday, 13 March 1963, at 10.30 a.m.

Chairman:

Mr. E. L. M. BURNS

(Canada)

PRESENT AT THE TABLE

Brazil:

Mr. A. A. de MELO FRANCO
Mr. R. L. ASSUMPCAO de ARAUJO
Mr. J. FRANK da COSTA

Bulgaria:

Mr. M. TARABANOV
Mr. G. GUELEV
Mr. M. KARASSIMEONOV
Mr. V. IZMIRLIEV

Burma:

Mr. J. BARRINGTON
U MAUNG MAUNG GYI

Canada:

Mr. E. L. M. BURNS
Mr. S. F. RAE
Mr. J. E. G. HARDY
Mr. R. M. TAIT

Czechoslovakia:

Mr. K. KURKA
Mr. V. PECHOTA
Mr. V. VAJNAR
Mr. A. MIKULIN

Ethiopia:

Lij Mikael IMRU
Ato M. HAMID
Ato M. GHEBEYEHU

India:

Mr. A. S. LALL
Mr. A. S. MEHTA
Mr. S. B. DESHKAR

Italy:

Mr. F. CAVELLETTI
Mr. A. CAVAGLIERI
Mr. C. COSTA-REGHINI
Mr. P. TOZZOLI

PRESENT AT THE TABLE (Cont'd)

Mexico:

Mr. L. PADILLA NERVO
Miss E. AGUIRRE
Mr. J. MERCADO

Nigeria:

Mr. M.T. MBU
Mr. L.C.N. OBI

Poland:

Mr. M. BLUSZTAJN
Mr. E. STANIEWSKI
Mr. A. SKOWRONSKI

Romania:

Mr. G. MACOVESCU
Mr. E. GLASER
Mr. N. ECOBESCU
Mr. S. SERBANESCU

Sweden:

Mrs. A. MYRDAL
Baron C.H. von PLATEN
Mr. S.L. LOFGREN
Mr. U. ERICSSON

Union of Soviet
Socialist Republics:

Mr. S.K. TSARAPKIN
Mr. A.A. RQSHCHIN
Mr. I.G. USACHEV
Mr. P.F. SHAKHOV

United Arab Republic:

Mr. A.F. HASSAN
Mr. S. AHMED
Mr. M. KASSEM

PRESENT AT THE TABLE (Cont'd)

United Kingdom:

Sir Paul MASON
Mr. J.G. TAHOUDIN
Mr. D.N. BRINSON
Mr. R.C. BEETHAM

United States of America:

Mr. C.C. STELLE
Mr. D.E. MARK
Mr. V. BAKER
Mr. R.A. MARTIN

Special Representative of the
Secretary-General:

Mr. O. LOUTFI

Deputy Special Representative
of the Secretary-General:

Mr. M.A. VELLODI

The CHAIRMAN (Canada): I declare open the one hundred and eighth plenary meeting of the Conference of the Eighteen-Nation Committee on Disarmament.

Mr. STELLE (United States of America): On 11 March my delegation pointed out that one important task before us is to define what we are really talking about when we speak of on-site inspections (ENDC/PV.107, p.43). Secretary of State Rusk aptly stated the nature of this problem when he said at his news conference last Friday that the question of the number of on-site inspections is highly theoretical until we know what it is we are talking about. He phrased it this way:

"We do not yet have in our discussions in Geneva any satisfactory answer to the question, 'the number of what?'"

Today my delegation wishes to describe what it is we mean by inspections when we talk about an annual quota of seven on-site inspections.

In his opening statement at this session of the Conference, Mr. Foster made it clear that the type of verification system about which we are now talking is substantially different from the systems we have talked about in the past. He said:

"I think it would promote progress in these talks if we could all secure a more or less common understanding of the kind of verification which is now the subject of negotiations. Although not yet precisely defined, that verification system is substantially different from the kinds of systems this Committee was discussing before the recess. That is the central fact of the exchange of letters between President Kennedy and Chairman Khrushchev.¹⁾ It is a fact which has been obscured by a debate over numbers; it is a fact, none the less, which is far broader than the present much-publicized inspection quota controversy."

(ENDC/PV.96, p.10)

As my delegation has made clear in recent meetings, we believe that, as we begin talking about smaller quota numbers -- quota numbers in the range of single digits --, there is a necessity to maximize the deterrent effect and the confidence-building effect of each on-site inspection. Therefore, as a result both of the new basis of agreement arising from the exchange of letters, and of the need to maximize the deterrent effect of on-site inspections and the confidence-building effect, the

¹⁾ ENDC/73, 74

(Mr. Stelle, United States)

United States has revised in several ways its view of the arrangements, or what we have come to call modalities, which should be set forth in the treaty regarding on-site inspection.

Recently the United States made known to this Conference that it had proposed the number of seven for the on-site inspection quota in a private meeting with the then Soviet representative. That number was proposed as a forward move to meet the Soviet position on on-site inspection, and as a token of our genuine interest in a nuclear test ban. It was put forward in connexion with certain inspection arrangements which I should like to describe to the Committee today. As I explained to the representative of Poland at our last meeting (ENDC/PV.107, p.8), they are the arrangements upon which our suggestion of the number seven was predicated. The arrangements which I will describe are only for the inspection of events in the Soviet Union, in the United States and in the United Kingdom.

The Soviet Union has been informed, both here in Geneva and in Moscow, that we are making our position known on these issues in the Conference today. The Soviet Union has been asked in our private conversations to state its position on them. Thus far there has been no reply. The stating of our position today should not -- I repeat, should not -- be construed to mean in any way that we have given up hope that the Soviet Union will make its position clear. On the contrary, we believe that, by making our position clear to all the members of the Conference, we may stimulate a discussion on these questions -- a discussion in which we devoutly hope the Soviet Union will play an active role befitting its status as a major nuclear Power interested in banning nuclear weapon tests.

We believe that the system for inspection can be considerably simplified if seismic events are designated for inspection through a procedure involving "other-side choice". That would mean that seismic events in the United States and in the United Kingdom would be designated for inspection by the Soviet Union, and in the Soviet Union by the United States and by the United Kingdom. Under that procedure the designating party would submit seismic data from at least four seismic stations to establish the location of an event which it might later wish to inspect. Such a submission would be accompanied by a statement that the event could not be identified as natural in origin under agreed treaty criteria. The data locating the epicentre of the event in question would also have to be submitted and would have to meet agreed treaty criteria.

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With respect to the location criteria the United States proposes that we use criteria which have been, in part, already agreed between the United States, the United Kingdom and the Soviet Union, and which are contained in article VIII of the draft comprehensive treaty dated 27 August 1962 (ENDC/58). Similarly, the criteria previously agreed between the United States, the United Kingdom and the Soviet Union for the identification of certain events as natural in origin could also be a part of the treaty. Those latter criteria would eliminate from consideration events which occurred deeper than 60 kilometres, certain large events in the deep ocean, and foreshocks and aftershocks of large earthquakes identified in the first two categories.

Should a State designating an event, after receiving clarification and data concerning the event from the host country, wish to carry out an inspection, it should have the right to select, within the agreed quota, the particular designated event for inspection.

During our private meetings with the representatives of the Soviet Union in New York and Washington we indicated that, in view of our shift from asking for an international system of control posts spaced on a grid pattern to agreement on a system of national networks of control posts, the ability to locate epicentres accurately might have been somewhat degraded. As a result, we mentioned at that time to the Soviet representatives in our private talks in New York and Washington that the inspection zone -- that is, the area open for inspection -- might need to be 700 to 800 square kilometres in area. However, a careful review of the scientific problems concerned in determining the location of an epicentre, and an evaluation of the shift we have proposed to the use of the principle of the reciprocal location of epicentres, indicate that an area somewhat reduced in size from what had previously been thought to be necessary would probably be adequate. The United States now proposes that the on-site inspection be limited to an ellipse of 500 square kilometres in area with a semi-major axis of a maximum of 15 kilometres.

We believe that on-site inspection teams will perform a crucial task. We believe that, in order to ensure the highest order of technical efficiency, nationals of the nuclear sides should fill certain important technical positions in the inspection teams. We consider, after careful analysis, that there would probably be about

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fourteen such technical positions for an inspection of a nuclear State's territory. Therefore the United States believes that the teams inspecting a seismic event in the United States should be composed of about fourteen Soviet technical experts plus an additional number of experts from States not members of either NATO or the Warsaw Pact. Teams which inspected events in the Soviet Union would be similarly composed of fourteen United States-United Kingdom technical experts, with the remainder of the team composed of nationals who were experts from States not members of NATO or the Warsaw Pact.

If teams were composed of twenty-eight inspectors, there would of course be an equal number of technicians from "the other nuclear side" and from States not members of the military pacts. However, if teams were to be smaller in number -- and perhaps as few as twenty inspectors might be sufficient for some on-site inspections -- we believe that the principle of reciprocal or adversary inspection should be maintained with respect to technical experts. In the case of twenty inspectors, therefore, there would be fourteen nationals from one of the nuclear sides and six from the States not members of the military pacts in an inspection group in the territory of a nuclear Power.

The chief of the inspection team in the territory of a nuclear State should be a national of the other nuclear side. If the host country desired, the team could be accompanied by a number of host-country observers equal to the total number of team members.

With respect to the tasks and duties of an inspection team, a team should have guaranteed freedom of movement in the inspection zone and be able to conduct low-level aerial, ground and sub-surface inspection of the area concerned. It should provide all of its own inspection equipment and instruments, except for heavy transportation equipment such as helicopters and trucks, which should be provided by the host country.

On the use of automatic seismic stations, the United States has proposed that the Soviet Union, the United States and the United Kingdom supply sealed recorders and certain sealed instruments for automatically-recording seismic stations. Those stations would be built according to agreed specifications by the United Kingdom, the United States and the Soviet Union. The host country would have certain responsibilities for the maintenance of those automatic recording stations. Data from the sealed

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recording stations would be picked up and the sealed instruments would be maintained and checked by personnel from the other side and from the international commission a maximum of eight times each year. Those data could be extremely useful in clarifying the nature of a particular seismic event early in the inspection process.

We are suggesting too that the data from each automatic seismic station should also be registered outside the station on a recording device identical to the one within. The data obtained outside the automatic seismic station would be picked up and transmitted at regular intervals, perhaps once a week, by host country personnel. The data would be forwarded to the international commission for its own use and for transmission to the other side. The United States has proposed, as delegations know, that there be seven such automatic recording stations located in the Soviet Union.

As a part of the inspection arrangements we should be willing to agree that the host country could exclude a sensitive defence installation from the area to be inspected. The host country would provide the country requesting the inspection, and the commission, with a report explaining that a particular installation was to be excluded because it was a sensitive defence installation. The requesting State should have the right to continue the inspection in such circumstances, excluding the defence installation, or to cancel the inspection if it wished, without loss of an inspection quota number. In addition, abuse of the exclusion provision could be considered grounds on which withdrawal from the treaty could take place.

Finally, if it were considered necessary to undertake drilling, the leader of the inspection team would have to give notice of that fact within a time period of five weeks from the start of the inspection. If drilling operations were undertaken, the host country would agree to permit additional persons to enter the inspection area, as well as the necessary heavy equipment.

I have just given the Committee the broad outline of a number of those inspection arrangements which we consider will be necessary to ensure that each inspection will be most meaningful, both in terms of being an effective deterrent and as a builder of confidence between the parties to the treaty. I have also indicated our position with regard to data from automatic seismic stations which may be a useful supplement to information from national stations during the early part of the inspection process.

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Unfortunately, thus far the Soviet Union has given us no indication of whether it believes the arrangements which earlier were made clear to its representatives, and which I have just outlined, are acceptable, whether it has major objections, or whether it has additional proposals or suggestions to make. It seems clear to my delegation that Soviet responses are essential if we are to move into fruitful negotiations on a nuclear test ban treaty.

We have pointed out a number of times the conflicting Soviet statements about the case or difficulty which there might be in reaching agreement on those issues. We certainly hope it will be easy to reach agreement on them; and, frankly, we can see no reason why it should not be.

We earnestly urge the Soviet delegation to let us have its views on these issues; or, if it has no instructions on them, we urge it immediately to seek instructions from its Government so that we may get on with the solution of the problem of reaching agreement on an effective nuclear test ban treaty.

Mr. MACOVESCU (Romania): When, in my intervention of 6 March, I challenged the scientific basis of the stand taken in this Committee by the Western nuclear Powers in the negotiations on a nuclear test ban (ENDC/PV.105, p.12), the Romanian delegation was pursuing one aim only -- to facilitate the further progress of our proceedings. It is the conviction of my delegation that, by removing the so-called scientific screen behind which the Western delegations try to conceal the political targets which inspire their position, we shall contribute to the establishment of conditions propitious for fruitful negotiation which should bring about, at the earliest possible date, the conclusion of a treaty banning all nuclear weapon tests, in all environments and for all time. That aim rules out the intention which the representative of the United States was attributing to me (ibid., p.18): that of plunging into a technical discussion.

It is the same aim that inspires me today when I again take the floor on this matter, and by no means the intention to engage in polemics with Mr. Stelle or the desire to have the last word in a discussion. Such "glory" is alien to us. The final goal of our negotiations here is of paramount importance for the present and the future of mankind, and we will not be lured by the glitter of swords crossed for the sake of personal brilliance.

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I appreciated the effort made during our meeting of 11 March by the representative of the United States, Mr. Stelle, to defend the past and the present stand of the Western nuclear Powers (ENDC/PV.107, pp.5 et seq.); but I must confess, in all frankness, that his plea was not successful in shattering my opinion that the points made by me before this Committee in the meeting of 6 March were correct. As a matter of fact they expressed the essence of the earlier statements made by Senator Humphrey and Senator Anderson, as well as by Mr. Foster, to the effect that the United States of America, in its demand for on-site inspections, was relying on a series of erroneous data and calculations and on obvious exaggerations.

I quote again:

"... about four years ago there was an arithmetical error made by US scientists which made the figure much larger than the facts warranted. ... a monumental error [was] made. ... we were basing our calculations in 1958 and 1959 and 1960 upon records that were accumulated from 1932 to 1936. ... we made a lot of miscalculations around that time. ... We magnified the number of earthquakes ... the treaty of April 18, 1961, ... was based on this same erroneous information which now makes it look a little silly." (ENDC/PV.105, pp.13,14,15)

What was the reaction of the United States delegation when the delegation of Romania brought to the Committee's notice these facts and statements which demonstrate the lack of scientific basis of the Western nuclear Powers' position? At the meeting of 6 March the representative of the United States challenged them, stating:

"... it is not a question of operating on the basis of old data in error.

It has been a question of operating on the data that we had at hand and with the most precise accuracy that could be developed on the basis of that data." (ibid., p.20)

It is not my intention to comment upon that statement by Mr. Stelle. I leave it to him to reconcile it with the previous quotations I adduced.

Meanwhile the United States representative probably has read what I have said, what Senator Humphrey and Senator Anderson have said and what Mr. Foster has said, and he was able to note that what I quoted had really been said by those United States statesmen. That is, in our view, the explanation for the caution

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displayed to a certain extent by him in his statement during the meeting of the Committee on 11 March (ENDC/PV.107, pp.5 et seq.). On that occasion Mr. Stelle challenged only part of the conclusions I arrived at (ENDC/PV.105, pp.14,15). Those conclusions amounted to the following four, which I hope I shall be allowed to recall to this Committee.

First, for a period of more than four years during which the test ban treaty was being negotiated, the United States Government made reference to and based its stand on data accumulated between 1932 and 1936.

Second, we are faced not by insignificant errors but by "monumental errors".

Third, it is not a case of reconciling the political factors with the scientific ones; it is a case of a political stand based upon erroneous data.

Fourth, we have an explicit acknowledgement of a distortion of facts, and of a large-scale distortion too.

The first two of those conclusions were not challenged by Mr. Stelle. Besides, I repeat that they are not only my conclusions; they are also the conclusions drawn by the Chairman of the United States Senate Sub-Committee on Disarmament, Senator Humphrey, and by Mr. Foster: that the United States Government had been operating for nearly four years on the basis of data accumulated between 1932 and 1936, and that the data upon which the United States stand was based embody "monumental" errors. But the representative of the United States has tried to challenge the conclusions which stem from precisely those premises, which he could not deny. That is why he endeavoured to present things as if all the time, and particularly today, the demands of the Western side with regard to the number of on-site inspections and of automatic seismic stations to be sited on Soviet territory were based upon scientific data.

I do not intend to go into technical or scientific details. That has been done by the United States Arms Control and Disarmament Agency. However, with regard to the following contention made by the United States representative:

"Our figures on on-site inspection have in the past been related to the number of doubtful events rather than to the total number of seismic events." (ENDC/PV.107, p.7),

I cannot refrain from reading out to the Committee the following words of Mr. Foster:

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"There are ... a variety of ways of proceeding with respect to the on-site inspection problem. In the past, when the United States believed there would be, in the USSR, about 100 shallow earthquakes above a magnitude of 4.75 (19 kilotons in tuff) and some 600 shallow earthquakes above 4.0 (2 kilotons in tuff) we proposed that the number of on-site inspections should range from 12 to 20.

"Today, the estimated number of shallow earthquakes in the USSR above magnitudes 4.75 and 4.0 has been reduced to about 40 and 170, respectively. With such a reduction, there arises the question whether the proposed number of on-site inspections should be reduced. The argument will undoubtedly be advanced that since the number of earthquakes has been reduced by a factor of at least $2\frac{1}{2}$, it should be possible to reduce the number of on-site inspections."

That quotation is from the hearings of 25 July and 2 August 1962, page 12. As one can see, the explanation given by Mr. Stelle is not consonant with the reasons adduced by Mr. Foster.

A second factor to be considered in this matter is the ratio between the total number of earthquakes and that of unidentified seismic events. That ratio is reduced, on the one hand, as the technique of identifying seismic events is developed, and on the other hand as the number of instruments used for the identification of such events is increased. On both sides, the number of unidentified seismic events is being steadily reduced as against the total number of seismic events. Mr. Foster, making reference only to the first factor, which reduces the proportion of unidentified seismic events as against earth tremors in general, stated:

"There has been an improvement in the capability to detect tests by a distant network".

I quote from the same hearings, page 10.

In his turn, Mr. Foster's deputy, Mr. Fisher, in a letter published by The Washington Post on 4 March 1963, to which reference has already been made in this Committee (ENDC/PV.106, p.25), says:

"... the number of earthquakes in the USSR is less by a factor of $2\frac{1}{2}$ than we previously believed. This, coupled with our increased knowledge of

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earthquake identifications, means that the number of unidentified underground events for which we might consider inspections, will be very substantially smaller than was assumed a few years ago".

Like Mr. Foster, Mr. Fisher proceeds from a premise that differs from that of Mr. Stelle.

Now, there is a second factor in the reduction of this ratio. From the quotation I have given here it can be seen that persons of consequence in the United States are pleading for the reduction of the number of on-site inspections, starting from the premise that the network of stations for the detection and identification of presumed underground nuclear explosions in the Soviet Union would have to consist only of United States stations -- that is, of stations sited on United States territory. But one must bear in mind that in the event of a treaty coming into effect, then, as the representative of India, Mr. Lall, rightly pointed out at our informal meeting on 4 March, to detect and identify presumed nuclear explosions in the Soviet Union use would be made not only of the seismic stations sited on United States territory but also of the stations of all the other countries of the world, plus three automatic seismic stations sited in the USSR, plus three automatic seismic stations sited in the immediate vicinity of the Soviet frontiers. It is obvious that the totality of those means covers all practical needs with regard to the detection and identification of underground nuclear explosions.

On the other hand, one must not forget that, in accepting two to three on-site inspections a year on the territory of the USSR, the Soviet Government has accepted the use of a supplementary factor of insurance, although it is not really needed. This is a political action of exceptional significance, stemming as it does from a sincere desire to facilitate the conclusion of a treaty. It is precisely that aspect of the matter which the Western delegations do not understand, or do not want to understand.

The representative of the United States told us during preceding meetings about the efforts made in the United States in the period 1958 to 1959 for the purpose of correcting the erroneous evidence and of obtaining correct data. Now, what is the situation? On 5 January 1959, on the basis of some tests carried out in the autumn of 1958, the United States delegation to the tripartite negotiations submitted a working paper (GEN/DNT/25) concerning the so-called "new seismic data". Two

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elements arrest our attention. First, it was mentioned in that document that the number of earthquakes a year equivalent to a given yield was about double that previously estimated. Thus it was estimated that the number of earthquakes on the globe as a whole equivalent to or bigger than explosions of a given yield was 36,400 a year -- that is, more than double the number estimated in the Geneva system. Secondly, it was stated in that document that the annual number of unidentified continental earthquakes equivalent to 5 kilotons or larger would be greater than that previously estimated by a factor of ten or more.

United States scientists, this time assisted by their United Kingdom colleagues, continued all through 1959 to indulge in their attitude of magnifying the data regarding the number of earthquakes. That appeared in a striking manner particularly in November-December 1959 during the proceedings of Technical Working Group 2, which was attended by Soviet, United States and United Kingdom experts. The Soviet experts drew attention to those exaggerations. Thus in Annex II of the report of the Technical Working Group on seismic problems dated 18 December 1959, in which the statement of the Soviet experts was reproduced, it was stated that:

"... on the basis of a more careful analysis of the new seismic data, the Soviet experts have come to the conclusion that the annual numbers of earthquakes throughout the world equivalent to explosions of given yield are, if anything, smaller than the numbers estimated at Geneva in 1958 and not 1.5 or 2 times greater, as is asserted in the United States documents." (GEN/DNT/TWG.2/9, Annex II, p.6)

At that time Soviet experts estimated that there were about 6,300 earthquakes throughout the world, as against the 36,400 contended in the United States document of 5 January 1959 -- that is, six times fewer. As for continental earthquakes, the Soviet experts showed that their number could be calculated by reducing the total number by one-half.

According to Mr. Stelle's own statement at our meeting of 6 March, the data submitted by United States scientists which have been mentioned above "moved things in what might be said to be the wrong direction." (ENDC/PV.105, p.19). But can that assessment be considered satisfactory? Is it enough simply to admit that those data moved things in a "wrong direction" when, by invoking precisely such data,

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the delegations of the Western nuclear Powers have constantly created obstacles and in the long run have kept negotiations on a nuclear test ban at a standstill for as long as four years?

Such an assessment cannot satisfy anybody, either in this Committee or outside it. The United States Government cannot claim that it was not in a position to consider the scientific accuracy of the data supplied by United States scientists. The Soviet scientists' point of view, to which we have previously referred, had been made known to the United States Government in due time. That point of view -- which incidentally proved to be right -- was not taken into consideration either by the United States Government or by its delegation at the negotiations.

So much for the period when the data invoked by the United States moved things in the wrong direction. Now I shall make a few comments on the stand of the United States delegation during the period when the new data available to the United States Government -- to use the words of the United States representative -- "moved the problem in the right direction rather than in the wrong direction." (ibid.)

At our meeting on 11 March Mr. Stelle stressed (ENDC/PV.107, p.5) that the United States Government had published a considerable number of volumes regarding the scientific data and made reference to the document concerning the Vela project (ENDC/45), and so on, as testimony meant to prove that his Government had not distorted its scientific stand in order to substantiate a political position. I have followed attentively the statements of the United States delegation in this Committee. I have studied the document concerning the Vela project as well as other documents which the United States delegation has submitted to this Conference. I must confess, however, that nowhere have I been able to find an acknowledgement of the errors which were discussed in the Senate Sub-Committee and which I brought to the notice of this Committee at our meeting of 6 March (ENDC/PV.105, p.13). Even Mr. Foster, in his capacity as head of the United States delegation, did not say anything here in this chamber about the errors which he had acknowledged before the Senate Sub-Committee on 25 July and 2 August 1962. Is it that scientific considerations have prevented the United States delegation from bringing this state of affairs to our knowledge?

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Now, what was the stand of the United States delegation after the new data were disclosed? Did it go hand in hand with the new technical and scientific data? Here are some examples which prove the contrary.

We all recall the statements of the United States delegation during the second half of last year that the use of national stations for purposes of control over the cessation of nuclear weapon tests was unacceptable to the United States. At present the United States representatives acknowledge the efficiency of those stations and state that the United States Government is now relying mainly on them. It would be interesting to learn the reason for the scientific substantiation of this change of stand.

Here is another example. Last year representatives of the Western nuclear Powers contended that a control system was required such as would make it certain that no underground explosion had been carried out. On 17 August 1962 the United States representative said:

"Valuable weapons effects information can and will often call for only a single test -- a series is not necessary; or they may be a part of a series in which other events go undetected. Who knows precisely what a series is if some of the events go undetected? A single test may well be converted into very meaningful results, without any other tests, with significant laboratory work." (ENDC/PV.71, p.21)

The Romanian delegation, like other delegations here, has repeatedly stated that what really matters in the light of the problem with which we are confronted is not isolated tests but whole series of nuclear weapon tests carried out underground. In fact, the crux of the matter is that a series of underground nuclear tests cannot escape detection, and no government may reckon that, were it to violate a test ban treaty and carry out a series of such underground nuclear tests, they would go undetected. It took a few months for the most authoritative person in the United States, President Kennedy, to admit the correctness of our point of view. In his press conference on 6 March President Kennedy said:

"I believe we will insist upon a test ban treaty which gives us assurance that if any country conducted a series of clandestine underground tests that series would be detected".

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I quote from the New York Times of 7 March 1963, because I do not have the official text.

I should like to give just one more example. It is known that about three times more seismic events take place in the United States of America than in the Soviet Union. Scientifically it would be reasonable for the number of automatic seismic stations and on-site inspections for the United States to be three times greater than for the Soviet Union. But the United States delegation is suggesting an equal figure of seven for both the Soviet Union and the United States. The question naturally arises: either seven is all right from a scientific point of view so far as the Soviet Union is concerned, in which case we do not understand why United States proposals do not provide for twenty-one in the case of the United States; or seven is all right as applied to the United States, and in that case why does not the United States delegation suggest one-third of the seven for the Soviet Union -- that is, precisely two to three inspections? Of course, the Western Powers will make reference to the idea of equality. But everyone can see that that idea of equality is a political one and is by no means a matter of applying seismological or other scientific data to our issue.

Before concluding I should like to return to an idea put forward at the beginning of my remarks, and to state once more that it is not my intention to engage in polemics with the United States representative -- and that not because I am opposed, in principle, to polemics. We stand for that method whenever, by using it, we are in a position to make truth come to light. But now I want to put aside everything which prevents us from achieving the agreement so eagerly expected by all honest-minded people the world over in order to put an end for all time to the nuclear arms race, and in order to remove the danger to the health of humanity engendered by nuclear explosions. Once more we request the United States delegation, and we shall continue to do so, to go along this path.

At our last meeting you, Mr. Chairman, particularly honoured me by quoting (ENDC/FV.107, p.26) the closing words of my intervention on 6 March (ENDC/FV.105, pp.17,18) which represented an appeal to co-operation, understanding, realism and flexibility. You did not deem it necessary, Mr. Chairman, to quote the paragraph as a whole, but left aside two sentences, the last two, which have a significance of their own. I should like to quote the whole paragraph, since it does represent the consistent stand of the Romanian delegation:

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"...there should be no victor and no vanquished in this Conference. The point is not to undermine the prestige of one country or another, of one government or another. The point is that we have to find together the best solution for the intricate issue facing us today, but in order to achieve that goal all the governments represented here must give proof of their courage to take action and of their determination to solve the problem. The Government of the Soviet Union has given that proof. It is now up to the United States Government." (ibid.)

The CHAIRMAN (Canada): With the permission of the Committee, I should now like to make a statement in my capacity as representative of Canada. What I have to say refers mostly to Mr. Tsarapkin's statement at our one hundred and sixth meeting, which I listened to and then read with care. I have also taken into account what he said on 11 March (ENDC/FV.107, pp.32 et seq.). Mr. Tsarapkin brought out a number of interesting arguments which, of course, deserve to be carefully considered. On the other hand, there is much in his speech with which the Canadian delegation cannot agree. However, we are happy to note that he said in concluding his speech of 8 March:

"We believe that there are still possibilities of coming to an agreement; but as many representatives here have rightly observed, we must not let those possibilities disappear."

"The Soviet Union is interested in an agreement on the prohibition of nuclear weapon tests, but, of course, on a mutually-acceptable basis. The Soviet Government desires to conclude such an agreement because it corresponds with the interests of the Soviet people; the American people, the British people and all the other peoples of the world, and because it corresponds with the interests of the consolidation of peace in the world". (ENDC/FV.106, p.33)

As I said, the delegation of Canada agrees with these sentiments; and it is for the purpose of helping to promote the agreement, which Mr. Tsarapkin says the Soviet Union desires, that I am making these comments on what he had to say, together with some suggestions.

(The Chairman, Canada)

According to the English verbatim record of that same meeting, the representative of the Soviet Union said:

"The Soviet Government has done everything possible to create the most favourable conditions for a speedy solution of the problem of the prohibition of nuclear weapon tests. We have made a decisive concession on inspection." (ibid., p.19)

Now, with respect, we do not feel that the Soviet Government has done everything possible. We agree that the Soviet concession -- or that act of the Soviet Union, since we do not like the word "concession" in these negotiations -- was very helpful, and we have said so before. Why do we think that the Soviet Government has not done everything possible?

To cite one very important point, we would begin by referring to the argument which Mr. Tsarapkin adduced at that one hundred and sixth meeting, and to which the representative of Romania has just referred. Mr. Tsarapkin is recorded as saying:

"According to the data of Dr. Latter, at least three times as many seismic events occur each year in the territory of the United States as in the territory of the Soviet Union. If a scientific approach were adopted in determining one's position -- as the United States delegation claims to have done -- then the United States should propose for its territory an inspection quota at least three times as great." (ibid., pp.23)

As far as the Canadian delegation is aware the Soviet Union has not previously asked the United States to allow three times as many inspections on United States territory because of the greater number of seismic events there, and is not asking for that at the present time. The reason for that is that the Soviet Union has claimed that it can detect and identify, and has detected and identified, all underground nuclear explosions carried out in the United States, using its own network of seismic stations. The Soviet Union representative has been asked many times to demonstrate how it does that, but he has never complied with the invitation. Furthermore Mr. Dean, representing the United States, stated in the First Committee of the United Nations General Assembly that Soviet reports of underground nuclear tests in the United States were erroneous; and Mr. Stelle

(The Chairman, Canada)

cited Mr. Dean's statement again at our meeting of 11 March (ENDC/FV.107, p.9). If Mr. Tsarapkin still maintains that the Soviet Union has detected and identified all underground nuclear tests carried out in the United States, he should be able to prove that claim. If he does so, then it would seem to the Canadian delegation that the Soviet Union's "political act" is indeed properly described as generous and its view is justified that on-site inspections are not strictly necessary.

If the Soviet Union has the scientific ability and the skill to perform that feat of detecting and identifying all underground nuclear tests in the United States, it should be able to find some way of proving it can do it. And it would seem in that case that if the Soviet Union can do it -- I think the Soviet argument runs -- it should be possible also for the United States and the other nations of the free world, and the general network of stations throughout the world collaborating in the work of the international scientific commission which it is agreed should be set up.

What is to be done if the Soviet Union refuses to agree to substantiate to our satisfaction its claim that it can identify all underground nuclear explosions occurring in other parts of the world? I think we then have to say regretfully to the Soviet Union that its claim is not proven and that we must find some other means of settling the problem of how many on-site inspections are needed to give the requisite assurance.

"Parameter" has become quite a vogue-word in disarmament discussions, and particularly in relation to the problem of settling the number of on-site inspections. When I was studying mathematics, which was quite a long time ago, I understood that "parameter" was defined as "a quantity constant in the case considered, but varying in different cases". In solving some kinds of problems which are expressed as an algebraic function, different values are assigned to certain factors in the equation for different cases, and it has seemed to me that it might make for more precise thinking on the subject of the number of on-site inspections if we could reduce the problem to something approaching a mathematical formula; and I have tried to do this, with some assistance from more expert mathematicians. The Secretariat is now passing round a piece of paper which will show the formula as I have developed it, and which I hope will assist the Conference to follow what I have to say.

(The Chairman, Canada)

The unknown quantity which we wish to establish is the number of inspections; and we will call that n . The first parameter is the number of unidentifiable events, which we will call E . That number will be determined by the criteria which are adopted.

This morning Mr. Stelle gave (Supra, pp. 7 et seq.) some details about the criteria which his delegation proposes and which have previously been discussed in the three-nation Committee. If one of those events is a nuclear explosion, it would seem that the probability, which we will indicate by the letter P , of an on-site inspection detecting that violation is given by a simple formula:

$$P = \frac{n}{E}$$

The probability is the number of inspections over the total number of events.

Another consideration now enters -- and it was discussed at some length by the representative of Romania -- namely, that there would have to be a number of underground explosions, not a single one, for a real violation to take place (Supra, p.17). The representative of Romania made the rather arbitrary statement, I think, that a series cannot escape detection. It would be possible for a series to escape detection, as a consideration of probabilities will make clear. But what President Kennedy said was that the United States required a number of inspections which would give sufficient assurance that if a country conducted a series it would be detected. So we have to take into consideration the probability, not of detecting a single event, but of detecting a series; and I think that, by and large, it has been agreed that a single nuclear test of low yield will not be of any great value, and that any nation contemplating violating a nuclear test ban treaty for the purpose of developing nuclear weapons would require to make a series of several explosions.

So let us assume that ten explosions would be needed for an effective series, although a lesser number could possibly be sufficient for certain purposes. We shall then have the problem of detecting ten explosions, not one, out of our total number of unidentified events, E . Let us denote the number of explosions in our hypothetical clandestine series by the letter C . The probability of detecting one of those events is given, as a reasonable approximation -- although it is not, strictly speaking, the proper probability equation in this matter but a simple approximation -- as follows.

(The Chairman, Canada)

The probability of detecting ten events in a total number of unidentifiable events, E, is given by the equation

$$P_c = n \frac{C}{E},$$

n being, as before, the number of inspections.

The next factor which should be taken into account, and which was discussed by the representative of the United States this morning, is the area of inspection agreed upon. We could give that the letter R to distinguish it. Related to that is the quantity A, meaning the area within which a certain percentage of detected events can be located. The value of that quantity or parameter would be determined by the results of experiments or experience in that field -- seismological science -- the experience which shows the accuracy with which the epicentre of events can be located. It should be clear that the probability of proving or disproving that a nuclear test has taken place will be affected by the ratio between the area in which the inspection is to take place and the area in which all, or a certain major percentage, of the locations of unidentifiable events may be expected to fall. If those two quantities are equal, and if 100 per cent of the events fall in the area denoted by the factor A, then the factor $\frac{R}{A}$ will be unity. But as a rule R will be somewhat less than A, and so the factor will reduce the probability of discovering the truth about the event -- that is, the probability of the inspection team finding the spot where it has occurred. Therefore we should add to our second equation the factor $\frac{R}{A}$ so that we get a third equation:

$$P_c = n \frac{C}{E} \cdot \frac{R}{A}$$

We now come to the question of the composition of inspection teams, and again we have heard the views of the United States in that connexion. The point is, of course, that self-inspection -- that is, inspection by a group of nationals of the country which might be thought not to have complied with the obligations -- would be no verification at all; and the composition of an inspection group would be effective in proportion to the number of non-nationals in it in relation to the total number of the group -- up to certain proportions. I do not need to go into that matter at

(The Chairman, Canada)

length, in view of what has been said earlier this morning, but another expression could be added, if we are setting down in these mathematical symbols the various problems which have to be solved. That is the factor of the composition of the group, which could be expressed as the number of foreign observers in the group, divided by the total number in the group, multiplied by some constant, since the importance of that factor is probably not as great as that of the other factors in the equation.

Taking our equation and substituting certain quantities in those parameters, if we assign to E, the value of 75, which has been mentioned as the total likely number of unidentifiable events; if we take the number of possible clandestine explosions as 10 (that is C); and for the time being assume that the values of the other factors are equal to unity, we get the probability of detecting the event (P_c) as

$$n \frac{10}{75} \times 1 \times 1.$$

I should say that the last two factors which I have mentioned, relating to area and the composition of the inspection teams, will not be equal to unity and will therefore reduce somewhat the probability of the detection of the ten events. If we are to be certain that a violation will be detected, P_c should be equal to unity, meaning certainty; and if it works out to be something less it will mean that a certain risk of violations is being accepted.

All that may seem very theoretical, and perhaps some representatives may be wondering what the purpose of all this exposition is. Of course the values for the parameters used in this illustrative mathematical treatment of the subject are quite arbitrary, and it is not intended as a mathematical proof that 7.5 is the scientifically-correct number of on-site inspections. But I do say that in general the process of negotiating on this matter should take the form of considering the values to be set on all the relevant factors, the most important of which I have set down in my equation.

I hope that in presenting those formulae I have succeeded in demonstrating the close and direct relationship between the main issues which must be negotiated. The identification of seismic events depends not only on the number of on-site

(The Chairman, Canada)

inspections, but on many other factors -- the factors mentioned -- all of which are closely interrelated. If the problem is seen in that way I believe the fact emerges that, in order to decide on an effective system of identifying seismic events, including the number of on-site inspections required, the nuclear Powers must negotiate on the factors I have mentioned as a whole, bearing in mind their relation to each other. If that task were undertaken by the nuclear Powers with good will and without preconceptions, I think they could reach agreement -- the agreement which Mr. Tsarapkin said the Soviet Union was hoping for.

The representative of Romania said (Supra, p. 13) that when I quoted him in my last intervention (ENDC/PV.107, pp.26,27) I did not mention the last two sentences of his statement. I think I said at the time that I was leaving those sentences out because I did not agree with them; and from what I have said today it will be seen that my views on the reasons why we are not moving ahead in these negotiations differ from his. My view is that the Western delegations have shown that they are willing to negotiate, but that the Soviet Union, having made its concession, which we appreciate, has not shown itself ready to negotiate further on the matter, as is necessary if we are going to reach agreement.

I have now concluded my statement as representative of Canada, and I shall resume my duties as Chairman.

Mr. TSARAPKIN (Union of Soviet Socialist Republics) (translation from Russian): I cannot let pass without comment what has been said this morning by the representative of the United States. I must answer his statement. The clarification of the United States position offered this morning by Mr. Stelle is aimed, as he himself said, at stimulating a discussion on the technical aspects of inspection. We note with regret that in this respect the situation remains as before: namely, the United States is continuing to avoid solving the main, basic questions on which there is disagreement -- the inspection quota and the number of automatic seismic stations. Without a solution of these questions, any discussion on the technical, administrative, organizational or financial aspects would be useless.

(Mr. Tsarapkin, USSR)

Furthermore, to involve the Committee in such discussions while there is no agreement on the number of inspections and the number of automatic seismic stations would have even harmful consequences, as we have already pointed out on several occasions, since they might lead to further disagreements and divergencies. What indeed is the use of having technical discussions on drilling, drilling machines and so on, if there is no agreement on inspection? These technical discussions without agreement on the number of inspections and the number of automatic seismic stations would, I repeat, be useless, pointless, and even harmful, since they would render our negotiations still more difficult.

The situation would be different if we recorded agreement on a quota of two to three inspections a year, and on the installation of three automatic seismic stations on the territory of the Soviet Union and the United States respectively. The Committee would then be able immediately to take up the discussion of the technical and other aspects relating to the details of on-site inspection. After an agreement on the inspection quota, these discussions would be carried on not in a vacuum, but on the firm foundation of the agreement achieved on a quota. It is precisely an agreement on a quota which would give a real meaning to discussions on the technical aspects of inspection. Such an agreement would create a favourable atmosphere, and would ensure a businesslike and concrete discussion of the technical aspects of on-site inspection.

The absence of agreement on the inspection quota renders discussion of the technical aspects of inspection pointless. What is the point of discussing the technical aspects of inspection if there is no agreement on inspection? That is the main question. It would be a sheer waste of time; we cannot agree to such an approach. Mr. Stelle, do not try to make out that the success of our negotiations now depends on a discussion of the technical aspects of inspection rather than on an agreement on the inspection quota and the number of automatic seismic stations.

(Mr. Tsarapkin, USSR)

The well-known United States columnist Walter Lippmann has given in today's Paris edition of "The New York Herald Tribune" a very apt description of the real aims of those people in the United States and here in Geneva who shout so loudly that they want a treaty on the cessation of nuclear tests that would provide safeguards against cheating. This is the constant theme of the representatives of the United States and the other Western Powers, who insist on a larger number of inspections and automatic seismic stations. This is what is now preventing an agreement. In his article Mr. Lippmann notes with his usual clarity:

continued in English

"The most vocal critics at the moment in this country may say they want a foolproof treaty. What they really want is not to stop testing."

continued in Russian

This is precisely the reason why the United States is demanding a larger quota of inspections and a larger number of automatic seismic stations. This is precisely the explanation of the United States refusal to agree on the basis of the compromise proposal of two to three inspection. As soon as the United States displays the necessary goodwill, agreement can be speedily reached on the basis of a quota of two to three inspections and three automatic seismic stations on the territory of each nuclear Power.

Sir Paul MASON (United Kingdom): I had not intended to address the Conference this morning, and I can promise that what I have to say will be brief. I think that this morning's meeting has been extremely interesting, mainly because we have heard two very important and, as I judge, very constructive statements.

A most interesting proposal was made by the representative of Canada on how it might be possible to bring together and, so to speak, to correlate the various factors involved in considering the whole question of an inspection and identification system for a nuclear weapon test treaty. I must admit quite

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frankly that, unlike the representative of Canada and, for that matter, the representative of Romania, I can lay no claim to any mathematical ability, and must therefore ask for indulgence for a little time to be able to study with the care which it deserves the argument, particularly the mathematical argument, which the Canadian representative put forward. However, I can certainly promise that the United Kingdom delegation will study what has been said on that subject with the close care and attention which the statement deserves.

We have heard also a very important statement from our United States colleague, Mr. Stelle. It is within my recollection -- and I believe it will be within the recollection of the Committee as a whole -- that quite some time ago the representative of the United States, Mr. Foster, described very briefly the private discussions which he had had with the then leader of the Soviet delegation, Mr. Kuznetsov, on various matters in relation to which the question of the number of on-site inspections and the question of the number of automatic seismic stations ought to be considered (ENDC/PV.102, p.24). Mr. Foster said, if I remember rightly, that he proposed to give the Conference at a fairly early date some indication of what he had said to Mr. Kuznetsov. Perhaps it is hardly too much to say that we have all been awaiting with great interest -- indeed, perhaps rather anxiously awaiting -- further details of what passed on that occasion, or at any rate of what Mr. Foster himself said. Now we have had from Mr. Stelle a very clear outline -- I repeat "outline", because of course there are still a great many details which no doubt will have to be filled in at a suitable moment -- of the proposals which the United States is making and in which it considers that the question of numbers ought to be taken into account.

It is much too early to start commenting on what Mr. Stelle has said this morning. I feel that the statement is so important that each of us will want to consider it with great care, and I believe we shall all regard it as a most important contribution to our discussions, a contribution which I personally hope will help us in framing our future discussions on the whole question of the conclusion of a nuclear weapon test ban treaty.

What is the alternative? There is, of course, an alternative. For the past several meetings we have been engaged in a discussion which has based itself upon

(Sir Paul Mason, United Kingdom)

what seems still to be a confusion in the minds of some of our colleagues from the East about the scientific bases for an assessment of a quota of on-site inspections, and the political decisions which are involved once a scientific basis has been established. We have also been engaged in listening to and in answering what might perhaps be called a series of allegations about the way in which the Western Powers, in particular the United States of course, have responded -- or indeed, as it is alleged, have not responded -- to changes in scientific evidence as they became available. A good deal has been said today which shows that that kind of confusion and that sort of allegation are still prevalent; and we shall continue to deal with those questions and to make what we hope will be successful attempts to set the record straight. I am not sure that this morning is a good time to do that. I have a sense that we should all prefer to study what has been said by Mr. Stelle on the other most important aspects of a nuclear test ban treaty.

It is always being said, as it has been said again today, that those are matters of detail. That, I suppose, must remain a matter of opinion. I do not myself see how anybody could say with absolute conviction that what we have been listening to today in the statement of the United States representative was a series of details in the sense in which that word is ordinarily used. Nor, I think, could I accept the suggestions which are made that all that is so much in the nature of a dead issue; that it is a matter which has been thrashed out again and again without any real value to the progress of our work.

I think I am right in saying that at our last meeting our colleague from Czechoslovakia said -- and I am not quoting but trying to give the general sense of what he said as I understood it -- that the problems involved in mounting and carrying out an inspection had in fact been the subject of negotiation between the nuclear Powers during the nuclear test Conference, and that therefore it was no good discussing them again now because that Conference had produced no results (ENDC/PV.107, p.21) I cannot agree with that assessment. In the first place, the three-Power Conference did produce results. It produced the major part of an agreed test ban treaty, and it might have gone very much further -- it might indeed even have reached agreement -- if its negotiation had not been regrettably broken off in circumstances of which we are all aware.

(Sir Paul Mason, United Kingdom)

I think the point should also be made that the problems which concern us now on arrangements for inspection, though broadly similar, are by no means identical with what they were during the Conference on the Discontinuance of Nuclear Weapon Tests. After all -- and this is an argument that we are always hearing round this table -- the situation has changed. We are now considering a test ban treaty which is based on fresh premises and on new technical knowledge. Mr. Stelle in his statement this morning quoted some words used earlier by Mr. Foster, and perhaps I may re-quote them. This is what Mr. Foster said:

"Although not yet precisely defined, that verification system" -- that is to say, the kind of verification system which is now the subject of negotiations --

"is substantially different from the kinds of systems this Committee was discussing before the recess." (ENDC/PV.96, p.10)

That was even before the recess -- let alone before the break in the work of the three-Power Committee. So I hope we shall not be continually faced with an argument that it is useless to discuss these matters because they have already been discussed before.

The fact of the matter is unfortunately -- and I regretted to note that our Soviet colleague made this abundantly clear this morning -- that we are continually being faced with an attempt to elevate the whole question of the number of on-site inspections into a point of principle. If I may, I should like on this point to quote what the representative of Canada said at our last meeting. He said:

"The representatives of the Soviet Union have suggested in other contexts that after agreeing on a principle it is normal to discuss its application.

Well, the principle of on-site inspection has been agreed upon, and the number of such inspections is a matter of the application of that principle."

(ENDC/PV.107, p.25)

Precisely so. I do not see how the point could be more succinctly or clearly expressed. The question of the number is not a principle in itself, but an application of a principle. It is a very important application indeed, but not the only one. It seems to me that the very important matters -- I repeat, not matters of detail -- which the United States representative presented to us this morning are equally applications of

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the same principle, and are of major importance before we can consider in the proper context what it is on which we are trying to reach agreement.

I think we must be clear on that point, or we shall not make progress in our work. I have the feeling that a great many of us around this table would subscribe to those very wise words of the Canadian representative, and that it is on that principle that we should go forward with our work. What we need to do, as I see it, is to try to ascertain, in a spirit of total comprehension, that which is generally acceptable as the framework of a treaty. We cannot have that total comprehension unless we agree to study these other important applications of principle.

I took down -- accurately, I hope -- some words which the representative of Romania used at the end of his observations this morning. I understood him to say that what is required is to put aside everything which prevents honest-minded people from understanding what the true issue is. If I have not quoted him accurately, I hope he will accept that that was at least the general intention of his words. I could not agree more. That is what I am asking that we should be allowed to do.

I took down also a phrase used by the Soviet representative. If I understood him rightly, he said that what was required was to reach agreement on inspections in general. Again I entirely agree. It is in that spirit that we should now agree to study very carefully what the United States representative has told us, and not to shirk issues. Certainly, the United Kingdom delegation is perfectly prepared to go on trying to explain its point of view on the question of numbers; but what we ask is that our colleagues who feel differently from us on that point will do us the courtesy -- and, more than that, do the Conference the service -- of studying the important applications of principle regarding the question of inspection which are put forward to them by their colleagues.

Mr. TSARAPKIN (Union of Soviet Socialist Republics) (translation from Russian):

In order that the United Kingdom representative may have no misunderstanding about what I said, I will explain that when we urge the United States to agree with us on the question of inspection, all the members of the Committee present here know quite well that we are referring to the proposal for two to three inspections; and you alone, Sir Paul, try to imply that we are merely asking the United States to agree with us on inspection in general. What does asking that we reach agreement on inspection in general mean? This is a hollow phrase, devoid of any material content. One can agree on inspection in general and then hold up everything on technical details.

(Mr. Tsarapkin, USSR)

That is just what the United States is driving at; but we will not agree to it, because we set a very high value on an agreement on the cessation of tests and wish to achieve it. If we were to agree to carry on technical discussions without an agreement on the inspection quota, the inevitable result would be to lead the Committee into a quagmire of endless sterile disputes, and then we would certainly never be able to reach agreement on this matter. We must make the most of the existing possibilities for an agreement. If you let the Committee become involved in technical discussions without an agreement on the main question, all these possibilities will quickly disappear. We do not want such a harmful and dangerous course to be taken in our discussions.

Mr. STELLE (United States of America): The Soviet representative has just charged the United States with wanting to discuss the general arrangements for on-site inspection because it wants to torpedo the Conference. I do not need to give any reasons why that charge is not true. It seems to me that from what has been said today, and not only by representatives of the Western Powers in this Conference, it is quite clear that the arrangements for inspection, particularly when we are both talking about small numbers, are just as important as the numbers themselves. They are, as our United Kingdom colleague has made so abundantly clear, equal to the numbers as important applications of the accepted principle of on-site inspection.

It seems to me that the Soviet representative's point is not well taken when he says that we would be discussing these arrangements in a vacuum. The numbers that the Soviet Union is proposing are two to three. We had proposed eight to ten, and we have proposed, in the context of arrangements which I have outlined this morning for the Committee, the number seven. We are not in a vacuum as far as the numbers of on-site inspections are concerned; both of us are talking about a number of inspections which can be expressed by a single digit. We are in a vacuum as regards any idea of what the Soviet Union's views are on what inspections should be, how they should be triggered, how the teams should be staffed, what areas should be open to search, what should be the functions of an inspection team. That is the vacuum, and it is the vacuum we must fill by agreement before we can get a treaty.

(Mr. Stelle, United States)

It is our sincere belief that a discussion of these arrangements and our proposals on them would not be a lengthy process. We think our proposals are fair; if the Soviet representative believes they are not, we should like to hear that expressed. If he has any changes he wants to propose, we should like to hear them expressed. But it seems very clear to me that we just shall not make progress towards a treaty -- towards the treaty which I sincerely believe every representative around this table desires -- unless we can get on with the work of finding out what we are talking about when we are talking about on-site inspections. I also sincerely believe that an agreement on the general range of arrangements for on-site inspections would make our task of agreeing on a number of inspections easier. I hope we can get on with the job.

Mr. TSARAPKIN (Union of Soviet Socialist Republics)(translation from Russian): I wish to reply to the United States representative, Mr. Stelle. He has just said that the number of inspections is important and that the arrangements for inspection are just as important. We do not object to discussing the method of carrying out inspection after we have an agreement on inspection and, consequently, when we know that inspections will be carried out. But at present we have no agreement on inspection at all; yet you want to involve us in abstract controversies about how inspection could be carried out. Since we have no agreement, we fail to understand why we should discuss the methods of carrying out inspection. We cannot agree to negotiations on a question which is pointless and devoid of any real significance.

The fact that the United States objects to a normal procedure for the discussion of the question of inspection shows once again that it is in fact torpedoing the negotiations. I would remind the members of the Committee in regard to the questions of what inspection is, how it should be carried out, who should form the inspection teams, what they should do, and what the area of inspection should be, that the United States has dragged out all these questions for four years and compelled us to discuss them. And what are the results of those four years of negotiations on the technical aspects? Nothing. We have no agreement. If we again follow this path into which the United States is once more trying to drag us, we shall go on talking for another ten years, but there will be no agreement. When we are agreed on two to three inspections, however, the way to an agreement will be open. But that is precisely what the United States obviously does not want.

The CHAIRMAN (Canada): Does any other representative wish to speak? Mr. Stelle, I hope this exchange of views between two of the delegations will not go on for ever.

Mr. STELLE (United States of America): I do not intend to go on for ever. I would just like to say quite frankly that I did not understand some of the things the Soviet representative said. I should like to read them in the verbatim record and reply at a later meeting, if reply is warranted.

The CHAIRMAN (Canada): Does any other representative wish to speak? If not, I should like to place before the Committee a recommendation by the co-Chairmen, which I will read:

"The co-Chairmen recommend to the Committee that as a general rule the Monday plenary meeting of each week should be devoted to a discussion of the test ban. The two other meetings should be allotted to discussion of general and complete disarmament, beginning with items 5(b) and (c) of document ENDC/52. However, if there are delegations which wish to make further statements on the test ban, then one of the two remaining meetings -- that is, either on Wednesday or on Friday -- could be devoted to test ban problems.

"The meeting on Friday, 15 March, should be open for discussion on both general disarmament and test ban questions.

"No agreement was reached between the co-Chairmen on an agenda for the Committee of the Whole"

That is the recommendation of the co-Chairmen, and I should be glad to have the views of any representatives on the procedure which is recommended to them.

Mr. BLUSZTAJN (Poland): We note with satisfaction that some measure of agreement has been reached between the two co-Chairmen regarding our future programme of work. From what the Chairman has just read, it would appear that on Friday next we shall have general and complete disarmament and the test ban questions on our agenda.

However, it is with less satisfaction that I acknowledge the fact that no agreement has been reached with regard to the agenda of the Committee of the Whole.

(Mr. Blusztajn, Poland)

I realise that it might not have been advisable for the two co-Chairmen to spell out in detail the reasons for their disagreement. Before we accept this statement of our two co-Chairmen, I would suggest that we hear from both of them the reasons for their disagreement, and that we devote one of our next meetings to the discussion of the agenda of the Committee of the Whole. In any case, my delegation would like to make some comments on the way it envisages the programme of work for the Committee of the Whole.

The CHAIRMAN (Canada): I take it that the suggestion of the representative of Poland is that, at the next meeting or on some suitable occasion, the co-Chairmen should explain their viewpoints on the subject matter of collateral measures which might be taken up in the Committee of the Whole, and thus explain to the Committee why it has not been possible to reach an agreement. From the document that I have had passed to me I take it that although no agreement was reached, it does not mean that their discussions on the matter have come to an end. Therefore, if the representative of Poland agrees, perhaps we might leave the explanations or statements from the co-Chairmen on this particular matter until another meeting. Would that be acceptable?

Mr. BLUSZTAJN (Poland): Yes, that would be entirely acceptable to me. Let us say that we devote our meeting on Friday to a discussion of this problem.

Mr. CAVALLETTI (Italy)(translation from French): I am sure that all delegations, particularly my own, desire the Committee of the Whole to resume its work. I presume that that is how we are to understand what you, Mr. Chairman, have just read out: namely that the two co-Chairmen intend to continue their efforts to reach agreement. I think that we must have confidence in our two co-Chairmen, and wait until they reach a decision which I hope will lead to the resumption of the work of the Committee of the Whole.

Mr. BARRINGTON (Burma): My views on this matter have already been stated very clearly, I think, and I do not propose to repeat them. Let me start by saying that, if the other members of the Committee do not object to the procedure which you have outlined today, Mr. Chairman, I would not wish to stand in the way, except in one regard.

I think it has always been understood that the question of nuclear testing could be brought up by any delegation at any time without any previous notice. That, I think, has been the position which we have all accepted before. But the proposal which you have just put before us, Mr. Chairman, would imply that on at least one of the three days each week the question of nuclear testing could not be brought up at all. I do not know if I am right in interpreting it in that fashion; but if I am, I should merely like to suggest that we go back to what had been arranged previously. We can work on the basis of an understanding; but I do think it is important that we should leave it open for any delegation which so wishes to raise the question of nuclear testing at any meeting without any prior notice.

The CHAIRMAN (Canada): In reply first to the representative of Burma, my understanding is that, in accordance with the rules which were adopted by agreement between the co-Chairmen in the early stages of our discussion, in the plenary meetings any delegation, in spite of any subsequent arrangements which may be made for the agenda, is at liberty to bring up any subject at any time. If I am wrong, perhaps one of the co-Chairmen would correct me.

Mr. STELLE (United States of America): I believe you are quite correct, Mr. Chairman. The general rules of procedure under which the Committee has been operating provides in a familiar phrase that, whatever agenda is agreed, whatever item is agreed on for general discussion on any particular day —

"4. Nothing contained herein is intended to preclude any delegation from raising and discussing any subject or proposal in any plenary session of the Committee." (ENDC/52).

Mr. TSARAPKIN (Union of Soviet Socialist Republics)(translation from Russian): I should like also to remind the representative of Burma, Mr. Barrington, that we are all bound also by General Assembly resolution 1767 (XVII) of 21 October 1962. Paragraph 2 of this resolution calls upon our Committee to give primary attention to the problem of general and complete disarmament. Moreover, this resolution requests the Eighteen Nation Committee to submit a report on the progress of its work not later than the second week of April. Everyone attaches due importance to the question of the cessation of nuclear weapon tests, in which we have been very much engrossed. This has been reflected in the recommendation which we have submitted on behalf of the two co-Chairmen. It shows how much we take into consideration in the work of the Eighteen Nation Committee, and will continue to take into consideration in the future, the importance of the question of the cessation of nuclear weapon tests.

We propose that in the future, out of three meetings a week, one or even two might always be devoted to the cessation of tests. But at least one meeting should be set aside for the cardinal problem of our time — general and complete disarmament. I think that this recommendation is a sound one and in accordance with the obligations placed upon us by the General Assembly. It was already a month yesterday since we began our work, and we still have not come to the question of general and complete disarmament. Those were the considerations which guided us when we reached agreement on the question of the recommendation of the co-Chairmen. I think that the representative of Burma will appreciate our humble efforts and will not object to the proposed procedure.

Mr. TARABINOV (Bulgaria)(translation from French): I do not intend at this stage to discuss this question at length, but I should like to take the opportunity of saying that we agree in principle with the co-Chairmen's recommendation. We are also in agreement with the representative of Burma when he says that, as long as there are serious issues in connexion with the cessation of nuclear tests to be considered by the Committee, any delegation will be at liberty to bring them up at any plenary meeting of our Conference.

(Mr. Tarabanov, Bulgaria)

As we understand it, the co-Chairmen's recommendation has been framed with a view to organizing our work on a clearer basis so as to enable delegations to prepare their statements.

I think that when Mr. Stelle, the United States representative, quoted the first sentence of paragraph 4 of the co-Chairmen's recommendations concerning the procedure to be followed:

"Nothing contained herein is intended to preclude any delegation from raising and discussing any subject or proposal in any plenary session of the Committee" (ENDC/52),

he did so to indicate his agreement that the question of nuclear tests could be raised. No doubt the representative of Burma was a little concerned regarding the last sentence of this paragraph, which reads:

"The present arrangements are not intended to apply to the consideration during plenary sessions of the question of a treaty for banning nuclear weapon tests and of questions relating to the work of the Committee of the Whole." (ibid., p.1)

I think that, in accordance with the arrangements we have made and with the consent of all members of the Committee, we should put that question on the agenda.

I have, however, asked for the floor for another reason. I should like to urge the co-Chairmen to give serious consideration, as suggested by our Polish colleague, to what are called collateral questions. In the difficult situation in which we are placed concerning certain issues, the solution of collateral questions might create a better atmosphere both within this Conference and outside it. We might perhaps in this way be able to reach agreement on the issues we are proposing to discuss, and above all on the cessation of nuclear tests, as all the members of this Committee wish. We must not forget that the solution of collateral questions would improve the atmosphere of discussions in this Committee. In common with our Polish colleague, therefore, I urge the co-Chairmen between now and Friday to make arrangements for discussing these collateral measures, so that at our next meeting we may have the definite view, or decision, of the co-Chairmen, which would be in the form of a recommendation to the Committee.

(Mr. Tarabanov, Bulgaria)

We should also have an opportunity at our next meeting of discussing the procedure to be adopted in the Committee of the Whole for dealing with the other questions on our Conference's agenda, especially those designed to facilitate our work and to create a better atmosphere.

There does not seem to be any opposition to the discussion of general and complete disarmament; but at our next meeting we should like to have a proposal from the co-Chairmen concerning collateral questions which the Committee could then consider.

Mr. BARRINGTON (Burma): I think I have already made it clear that, while I have reservations about that, I do not propose to stand in the way. However, although I think the quotation to which the representative of Bulgaria has just referred throws a little doubt on the procedural situation, which the United States co-Chairman has tried to clear up -- I should be prepared to leave it on the understanding that we can continue our meetings on the basis proposed in the present proposal of our co-Chairmen. But I personally regard it as important that it should be possible for any delegation which feels strongly enough about it to raise the question of the cessation of nuclear tests at any plenary meeting of the Committee without, as I say, necessarily having to give any advance notice. I think that if we can reach a loose sort of understanding of that kind we might leave it at that.

The CHAIRMAN (Canada): I feel that probably the sense of the meeting is in line with the view expressed by the representative of Burma: that is to say, that in proceeding on the lines proposed by the co-Chairmen it is still to be understood that any delegation wishing to raise questions relating to the nuclear test ban at any plenary meeting should be entitled to do so.

Mr. STELLE (United States of America): I certainly do not dissent from that. But my interpretation of our agreed procedure is that it does not refer only to questions of the nuclear test ban, and that every representative has a right to raise any question at all that he desires at any plenary meeting of the Committee, without prior notice.

The CHAIRMAN (Canada): If no other representative wishes to speak, I shall take it that the proposals recommended by the co-Chairmen are adopted, with the understanding that any delegation is free to raise the question of the nuclear test ban at any plenary meeting, until we get an agreement.

It was so decided.

Mr. TSARAPKIN (Union of Soviet Socialist Republics)(translation from Russian): As can be seen from the recommendation of the co-Chairmen just adopted, the last sentence says that no agreement was reached on an agenda for the Committee of the Whole. Owing to lack of time, this has not been explained today; but apparently the Committee will be interested to know why this question remained unsettled and what the differences are; and apparently they will wish to exchange views. I think it will be convenient to do so at our next meeting, as the representative of Poland has suggested.

The CHAIRMAN (Canada): I thought it had been agreed that such an exchange of views might take place after consultation in the meantime between the co-Chairmen. If that is acceptable to the co-Chairmen, naturally the rest of the members of the Committee are always prepared to adhere to their decisions on procedure.

The Conference decided to issue the following communique:

"The Conference of the Eighteen-Nation Committee on Disarmament today held its one hundred and eighth plenary meeting in the Palais des Nations, Geneva, under the chairmanship of Mr. Burns, representative of Canada.

"Statements were made by the representatives of the United States, Romania, Canada, the Soviet Union, the United Kingdom, Poland, Italy, Burma, and Bulgaria.

"The next meeting of the Conference will be held on Friday, 15 March 1963, at 10.30 a.m."

The meeting rose at 1 p.m.