

# CONFERENCE ON DISARMAMENT

CD/540  
Appendix II/Vol.III  
31 August 1984

ENGLISH

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## REPORT OF THE CONFERENCE ON DISARMAMENT

### APPENDIX II

### VOLUME III

List and text of documents issued by the Conference on Disarmament

GE.84-65420



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SEVENTEENTH SESSION

PROGRESS REPORT TO THE CONFERENCE ON DISARMAMENT ON THE  
SEVENTEENTH SESSION OF THE AD HOC GROUP OF SCIENTIFIC  
EXPERTS TO CONSIDER INTERNATIONAL CO-OPERATIVE MEASURES  
TO DETECT AND IDENTIFY SEISMIC EVENTS

1. The Ad Hoc Group of Scientific Experts to Consider International Co-operative Measures to Detect and Identify Seismic Events, initially established in pursuance of the decision taken by the Conference of the Committee on Disarmament on 22 July 1976, held its seventeenth formal session from 27 February to 9 March 1984 in the Palais des Nations, Geneva, under the Chairmanship of Dr. Ola Dahlman of Sweden. This was the ninth session of the Group convened under its new mandate by the decision of the Committee on Disarmament at its 48th meeting on 7 August 1979.
2. The Ad Hoc Group continues to be open to all Member States of the Conference on Disarmament as well as upon request to non-Member States. Accordingly, scientific experts and representatives of the following Member States of the Conference on Disarmament participated in the session: Australia, Belgium, Bulgaria, Canada, Czechoslovakia, Egypt, German Democratic Republic, Germany, Federal Republic of, Hungary, Italy, Japan, Netherlands, Sweden, Union of Soviet Socialist Republics, United Kingdom of Great Britain and Northern Ireland and the United States of America.
3. At their request and on the basis of previous invitation by the Committee on Disarmament, scientific experts from the following non-Member States of the Conference on Disarmament participated in the session: Austria, Denmark, Finland, New Zealand and Norway.
4. A representative of the World Meteorological Organization also attended the session.
5. Under the current mandate of the Ad Hoc Group, information on national investigations related to the work of the Group has been presented by experts from Australia, Austria, Belgium, Bulgaria, Canada, Czechoslovakia, Denmark, Egypt, Finland, German Democratic Republic, Germany, Federal Republic of, Hungary, India, Indonesia, Italy, Japan, Netherlands, New Zealand, Norway, Poland, Romania, Sweden, Union of Soviet Socialist Republics, United Kingdom and United States of America.
6. During its tenth session, the Ad Hoc Group agreed to establish five study groups in order to achieve an appropriate compilation, summarization and assessment of the experience acquired through national investigations and co-operative studies in areas relevant to its work. These open-ended study groups each deal with a specific issue, and are each headed by a convenor and a co-convenor, as follows:

- (1) Seismological stations and station networks:  
Dr. Basham (Canada), Dr. Schneider (German Democratic Republic)
- (2) Data to be regularly exchanged (Level I data):  
Dr. Harjes (Germany, Federal Republic of), Dr. Fiedler (Czechoslovakia)
- (3) Format and procedures for the exchange of Level I data through WMO/GTS:  
Dr. McGregor (Australia), Dr. Mori (Japan)
- (4) Format and procedures for the exchange of Level II data:  
Dr. Husebye (Norway), Dr. Christoskov (Bulgaria)
- (5) Procedures to be used at international data centres:  
Dr. Israelson (Sweden), Dr. Alewine (United States of America)

7. The Ad Hoc Group reviewed and reached consensus on its Third Report to the Conference on Disarmament. The Third Report has eight chapters, each dealing with different aspects of the Group's work. In addition, eight appendices containing detailed and technical material are annexed as an integral part of the report. Consensus was reached on the entire main part of the report, and also on those appendices (4B, 7 and 8) containing recommendations and preliminary technical instructions. Appendices 1, 2, 5A and 5B contain factual information on various organizational and technical matters. The remaining appendices (3, 4A, 4D, 4E, 5C and 6) contain summaries of national investigations, and thus reflect the viewpoints of individual countries on various technical problems. The Third Report of the Ad Hoc Group is to be presented to the Conference on Disarmament as a separate document.

8. The Ad Hoc Group worked out a preliminary plan for a technical test concerning the exchange and analysis of Level I data using the WMO/GTS under a regular use basis. This technical test would be the first one conducted by the Group under new formal arrangements provided by WMO for regular use of the WMO/GTS, and should result in the further elaboration of operational procedures for Level I seismic data exchange and of operational procedures at the envisaged international data centres. The test is scheduled for the time period 15 October to 14 December 1984, including preparatory operations for about one week. It is expected that the results of the test will be discussed in the Group and reported to the Conference on Disarmament in 1985. Preliminary detailed instructions for the test were worked out in consultation with the WMO representative. Dr. P. McGregor (Australia), Convenor for the Study Group on Level I data exchange, is serving as the Co-ordinator for this technical test.

9. The Ad Hoc Group expressed the hope that the technical test will enjoy the widest possible participation and noted that, thus far, 23 countries from various regions of the world have indicated their intention to participate. Fuller global participation, however, is, from a technical point of view, highly desirable.

10. The Ad Hoc Group also discussed the schedule for its further work. The Ad Hoc Group suggests that its next session, subject to approval by the Conference on Disarmament, should be convened from 30 July to 10 August 1984, in Geneva, to finalize the instructions for the technical test and to review additional national investigations into relevant matters.



# CONFERENCE ON DISARMAMENT

CD/450

15 March 1984

Original: ENGLISH

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LETTER DATED 9 DECEMBER 1983 FROM THE PERMANENT REPRESENTATIVE OF  
NORWAY ADDRESSED TO THE CHAIRMAN OF THE COMMITTEE ON DISARMAMENT  
CONCERNING RULES 33 TO 35 OF THE RULES OF PROCEDURE

I have the honour to refer to the rules of procedure of the Committee on Disarmament regarding participation by non-members and request that Norway through its Permanent Mission in Geneva be allowed to participate in the work of the Committee during its 1984 session as regards all substantive items on its agenda. This applies to plenary as well as informal meetings, working groups and other subsidiary bodies which may be established.

(Signed) Martin Huslid  
Ambassador  
Permanent Representative

GE.84-60841



# CONFERENCE ON DISARMAMENT

CD/451

15 March 1984

Original: ENGLISH

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LETTER DATED 7 MARCH 1984 FROM THE PERMANENT REPRESENTATIVE OF NORWAY  
ADDRESSED TO THE PRESIDENT OF THE CONFERENCE ON DISARMAMENT CONCERNING  
RULES 33 to 35 OF THE RULES OF PROCEDURE

Further to my letter of 9 December 1983 I wish to clarify that for the present Norway intends to, with reference to No. 33 of the rules of procedure, present working papers on chemical weapons and nuclear test ban during the 1984 session and, with reference to Nos. 34 and 35 of the rules of procedures, to express views on these items in plenary meetings and in the subsidiary bodies concerned. Norway has also in the past participated in plenary meetings and in the Ad Hoc Working Groups on the following items:

- Effective international arrangements to assure non-nuclear-weapon States against the use or threat of use of nuclear weapons;
- Radiological Weapons;
- the Comprehensive Programme of Disarmament;

and is interested to continue to do so.

(Signed)

Martin Huslid

Ambassador  
Permanent Representative



# CONFERENCE ON DISARMAMENT

CD/452

15 March 1984

Original: ENGLISH

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LETTER DATED 10 JANUARY 1984 FROM THE PERMANENT REPRESENTATIVE OF  
FINLAND ADDRESSED TO THE CHAIRMAN OF THE COMMITTEE ON DISARMAMENT  
CONCERNING RULES 33 TO 35 OF THE RULES OF PROCEDURE

Upon instructions from my Government and in accordance with the provisions of the Rules of Procedures of the Conference on Disarmament concerning the participation of the States not members of the Conference I have the honour to inform you that Finland wishes to take part, during its sessions in 1984, in the work on all substantive items on the Conference's agenda, in plenary and informal meetings, in the working groups and in other subsidiary bodies which may be established for the consideration of those items.

I would be grateful if you could bring this request to the attention of the members of the Conference on Disarmament so that the Conference may be in a position to take a decision at its earliest convenience.

(Signed) Paavo Rantanen  
Permanent Representative  
of Finland



## CONFERENCE ON DISARMAMENT

CD/453

15 March 1984

Original: ENGLISH

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LETTER DATED 7 MARCH 1984 FROM THE PERMANENT REPRESENTATIVE OF FINLAND  
ADDRESSED TO THE PRESIDENT OF THE CONFERENCE ON DISARMAMENT  
CONCERNING RULES 33 TO 35 OF THE RULES OF PROCEDURE

With reference to my letter dated 10 January 1984, and in accordance with the Chapter IX of the Rules of Procedure of the Conference on Disarmament, I wish to indicate that the agenda items of particular interest to Finland are the following:

1. Nuclear test ban
2. Cessation of the nuclear arms race and nuclear disarmament
3. Prevention of nuclear war, including all related matters
4. Chemical weapons
5. Prevention of an arms race in outer space
6. Effective international arrangements to assure non-nuclear-weapon-States against the use or threat of use of nuclear weapons.

Consequently, Finland would be interested in having the right to make statements and to submit proposals or working papers on those items both in the Plenary Meetings of the Conference as well as in the Ad Hoc Subsidiary Bodies already established or to be established for those items.

Accept, Sir, the assurances of my highest consideration.

(Signed) Paavo Rantanen  
Ambassador  
Permanent Representative  
of Finland





## CONFERENCE ON DISARMAMENT

CD/454  
15 March 1984  
Original: ENGLISH

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LETTER DATED 12 JANUARY 1984 FROM THE PERMANENT REPRESENTATIVE  
OF DENMARK ADDRESSED TO THE CHAIRMAN OF THE COMMITTEE ON  
DISARMAMENT CONCERNING RULES 33 TO 35 OF THE RULES OF PROCEDURE

I have the honour, upon instruction from my Government, to ask  
Your Excellency, in accordance with the rules of procedure of the  
Conference on Disarmament regarding participation by States not members of  
the Conference, to make due arrangements to allow the Danish delegation to  
participate in the work of the Conference on Disarmament at its 1984 session  
on all substantive items on its agenda, in plenary and informal meetings,  
in working groups and in other subsidiary bodies which may be established.

(Signed) Kaj Repsdorph  
Ambassador  
Permanent Representative  
of Denmark



# CONFERENCE ON DISARMAMENT

CD/455

15 March 1984

Original: ENGLISH

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LETTER DATED 8 MARCH 1984 FROM THE PERMANENT REPRESENTATIVE OF DENMARK ADDRESSED TO THE PRESIDENT OF THE CONFERENCE ON DISARMAMENT CONCERNING RULES 33 TO 35 OF THE RULES OF PROCEDURE

Further to my letter of 12 January 1984 to the then chairman of the Committee on Disarmament concerning Danish participation in the work of the Conference on Disarmament at its 1984 session I want, upon instruction from my Government, to clarify that for the present Denmark would like to participate in plenary meetings and in the work of the ad hoc subsidiary body on chemical weapons in accordance with articles 33 - 35 of the rules of procedure of the Conference.

At the same time I should like to indicate that I intend to revert to the question of Danish participation in the work of the Conference on Disarmament when further subsidiary bodies are established.

(Signed)

Kaj Repsdorph  
Ambassador  
Permanent Representative  
of Denmark.



# CONFERENCE ON DISARMAMENT

CD/456

15 March 1984

Original: ENGLISH

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LETTER DATED 17 JANUARY 1984 FROM THE PERMANENT REPRESENTATIVE  
OF NEW ZEALAND ADDRESSED TO THE CHAIRMAN OF THE COMMITTEE ON  
DISARMAMENT CONCERNING RULES 33 TO 35 OF THE RULES OF PROCEDURE

I have the honour, on the instructions of the Minister of Foreign Affairs, to refer to the rules of procedure of the Conference on Disarmament regarding participation by States not members of the Conference and to request that New Zealand, through its Permanent Mission in Geneva, be permitted to participate in the work of the Conference during its 1984 session. My Government would welcome the opportunity to attend not only plenary meetings but also the full range of informal meetings, working groups and other subsidiary bodies which may be established. It has a special interest in the question of a nuclear test ban.

(Signed) Roger Peren  
Permanent Representative



# CONFERENCE ON DISARMAMENT

CD/457

15 March 1984

Original: ENGLISH

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LETTER DATED 9 MARCH 1984 FROM THE PERMANENT REPRESENTATIVE  
OF NEW ZEALAND ADDRESSED TO THE PRESIDENT OF THE CONFERENCE  
ON DISARMAMENT CONCERNING RULES 33 TO 35 OF THE RULES OF  
PROCEDURE

Further to my letter of 17 January concerning New Zealand's wish to participate actively in the work of the Conference on Disarmament at its 1984 Session, my Government has asked me to indicate that we wish to avail ourselves of the provisions of Rules Nos. 32 to 36 of the Rules of Procedure (CD/8/Rev. 2 of 15 February 1984). These expressly provide for interested States not members of the Conference on Disarmament to participate in plenary and other meetings, to submit written proposals and to participate in relevant discussions.

Given New Zealand's record of participation in the Ad Hoc Seismic Group, we wish to maintain our special interests in this key area of disarmament by participating fully in the Conference's subsidiary body and in the Plenary Sessions concerned with a nuclear test ban and related issues.

We would also hope to participate, to the extent that our resources permit, in the subsidiary bodies concerned with chemical weapons and outer space.

At present we do not expect to see a need to participate in other subsidiary bodies of the Conference. Naturally, however, we would not wish at this stage to foreclose our options to do so at some time in the future, or as additional subsidiary bodies of concern to my Government are established by the Conference on Disarmament.

(Signed) Roger Peren  
Permanent Representative

GE.84-60858





# CONFERENCE ON DISARMAMENT

CD/458

15 March 1984

Original: ENGLISH

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LETTER DATED 17 JANUARY 1984 FROM THE PERMANENT REPRESENTATIVE  
OF TURKEY ADDRESSED TO THE CHAIRMAN OF THE COMMITTEE ON  
DISARMAMENT CONCERNING RULES 33 TO 35 OF THE RULES OF PROCEDURE

Upon instructions from my Government, I have the honour of informing you that Turkey wishes to participate, according to Articles 33 to 35 of the Rules of Procedure, in the work of the Conference on Disarmament during its 1984 session.

The Turkish Government is interested in all the substantive agenda items of the Plenary and the informal meetings. Turkey will also participate in the work of all the working groups and other subsidiary bodies which may be established.

(Signed) Ilter TÜRKMEN  
Ambassador  
Permanent Representative



## CONFERENCE ON DISARMAMENT

CD/459

15 March 1984

Original: ENGLISH

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LETTER DATED 7 MARCH 1984 FROM THE PERMANENT REPRESENTATIVE  
OF TURKEY ADDRESSED TO THE PRESIDENT OF THE CONFERENCE ON  
DISARMAMENT CONCERNING RULES 33 TO 35 OF THE RULES OF  
PROCEDURE

Further to my letter of 17 January 1984, I would like to inform you that my Government wishes particularly to participate in the work of the subsidiary bodies on Chemical Weapons as well as on the Banning of Nuclear Tests and it intends to submit working papers in both subjects. My delegation would also appreciate the opportunity of attending the plenary meetings of the Conference in order to be able to express its views on other subjects appearing on the Conference's agenda.

(Signed) Ilter Türkmen  
Ambassador  
Permanent Representative

GE.84-60870



## CONFERENCE ON DISARMAMENT

CD/460

15 March 1984

Original: ENGLISH

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LETTER DATED 27 JANUARY 1984 FROM THE PERMANENT REPRESENTATIVE  
OF BANGLADESH ADDRESSED TO THE CHAIRMAN OF THE COMMITTEE ON  
DISARMAMENT CONCERNING RULES 33 TO 35 OF THE RULES OF PROCEDURE

I am instructed to convey the desire of the Government of the  
People's Republic of Bangladesh to participate through its Permanent Mission  
in Geneva in the work of the Conference on Disarmament (CD) in 1984 as a  
non-member interested State in terms of Chapter IX of the rules of procedure.

Accordingly, I shall be deeply obliged if the Bangladesh request is  
placed before the Conference for its favourable early consideration.

(Signed) A.K.H. Morshed  
Ambassador  
Permanent Representative

GE.84-60876



## CONFERENCE ON DISARMAMENT

CD/461  
15 March 1984  
Original: ENGLISH

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LETTER DATED 8 MARCH 1984 FROM THE PERMANENT REPRESENTATIVE OF BANGLADESH  
ADDRESSED TO THE PRESIDENT OF THE CONFERENCE ON DISARMAMENT CONCERNING  
RULES 33 TO 35 OF THE RULES OF PROCEDURE

In continuation of my letter dated 27 January 1984, I have the honour to clarify that in terms of Chapter IX of the Rules of Procedure the Bangladesh delegation would like for the present to participate in the plenary meetings of the Conference on Disarmament with the privilege of making one or more statements therein. It is the understanding of my delegation that the Conference on Disarmament has constituted three Ad-Hoc Subsidiary Bodies and the Bangladesh delegation would for the time being like to be associated with the work of the Ad-Hoc Subsidiary Body on the Comprehensive Programme on Disarmament during 1984.

The present application is in keeping with the existing level of preparation of my delegation and is without prejudice to future requests for a fuller participation in the work of the Conference on Disarmament as well as in the work of other Subsidiary Bodies.

Accordingly I shall appreciate it very much if the request of my Government in this regard is placed before the Conference for its favourable early consideration.

(Signed) A.K.H. Morshed  
Ambassador  
Permanent Representative





# CONFERENCE ON DISARMAMENT

CD/462

15 March 1984

Original: ENGLISH

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LETTER DATED 30 JANUARY 1984 FROM THE CHARGÉ D'AFFAIRES A.I.  
OF AUSTRIA ADDRESSED TO THE CHAIRMAN OF THE COMMITTEE ON  
DISARMAMENT CONCERNING RULES 33 TO 35 OF THE RULES OF PROCEDURE

I have the honour, upon instructions from my Government, to inform you about Austria's desire to participate in the work of the Conference on Disarmament during its 1984 session, in accordance with rules 33 to 35 of the rules of procedure of the Committee on Disarmament.

Austria desires to participate in all the substantive items on the agenda to be adopted by the Conference, in plenary and informal meetings, and in subsidiary bodies which may be established for the consideration of these items.

(Signed) Günter BIRBAUM  
Chargé d'affaires a.i.



# CONFERENCE ON DISARMAMENT

CD/463

15 March 1984

Original: ENGLISH

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LETTER DATED 8 MARCH 1984 FROM THE PERMANENT REPRESENTATIVE OF AUSTRIA  
ADDRESSED TO THE PRESIDENT OF THE CONFERENCE ON DISARMAMENT CONCERNING  
RULES 33 TO 35 OF THE RULES OF PROCEDURE

Further to this Mission's letter of 30 January 1984, concerning Austria's desire to participate in the work of the Conference on Disarmament, I wish to specify that Austria, for the time being, would like to express views about the state of disarmament in general and to participate in the subsidiary body on chemical weapons by contributing working documents and/or expressing views, as the case might be. Austria is clearly interested in other areas as well, especially in questions concerning a nuclear test ban and the prevention of an arms race in outer space, and reserves its right to ask for participation in relevant subsidiary bodies.

I have the honour to ask your Excellency to convey the contents of this letter to the Conference on Disarmament.

(Signed)      Georg Reisch  
Ambassador

GE.84-60894



# CONFERENCE ON DISARMAMENT

CD/464  
15 March 1984

ENGLISH  
Original: FRENCH

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LETTER DATED 31 JANUARY 1984 FROM THE PERMANENT REPRESENTATIVE OF  
VIET NAM ADDRESSED TO THE CHAIRMAN OF THE COMMITTEE ON  
DISARMAMENT CONCERNING RULES 33 to 35 OF THE RULES OF PROCEDURE

Upon the instructions of my Government, I have the honour to inform you that, in accordance with the relevant provisions of the rules of procedure of the Conference on Disarmament concerning the participation of non-member States, Viet Nam wishes to take part, during the 1984 session, in the work on all the questions of substance that are on the Conference's agenda, both at plenary and at informal meetings, as well as in the working groups.

I should be grateful if you would kindly inform the members of the Conference on Disarmament of this request so that the latter may take a decision on it as soon as possible.

(Signed)

NGUYEN THUONG  
Ambassador  
Permanent Representative

GE.84-60900



# CONFERENCE ON DISARMAMENT

CD/465  
15 March 1984  
ENGLISH  
Original: FRENCH

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LETTER DATED 9 MARCH 1984 FROM THE PERMANENT REPRESENTATIVE  
OF VIET NAM ADDRESSED TO THE PRESIDENT OF THE CONFERENCE  
ON DISARMAMENT CONCERNING RULES 33 TO 35 OF THE RULES  
OF PROCEDURE

Pursuant to my letter of 31 January 1984, I should like to make it clear to the Conference on Disarmament that for the time being the Socialist Republic of Viet Nam is particularly interested in the following items:

1. Effective international arrangements to assure non-nuclear-weapon States against the use or threat of use of nuclear weapons;
2. Comprehensive programme of disarmament.

My delegation would therefore like to make a statement at the plenary meeting of the Conference to be held on 27 March on the item: "Effective international arrangements to assure non-nuclear-weapon States against the use or threat of use of nuclear weapons".

My delegation would also greatly appreciate the permission of the Conference to make another statement in plenary, at a date which I shall communicate to you in good time, on the item: "Comprehensive programme of disarmament".

The delegation of the Socialist Republic of Viet Nam will not fail to inform the Conference on Disarmament at a later stage concerning its subsequent participation concerning the other items in which it is particularly interested.

(Signed) NGUYEN THUONG  
Ambassador  
Permanent Representative





# CONFERENCE ON DISARMAMENT

CD/466

15 March 1984

Original: ENGLISH

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LETTER DATED 1 FEBRUARY 1984 FROM THE PERMANENT REPRESENTATIVE OF PORTUGAL  
ADDRESSED TO THE CHAIRMAN OF THE COMMITTEE ON DISARMAMENT CONCERNING  
RULES 33 TO 35 OF THE RULES OF PROCEDURE

I have the honour to refer to the rules of procedure of the Committee on Disarmament regarding the participation of the non-member States of the Committee and request that Portugal through its Permanent Mission in Geneva would be allowed to participate in the work of the Committee on Disarmament during its 1984 session.

This applies to the Plenary and to informal meetings and to the meetings of the existing Ad hoc Groups, as well as to Groups that might be set up during the next session.

I would be grateful if you could inform the members of the Committee on Disarmament of this request, so that the Committee may be in a position to take a decision on the matter at its earliest convenience.

(Signed) Fernando Reino  
Ambassador  
Permanent Representative

GE.84-60912



# CONFERENCE ON DISARMAMENT

CD/467

15 March 1984

ENGLISH

Original: FRENCH

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LETTER DATED 9 MARCH 1984 FROM THE PERMANENT REPRESENTATIVE  
OF PORTUGAL ADDRESSED TO THE PRESIDENT OF THE CONFERENCE ON  
DISARMAMENT CONCERNING RULES 33 TO 35 OF THE RULES OF PROCEDURE

Pursuant to my letter of 1 February last, I have the honour to inform you that Portugal, as an observer at the current session on the Conference on Disarmament, intends to make a statement of a general nature at a plenary meeting during this session at a time which the Portuguese Government considers suitable.

I should also like to specify, with regard to the activities of the main subsidiary bodies already set up, that the Portuguese Government is interested in participating in the work of the bodies on chemical weapons and the comprehensive programme of disarmament.

I should also like to inform you that my Government wishes to reserve its position with regard to any future indication of the possible interest which Portugal might have in participating in the work of other main subsidiary bodies which may be established in order to discuss or negotiate on the other items on the agenda.

(Signed) Fernando Reino  
Ambassador  
Permanent Representative  
of Portugal



# CONFERENCE ON DISARMAMENT

CD/468

15 March 1984

ENGLISH

Original: SPANISH

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LETTER DATED 2 FEBRUARY 1984 FROM THE PERMANENT REPRESENTATIVE  
OF SPAIN ADDRESSED TO THE CHAIRMAN OF THE COMMITTEE ON  
DISARMAMENT CONCERNING RULES 33 TO 35 OF THE RULES OF PROCEDURE

Upon the instructions of my Government, I have the pleasure to inform you that, as in previous years and in accordance with chapter IX of the rules of procedure, the Permanent Mission of Spain wishes to take part in the work of the Committee as a non-member State through a delegation at the plenary meetings of the Committee on Disarmament (article 32) as well as meetings of its subsidiary bodies, and any informal meetings that may be held during the year, the latter in accordance with articles 33 to 36 of the rules of procedure.

The delegation which will attend these meetings will consist of myself, Ambassador Eduardo de Laiglesia, Lieutenant-Colonel Ignacio Ferrer Arellano of the Ministry of Defence, Mr. Leandro Nagore, Counsellor, and Mr. Rodrigo Aguirre de Cárcer, Director of Political and Security Affairs of the Directorate of International Organizations and Conferences, as well as any other person who may be appointed in light of the matters to be discussed.

(signed) Alfonso de la Serna  
Ambassador  
Permanent Representative



# CONFERENCE ON DISARMAMENT

CD/469  
16 March 1984  
ENGLISH  
Original: SPANISH

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## LETTER DATED 9 MARCH 1984 FROM THE PERMANENT REPRESENTATIVE OF SPAIN ADDRESSED TO THE PRESIDENT OF THE CONFERENCE ON DISARMAMENT CONCERNING RULES 33 TO 35 OF THE RULES OF PROCEDURE

Pursuant to instructions from my Government, I have the honour to refer to my letter No. LN/rv/10/84, dated 2 February 1984, concerning the request by Spain to participate in the work of the Conference as a non-member of the Conference, in accordance with chapter IX of the rules of procedure.

Without prejudice to the contents of the above-mentioned earlier communication, in accordance with rules 33 to 36 of the rules of procedure, with regard to our request to participate in the subsidiary bodies and meetings of the Conference, and in order to clarify the areas of special interest for our delegation in such bodies, I should like to inform you of our wish to participate, for the time being, in the following:

Chemical weapons;

Negative security assurances;

Comprehensive programme of disarmament.

With regard to the participation of the Spanish delegation in the plenary meetings of the Conference, such participation would consist essentially of speaking at a plenary meeting and, possibly, the submission of working documents.

(Signed) Alfonso de la Serna  
Ambassador  
Permanent Representative





# CONFERENCE ON DISARMAMENT

CD/470  
15 March 1984  
ENGLISH  
Original: SPANISH

LETTER DATED 7 FEBRUARY 1984 FROM THE PERMANENT REPRESENTATIVE  
OF COLOMBIA ADDRESSED TO THE PRESIDENT OF THE CONFERENCE ON  
DISARMAMENT CONCERNING RULES 33 TO 35 OF THE RULES OF PROCEDURE

I have the honour to inform you that the Government of Colombia wishes to participate, in accordance with rules 33 to 35 of the rules of procedure, in the work of the Conference on Disarmament on the items on its agenda, in plenary and informal meetings and in such subsidiary bodies as may be established for the consideration of those items.

Should the Conference issue to it the invitation in question, Colombia would be represented, in order of precedence, by the following persons:

Héctor Charry Samper  
Ambassador  
Permanent Representative of Colombia

Colonel Manuel Sanmiguel Buenaventura  
Military Attaché of Colombia in Italy

Luis Alberto Luna  
First Secretary  
Permanent Mission of Colombia

Ciro Alfonso Arevalo  
Third Secretary  
Permanent Mission of Colombia  
Geneva

(Signed) Héctor Charry Samper  
Ambassador  
Permanent Representative  
of Colombia

GE.84-60936



# CONFERENCE ON DISARMAMENT

CD/471

15 March 1984

ENGLISH

Original: SPANISH

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LETTER DATED 8 MARCH 1984 FROM THE PERMANENT REPRESENTATIVE  
OF COLOMBIA ADDRESSED TO THE PRESIDENT OF THE CONFERENCE ON  
DISARMAMENT CONCERNING RULES 33 TO 35 OF THE RULES OF PROCEDURE

Further to my note No. 87 of 7 February 1984, in which the Government of my country expressed our particular interest in participating in the Conference on Disarmament, in accordance with its rules of procedure, I have the honour to add the following.

For the time being, we should like to have the possibility of making statements in plenary meetings and of participating in the work of the subsidiary body on the item concerning chemical weapons.

When the subsidiary bodies on negative security assurances and on the comprehensive programme of disarmament begin their work, Colombia will inform you of its interest in participating in their work.

I should like to take this opportunity to congratulate you on the skill with which you are guiding the work of the Conference.

(Signed) Hector CHARRY SAMPER  
Ambassador  
Permanent Representative of Colombia



## CONFERENCE ON DISARMAMENT

CD/472

15 March 1984

ENGLISH

Original: FRENCH

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LETTER DATED 16 FEBRUARY 1984 FROM THE PERMANENT REPRESENTATIVE  
OF SENEGAL ADDRESSED TO THE CHAIRMAN OF THE COMMITTEE ON DISARMAMENT  
CONCERNING RULES 33 TO 35 OF THE RULES OF PROCEDURE

Upon the instructions of my Government and in accordance with the provisions of rules 33 and 35 of the rules of procedure of the Committee on Disarmament concerning the participation of States non-Members of the Committee, I have the honour to inform you that Senegal wishes to take part, during the 1984 sessions, in the Committee's work on all the questions of substance that are on its agenda, both at plenary and at informal meetings, as well as in the working groups and any other subsidiary bodies that may be set up for the consideration of these questions.

I should be grateful if you would very kindly inform the members of the Committee of this request so that the latter may take a decision on it as soon as possible.

(Signed) Alioune SENE



# CONFERENCE ON DISARMAMENT

CD/473  
15 March 1984  
ENGLISH  
Original: FRENCH

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## LETTER DATED 8 MARCH 1984 FROM THE PERMANENT REPRESENTATIVE OF SENEGAL ADDRESSED TO THE PRESIDENT OF THE CONFERENCE ON DISARMAMENT CONCERNING RULES 33 TO 35 OF THE RULES OF PROCEDURE

By letter No. 000071/MPSCG, dated 16 February 1984, I informed you of my delegation's wish to take part in the work of the Conference on Disarmament in accordance with rules 33 and 35 of its rules of procedure.

In that connection, I should like to inform you that during the 1984 session of the Conference on Disarmament my delegation would like in particular to speak at plenary meetings on various agenda items and to take part in the work of the following subsidiary bodies:

Ad hoc subsidiary body on chemical weapons;

Ad hoc subsidiary body on effective international arrangements to assure non-nuclear-weapon States against the use or threat of use of nuclear weapons;

Ad hoc subsidiary body on a comprehensive programme of disarmament;

Ad hoc subsidiary body on a nuclear test ban (if such a body is established).

I should be grateful if you would kindly inform the members of the Conference of this request so that the latter may take a decision on it as soon as possible.

(Signed) Ailioune SENE





# CONFERENCE ON DISARMAMENT

CD/474  
15 March 1984  
ENGLISH  
Original: FRENCH

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LETTER DATED 8 MARCH 1984 FROM THE ACTING CHIEF OF THE  
PERMANENT MISSION OF SWITZERLAND ADDRESSED TO THE  
PRESIDENT OF THE CONFERENCE ON DISARMAMENT CONCERNING  
RULES 33 TO 35 OF THE RULES OF PROCEDURE

Upon the instructions of my Government, I have the honour to request that Switzerland should be authorized, in accordance with articles 33 to 35 of the rules of procedure of the Conference, to participate in the meetings of the ad hoc subsidiary body on chemical weapons.

Accept, Sir, the assurances of my highest consideration.

(signed) J-P. Vettovaglia  
Acting Chief,  
Permanent Mission of Switzerland

GE.84-60985



## CONFERENCE ON DISARMAMENT

CD/475

15 March 1984

Original: ENGLISH

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### LETTER DATED 13 MARCH 1984 FROM THE PERMANENT REPRESENTATIVE OF THE ISLAMIC REPUBLIC OF IRAN CONCERNING THE USE OF GEOGRAPHICAL TERMS IN SUBMISSIONS TO THE CONFERENCE ON DISARMAMENT

I have the honour to draw your attention to the fact that Delegations from various countries in their submissions to the Conference on Disarmament frequently refer to the "GULF War".

There has been, in the past, considerable correspondence with the Office of the United Nations and its specialized agencies concerning the erroneous use of this ambiguous term and I enclose a copy of a memorandum from the Office of the United Nations clarifying this point.

I would be most grateful if, through your kind offices, the attention of the Delegates to the Conference on Disarmament could be drawn to the correct appellation of the Persian Gulf and if this letter, together with its annex, could be circulated as an official document of the Conference to the Delegations participating.

(Signed) Nasrollah KAZEMI KAMYAB  
Ambassador  
Permanent Representative



ANNEX

The Secretariat of the United Nations presents its compliments to the Permanent Mission of Iran to the United Nations and has the honour to acknowledge the receipt of its note of 23 February 1971 referring to the use of the term "Arab Gulf Emirates" in a document of the United Nations Industrial Development Organization.

It is the practice of the United Nations Secretariat to use in United Nations documents and maps the term "Persian Gulf" to indicate the body of water between Iran to the north and east and a number of other countries to the south and west. In doing so, the United Nations Secretariat has conformed to a long established usage followed by publishers of atlases and geographical dictionaries.

The document referred to in the note of the Permanent Mission was prepared at the Headquarters of the United Nations Industrial Development Organization in Vienna. The content of the note and of this reply will be brought to the attention of the appropriate officers of that Organization.

5 March 1971



## CONFERENCE ON DISARMAMENT

CD/476

20 March 1984

ENGLISH

Original: RUSSIAN

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LETTER DATED 20 MARCH 1984 ADDRESSED TO THE PRESIDENT OF THE CONFERENCE ON DISARMAMENT FROM THE REPRESENTATIVE OF THE UNION OF SOVIET SOCIALIST REPUBLICS, TRANSMITTING THE TEXT OF A DRAFT TREATY ON THE PROHIBITION OF THE USE OF FORCE IN OUTER SPACE AND FROM SPACE AGAINST THE EARTH.

20 March 1984

In accordance with the provisions of paragraph 6 of General Assembly resolution 38/70, of 15 December 1983, I submit herewith the text of a draft treaty on the prohibition of the use of force in outer space and from space against the Earth.

I request you to circulate this text as an official document of the Conference on Disarmament.

(Signed)

V. Issraelyan

GE.84-61048





ANNEX

TREATY ON THE PROHIBITION OF THE USE OF FORCE IN  
OUTER SPACE AND FROM SPACE AGAINST THE EARTH

The States Parties to this Treaty,

Guided by the principle whereby Members of the United Nations shall refrain in their international relations from the threat or use of force in any manner inconsistent with the purposes of the United Nations,

Seeking to avert an arms race in outer space and thus to lessen the danger to mankind of the threat of nuclear war,

Desiring to contribute towards attainment of the goal whereby the exploration and utilization of outer space, including the Moon and other celestial bodies, would be carried out exclusively for peaceful purposes,

have agreed on the following:

Article 1

It is prohibited to resort to the use or threat of force in outer space and the atmosphere and on the Earth through the utilization, as instruments of destruction, of space objects in orbit around the Earth, on celestial bodies or stationed in space in any other manner.

It is further prohibited to resort to the use or threat of force against space objects in orbit around the Earth, on celestial bodies or stationed in outer space in any other manner.

Article 2

In accordance with the provisions of article 1, States Parties to this Treaty undertake:

1. Not to test or deploy by placing in orbit around the Earth or stationing on celestial bodies or in any other manner any space-based weapons for the destruction of objects on the Earth, in the atmosphere or in outer space.

2. Not to utilize space objects in orbit around the Earth, on celestial bodies or stationed in outer space in any other manner as means to destroy any targets on the Earth, in the atmosphere or in outer space.

3. Not to destroy, damage, disturb the normal functioning or change the flight trajectory of space objects of other States.

4. Not to test or create new anti-satellite systems and to destroy any anti-satellite systems that they may already have.

5. Not to test or use manned spacecraft for military, including anti-satellite, purposes.

#### Article 3

The State Parties to this Treaty agree not to assist, encourage or induce any State, group of States, international organization or natural or legal person to engage in activities prohibited by this Treaty.

#### Article 4

1. For the purpose of providing assurance of compliance with the provisions of this Treaty, each State Party shall use the national technical means of verification at its disposal in a manner consistent with generally recognized principles of international law.

2. Each State Party undertakes not to interfere with the national technical means of verification of other States Parties operating in accordance with paragraph 1 of this article.

#### Article 5

1. The States Parties to this Treaty undertake to consult and co-operate with each other in solving any problems that may arise in connection with the objectives of the Treaty or its implementation.

2. Consultations and co-operation as provided in paragraph 1 of this article may also be undertaken by having recourse to appropriate international procedures within the United Nations and in accordance with its Charter. Such recourse may include utilization of the services of the Consultative Committee of States Parties to the Treaty.

3. The Consultative Committee of States Parties to the Treaty shall be convened by the depositary within one month after the receipt of a request from any State Party to this Treaty. Any State Party may nominate a representative to serve on the Committee.

#### Article 6

Each State Party to this Treaty undertakes to adopt such internal measures as it may deem necessary to fulfil its constitutional requirements in order to prohibit or prevent the carrying out of any activity contrary to the provisions of this Treaty in any place whatever under its jurisdiction or control.

#### Article 7

Nothing in this Treaty shall affect the rights and obligations of States under the Charter of the United Nations.

Article 8

Any dispute which may arise in connection with the implementation of this Treaty shall be settled exclusively by peaceful means through recourse to the procedures provided for in the Charter of the United Nations.

Article 9

This Treaty shall be of unlimited duration.

Article 10

1. This Treaty shall be open to all States for signature at United Nations Headquarters in New York. Any State which does not sign this treaty before its entry into force in accordance with paragraph 3 of this article may accede to it at any time.

2. This Treaty shall be subject to ratification by signatory States. Instruments of ratification and accession shall be deposited with the Secretary-General of the United Nations.

3. This Treaty shall enter into force between the States which have deposited instruments of ratification upon the deposit with the Secretary-General of the United Nations of the fifth instrument of ratification, provided that such instruments have been deposited by the Union of Soviet Socialist Republics and the United States of America.

4. For States whose instruments of ratification or accession are deposited after the entry into force of this Treaty, it shall enter into force on the date of the deposit of their instruments of ratification or accession.

5. The Secretary-General of the United Nations shall promptly inform all signatory and acceding States of the date of each signature, the date of deposit of each instrument of ratification or accession, the date of entry into force of this Treaty as well as other notices.

Article 11

This Treaty, of which the Arabic, Chinese, English, French, Russian and Spanish texts are equally authentic, shall be deposited with the Secretary-General of the United Nations, who shall send duly certified copies thereof to the Governments of the signatory and acceding States.

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# CONFERENCE ON DISARMAMENT

CD/477

21 March 1984

Original: ENGLISH

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LETTER DATED 27 JANUARY 1984 FROM THE PERMANENT REPRESENTATIVE OF GREECE  
ADDRESSED TO THE PRESIDENT OF THE CONFERENCE ON DISARMAMENT CONCERNING  
RULES 33 TO 35 OF THE RULES OF PROCEDURE

Upon instructions from my Government and in accordance with the Rules of Procedure of the Conference on Disarmament concerning the participation of the States non members of the Conference, I have the honour to inform you that Greece wishes to participate, during the 1984 session, in the work on all substantive items on the agenda of the Conference, in plenary and informal meetings, in the working groups and in other subsidiary bodies which may be established for the consideration of these items.

I would be grateful if you would bring this request to the attention of the members of the Conference on Disarmament so that the Conference may be in a position to take a decision at its earliest convenience.

Please accept, Mr. Chairman the assurances of my highest consideration.

(Signed) Athanasios Petropoulos  
Ambassador  
Permanent Representative

GE.84-61061



# CONFERENCE ON DISARMAMENT

CD/478

21 March 1984

Original: ENGLISH

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LETTER DATED 12 MARCH 1984 FROM THE PERMANENT REPRESENTATIVE OF GREECE  
ADDRESSED TO THE PRESIDENT OF THE CONFERENCE ON DISARMAMENT CONCERNING  
RULES 33 TO 35 OF THE RULES OF PROCEDURE

Following my letter dated 27 January 1984 I would like to inform you that, in case the request of my country to participate in the work of the Conference on Disarmament is accepted, Greece will make a general intervention in the Plenary, focusing on the general aspects of Greek policy on Disarmament, as well as two further interventions in the Plenary on Chemical Weapons and Radiological Weapons.

We intend also to participate in the working group on Chemical Weapons and we envisage the possibility to submit two working papers.

In case the Conference decides, at a later stage, to create other subsidiary bodies, we will study their mandate and we will inform you on our intention to participate.

I would be grateful if you would bring this request to the attention of the Members of the Conference on Disarmament so that the Conference may be in a position to take a decision at its earliest convenience.

(Signed) Athanasios Petropoulos

Ambassador  
Permanent Representative





## CONFERENCE ON DISARMAMENT

CD/479

21 March 1984

Original: ENGLISH

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LETTER DATED 1 FEBRUARY 1984 FROM THE PERMANENT REPRESENTATIVE OF IRELAND  
ADDRESSED TO THE PRESIDENT OF THE CONFERENCE ON DISARMAMENT CONCERNING  
RULES 33 TO 35 OF THE RULES OF PROCEDURE

Upon instructions from my Government and in accordance with the provisions of Rules 33 to 35 of the Rules of Procedure of the Conference on Disarmament concerning the participation of the States not members of the Conference I have the honour to inform you that Ireland wishes to take part, during 1984, in the work on all substantive items on the Conference's agenda, in plenary and informal meetings, in the working groups, and in other subsidiary bodies which may be established for the consideration of those items.

I would be grateful if you could bring this request to the attention of the members of the Conference on Disarmament so that the Conference may be in a position to take a decision at its earliest convenience.

(Signed) Francis Mahon HAYES  
Ambassador  
Permanent Representative of Ireland  
to the United Nations in Geneva

GE.84-61067



# CONFERENCE ON DISARMAMENT

CD/480

21 March 1984

Original: ENGLISH

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LETTER DATED 19 MARCH 1984 FROM THE PERMANENT REPRESENTATIVE OF IRELAND  
ADDRESSED TO THE PRESIDENT OF THE CONFERENCE ON DISARMAMENT CONCERNING  
RULES 33 TO 35 OF THE RULES OF PROCEDURE

I have the honour to refer to my letter of 1 February 1984 conveying the request of the Government of Ireland to participate in the deliberations of the Conference on Disarmament during the 1984 session.

I confirm that my Government is interested in all substantive items on the agenda of the Conference and that their intent for the present would be to participate in the meetings of the Plenary of the Conference and in the work of the Ad hoc Committee on Chemical Weapons (agenda item 4).

(Signed)

Francis Mahon HAYES  
Ambassador

Permanent Representative of Ireland  
to the United Nations Office in Geneva



LETTER DATED 23 MARCH 1984 ADDRESSED TO THE PRESIDENT OF  
THE CONFERENCE ON DISARMAMENT FROM THE REPRESENTATIVE OF  
THE POLISH PEOPLE'S REPUBLIC TRANSMITTING A PEACE APPEAL  
BY THE NATIONAL CONFERENCE OF DELEGATES OF THE POLISH  
UNITED WORKERS PARTY, ADOPTED IN WARSAW ON 18 MARCH 1984

Corrigendum

On page 2, line 4 of the above document, please insert after "Warsaw Treaty"  
the words "and NATO on the non-use of military force and the maintenance of  
peaceful relations".



# CONFERENCE ON DISARMAMENT

CD/481

23 March 1984

Original: ENGLISH

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LETTER DATED 23 MARCH 1984 ADDRESSED TO THE PRESIDENT OF THE  
CONFERENCE ON DISARMAMENT FROM THE REPRESENTATIVE OF THE  
POLISH PEOPLE'S REPUBLIC TRANSMITTING A PEACE APPEAL BY THE  
NATIONAL CONFERENCE OF DELEGATES OF THE POLISH UNITED WORKERS  
PARTY, ADOPTED IN WARSAW ON 18 MARCH 1984

I have the honour to transmit to you enclosed the text of "Peace Appeal",  
adopted by the National Conference of Delegates of the Polish United Workers' Party  
on 18 March 1984.

I should be grateful if you would have the Declaration circulated as an official  
document of the Conference on Disarmament.

(Signed) Stanisław Turbanski  
Ambassador

GE.84-61152

PEACE APPEAL BY THE NATIONAL CONFERENCE OF DELEGATES OF THE  
POLISH UNITED WORKERS' PARTY, WARSAW, 18 MARCH 1984

Following nearly four decades of peace, the threat of global conflict is again looming over Europe and the world at large. The dangerous international tension and the threat to peace are due to the policy pursued by the aggressive forces of imperialism and aimed at altering the alignment of forces, to attain superiority over socialism, and to hamper progressive processes in the world.

What serves this goal is the unprecedented speeding up of the arms build-up and unlimited expansion of means of mass destruction forced by the United States Administration and NATO.

The introduction of new nuclear missiles into Western Europe, and opening up of new areas for arms competition reaching out into outer space, has ominous consequences and faces mankind with threats never before recorded in the history of the world.

Imperialism is seeking to materialize its aggressive goals by way of pressure and violence, interference in other countries internal affairs, economic restrictions, and even armed interventions. In such a climate, those forces are again coming to the fore in the West and particularly in the Federal Republic of Germany, which still seek to change the territorial and political map of Europe moulded as a result of the victory over German fascism, post-war development and universally acknowledged international accords.

In the face of the perilous challenge to peace in Europe and throughout the world, the countries of the Socialist Community true to their peace policy, have been doing everything to prevent annihilation of the foundations of peace and international security. It is to this end that numerous proposals are advanced to limit armaments, promote progress in the field of disarmament, build an atmosphere of confidence in international relations, including the proposal to negotiate a treaty between the Parties to the Warsaw Treaty and the maintenance of peaceful relations, as well as the one on freezing and gradually reducing military budgets.

Reduction of military spendings would allow for assigning huge means to resolving swollen socio-economic problems facing the contemporary world.

Efforts made by the Socialist Community and world forces of peace and by political circles guided by prudence and realism, allow to cherish hope that the dangerous course of developments can be averted and that peace can be preserved both for the present and future generations.

What strengthens this hope are the achievements recorded in the past decade, the attainments of dialogue and detente, uninterrupted continuation of this process, and the commencement of the Stockholm Conference on Confidence and Security Building Measures and Disarmament in Europe. The hope in question is further enforced by the growing awareness of the hazards and the development and activeness of social movements against the arms build-up and war all over the world.

In tune with the basic interest of the Polish people and with the traditional line of the consistently pursued Polish foreign policy, the socialist Poland will spare no efforts to continue making a constructive contribution to consolidation of the structures of peace order in Europe, strengthening of world security and developing broad international co-operation based on equal rights.



The Polish United Workers' Party lends its full support to the Leninist policy of peace pursued by the Communist Party of the Soviet Union. Unshakeable bonds of alliance, friendship and co-operation between Poland and the Soviet Union will serve the most vital interests of our nations and States, and the cause of peace and security in Europe.

While confirming fidelity to the line of the IXth PUWP congress, the National PUWP Delegates' Conference consistently puts the struggle for peace and for strengthening our defensive alliances and Poland's international position at the top of tasks in the sphere of foreign policy.

The struggle for peace and for the peaceful future of our children is one of the supreme causes which unite all Poles. As a nation, which in the twentieth century has already once faced total annihilation, we have a special right and duty to demand a halt on the arms race, to demand non-undermining of the foundations of security and peace in Europe and in the world at large, and putting an end to the dangerous game which threatens the world with a nuclear disaster.

We call on all people of good will all over the world to co-operate in the defence of peace. The fight for a lasting peace, for the future of mankind free from the nuclear nightmare should become the cause uniting all nations and States.



# CONFERENCE ON DISARMAMENT

CD/482  
CD/CW/WP.73  
26 March 1984  
Original: ENGLISH

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YUGOSLAVIA

## Working Paper

### National verification measures

#### Introduction

From the onset of the consideration of banning the research, development, production and destruction of chemical weapons, it was widely acknowledged that verification should be based on a combination of appropriate national and international measures which would complement and supplement each other, thereby providing an acceptable system which would, in turn, ensure effective implementation of the prohibition.

A number of working papers have so far been submitted to the Conference on Disarmament, examining different levels of international verification and technical means of implementation. This is in accordance with the generally accepted view that an effective implementation of the prohibition of production and destruction or diversion of stocks and production facilities can only be assured if there is an effective system of international verification of compliance with a Convention banning chemical weapons.

In our working papers (CD/298 of 26 July 1982 and CD/393 of 13 July 1983) we have drawn attention to the fact that both forms of verification should have an adequate role in the implementation of the provisions of the Convention and in all its phases. The role and activities of an international authority and a national authority should be co-ordinated, and they should establish a continuous mutual co-operation. Such co-operation, admittedly, can be best achieved in an atmosphere of general confidence and agreement in the process of entry into force of the Convention. Only in that event can the work of either team be unimpeded and the necessary measures of international and national verification implemented. The purpose of this paper is to present some of our views which, we hope, will be useful in further negotiations on the elaboration of the Convention.

### General remarks

Some of the submitted papers express the view that each State party to the Convention should have a national authority whose methods of work would be adjusted to the national legislation of each participating State, and that such an authority should carry out a number of functions related to the Convention. On the other hand, some delegations are of the opinion that the role of the national authority should be limited to assistance to the international authority. Since the views on the role and scope of the activities of the national authority differ so much, we feel that we should, at the outset, establish a basis for them. Such a basis is, in our view, the existing classification of toxic chemicals into the following three categories, which should also be used in determining the level of verification:

- super-toxic lethal chemicals;
- other lethal chemicals;
- other harmful chemicals.

We consider that in the case of the verification of super-toxic lethal chemicals, especially chemical warfare agents belonging to the group of nerve gases, verification should be comprehensive and organized in such a way as to ensure the greatest possible degree of confidence and balance, at each stage of destruction of CW, of potentials at a lower level. The verification of such CW should be carried out under the supervision of an international team in the way determined by the Convention.

As far as lethal chemicals the type of yperite are concerned, however, we believe that depending on the quantity of stocks of such chemical weapons and the capacity of production facilities verification should be international by character, but it can also be carried out in close co-operation with the national authority. Huge stocks of chemical weapons filled with yperite and great capacities of production facilities of this CWA make it necessary to establish international verification. Nevertheless, smaller quantities of these CWAs up to several hundred tons, with the permission of the Consultative Committee, can be destroyed under the supervision of the national authority which is obliged to inform the Consultative Committee within 30 days of the completion of the destruction.

Further, the verification of less toxic chemicals: other lethal chemicals and other harmful chemicals, as well as CWA precursors (See CD/401) can be carried out in almost all stages under control of the national authority. This form of verification of less toxic chemicals is suggested because the majority of these chemicals today are referred to as dual-purpose chemicals and are widely used for peaceful purposes. This is the case, for instance, with phosgene, hydrogen cyanide and other lethal chemicals.

The stocks of chemical weapons filled with these chemicals, however, can be subject to international verification if very large quantities (a few tens of thousands of tons) are involved, and if the chemical industry of the country concerned is unable to convert them into other products during the period of verification.

Table 1 gives a survey of chemicals whose production should be subject to national verification measures.

Table 1. Chemicals to be subject to measures of national verification

Super-toxic lethal chemicals <sup>*/</sup>	
yperite, lewisite and other similar derivatives	
Other lethal and harmful chemicals	
phosgene and its derivations	
hydrogen cyanide and its derivatives	
adamsite	
diphenylcyanoarsine and other arsene compound with similar properties	
Precursors:	
phosphorus	
phosphorus trichloride	pinacolyl alcohol
phosphorus chloride	isopropyl alcohol
dialkylphosphites	cyclohexyl alcohol, etc.
trialkylphosphites	
N,N-disubstitutes- $\beta$ -aminoethanols	piperidinol-3 or -4
N,N-disubstitutes- $\beta$ -aminoethanethiols	hinuclidinol-3
N,N-disubstitutes- $\beta$ -aminoethylhalides	ethylene oxide
	arsene trichloride, etc.

<sup>\*/</sup> Verification of the destruction of stocks of these CWs and production facilities shall be for the most part subject to international verification.

#### Scope of the national system of verification

Due to an enormous task facing the Consultative Committee and an international team of experts during verification, co-operation with the national authority becomes indispensable, in view of the fact that it can render assistance both in technical staff and equipment and laboratories. Within the framework of its responsibilities, the national authority should assist the international team in the process of verification of super lethal chemicals and their key precursors.

Such co-operation should develop in the process of destruction of the stocks of these CWAs, destruction of the production and filling facilities as well as in the process of on-site inspection in the event of violation of the Convention.

On the other hand, the national authority's main task, should, to our mind, be the implementation of the verification of production and transfer of dual-purpose chemicals and precursors. The national authority should, by the assistance of its own team of experts, organize a system of verification, and should be obligated to inform the Consultative Committee in its annual reports about the results of the inspection. In other words, the national authority should monitor in the process of verification:

- production of other lethal and other harmful chemicals which are being used for peaceful purposes;
- production of dual-purpose chemicals and precursors and their diversion into final product; and
- transfer of these chemicals.

Therefore, we can say that the national authority is facing very complex tasks in the process of verification. Having this in mind, it should elaborate in great detail its tasks and the technical measures which it will be using. In order to attain an effective system of verification and to maintain confidence among the States parties, it will be necessary to agree on co-operation among future States parties already during the elaboration of the Convention, on the basis of exchange of expert information, standardization of methods and introduction of similar or identical instruments, as well as on the basis of introducing a compatible computer system.

The list of chemicals given in table 1 suggests that the methods of their verification should be diverse because we are dealing here with chemicals having different chemical structures. If various technological procedures for their production and the capacities of individual facilities are also taken into account, then the task of the national team becomes even more complex.

Furthermore, most of these chemicals are widely used and converted into other products in different branches of chemical industry for peaceful use, and at a given time they can be important also for the production of chemical weapons, whether as the main component or intermediary, or a basic component of binary weapons.

#### Role, tasks and structure of the national committee

Each State party to the Chemical Weapons Convention is obliged to establish a national authority for verification. The role and tasks of that authority are essentially determined by the law of that particular country. Such a national

committee shall have the task to co-operate, in the application of the Convention, with the international authority - the Consultative Committee; to lend it appropriate support in the implementation of verification measures, and to submit to it relevant reports. Regardless of the fact that the administrative and economic systems of many States parties to the Convention are very disparate, we believe that the structure, composition and functioning of the national authority should be such as to ensure efficiency, competence, objectiveness and the necessary confidence, in close co-operation with all international institutions in the implementation of the Convention.

In order that the national committee may meet its obligations resulting from national legislation and co-operation with the Consultative Committee, it should be composed of the following representatives:

- Government representative;
- representatives of science in the field of chemistry;
- representatives of chemical industry;
- military representatives;
- media representatives;
- representatives of one of the States parties designated by the Consultative Committee.

The members of the national committee shall be bound to safeguard the secret, and should not communicate to third persons, either orally or in writing, any information concerning verification and implementation of the Convention.

Depending on the complexity and scope of its activities, the national committee may set up a team of expert consultants in different fields of science (chemistry, chemical analysis, toxicology, economics, technical and chemical information, etc.), as well as to provide adequate laboratories for chemical, physical and toxicological analyses.

These laboratories shall be obliged, on request from the Consultative Committee, to assist the international authority in every possible way in the implementation of verification measures.

The Consultative Committee shall, for the purpose of this Convention, make a list of laboratories for chemical and biological analyses, proposed by the States parties.

Upon its establishment the national committee should take over, in its country, control over production facilities for dual-purpose chemicals, precursors and those chemical agents which today have mass application for peaceful purposes.

Also, the national committee should, in co-operation with the international authority, exercise control over the stocks and closure of production facilities of chemical weapons with CWA the type of yperite, and propose measures for their destruction.

With the assistance of its bodies, the technical secretariat and an expert team, the national committee shall work out a programme of its work.

Within its competence the national committee shall exercise control over the production of other lethal and other harmful chemicals. As these are the chemicals which are now massively used in chemical industry, it will be necessary to carry out an in-depth inspection of production facilities as technological units, and to elaborate, on the basis of that inspection, a programme of control of the production. The annual material balance of the production facility utilizing all its capacities shall serve as a basis for determining further procedure relative to the diversion of, and transfer for permitted purposes of these chemicals. All data received shall be stored in the computer centre which should be connected with an international computer centre. Periodic or annual reports of the national committee on the activities of the facilities in which these chemicals are diverted for permitted purposes shall be examined by the Consultative Committee, and control of transfer exercised on the basis of such reports.

In view of the fact that the production facilities of dual-purpose chemicals and precursors also produce chemicals which are massively used in chemical industry for the production of pesticides, pharmaceuticals, polymers, etc., but which basically can be used either as a component or intermediary for the production of chemical weapons, the control of their production should be exercised continuously in order to know exactly for which purposes they are used.

Having in mind that such complex control is exercised for a large number of these chemicals, a detailed material balance of production and diversion for permitted purposes shall be elaborated to that end. All data shall be stored in appropriated national computer centres, while periodic reports shall be submitted to the Consultative Committee on the production and transfer of these chemicals.

Having in mind a whole variety of chemicals and precursors (table 1) which should be monitored by the national committee, it should work out a detailed programme of work and scope of activities in collaboration with the Consultative Committee. In order to be able to carry out this rather extensive work, the national committee shall, in co-operation with other national committees and the Consultative Committee or a technical team of experts, standardize chemical and physical methods for the control of production. The instruments and equipment



(monitoring system) installed in such facilities should be compatible and ensure an exchange of information. All data should be stored in the computer centre where they will be processed on the basis of a uniform information technical system and reported to the Consultative Committee.

On the basis of the received reports on the material balance of production and the transfer of these chemicals, if there is doubt that the data are ambiguous, the Consultative Committee shall decide on the control of each facility individually, in accordance with the procedure envisaged by the Convention.



## CONFERENCE ON DISARMAMENT

CD/483  
CD/CW/WP.74  
27 March 1984  
Original: ENGLISH

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LETTER DATED 20 MARCH 1984 FROM THE PERMANENT REPRESENTATIVE OF  
THE ISLAMIC REPUBLIC OF IRAN ADDRESSED TO THE PRESIDENT OF THE  
CONFERENCE ON DISARMAMENT CONTAINING PROPOSALS ON SOME ELEMENTS  
OF A FUTURE CONVENTION ON THE COMPLETE PROHIBITION AND TOTAL  
DESTRUCTION OF CHEMICAL WEAPONS

I have the honour to enclose herewith some proposals concerning some  
elements of a future convention on the complete prohibition and total  
destruction of chemical weapons.

You are kindly requested to have this document circulated as an official  
document of the Disarmament Conference.

(Signed) Nasrollah KAZEMI KAMYLAB  
Ambassador  
Permanent Representative

GE.84-61207

PROPOSALS ON SOME ELEMENTS OF A FUTURE CONVENTION ON THE COMPLETE  
PROHIBITION AND TOTAL DESTRUCTION OF CHEMICAL WEAPONS

PREAMBLE

The delegation of the Islamic Republic of Iran, being a victim of a crime against peace and security of mankind, namely the systematic and indiscriminate use of chemical weapons by a criminal regime, presents some preliminary ideas in respect of the prohibition of the use of chemical weapons, international co-operation on protective purposes and some general provisions and hopes that every delegation, conscious of its responsibility in suppressing this kind of crime in the future Convention, will take a positive view in considering these proposals. The indignation raised by the use of chemical arms will never be equal to the horror of these methods which are particularly odious and insidious and which have always been both morally and judicially condemned.

The delegation from the Islamic Republic of Iran considers that the preamble should contain a strong condemnation of the use of chemical weapons as a means of warfare in any circumstances and use of chemical weapons must be recognized as a war-crime. There must be a reaffirmation of the obligations of States under the Protocol for the prohibition of the use in war of asphyxiating, poisonous or other cases and of bacteriological methods of warfare and renunciation of the reservation to the Protocol by all States.

## GENERAL PROVISIONS

I. States parties shall undertake to respect and to ensure respect for the present Convention in all circumstances.

II. No reservation or exception may be made to this Convention unless expressly permitted by other articles of this Convention.

III. (1-10) years after entry into force of the Convention it shall prevail, as between States parties to the Geneva Protocol for the prohibition of the use in war of asphyxiating, poisonous or other gases and of bacteriological methods of warfare.

IV. States parties to the Convention agree that the use of chemical weapons in any circumstances constitute a war-crime and shall undertake never in any circumstances to use or threaten to use chemical weapons.

V. States parties to the Convention agree that there can be no amendments to the basic principle relating to prohibition of use of chemical weapons set forth in Article        and they shall not be a party to any agreement in derogation thereof.

VI. States parties undertake to inform the consultative committee on all direct or indirect commercial transfer of dual purposes chemical agents without undue delay.

VII. States parties, in a spirit of international co-operation, shall guarantee an exchange of information and access to the protective devices and medical treatment developments with the aim of enabling States parties to improve their capabilities and skills in these areas.



# CONFERENCE ON DISARMAMENT

CD/484<sup>\*/</sup>

4 April 1984

ENGLISH

Original: RUSSIAN

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## PREVENTION OF NUCLEAR WAR

### Working Paper of a Group of Socialist States

At the 1983 session of the Committee on Disarmament the socialist countries stated their views on the reasons for the increasing threat of nuclear war and on the practical steps to be taken for its elimination, as well as on the organization of the consideration of the issue in the Committee (Working Papers CD/355 of 21 March 1983 and CD/406 of 4 August 1983). Recent developments in world events confirm the correctness of the judgements and the significance and timeliness of the proposals contained in those documents.

The 1984 session of the Conference on Disarmament is taking place under conditions of marked aggravation of the international situation and increased danger of nuclear war caused by the militarist policies of the United States.

These policies find expression, above all, in attempts by the United States of America and their NATO allies to destroy the existing military balance. The large-scale programmes of development of strategic and other nuclear weapons adopted in the United States of America, the spreading of the arms race to outer space, and the deployment in western Europe of new medium-range United States missiles are clearly designed to provide a material basis for these adventurist policies. These actions are intensifying the very real danger that the United States of America will bring catastrophe upon the peoples of Europe and the whole world.

By deploying its new nuclear missiles in European countries the United States of America has created obstacles both to the Soviet-United States talks on nuclear arms limitations in Europe and to the talks on the limitation and reduction of strategic weapons.

The socialist countries have declared more than once that they will under no circumstances tolerate military superiority over them. At the same time they remain committed to the principled course which they have jointly adopted towards the cessation of the arms race, above all the nuclear arms race, and towards the reduction and ultimate complete elimination of the threat of nuclear war.

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<sup>\*/</sup> Re-issued for technical reasons.

The prevention of nuclear war is, in the full sense of the word, the number one global problem. Not only the solution of other problems affecting all mankind but the very existence of life on Earth depends on whether this threat can be successfully eliminated.

That is precisely how the matter is seen by the overwhelming majority of States, as the results of the thirty-eighth session of the General Assembly confirmed. In a whole range of resolutions the General Assembly spoke out in favour of the adoption of urgent measures for the prevention of nuclear war.

Of particular importance among them are the Declaration on the Condemnation of Nuclear War and the resolutions on the renunciation of first-use of nuclear weapons, on the nuclear weapon freeze, on starting nuclear disarmament negotiations and on the prevention of an arms race in outer space.

The socialist countries are convinced that the problem of prevention of nuclear war should now take a central place in the work of the Conference on Disarmament. This is further supported by the fact that in a number of resolutions, including its resolution 38/183 G, the General Assembly addressed a request to the Conference on Disarmament to undertake, as a matter of the highest priority, negotiations with a view to achieving agreement on appropriate and practical measures for the prevention of nuclear war and to establish an ad hoc working group for that purpose. The socialist countries fully support that recommendation and are in favour of its earliest implementation. They propose that efforts towards the prevention of nuclear war should be concentrated in the following areas.

1. The policy of States possessing nuclear weapons is of special significance for solving the problem of prevention of nuclear war. The vital interests of the whole of mankind require that relations between those States should be regulated by certain norms which they could agree among themselves to recognize and which should be given a mandatory nature. The socialist countries draw attention to the specific proposals in that connection contained in document CD/444.
2. With the emergence of new types of nuclear weapons and their means of delivery which facilitate the establishment of a nuclear first-strike potential it is urgently necessary to create a moral and political atmosphere in which any attempt to unleash nuclear war would be doomed to failure.

(a) The socialist countries consider it essential that all States, and especially the nuclear weapon States, should regard the prevention of nuclear war as the main objective of their policy, should prevent situations fraught with nuclear conflict and, in the event of such danger, should hold urgent consultations to prevent a nuclear conflagration from breaking out.



(b) As a development from the provisions of the Declaration on the Condemnation of Nuclear War adopted at the thirty-eighth session of the General Assembly, the socialist countries propose that all States should be recommended to consider the question of including provisions condemning nuclear war in the appropriate unilateral and joint statements or declarations of a political nature.

(c) The socialist countries also consider it necessary that all States, and particularly nuclear weapon States, proceeding, inter alia, from United Nations decisions on the prohibition of war propaganda, should renounce propaganda for nuclear war in any of its variations, either global or limited. In particular, it is necessary to renounce the elaboration, advancement, dissemination and propaganda of political and military doctrines and concepts designed to support the "legitimacy" of first use of nuclear weapons and, more generally, the "permissibility" of unleashing nuclear war. They are convinced that no aim whatsoever can justify the first use of nuclear weapons.

(d) The socialist countries reiterate their proposal concerning the renunciation by all nuclear weapon States of the first use of nuclear weapons. Obligations to that effect could be assumed unilaterally by each nuclear weapon State which has not yet done so. This method, which does not involve holding special talks or reaching agreement, would help to strengthen confidence and reduce the level of nuclear danger. At the same time the undertakings by nuclear weapon Powers to renounce the first use of nuclear weapons could also be incorporated in a unified instrument of international law, which, in practice, would be equivalent to the complete legal prohibitions of the use of nuclear weapons. The socialist countries again declare their support for the proposal for the conclusion of a convention on the prohibition of the use of nuclear weapons with the participation of all nuclear weapon Powers.

(e) Such measures as the renunciation of the first use of nuclear weapons and ultimately the complete prohibition of their use would be an active means of preventing nuclear war and would represent the concretization, in a manner applicable to present-day conditions, of norms of international law and principles enshrined in the Charter of the United Nations. Proposals by socialist countries for the general exclusion of the use of force, both nuclear and non-nuclear, from international relations pursue the same purpose. At the global level, that could be done by concluding a world treaty on the non-use of force in international relations. An important step in the same direction is also the proposal put forward by a number of socialist countries in January 1983 to conclude a Treaty on the mutual renunciation of the use of military force and on the maintenance of

peaceful relations between the Warsaw Treaty and NATO member States, whose core would be the commitment of the States members of the two alliances not to be the first to use nuclear or conventional arms against one another.

(f) The creation of conditions for the prevention of a nuclear conflict would be assisted by the adoption by all nuclear weapon Powers of an undertaking not to use nuclear weapons under any circumstances against non-nuclear countries in whose territory there are no such weapons, to respect the status of the nuclear-weapon-free zone already created and the encouragement of the creation of new nuclear-free zones in various parts of the world.

(g) The socialist countries reaffirm their readiness to consider other appropriate measures, such as the prevention of accidental or unauthorized use of nuclear weapons, the avoidance of the possibility of surprise attacks, etc., as was proposed, inter alia, in document CD/406. At the same time they consider it necessary to stress that various confidence-building measures can contribute towards the removal of the nuclear threat only in conjunction with far-reaching political undertakings in that field. The confidence-building measures should be genuinely large-scale ones aimed first and foremost at the prevention of nuclear war.

3. Of no less importance would be measures of a material nature designed to ensure that various kinds of doctrines and concepts justifying the unleashing of nuclear war should not be supplied with a material basis in the form of new armaments systems.

(a) One of the most effective and relatively easily applicable measures towards that end could be the freezing, under appropriate verification, of nuclear weapons in quantitative and qualitative terms. This step should be taken by all nuclear weapon Powers or, in the first instance, only by the USSR and the United States of America on the understanding that the other nuclear weapon States would follow their example.

To agree to a freeze would mean:

- To cease the build-up of all components of nuclear arsenals, including all kinds of nuclear weapon delivery systems and all kinds of nuclear weapons;
- Not to deploy nuclear weapons of new kinds and types;
- To establish a moratorium on all tests of nuclear weapons and on tests of new kinds and types of their delivery systems;
- To stop the production of fissionable materials for the purpose of creating nuclear weapons.

A nuclear weapon freeze would significantly improve the general political atmosphere and facilitate agreement on the reduction of nuclear arsenals.

(b) The cessation of the qualitative refinement of nuclear weapons and the development of new models and types of such weapons would be assisted by the earliest

completion of the preparation of a treaty on the complete and general prohibition of nuclear weapon tests and, until the conclusion of such a treaty, by the proclamation by all nuclear weapon States of a moratorium on all nuclear explosions.

(c) Another important obligation of nuclear weapon States which bears a direct relationship to the prevention of nuclear war is to prevent the proliferation of nuclear weapons in any form. That means, first of all, not handing over such weapons or control over them to anybody. It is also essential not to deploy them on the territory of countries where there are none. Another pressing task is that of preventing the spread of the nuclear arms race to new spheres.

(d) The socialist countries continue to hold that nuclear disarmament and the complete liquidation of nuclear weapons is the most effective guarantee against the threat of nuclear war and the use of nuclear weapons. They call once again for efforts to achieve, step by step and on the basis of the principle of equal security, the reduction of nuclear weapons until they have been completely eliminated in all their forms.

(e) Side by side with measures directly relating to nuclear weapons, the prevention of nuclear war would be greatly assisted by the cessation and prevention of the arms race in other high-risk areas. Of particular significance in that connection would be the prevention of the arms race in space, which is fraught with the further increase of the risk of nuclear war. The programmes of development of a large-scale anti-missile system being elaborated at present in the United States of America cannot remove the threat of further nuclear arsenals hanging over the world but will only make their use more probable.

The socialist countries draw attention to the fact that the USSR has given an undertaking not to be the first to place any type of anti-satellite weapons in space, which is to say that it has imposed a unilateral moratorium on such launchings for as long as other States, including the United States of America, will refrain from placing anti-satellite weapons of any kind in space.

To prevent an arms race in space altogether would, of course, be a still broader and more far-reaching measure. That purpose would be served by the conclusion of a treaty on the prohibition of the use of force in outer space and from space against the Earth.

4. The socialist countries are also prepared to consider other measures aimed at the prevention of nuclear war. The time has come to proceed from words of a general nature about the threat of nuclear catastrophe to specific deeds, namely, to constructive negotiations on the above-mentioned proposals with a view to the conclusion of appropriate international agreements.

The socialist countries reaffirm once again their resolute desire to embark upon the elaboration of urgent and practical measures for the prevention of nuclear war and the establishment, to that end, of an appropriate subsidiary body of the Conference on Disarmament.

They appeal once again to all participants in the Conference on Disarmament whom it may concern to show political goodwill and to adopt a constructive position on the vitally important problem of the prevention of nuclear war.

# CONFERENCE ON DISARMAMENT

CD/485

2 April 1984

ENGLISH

Original: SPANISH

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LETTER DATED 31 JANUARY 1984 FROM THE PERMANENT REPRESENTATIVE OF ECUADOR  
ADDRESSED TO THE PRESIDENT OF THE CONFERENCE ON DISARMAMENT CONCERNING  
RULES 33 TO 35 OF THE RULES OF PROCEDURE

Sir,

In accordance with the relevant rules of procedure, I have the honour to request you to convey to the Conference on Disarmament the wish of the Government of Ecuador to take part, during 1984, in the former's plenary and informal meetings devoted to the substantive items on its agenda.

This request is in keeping with its unswerving international policy aimed at supporting efforts made in the disarmament field.

Accept, Sir, the assurances of my highest consideration.

(Signed) Mario ALEMAN  
Ambassador  
Permanent Representative

GE.84-61342



# CONFERENCE ON DISARMAMENT

CD/486

28 March 1984

ENGLISH

Original: SPANISH

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LETTER DATED 9 FEBRUARY 1984 FROM THE PERMANENT REPRESENTATIVE  
OF ECUADOR ADDRESSED TO THE PRESIDENT OF THE CONFERENCE ON  
DISARMAMENT CONCERNING RULES 33 TO 35 OF THE RULES OF PROCEDURE

As I indicated to the secretariat of the Conference on Disarmament at the appropriate time, I have the pleasure to inform you that the request made by this Mission in note No. 4-8-2, dated 31 January 1984, also applies to the subsidiary bodies of the Conference.

(Signed): Mario Alemán  
Ambassador  
Permanent Representative





## CONFERENCE ON DISARMAMENT

CD/487

28 March 1984

ENGLISH

Original: SPANISH

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LETTER DATED 23 MARCH 1984 FROM THE PERMANENT REPRESENTATIVE  
OF ECUADOR ADDRESSED TO THE PRESIDENT OF THE CONFERENCE ON  
DISARMAMENT CONCERNING RULES 33 TO 35 OF THE RULES OF PROCEDURE

With reference to my note No. 4-8-2, dated 31 January 1984, I would like to explain that the Government of Ecuador intends to make a general statement at the plenary meeting of the Conference on Disarmament at an appropriate time.

It would also be interested in following the work of the subsidiary organ dealing with chemical weapons.

(Signed)

Mario Alemán Salvador  
Ambassador  
Permanent Representative



# CONFERENCE ON DISARMAMENT

CD/488  
20 March 1984  
ENGLISH  
Original: FRENCH

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LETTER DATED 24 FEBRUARY 1984 FROM THE PERMANENT REPRESENTATIVE  
OF THE REPUBLIC OF CAMEROON ADDRESSED TO THE PRESIDENT OF THE  
CONFERENCE ON DISARMAMENT CONCERNING RULES 33 TO 35 OF THE  
RULES OF PROCEDURE

Upon the instructions of my Government and in accordance with the provisions of rules 32 to 35 of the rules of procedure of the Committee on Disarmament, I have the honour to inform you that the Republic of Cameroon wishes to take part, in the capacity of observer, in the work of the Conference on Disarmament during its 1984 session.

The Republic of Cameroon would like to participate in the work on all the questions of substance on the agenda of the Conference, both at plenary and at informal meetings, as well as in any subsidiary bodies that may be set up for the consideration of those questions.

(Signed)

Dominique Yong  
Deputy Permanent Representative



# CONFERENCE ON DISARMAMENT

CD/489  
28 March 1984  
ENGLISH  
Original: FRENCH

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LETTER DATED 23 MARCH 1984 FROM THE PERMANENT REPRESENTATIVE  
OF THE REPUBLIC OF CAMEROON ADDRESSED TO THE PRESIDENT OF THE  
CONFERENCE ON DISARMAMENT CONCERNING RULES 33 TO 35 OF THE  
RULES OF PROCEDURE

Further to the letter from the Permanent Mission of the Republic of Cameroon dated 24 February 1984, indicating Cameroon's wish to participate in the work of the Conference on Disarmament, I have the honour to inform you that the Republic of Cameroon wishes, for the moment, to attend the plenary, where it would like to express its views on disarmament in general, and to participate in the work of the subsidiary body dealing with chemical weapons. It goes without saying that the Republic of Cameroon is also interested in other matters, and reserves the right to request permission to participate in the work of the appropriate subsidiary bodies.

(Signed) Dominique Yong  
Deputy Permanent Representative



## CONFERENCE ON DISARMAMENT

CD/490

2 April 1984

Original: ENGLISH

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LETTER DATED 23 MARCH 1984 FROM THE PERMANENT REPRESENTATIVE OF THE PEOPLE'S DEMOCRATIC REPUBLIC OF YEMEN ADDRESSED TO THE PRESIDENT OF THE CONFERENCE ON DISARMAMENT CONCERNING RULES 33 TO 35 OF THE RULES OF PROCEDURE

Upon instructions from my Government and in accordance with the Rules of Procedures of the Conference on Disarmament concerning the participation of the non-member States of the Conference, I have the honour to inform you that Democratic Yemen wishes to take part in the work of the Conference on Disarmament during its 1984 session.

Democratic Yemen desires to participate in all the substantive items on the Conferences' agenda, in plenary and informal meetings, in the working groups and in other subsidiary bodies which may be established for the consideration of those items.

Mohamed Saleh AL-QUTAISH  
Ambassador  
Permanent Representative





## FEDERAL REPUBLIC OF GERMANY

Working PaperAspects of modern developments in seismic event recording techniquesSummary

Significant developments in seismic event recording techniques have been reported since 1978, when the Group of Seismic Experts (GSE) was compiling the first report (CCD/558) for the Committee on Disarmament. This paper reviews especially those developments of the last five years which are considered to improve the detection and location capability of a global seismic network. The most advanced model of such a system presented in CCD/558 was named Network III (SRO). This hypothetical system was estimated to be able to detect seismic events of body wave magnitude mb 3.8 to 4.2 in the northern hemisphere and of mb 4.0 to 4.6 in the southern hemisphere with a probability of 90 %. Due to developments in instrumentation, electronics, computer technology and in telecommunications, Network III (SRO) no longer represents a hypothetical concept but a concrete one. With regard to detection capability, the following developments are regarded to be main elements of a future global network:

- High performance data acquisition systems consisting of broadband seismometers with high resolution and sensitivity combined with powerful 22-bit A/D converters provide all of the information contained in seismic signals without loss of accuracy.
- Ocean bottom seismometers installed in boreholes on the ocean floor promise to close the gap in the detection capability between the northern and southern hemisphere.
- Seismic recording systems using "low-power" techniques can be used for optimum configuration of a global network due to the fact that electric power for long-term operation can be taken from batteries or solar panels.

- Satellite systems have proven to be reliable and efficient for on-line transmission of high-quality digital seismic data from every place on the globe.
- Detection, location and identification of seismic events within local and regional distances can be improved considerably by deploying small arrays instead of single stations.
- Costs for digital seismic recording and processing systems have decreased due to microprocessor technology and are now even less expensive than analog systems.

In this context, another aspect is the possibility of improving the detection capability of seismic stations in regions with unfavorable noise conditions by installing the seismometers in boreholes. Initial results gained with a newly established local network of six borehole stations in the northern part of the Federal Republic of Germany -- an area covered with thick alluvial sediments -- reveal that the detection threshold of downhole instruments is as low as that for some stations of the GRF array, which is still the most sensitive network in our country. According to these initial results, the concept of borehole stations in miniarrays as elements of a global network promises efficient monitoring of regional and local events in areas of interest. The technology which this new digital network would use represents the latest stage of development of recording systems for seismological purposes in our country. This technology could also be used for a "black-box" system in a future global network due to the high degree of automation in recording and analysis of seismic data.

Advances in technology of the last five years have improved the quality of recording, transmission, processing and analysis of seismic data. As a consequence of this development, a new, improved concept for a global network should be worked out to demonstrate the efficiency of modern seismological methods for monitoring a future CTB.

## 1. Introduction

In recent years, an increasing number of countries have reported on improved technical capabilities in seismic instrumentation for the recording of earthquakes. Advances in electronics, computer technology, and in telecommunications have significantly influenced these developments.

A new era of seismology started with the conversion of recorded seismic signals from analog to digital format. This meant that high speed computers could be used for processing and analyzing seismograms. The first time digital techniques were applied on a large scale was in the mid-sixties when the large aperture seismic array (LASA) in Montana, USA, became operational. Since that time, various countries have developed and installed digital systems for recording and analyzing seismological data.

In our country, "digital seismology" dates back to the early seventies when the project of the Graefenberg digital broadband array was initiated. The aim of this concept was to provide an instrument for seismological research which uses the full information content of seismic signals by means of broadband recording in combination with array capabilities. Due to the various requirements with regard to resolution, dynamic range, quality of data and flexibility, it was necessary to use digital components for the system. The installation of 13 array stations with a total of 19 broadband instruments was completed at the beginning of 1980. The performance of the array system could be demonstrated to the GSE at a workshop, held in July 1980 (s. GSE/FRG/7). The high quality data of the GRF array have been used intensively for studying a great variety of seismological problems (SEIDL and BERCKHEMER, 1982; RAEKERS and MOLLER, 1982). Moreover, several investigations have established that broadband array data can be optimally filtered for detection purposes (SEIDL, 1979; STAMMLER, 1981; FERBER, 1983) and have revealed new possibilities for identifying seismic events (HARJES, 1979; HANKA, 1982).

Today, the Graefenberg system no longer represents the latest technological standard, but due to the quality of recorded seismograms with respect to bandwidth, resolution and dynamic range, it must still be counted among the high performance recording systems presently in operation.

Worldwide, the SRO (Seismic Research Observatories) stations belong to the same category as the GRF system as far as technical standards, data quality and recording capability are concerned. Each of these 13 stations, which are being operated presently in various countries around the globe, is equipped with a 3-component broadband seismometer set. The signals of the sensors are filtered to produce long-period and short-period outputs. The system continuously records the three long-period data channels, sampling them once each second, whereas the short-period data of the vertical component which are digitized 20 times per second, are recorded only when an event is detected.

The SRO seismometers are still the only broadband instruments operated in boreholes. Due to their installation at a depth of approximately 100 m, long-period records are less affected by wind-generated noise than those from conventional seismometers near the surface. As one of the SROs is located only 50 m from a 3-component station of the GRF array, the recording capability of the two systems can be compared directly. It is not surprising that depending on wind conditions, the SRO borehole stations provide a lower noise level in the long-period band, in particular for the horizontal components. On the other hand, it would be desirable for many purposes to record the broadband seismometer output instead of the filtered short- and long-period signals. Both systems can be regarded as being optimal when the different purposes for which they were developed and the technology available at the time they were designed are taken into account.

## 2. Recent Technical Developments

Four examples of possible global networks for monitoring a CTB were presented in the first report of the GSE (CCD/558), which was submitted to the CD in March 1978. The most advanced system, named Network III (SRO), was

assumed to consist of high-quality seismograph stations of the SRO type. In Figure 1 the global distribution of the stations as given in CCD/558 is shown. The capability of this network to detect seismic events at a 90 % probability level was estimated to vary from mb 3.8 to 4.2 in the northern hemisphere and between 4.0 and 4.6 in the southern hemisphere. The station distribution of Network III coincides rather well with existing seismograph stations and is by far not optimal with regard to the detection capability. To achieve further improvements, it would be necessary to

- increase the number of seismograph stations, especially in the southern hemisphere;
- install new ocean-bottom borehole seismograph stations;
- optimize station distribution with regard to detection capability;
- establish arrays instead of single stations in and around areas of potential interest;
- install the seismometers of single stations or arrays in boreholes or mines to provide optimum noise conditions.

Capability studies of models that contain some of these elements have been carried out by HANNON (1983); these studies indicate the degree to which the results of CCD/558 can be improved. Also, the technological requirements for a global network in which all of the mentioned aspects are included have just been fulfilled during the past few years. The following points illustrate the main factors and developments that have to be taken into account in designing a future global network and evaluating its capability.

1. New seismic data acquisition systems especially seismometers and A/D converters have improved resolution and sensitivity. Seismometers like the TG 44000 can be operated at the quietest site, no longer limited in resolution by electronic noise. Combining such an instrument with a new 22-bit A/D converter, which is currently being developed in the United States, will make it possible to record the broadband output with the same accuracy by the presently used multiple-band recording.

2. Significant improvements have been achieved in ocean-bottom seismographs (OBS) since a 3-component broadband system was deployed by the United States in a borehole on the ocean floor. Ambient noise level is reduced considerably when this technology is used. With systems like this, detection capability in coastal regions and island areas, especially in the southern hemisphere can be further improved.
3. New "low-power" microprocessor (CMOS) modules have an extremely low power consumption. Seismic stations built with this technology can be placed nearly anywhere due to the fact that electric power for long-term operation can be taken from batteries or solar panels. The stations of a network of this type can be sited optimally for the tasks the network is designed for.
4. The efficient and reliable use of satellite systems for transmitting high-quality seismic data over several thousand kilometers has been demonstrated by the United States "Regional Seismic Test Network" (RSTN). The integration of microprocessor and telecommunication techniques in this system marks a new stage in the development of seismological recording facilities. This technology can be taken as a standard for a future global system.
5. Encouraging results with regard to detection, identification and location of local and regional events have been obtained from a small-aperture seismic array, a so-called mini-array (NORESS), currently operated by Norway. Systems like this in combination with broadband stations of the RSTN type could become main elements of a Network IV.
6. The cost of digital recording and analysis systems has been lowered considerably by microprocessor technology. Even institutions with low budgets will now be able to afford high-quality digital seismograph stations. Low-cost systems are being offered commercially for a variety of applications and consequently there is no longer a need to operate analog stations in a future global system.

### 3. New Seismic Installations in the Federal Republic of Germany

One aspect to be considered because of its significance for the capability of a global system is related to the improvement of signal-to-noise ratio by installing the seismometers in boreholes at a depth of several hundred meters or, if possible, in abandoned mines. In countries with a high population, industry and traffic density, one of the main difficulties for highly sensitive recording of seismic signals is to find a quiet site for the seismograph station. The problem of high seismic noise is also posed by remote areas covered with thick sediments. In these areas, the borehole concept offers a possibility for improving the detection capability of a seismic station. Initial results from a new, local digital seismic network of borehole stations recently set up in the northern part of Germany (Lower Saxony), a region completely covered with thick alluvial sediments, indicate the extent the expectations can be fulfilled.

This local seismic network was set up in a project started in 1981 as part of a comprehensive geological and geophysical investigation program carried out to establish the suitability of a salt diapir as a depository for high-level radioactive waste. The seismicity of the site area monitored with a local network should provide information on possible active tectonic zones in this region. A main barrier for the recording of small, local earthquakes with a magnitude as low as  $ML = 0$  was the high level of seismic noise. The noise amplitudes measured at the surface were equivalent to an earthquake of local magnitude  $ML = 3.3$  if the epicentral distance is assumed to be 100 km.

To define the decrease of the noise amplitudes as a function of depth in three different boreholes, short-period noise measurements were carried out using a special seismometer sonde. As known from the publications of several authors (DOUZE, 1964; BATH, 1966; TAKANO and HAGIWARA, 1966; HARWARD, 1970), the behavior of noise as a function of depth follows a general trend. The amplitudes decrease with increasing frequency and depth. The results, however, were found to be inconsistent with each other, probably due to the different geological conditions at the investigated sites.

In the three boreholes used for the measurements, seismic noise samples were recorded between 50 and 400 m in steps of 50 m for about 15 minutes at each level. Simultaneously, the noise was recorded with an instrument installed at the surface. Calculating the power spectra of the recorded samples and comparing the results for the three sites, no significant differences were found between recordings made at the same depth. As expected, the noise amplitudes decreased with increasing depth. At 400 m, the decrease at 10 Hz was found to be -40 dB compared to the surface. More details on the behavior versus depth can be taken from the example given in Figure 2.

The equivalent local magnitude from the noise level at a depth of 300 m corresponds to an earthquake of  $ML = 1.9 \pm 0.5$  assuming an epicentral distance of 100 km. The detection threshold can easily be derived from this value by adding 0.3 units, assuming that the signal amplitude is twice as high as the average noise amplitudes. Consequently, at epicenter distances of 200, 300 and 500 km, a 300 m downhole station is expected to detect seismic events of local magnitude 2.7, 3.2 and 3.9, respectively. The corresponding values from a surface station would be about 1.4 magnitude units higher assuming the signal-to-noise ratio increases to the same degree that the noise level is reduced.

In this context it should be added that station detection capabilities are usually estimated in terms of body wave magnitude  $m_b$ , which is a measure for the strength of a seismic event in the teleseismic range. For local and regional epicentral distances, however, only the local magnitude  $ML$ , based on surface waves, is defined. The two scales for magnitude are inconsistent with each other, therefore it is not possible to compare  $ML$  and  $m_b$  directly. NUTTLI (1973), however, reported a modified local magnitude, called  $m_{bLg}$ , which can be used to extend the teleseismic  $m_b$ : $M_s$  relation down to  $m_b = 3.0$ , if appropriate regional attenuation functions are available.



A concept for a local borehole network was worked out on the basis of the results obtained from the noise measurements. In the final version of this network there are 5 stations at the points of a pentagon with an additional station at the center. These 6 seismometers were installed at a depth of 300 m. The network was planned to cover an area of 20 x 20 km, so that the average distance between stations is on the order of 10 km.

The map in Figure 3 shows the location of the seismometer sites. The center station contains a three-component set, whereas the remaining stations are equipped with vertical instruments. Short-period MARK L4 instruments with a natural frequency of 1 Hz are installed at all stations. Modern microprocessor modules are used for the network recording system.

The block diagram of Figure 4 shows the elements of the data acquisition system for a borehole station. The seismometer output is sampled at a rate of 120 Hz. The 12-bit A/D converter has a resolution of 66 dB. Gain-ranging provides a dynamic range of 120 dB. By use of "low-power" modules, a station can be operated with batteries for approximately 4 months. The digital data from each station are transmitted continuously via commercial telephone lines at 2400 Baud to a recording center near the center station of the network.

The main purpose of this central recording system is to control and synchronize the network, to collect the data from the borehole stations, to detect and store seismic events temporarily on magnetic disk. A block diagram of this newly developed multi-microprocessor system is shown in Figure 5. Once a day or, if needed, on request, the recorded data are sent via a 4800-Baud data line (DATEX-P) to the seismic data analysis center of the BGR (Federal Institute for Geosciences and Natural Resources) in Hannover. In principle the system could broadcast the recorded events via these telecommunication channels all over the globe. The capacity of modern satellite systems like INTELSAT would even allow on-line transmission.

On the whole, this network documents the latest technological stage in the development of recording systems for seismological purposes in our country.

Immediately after the system was set in operation, an experiment was carried out to determine the increase in the signal-to-noise ratio obtained from downhole instruments compared with surface stations. An additional vertical seismometer was installed for this purpose near the surface at the center borehole station. Figure 6 shows typical recordings of the instruments, both presented with identical magnification. The seismic signal, found only on the record of the downhole seismometer (lower trace), was generated by a chemical explosion of 0.002 t (2 kg) TNT fired 10 km from the location of the instruments.

More evidence for the good performance of downhole seismometers in areas of high noise is given in Figure 7. The signals were recorded from a teleseismic event of magnitude mb 5.2 (GRF) in the Kurile Islands. The upper two traces are simulated short-period WWSSN records obtained by appropriate filtering of the broadband seismometer output of two GRF array stations. The selected channels represent the best and worst records from the array with respect to the signal-to-noise ratio. Additionally, the figure contains low-pass filtered outputs of the surface and downhole seismometers resampled to 20 Hz. As in the previous example, the signal in the record of the surface seismometer cannot be separated from the noise, neither in the time nor in the frequency domain. During the experiment, unfortunately, there were no teleseismic or regional events that were strong enough to quantitatively determine the improvement in the signal-to-noise ratio between the surface and downhole channels. A comparison with the GRF records, however, reveals that the detection threshold of the seismometer in the borehole is as low as that for some stations of the GRF array. This is a promising result as the array is still the most sensitive seismic recording instrument in our country.

The only signals observed during the test measurements on both channels were from local shocks. In the example given in Figure 8, the ratio between the scaling factors applied to the output of the downhole and surface instrument is five. Taking the different magnifications into account, the signal recorded in the borehole has lower amplitudes, however, the first onset is not covered by noise as on the surface trace. The improvement in

the signal-to-noise ratio for the downhole channel turns out to be 0.5 units in magnitude when time intervals of 0.5 s are analyzed before and after the onset of the signal.

The results gained in this first phase of network operation indicate that detection capability in areas of unfavorable seismic noise conditions can be improved by installing the seismometers in boreholes. To complete the project, the studies will be continued to obtain more information on the threshold magnitude of this network, especially with regard to local and regional seismic signals.

The integration of the borehole concept in a future advanced model for a global network is certainly one important point to be taken into account, in addition to the elements provided by recent technological developments in seismological recording facilities. As far as the technology of the described network is concerned, the system, designed for unmanned operation and automated analysis, could be used as a "black box", controlled by international data centers. Access to the data could be provided via modern telecommunication channels. As interference by human interaction is only necessary for maintenance or repair, it is possible to eliminate subjective factors in the extraction of seismic parameters. This could be done at international data centers according to agreed procedures. This is one of the main perspective which is offered by modern technology with respect to the operation of a future global network.

#### 4. Conclusions

When the GSE was compiling its first report, CCD/558 in 1978, detection and location capabilities of two different types of global networks were estimated quantitatively. The first system, called Network I, consisted of existing seismograph stations, whereas the second one, Network III (SRO), defined a hypothetical digital network which consisted of stations for which the SRO standard was assumed. Meanwhile, the compilation of the third report is finished. It contains important information on the achievements of many countries in the field of seismograph stations and networks.

According to the developments of the last 5 years, Network III (SRO) has partially changed from a hypothetical system to an operating one. New perspectives for a future network, however, have not yet been elaborated by the GSE, although the technical elements of such an advanced network are already available, as pointed out in this paper. We feel that it is necessary to develop a new model for a global system as soon as possible for which the present stage of technology is taken as a standard, and moreover, to estimate quantitatively the detection and location capability of this network to be able to document the efficiency of monitoring a future CTB with seismological methods of today.

References

- Bath, M.: Underground measurements of short-period seismic noise. - *Annali di Geofisica*, 19, no. 1, 107-117, 1966.
- Douze, E.J.: Signal and noise in deep wells. - *Geophysics*, Vol. 24, 721-732, 1964.
- Ferber, R.: Robust detection of earthquake signals. - In *Signal Processing II: Theories and Applications*, H.W. Schüssler (ed.), Elsevier, 685-687, 1983.
- Hanka, W.: Analysis of broadband Rayleigh waves: A possibility for seismic discrimination. - *J. Geophys.*, 51, 165-179, 1982.
- Hannon, W.J.: Seismic verification of a Comprehensive Test Ban. - *Energy and Techn. Rev., Lawr. Liv. Nat. Lab.*, 50-65, May 1983.
- Harjes, H.-P.: Spectral interpretation of seismic measurements. - *Geol. Jb.*, E17, 1979 (Germ. text with engl. abstr.).
- Harwardt, H.: Mikroseismikbeobachtungen in einer norddeutschen Tiefbohrung. - *Obs. Roy. Belgique, Comm. Ser. A-13, Nr. 101* (1971). *Assemblée Generale de la Comm. Seism. Europ., Luxemburg 21-29 Sept., 1970.*
- Nuttli, O.W.: Seismic wave attenuation and magnitude relations for eastern North America. - *J. Geophys. Res.* 78, 876-885, 1973.
- Raekers, E., Müller, G.: The Romanian Earthquake of March 4, 1977 - III. Improved focal model and moment determination. - *J. Geophys.*, 50, 143-150, 1982.
- Seidl, D.: The simulation problem for broadband seismograms. - *J. Geophys.*, 48, 84-93, 1979.

Seidl, D., Berckhemer, H.: Determination of source moment and radiated seismic energy from broadband recordings. -

Stammler, W.: Application of prediction error filters for the detection of weak seismic events. -

IEEE Trans. Geosc. Remote Sensing, GE-19, no. 4, 222-230, 1981.

Stammler, W.: Design of matched filters and relevant frequency selective filters for the detection of teleseismic events. -

IEEE Trans. Geosc. Remote Sensing, GE-21, no. 2, 133-140, 1983.

Takano, K., Hagiwara, H.: Preliminary observation of microearthquakes with a deep well seismometer. -

Bul. Earthq. Res. Inst., 44, 1135-1148, 1966.

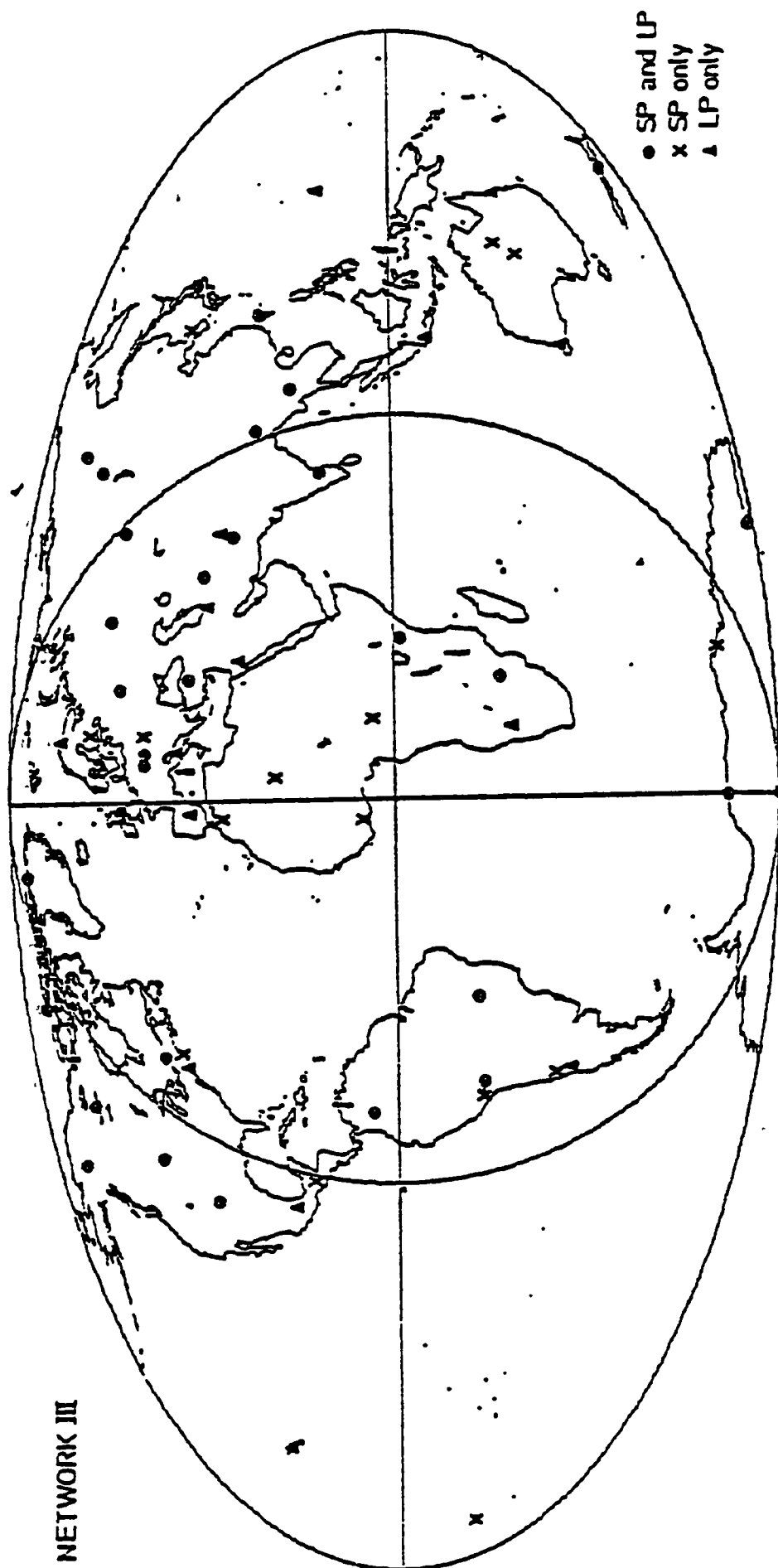


Fig. 1 : Map showing the location of stations in Network III (SRO) (CCD/558)

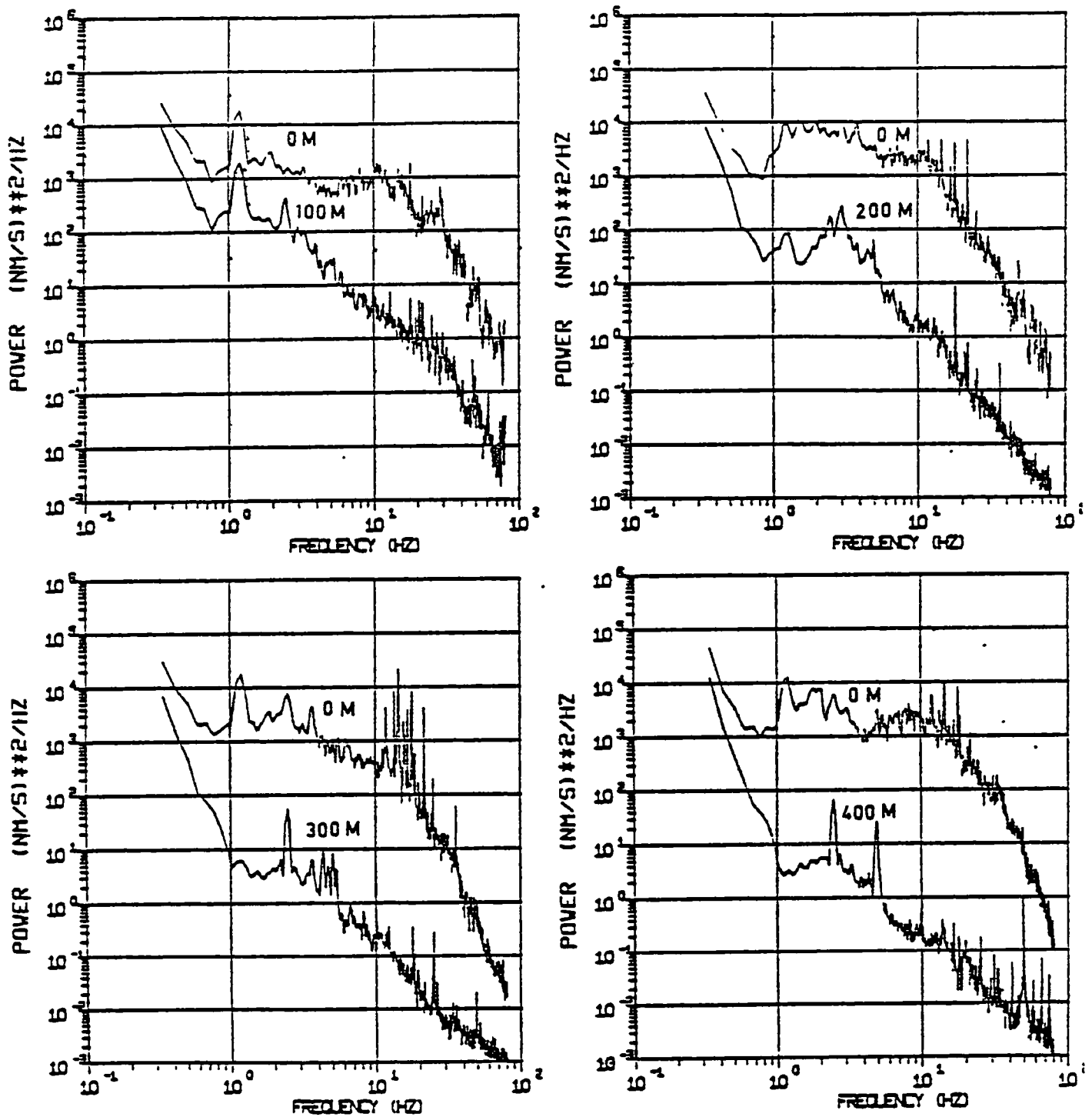


Fig. 2: Power density spectra of seismic noise recorded on the surface and in a borehole at a depth of 100, 200, 300 and 400 m



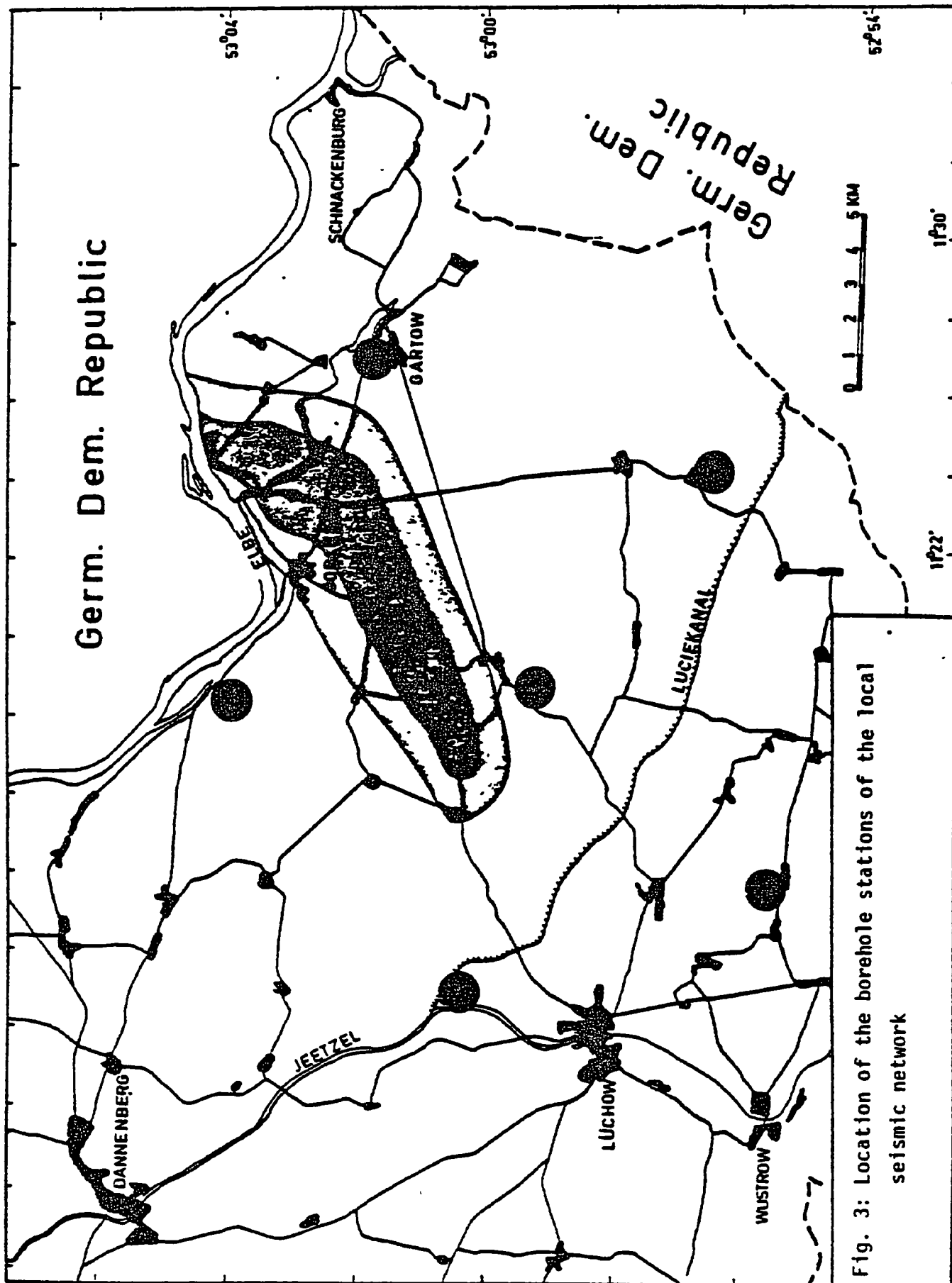


Fig. 3: Location of the borehole stations of the local seismic network

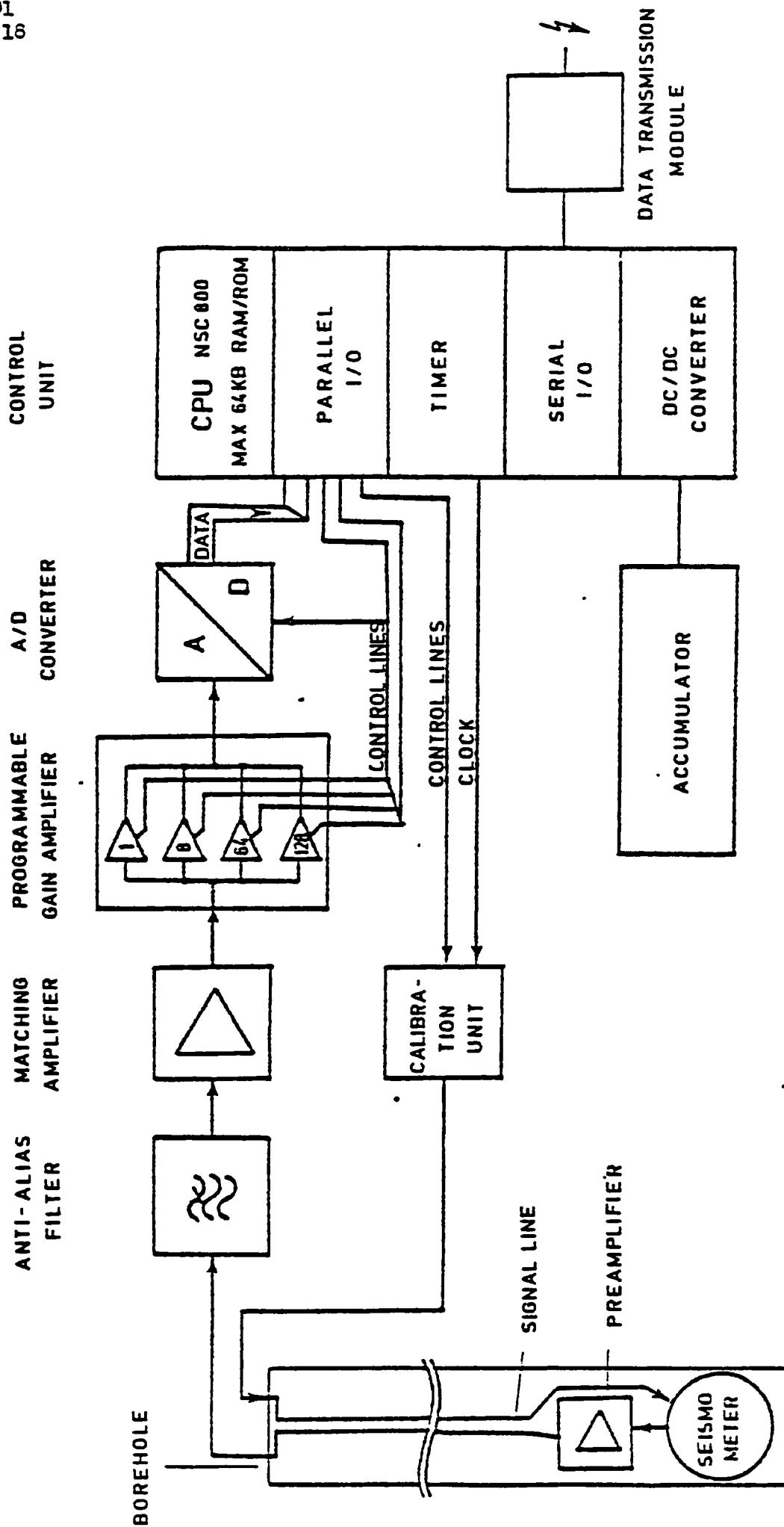


Fig. 4: Block diagram of a borehole station data acquisition system

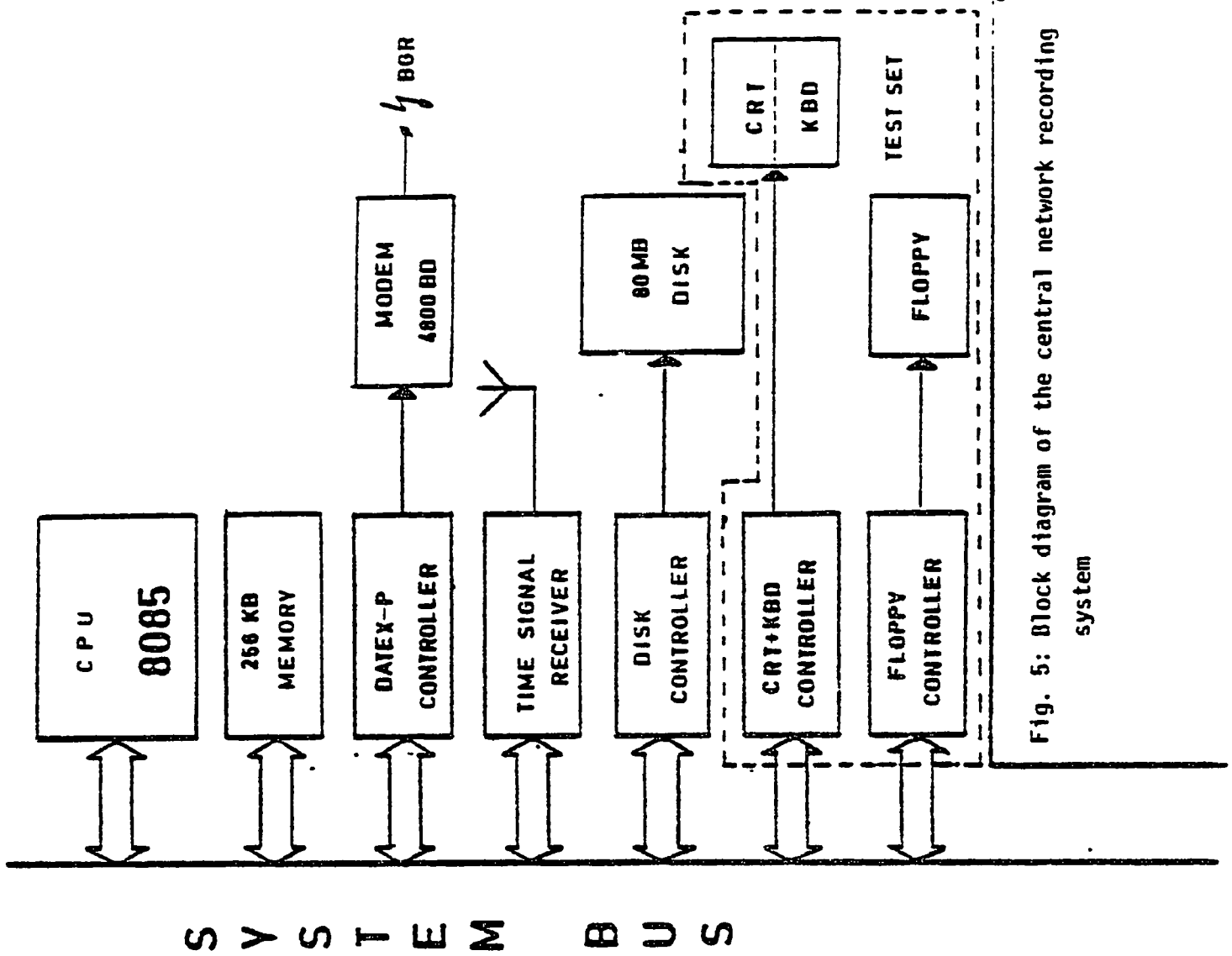
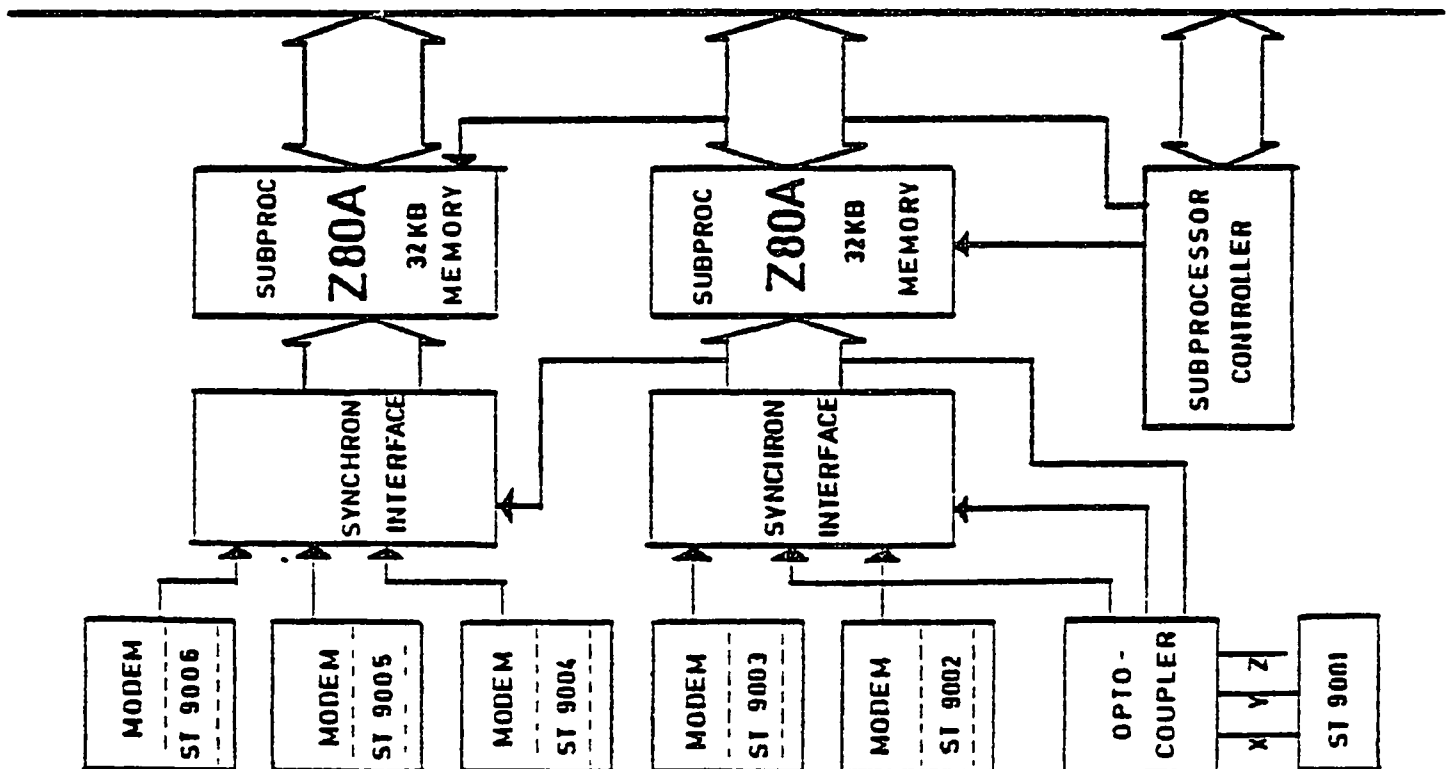


Fig. 5: Block diagram of the central network recording system



surface



downhole



16. 3.20 16. 3.21 16. 3.22 16. 3.23 16. 3.24 16. 3.25 16. 3.26 16. 3.27

Fig. 6: Seismograms of a 2 kg explosion 10 km from the center borehole station of the local network recorded with MARK L4 vertical seismometers installed downhole and at the surface

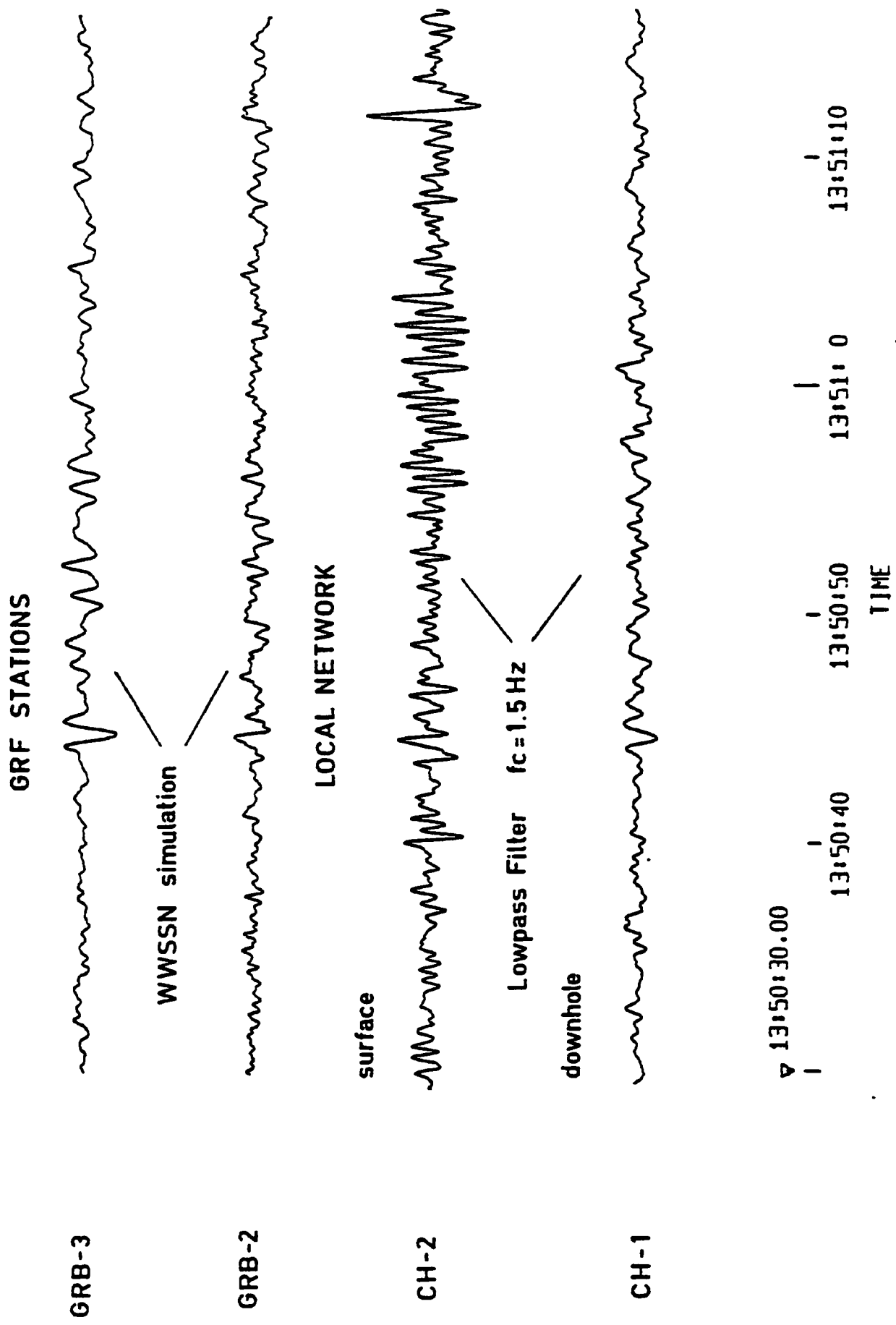


Fig. 7: Seismograms of a Kurile Islands event ( $m_b = 5.2$ ) recorded at two stations of the GRF array and at the center station of the local network with seismometers installed downhole and at the surface

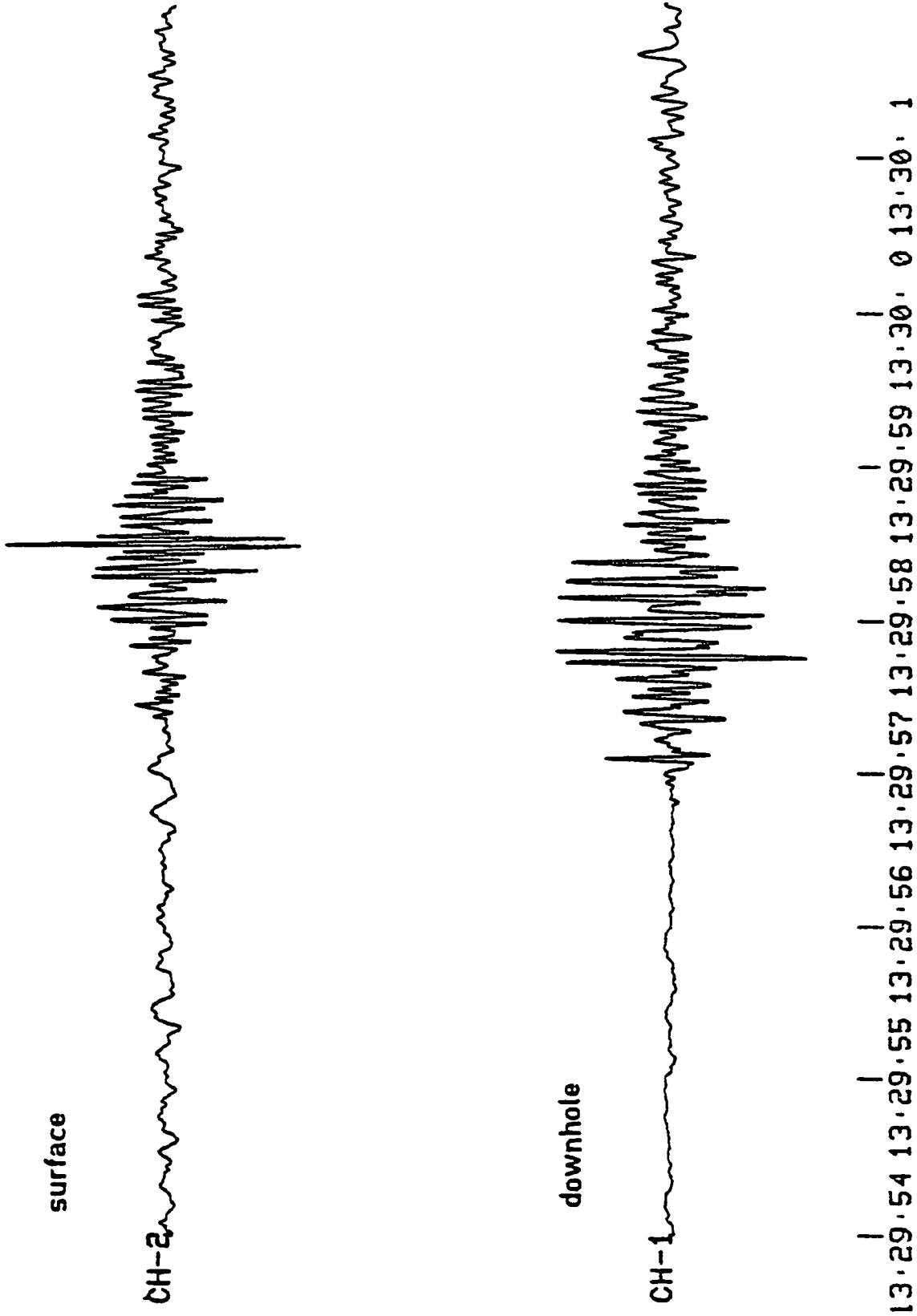


Fig. 8: Local shock recorded at the center station of the local network with seismometers installed downhole and at the surface

Group of 21

Draft Mandate for the ad hoc subsidiary body  
on a Nuclear Test Ban

The Conference on Disarmament decides to re-establish for the duration of its 1984 session the ad hoc subsidiary body on a Nuclear Test Ban to initiate immediately the multilateral negotiation of a treaty for the prohibition of all nuclear-weapon tests and to exert its best endeavours in order that the Conference may transmit to the General Assembly at its thirty-ninth session the complete draft of such a treaty.

Pursuant to its mandate, the ad hoc Committee on a Nuclear Test Ban will take into account all existing proposals and future initiatives. In addition, it will draw on the knowledge and experience that have been accumulated over the years in the consideration of a comprehensive test ban in the successive multilateral negotiating bodies and the trilateral negotiations. The ad hoc Committee will also take into account the work of the ad hoc Group of Scientific Experts to Consider International Co-operative Measures to Detect and Identify Seismic Events.





# CONFERENCE ON DISARMAMENT

CD/493

2 April 1984

ENGLISH

Original: FRENCH

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LETTER DATED 2 APRIL 1984 FROM THE PERMANENT REPRESENTATIVE OF  
THE SOCIALIST REPUBLIC OF ROMANIA TO THE PRESIDENT OF THE  
CONFERENCE ON DISARMAMENT TRANSMITTING THE TEXT OF AN APPEAL OF  
THE ROMANIAN PARLIAMENT CONCERNING THE EMPLACEMENT IN EUROPE  
OF INTERMEDIATE RANGE MISSILES

I have the honour to send you herewith the "Appeal of the Grand  
National Assembly of the Socialist Republic of Romania to the Supreme  
Soviet of the Union of Soviet Socialist Republics, the Congress of the  
United States of America, the parliaments of European countries on whose  
territories intermediate-range missiles are installed, and the parliaments  
of other European countries and Canada".

I would request you to have this 'Appcal' distributed as an official  
document of the Conference on Disarmament.

(Signed)

Ion Dăescu  
Ambassador

APPEAL OF THE GRAND NATIONAL ASSEMBLY OF THE SOCIALIST REPUBLIC OF ROMANIA TO THE SUPREME SOVIET OF THE UNION OF SOVIET SOCIALIST REPUBLICS, THE CONGRESS OF THE UNITED STATES OF AMERICA, THE PARLIAMENTS OF EUROPEAN COUNTRIES ON WHOSE TERRITORIES INTERMEDIATE-RANGE MISSILES ARE INSTALLED, AND THE PARLIAMENTS OF OTHER EUROPEAN COUNTRIES AND CANADA

The Grand National Assembly of the Socialist Republic of Romania, deeply concerned at the unprecedented aggravation of the international situation following the commencement of installation of new missiles on the European continent, fully supports the appeals addressed by the Plenum of the Central Committee of the Romanian Communist Party on 21-22 March 1984 through the President of the country, Comrade Nicolae Ceaușescu, to heads of State and government, political leaders and all peoples of the world, to concert their efforts and to co-operate ever more closely on identifying - before it is too late - the best means of preventing the deterioration of the international situation, bringing a halt to the dangerous arms race, saving mankind from a nuclear cataclysm and bringing about a climate of peace, co-operation, confidence and concord in Europe and in the world.

The commencement of emplacement of United States medium-range missiles in a number of western European States introduces a new phase of the nuclear arms race. The Soviet Union has subsequently adopted nuclear countermeasures.

These actions have opened a new stage of nuclear armament in Europe, which may lead to considerable aggravation of the situation on the continent and increase the danger of nuclear war.

The escalation of nuclear armament significantly increases the danger of a world war; under present conditions, such a war will inevitably become a nuclear war, which will lead to the destruction of life on our planet.

The gravity of the present international situation is due to the escalation of nuclear armament, which constitutes the greatest danger, for, unlike all conventional weapons, even the most sophisticated, the use of nuclear weapons not only will entail immense losses of human lives and the destruction of an enormous number of social and economic institutions but will lead to the annihilation of all mankind and of the very conditions for life on our planet. Account must be taken of the very stern warning of scientists - including Soviet and United States scientists - who have shown that the use of only a small part of the immense nuclear arsenals held by the United States and the USSR would provoke a nuclear winter and do away with life on earth.

In view of this very great danger, we consider that the idea is completely unacceptable that the production and deployment of new nuclear weapons can serve as a means of strengthening the security and peace of the peoples; on the contrary, each new nuclear weapon only further increases the degree of their insecurity, the danger of the destruction of human civilization, of mankind, of the conditions for existence, for life on the planet. The use of nuclear weapons will affect those who use them as much as other States. No one will be able to escape the effects of the use of nuclear weapons. Therefore, in the eventuality of a nuclear war, there will be neither vanquished nor victors; the natural, normal evolution of mankind and of life on our planet will be halted. That is why we consider that the cessation of the arms race, the elimination of the danger of war and the establishment and consolidation of peace constitute the basic problem of our time. Everything possible must be done to defend the supreme right of the individual, of the peoples, to peace, to freedom, to independence, to existence, to life!

Bearing in mind the supreme responsibility which we, parliaments, bear towards the peoples, towards the cause of peace and the life of all the world's nations, we must do everything to prevent the emplacement of medium-range missiles, to ensure the withdrawal of all nuclear weapons stationed on the European continent and thereafter the beginning of general disarmament and the construction of a world of peace and co-operation, without weapons and wars!

The Grand National Assembly of the Socialist Republic of Romania invites the Congress of the United States of America to act to end the deployment of new United States medium-range missiles on the territories of a number of western European countries, prevent the emplacement of new nuclear weapons on the European continent, and start negotiations on the withdrawal of medium-range missiles and other nuclear weapons from Europe.

The Grand National Assembly of the Socialist Republic of Romania addresses itself equally to the Supreme Soviet of the Union of Soviet Socialist Republics, inviting it to work on the adoption of measures to terminate the application of the nuclear countermeasures announced by the Soviet Union simultaneously with the cessation of deployment of United States medium-range missiles.

We invite the Congress of the United States of America and the Supreme Soviet of the Union of Soviet Socialist Republics to bear in mind the interests of their own peoples, of peace in Europe and in the world and - following the adoption of measures to prevent the emplacement of United States medium-range missiles and the application of the nuclear countermeasures announced by the Soviet Union - to work towards the resumption of negotiations between the Soviet Union and the United States of America resulting in appropriate agreements and conventions to halt the installation and deployment of missiles on the continent, to withdraw the missiles already emplaced and to free the continent of all nuclear weapons.

The Grand National Assembly of the Socialist Republic of Romania addresses itself to the parliaments of the European countries on whose territories the first medium-range missiles have been installed and invites them to act firmly, in accordance with the responsibility vested in them for the fate of their peoples, for peace in Europe and in the world, to prevent the installation of medium-range missiles and to forbid the deployment of new nuclear arms on their territories pending the conclusion of an appropriate agreement.

The Grand National Assembly of the Socialist Republic of Romania equally invites the parliaments of other European countries and Canada to concert their efforts to have the installation of United States medium-range missiles stopped and to prevent the application of the nuclear countermeasures announced by the Soviet Union, in order to ensure the initiation of Soviet-American negotiations as soon as possible.

The Grand National Assembly of the Socialist Republic of Romania believes that negotiations - conducted in a spirit of trust and great responsibility - could result in agreements for eliminating the danger of an atomic and nuclear war with devastating consequences. Proposals put forward to that end by the socialist countries, those made by various other States, by heads of State and government and by political leaders offer a basis for constructive negotiations which could result in appropriate agreements.

Since the emplacement of nuclear missiles concerns the life and existence of all European peoples, it is necessary for all the States of the continent to commit themselves to active participation in the attainment of agreements and conventions making it possible to eliminate missiles from Europe and to bar the road to nuclear catastrophe. In this spirit, we believe that the countries belonging to the two military blocs, as well as other European States, should participate, in one form or another, in the Soviet-American negotiations in order to contribute to the attainment of an agreement and of appropriate conventions.

On the basis of the great responsibility of parliaments to their own peoples - as representatives of their will - the Grand National Assembly of the Socialist Republic of Romania proposes the holding of a meeting of representatives of the parliaments of the European countries as well as of the United States and Canada, to examine the extremely serious situation created on the continent and to formulate and propose ways and means and solutions for preventing the emplacement of United States missiles in a number of western European countries and the application of the retaliatory measures announced by the Soviet Union, with a view to the reopening of negotiations between the Soviet Union and the United States resulting in agreements and conventions on the halting of the nuclear arms race and opening the way to the freeing of the continent of all nuclear weapons.

We address ourselves to all parliaments, to all parliament members, and appeal to them to act, before it is too late, to respond to the aspirations and the trust of the peoples, to their desire for peace, freedom, disarmament, security and independence, to stop the dangerous race towards the nuclear abyss so as to ensure the triumph of peace and co-operation on our planet!

The Grand National Assembly of the Socialist Republic of Romania is convinced that all governments will take into account the aspirations and the will of the peoples, who are emphatically expressing by extensive demonstrations their firm determination to live and co-operate in a climate of peace, security and collaboration, in a better and more just world, free of nuclear weapons, of all arms and wars.

Supported by that conviction, we deputies of the Grand National Assembly of the Socialist Republic of Romania, reaffirming our determination constantly to promote socialist Romania's policy of peace and collaboration, appeal to all parliaments and all parliament members of the countries of Europe, the United States of America and Canada to concert our efforts and to act together to help reduce international tension, cease the nuclear arms race and reach agreements opening the prospect of the total elimination of nuclear weapons from the continent and of the danger of a devastating nuclear war.

On the basis of the great responsibility we bear before our peoples, let us place above all else the supreme interests of the defence of the life of the peoples, of human civilization, and let us spare no effort to build a world which is one of peace and international co-operation!

This Appeal was adopted unanimously by the Grand National Assembly at its meeting of 24 March 1984.

Bucharest, 24 March 1984

# CONFERENCE ON DISARMAMENT

CD/494  
CD/CW/WP.79  
3 April 1984  
ENGLISH  
Original: FRENCH

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## FRANCE

### ELIMINATION OF STOCKS AND OF PRODUCTION FACILITIES

#### INTRODUCTION

The elimination of chemical weapons stocks and of facilities for the production of such weapons would, by its scope, constitute the destruction of a considerable military potential and probably the greatest movement forward in the disarmament process ever yet registered.

The problem is of very great importance to the French delegation, which would like through this paper to express its views at the current stage of the negotiations. The positions taken in this document are not immutable; they may be reviewed in the light of the progress of the negotiations.

#### ELIMINATION OF STOCKS AND OF EXISTING PRODUCTION FACILITIES

Within as brief a period as possible after the entry into force of the Convention, each State party should undertake to provide, pursuant to a detailed plan contained in the annexes to the Convention, substantial information on its chemical weapons capability whether it be in the form of stockpiles or of production facilities.

#### I. STOCKS

Within a period not exceeding 30 days after the entry into force of the Convention, each State party should make a declaration of possession or non-possession of stocks and propose a destruction plan encompassing international means of on-site verification.

##### (a) Initial declarations

The declarations should indicate clearly that the State making the declaration possesses or does not possess chemical weapons, irrespective of the quantity and condition of the stocks, and whether or not there are on its territory stockpiles of chemical weapons which do not come under its jurisdiction.

Bulk products, whether toxic substances or precursors, should be declared by their chemical name. The weight in metric tons of each product should be indicated.

Ammunition should be declared by type, calibre, quantity and chemical content. The weight of each toxic substance should be estimated in metric tons. Devices and equipment designed specially and exclusively to use chemical weapons should also be declared by type, quantity and size. If appropriate, the chemical content of such munitions and its weight should also be declared.

The French delegation is not in favour of the declaration of the location of the stocks; it is, on the other hand, in favour of grouping stocks on the destruction sites.

(b) Destruction of stocks

The initial declaration should be supplemented by a second document: the master plan for the destruction of stocks, accompanied by an estimated time-table.

The principle should be that all stocks, whatever the toxic substance, should be destroyed. However, the following might be permitted by express waiver:

The removal from stockpiles, in the quantities authorized by the Convention, of products, including superlethal toxic agents, to be used for the purposes of protection;

The removal from stockpiles, following a procedure contained in the Convention, of certain precursors or toxic substances utilizable for industrial purposes.

Reconversion to peaceful uses should in no case be authorized for single-purpose precursors or supertoxic agents.

The destruction of stocks should begin as soon as possible after the entry into force of the Convention: a period of six months seems reasonable. It should be completed at the latest 10 years after that date. The procedures to be followed for destruction should be the subject of an agreement between the parties to be annexed to the Convention.

The objective being the simultaneous disappearance of chemical warfare capability by the end of the ten-year period, it would be appropriate to preserve during the process a security balance between the countries possessing stocks.

The stocks should be eliminated in the following order.

1. Neurotoxic substances and precursors contained in munitions or in bulk;
2. Other lethal supertoxic substances contained in munitions or in bulk;
3. Other supertoxic substances contained in munitions or in bulk;
4. Lethal toxic substances;
5. Other harmful products.

The geographical location of each of the destruction sites should be precisely declared at the same time as the destruction plan. Each year, the countries possessing chemical weapons should provide the Consultative Committee with a detailed destruction programme for the following year.

The Consultative Committee should be informed at the end of each year of the state of progress of the destruction operations in relation to the estimatory plan. At the end of the operations, at the latest 30 days after the completion of the elimination process, it should furnish to the depositary a certificate stating that its stocks have been destroyed.

(c) Verification

The declaration should include an undertaking authorizing international inspections before and during the destruction of stocks.

Within a period not exceeding three months after the declaration of stocks and of the places where they have been grouped at the destruction sites, the country possessing the stocks should accept an on-site international inspection. The essential purpose of the inspection should be to put the stocks under international surveillance by for example, installing among them sensing instruments to be read periodically. Each operation for the removal of munitions or products for destruction should be effected under the supervision of the inspectors already present at the destruction site.

A destruction unit should, before every round of destruction, be inspected by international monitors in order to verify conformity and to install a number of sensors provided for in the procedures to be followed under the terms of the Convention.

The destruction process should be the subject of continuous on-site monitoring in close collaboration with the national "safety" teams. The inspectors should not interfere in the destruction process unless it conflicts with the procedures provided for by the Convention.

(d) Special cases

Non-declared stocks may be discovered after the initial declaration. They should be the subject of a special declaration in two stages.

In the first stage, information should be provided within 30 days concerning the place, circumstances and date of the discovery of the stockpile, the estimated quantity, the type of product and, lastly, the reasons for the omission from the initial declaration.

In the second stage, a detailed declaration of the composition of the discovered stockpile should be provided within three months.

The stocks in question should be transferred to a destruction site and eliminated either within the framework of the destruction included in the estimated time-table or, if they come within the categories already processed, by a priority destruction operation. Their destruction should be the subject of a special destruction report within a period of 30 days after the completion of the destruction process. Should the stockpile be discovered after the elimination of the stocks declared initially has been completed, i.e. after the ten-year period, a special agreed procedure should be followed under the authority of the Consultative Committee.

## II. PRODUCTION FACILITIES

The facilities meant are those that have been specifically designed and set up for the manufacture of chemical weapons. They may be divided into two categories:

Factories for producing toxic substances and/or precursors;

Filling shops.

### (a) Initial declaration

The States parties to the Convention should be obliged to declare, at the same time as the possession or non-possession of stocks, the existence or non-existence within their territory of the production facilities defined above, whether or not those facilities are under their jurisdiction.

The declaration should comprise the following essential information:

The location, nature and manufacturing capacity of any production plant and any filling shop, whether active or dormant, on the date of entry into force of the Convention;

The measures taken with a view to the internationally-supervised conversion of the facilities to "out of service" status pursuant to the procedures described in the annexes to the Convention;

The plans for the destruction of the facilities under its jurisdiction with an estimated time-table.

### (b) International supervision

Within the shortest possible period of time (to be defined), after the entry into force of the Convention, the States parties possessing chemical weapons production facilities should place each of their installations in "out of service" status. Such "closure" should be effected under the supervision of international inspectors, who should be authorized to install sensing equipment to ensure that the facilities are effectively put out of service.



The States parties possessing installations intended for the production of chemical weapons should destroy each facility according to an agreed initial time-table and in accordance with the procedures described in the Convention. It would be desirable for the destruction of installations to be undertaken at the same time as the elimination of stockpiles, i.e. at the latest six months after the entry into force of the Convention, and for the process to be completed within a substantially shorter period (five years, for example), so as to increase confidence in the desire for disarmament.

Provision might be made for the temporary conversion of a production facility or a filling shop into a destruction unit.

Such a unit would have to be destroyed at the end of the destruction operations and in any event 10 years at the latest after the entry into force of the Convention.

In general, no opportunity should be provided for converting production facilities to non-hostile purposes.

Production facilities should be destroyed in the following order:

1. Filling shops;
2. Toxic substance production units;
3. Precursor production units.

The States parties should also undertake to provide the Consultative Committee every year with a report on the progress of the destruction activities in the light of the initial plan and an estimated time-table for the following year. They should certify 30 days at the latest after the last destruction that all their installations have been destroyed.

#### (c) Verification

Each State party possessing production facilities should undertake to authorize on-site inspections after the initial declaration during the interim period and after each destruction operation.

Within a period not exceeding three months after the entry into force of the Convention, international verifications should be carried out at each production facility. Their purpose should be to confirm that each unit has in fact been "closed" and to place the production facilities under international supervision by installing sensing instruments to be read periodically.

Provision should be made for further on-site systematic international checking at the end of each destruction operation and at regular intervals to verify the validity of the closure (by reading of the sensing instruments).



# CONFERENCE ON DISARMAMENT

CD/495

4 April 1984

ENGLISH

Original: FRENCH

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LETTER DATED 27 MARCH 1984 FROM THE DEPUTY CHIEF OF THE PERMANENT MISSION OF SWITZERLAND ADDRESSED TO THE PRESIDENT OF THE CONFERENCE ON DISARMAMENT CONCERNING RULES 33 TO 35 OF THE RULES OF PROCEDURE

Sir,

I wish to thank you for your letter of 15 March 1984 in which you transmit the decision of the Conference on Disarmament to invite Switzerland to participate in the meetings of the ad hoc subsidiary body on chemical weapons during the 1984 session.

With reference to rules 33 to 35 of the rules of procedure, I have the honour today to request that Switzerland should also be authorized to take part in the work on the substantive items on the agenda of the Conference at its plenary meetings.

I should be grateful if you would kindly inform the members of the Conference of this request so that the latter may take a decision on the matter at its earliest convenience.

(Signed)

J.P. Vettovaglia  
Minister  
Deputy Chief  
Permanent Mission of Switzerland



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FEDERAL REPUBLIC OF GERMANY

Considerations on including a ban on the use of  
chemical weapons and the right of withdrawal in  
a future chemical weapons convention

I.

1. The 1925 Geneva Protocol prohibits the use of chemical weapons in war. The international community today regards this ban as customary international law. It is therefore applicable worldwide. This ban could only cease to be binding in relations with another State if the latter violated it. Above and beyond this, no State party to the Geneva Protocol can detach itself from this ban.

2. In its concluding report for 1983 (CD/416) the Ad hoc Working Group on Chemical Weapons nonetheless agreed in principle that a future chemical weapons convention should include a ban on the use of chemical weapons. Agreement on the form in which such a ban should be included has, however, not been reached in the deliberations thus far. It is merely certain that the ban, expressed by means of suitable formulations in the preamble and operative paragraphs, is to be made to relate to the 1925 Geneva Protocol without affecting its validity. Both the 1983 concluding report (CD/416, Annex I, IA 2b) and the report of contact group C (CD/416, Annex II, page 22) contain alternative formulations.

The remarks below are intended to enlarge on the suggestions and develop them further.

II.

1. The Federal Republic of Germany welcomes the basic consensus recorded in the Ad hoc Working Group's concluding report for 1983 that a ban on the use of chemical weapons should be incorporated in a future chemical weapons convention. The fact that the use of such weapons in war is already prohibited by the 1925 Geneva Protocol and by customary international law does not preclude the inclusion of such a ban in a convention.

Repeated codification of prohibitions or obligations is quite customary in humanitarian international law. It does not have a harmful effect even if the new norm is more extensive than the old one. Acceptance of a new identical obligation certainly does not curtail the old one, deriving in this case from the 1925 Geneva Protocol and from customary international law. On the contrary, not including a ban on the use of chemical weapons in a comprehensive convention could be construed as an indication that such a ban does not exist in

customary international law. There are also other general reasons for not drafting a chemical weapons convention in such a manner that the main practical case, namely the use of chemical weapons, is excluded.

2. It is evidently desirable to include a ban on the use of chemical weapons in a future convention. It must be ensured, however, that both the 1925 Geneva Protocol and the relevant rules of customary international law are merely reaffirmed when incorporating a ban on the use of chemical weapons in a convention and that a verification mechanism is provided for ensuring compliance with the ban.

The first formulation proposed by the Ad hoc Working Group in CD/416, Annex I, IA 2b, takes account of these considerations. However, a reference to the relevant rules of customary international law would be desirable in conformity with paragraph 4 of the United Nations General Assembly resolution 37/98 d.

The three additional alternatives provided in CD/416, Annex I, IA 2b, should not be taken into account since the first two of them ignore other legal bases for a prohibition, whilst the third detracts from the ban on use under customary international law. There are no objections to the proposals by contact group C for the wording of the preamble and operative paragraphs I to III, as contained in CD/416, Annex II, Appendix I, page 24. However, in the preamble, reference should also be made to the ban existing under customary international law.

### III.

1. As regards the legal content of prohibitions in a chemical weapons convention and their effects in terms of disarmament, considerable importance attaches to the manner in which the right of withdrawal is formulated in such a convention. In particular, it must be ensured that the binding effect of the convention is no less durable than that of the 1925 Geneva Protocol, which cannot be denounced. In its 1983 concluding report the Ad hoc Working Group suggested a formulation for the inclusion of the right of withdrawal in a convention (CD/416, Annex I, VI B). This formulation needs to be improved.

2. The legal implications of incorporating in a convention a ban on the use of chemical weapons and a right of withdrawal should be examined in more detail. The existing formulation proposed by the Ad hoc Working Group in CD/416, Annex I, VI B, gives cause for misgivings because it is very extensive and does not include any criteria admitting of objective assessment in case of withdrawal. Admittedly, it corresponds to similar provisions contained in numerous existing international agreements. It is acknowledged that this formulation is intended to enable countries to accede to the convention without reservations.

3. The formulation of the withdrawal clause proposed by the Ad hoc Working Group has, however, consequences going much further than any reservations with regard to the 1925 Geneva Protocol. The scope of the ban on the use of chemical weapons contained in the Protocol is limited by the fact that numerous states declared, when assuming the obligations under the Protocol, that these would cease to be binding towards any adversary whose armed forces violated the ban. However, the formulation suggested by the Ad hoc Working Group permits withdrawal not only if the ban is violated by an adversary, but also generally speaking whenever a country believes that unspecified extraordinary events related to the subject matter of the convention have jeopardized its supreme interests.

This virtually means that the binding effect of the convention is subject to the discretion of the contracting States. The exercise of such discretion can - apart from the continuing binding effect of the 1925 Geneva Protocol and of the relevant rules of customary international law - in the final analysis only be countered with the argument that it should not be abused, but here it is hard to draw the dividing line.

With the formulation proposed by the Ad hoc Working Group there is thus the danger of countries claiming that, by withdrawing from the chemical weapons convention, they are also released from their obligations under the 1925 Geneva Protocol and customary international law. This is legally incorrect, but could nonetheless result in practice in the validity of the relevant norms that prohibit the use of chemical weapons being impaired.

On the basis of the provisions of the Geneva Protocol, it would only be possible for a contracting party to withdraw from its obligations if an adversary violated the ban on the use of chemical weapons.

As far as such a ban is concerned, a future convention should therefore not provide for the possibility of withdrawal in this respect, but should merely refer to the existing legal situation. Formulations to this effect require further consideration by the Ad hoc Working Group.

4. Apart from a ban on the use of chemical weapons, a comprehensive convention will include numerous other prohibitions and obligations of key importance as well as obligations of less significance and scope. The possibility of withdrawal in the event of their being violated should therefore be differentiated accordingly:

- Violations of the ban on the use, production or transfer of chemical weapons or of the obligations stipulating the destruction of existing chemical weapons stockpiles or chemical weapons production facilities should be regarded as grave violations permitting withdrawal from the prohibitions on production and transfer as well as from the aforementioned obligations.
- Violations of other prohibitions or obligations of the convention should, on the other hand, only permit withdrawal on a reciprocal basis from the prohibition or rule violated. In such cases, the contracting party would therefore, cease to be bound by the prohibition or obligation involved, whilst remaining bound by the other prohibitions and rules of the convention.

Furthermore, in the event of suspected violation, the right of withdrawal should not be available forthright. The means of verification and complaint afforded by the convention should first be exhausted. Only if they do not dispel the suspicion and if a contracting State regards its supreme interests jeopardized should withdrawal be possible. Withdrawal should be the final legal means that can be resorted to in the event of a violation of the convention.





## CONFERENCE ON DISARMAMENT

CD/497

11 April 1984

ENGLISH

Original: RUSSIAN/ENGLISH

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LETTER DATED 11 APRIL 1984 FROM THE REPRESENTATIVE OF THE  
UNION OF SOVIET SOCIALIST REPUBLICS ADDRESSED TO THE  
PRESIDENT OF THE CONFERENCE ON DISARMAMENT TRANSMITTING  
THE ANSWERS OF THE GENERAL SECRETARY OF THE CPSU CENTRAL  
COMMITTEE, K.U. CHERNENKO, TO QUESTIONS OF THE NEWSPAPER  
"PRAVDA"

I am transmitting to you herewith the answers of K.U. Chernenko,  
General Secretary of the Central Committee of the Communist Party of the  
Soviet Union, to questions put by the newspaper "Pravda", published on  
9 April 1984.

I should be grateful if you would distribute this text as an official  
document of the Conference on Disarmament.

(Signed): V. ISSRAELYAN

KONSTANTIN CHERTENKO'S ANSWERS TO QUESTIONS  
BY THE NEWSPAPER "PRAVDA"

Following are the answers by the General Secretary of the CPSU Central Committee Konstantin Chernenko to questions by the newspaper "Pravda", which are published in today's issue of the newspaper.

"Question: What is your assessment of the situation in the world at the present moment? In particular, are there any signs of positive changes in the policy of the United States of America?

Answer: Alas, the situation in the world is not improving. It remains very dangerous. And this is explained by the US administration's continued gamble on military force, on the attainment of military superiority, on the imposition of its order of things on other peoples. This was confirmed once again by President Reagan's recent speech at Georgetown University.

Even if sometimes peaceloving rhetoric is heard from Washington it is impossible, however hard one tries, to discern behind it any signs whatsoever of readiness to back up these words with practical deeds. In other words, the introduction of new words does not mean a new policy.

Let us turn to such a cardinal problem as ending the nuclear arms race.

Maybe the people in the White House have realized the danger and prospectlessness of this race and begun to show restraint? Nothing of the sort. On the contrary, the fulfilment of ever new programmes of creating and deploying nuclear weapons is being accelerated in the United States. The deployment of American nuclear missiles in Western Europe is continuing as well. All this is being done to break one way or another the existing parity of forces.

Such actions do not tally in any way with the task of ending the arms race. And it is not at all by chance that the United States has deliberately frustrated the very process of limiting and reducing nuclear arms, and torpedoed the talks both on strategic arms and on nuclear arms in Europe.

Our contacts with the American side also show that no positive changes have taken place in the position of the United States on these cardinal questions.

While persisting in its former line that has brought about the collapse of the talks in Geneva and continuing to deploy its missiles in Western Europe Washington eagerly talks about its readiness for a resumption of the talks. But, may one ask, talks on what? On how many and specifically what missiles targeted against the Soviet Union and our allies can the United States deploy in Europe? Such talks are not for us.

There is no need to convince us about the usefulness of dialogue, the usefulness of talks. The moment the United States and the other NATO countries who are acting at one with it take measures to restore the situation that had existed before the deployment of the new American missiles in Western Europe was started, the Soviet Union will not be found wanting. Such is the real road to negotiations.

Question: How is the situation shaping up in the other fields of arms limitation and disarmament?

Answer: Advance in other questions as well is being blocked by the United States. I will dwell on two-three problems.

First of all outer space. It is not the first year that the Soviet Union is pressing for an accord directed at preventing the arms race from spreading to outer space. We constantly raise this question before the leadership of the United States. We do this because we clearly realize the formidable consequences that the militarization of outer space would have.

But meantime the American President officially informed the United States Congress a few days ago that the government is starting the fulfilment of a broad programme of the arms race in outer space and has no intention of reaching agreement with the Soviet Union on preventing the militarization of space supposedly because of the difficulties of verification.

Bluntly and frankly - they do not want to reach an agreement. But as a way of mocking common sense they express readiness to talk with the sole aim of agreeing that accord on this issue is impossible. It is thus that the people in Washington treat political dialogue and talks in general.

Let us take another key issue - the prohibition of chemical weapons.

It was already in 1972 that the USSR and other socialist countries proposed at the Geneva Disarmament Committee to conclude a convention on the prohibition of the development, production and stockpiling of chemical weapons and on their destruction. It was also then that they submitted a draft of such a convention.

Subsequently we returned to this matter more than once, specifying our proposals and making them more detailed. But all these years the United States impeded the conclusion of a convention on the total prohibition of chemical weapons. It simply engaged in obstruction.

Now they in Washington have decided to pose as champions of a ban on chemical weapons. For several months already the American leaders are promising to table in Geneva some proposals on this score. But promises are promises, besides nothing is known at all how they are going to pan out, while meantime, as it follows from the President's remarks, a programme of building up and renovating chemical weapons, which are deployed both on American territory and beyond it, is being accelerated in the United States.

Yet another example. Two Soviet-American treaties on limitations on underground nuclear explosions have not been put into effect so far. They were signed almost ten years ago and we have offered the United States many times to ratify them. But to this day it refuses to do so.

The subterfuges that are being used in this. At first it was said that the ratification of these treaties supposedly will hinder the talks on the general and complete prohibition of nuclear weapon tests. Then, when these talks too were frustrated, references began to be made to difficulties of verification.

Of course the matter here has nothing to do with verification - the signed treaties contain most thoroughly worked out provisions on this score. The matter is in something else - in Washington's refusal to bind its hands with any limitations whatsoever that would impede the building up and perfection of nuclear arms.

I touched on the question of verification also because the United States makes recourse to it whenever it does not want an agreement. When there is a real desire to reach agreement on measures of arms reduction and disarmament verification has not been and cannot be an obstacle. This is borne out by past experience as well.

Incidentally, considering the policy and practice of the United States we are interested not less but probably more than the US in reliable verification, in adequate concrete measures of arms limitation and disarmament.

Question: It is said sometimes in the West that the Soviet Union purportedly does not wish to have accords with the United States because the USSR is waiting for the outcome of the presidential elections there. How would you comment on this?

Answer: I will say this. Those who circulate such ideas either do not know or, most probably, deliberately distort our policy. It is a principled policy and is not subject to transient vacillations.

Throughout the history of Soviet-American relations we have dealt with various administrations in Washington. In those cases when realism and a responsible approach to relations with the Soviet Union were shown on the part of the American leadership matters, it can be said, proceeded normally. This had a favourable effect on the general situation in the world as well. But in the absence of such a realistic approach our relations worsened accordingly.

Today as well we are for having normal, stable relations with the United States, relations based on equality, equal security and non-interference in each other's internal affairs.

It appears that hints about some sort of "calculations" on our part in connection with the elections in the United States are an attempt by someone to conceal his own reluctance to reach agreements with the Soviet Union on questions that demand their solution. As to the state of affairs in this respect, an idea is provided by a comparison of the positions of the two sides if only on the questions that I have just mentioned.

Question: What in your opinion is necessary for people to stop living in a state of constant fear for the world?

Answer: First of all it is necessary for the policy of States, especially States possessing nuclear weapons, to be oriented at eliminating the war danger, at consolidating peace.

Efforts should be directed first of all at stopping and rolling back the arms race. It is time to move from generalities about the usefulness of talks to eliminating the serious obstacles that have been erected in the way of the limitation and reduction of armaments, the development of trust and mutually advantageous co-operation.

I have already mentioned a number of the Soviet Union's far-reaching proposals on concrete questions in these fields. There are also other major questions requiring the concentration of concerted efforts on them.

There is no doubt that a resolute turn for the better in the world would have been facilitated by an undertaking by all nuclear States not to be the first to use nuclear arms and also on the quantitative and qualitative freezing of nuclear arsenals. This does not require complex negotiations.

Political resolve should be displayed here. The result, no doubt, would be a weighty one in every respect. The main thing is that there would be a clear demonstration of readiness to give up attempts to achieve military superiority over others. Our country does not strive for such superiority but neither will it allow such a superiority over itself.

It is extremely important in general for certain norms pursuing aims of peace to be introduced in relations between States possessing nuclear arms. I have had occasion to speak about this in detail before.

The task to create an atmosphere of trust in international relations is an urgent one. This requires a responsible and balanced policy on the part of all States and also the adoption of relevant practical measures leading in this direction.

The combination of large-scale steps of a political and international-legal order with measures of a military-technical order, which is advocated by the Soviet Union and other socialist countries, would make it possible to ensure the success of the Stockholm Conference, make its results a major contribution to the strengthening of European and international security.

The most vigorous efforts should be taken to liquidate the existing seats of tension and military conflict in various parts of the world and to prevent the appearance of new ones.

In other words, there are quite numerous possibilities for facilitating by concrete deeds the strengthening of peace and international security.

The Soviet Union is prepared to co-operate with all States in the attainment of these aims".

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## CONFERENCE ON DISARMAMENT

CD/498 \*  
21 May 1984

ENGLISH  
Original: RUSSIAN

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LETTER DATED 16 APRIL 1984 FROM THE REPRESENTATIVE OF THE UNION OF SOVIET SOCIALIST REPUBLICS TO THE CONFERENCE ON DISARMAMENT TRANSMITTING THE LETTER DATED 9 APRIL 1984 ADDRESSED TO THE SECRETARY-GENERAL OF THE UNITED NATIONS, MR. PEREZ DE CUELLAR, FROM THE FIRST DEPUTY CHAIRMAN OF THE COUNCIL OF MINISTERS OF THE USSR AND MINISTER OF FOREIGN AFFAIRS, Mr. A.A. GROMYKO, ON QUESTIONS OF THE LIMITATION OF MILITARY NAVAL ACTIVITIES AND NAVAL ARMAMENTS

I have the honour to transmit to you the letter dated 9 April 1984 addressed to the Secretary-General of the United Nations, Mr. Pérez de Cuéllar, from the First Deputy Chairman of the Council of Ministers of the USSR and Minister of Foreign Affairs, Mr. A.A. Gromyko, on questions of the limitation of military naval activities and naval armaments.

I should be grateful if you would circulate this text as an official document of the Conference on Disarmament.

(Signed) V. ISSRAELIAN

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\* Re-issued for technical reasons.

This letter, sent in reply to your inquiries in connection with resolutions 38/198 F and 38/198 G, states the views of the Soviet Union on the subject of the limitation of naval activities and naval armaments.

1. The Soviet Union considers the primary task of its foreign policy to be that of preventing a nuclear catastrophe and bringing about a genuine turn for the better in the dangerous course of world events. It has recently taken a number of major initiatives aimed at the attainment of that goal.

Of special importance among them is the Soviet Union's proposal for norms to govern relations between the nuclear Powers. Agreement on the recognition of such norms by all nuclear Powers and on making them binding would serve the interests not only of those Powers but of all the States of the world. The proposal also relates to the Declaration on the Condemnation of Nuclear War, adopted at the thirty-eighth session of the United Nations General Assembly on the basis of a USSR draft, and to Soviet proposals concerning the freezing of nuclear weapons and the prevention of an arms race in space, also approved in the United Nations.

Effective practical steps for arms reduction, especially nuclear arms reduction, are what is now needed in order to avert the threat of war hanging over mankind and to improve the international situation.

2. An important contribution to the cause of preventing war could be made by curbing the arms race in the seas and oceans.

The further increase in naval fleets and the intensification of their activities are fraught with the danger of destroying the stability that now exists on a global scale and within individual regions, and are leading to a significant diversion of resources from constructive purposes. This tendency has a negative effect on the security of peaceful navigation and on the investigation and exploitation of marine resources, whose value to mankind is growing ever greater.

There are also increasingly frequent instances of the direct use of naval forces by certain Powers to exert pressure on sovereign States, especially developing States, to interfere in their internal affairs, to commit acts of armed aggression and intervention and to preserve the remnants of the colonial system.

3. As is known, the USSR, independently or together with other socialist countries, has proposed reaching agreement on many specific measures relating to the reciprocal limitation of the activities of naval fleets and to the limitation and reduction of naval armaments, and also on appropriate confidence-building measures both as a whole and with respect to individual areas, whether in the Indian, Atlantic or Pacific Ocean, in the Mediterranean Sea or in the Persian Gulf. These proposals remain in effect.

The Soviet Union has actively striven for the formulation of measures aimed at curbing the naval arms race on a bilateral basis as well, in particular within the framework of Soviet-United States talks on the limitation and subsequent reduction of military activities in the Indian Ocean, and in the context of the limitation and reduction of strategic weapons.

4. However, owing to the position of the United States of America and a number of its allies, the process of solving the problems related to the limitation of the naval arms race has thus far failed to come off dead centre.

The facts indicate that, counting on the attainment of military superiority in every field and the possibility of the mass use of force even in the most remote



areas of the earth, the United States of America has begun a new round of the naval arms race. New ships equipped with the most modern means of destruction are being built and commissioned, and old ships are being taken out of mothballs and equipped with similar weapons. The constant naval presence of the United States in various parts of the oceans is increasing, and the infrastructure of bases for its maintenance is being expanded.

5. The USSR welcomed the appeal made by the General Assembly at its thirty-eighth session for a start to negotiations on the limitation of naval activities, the limitation and reduction of naval armaments and the extension of confidence-building measures to seas and oceans, especially to regions with the busiest sea lanes or regions where the probability of conflict situations is high. The USSR, for its part, is ready to take part in such negotiations.

As an urgent step, it might be possible to agree, for example, that States would not expand their naval activities in areas of conflict or tension.

Moreover, it is desirable to seek solutions that would avoid a situation in which the naval fleets of the great Powers are at sea for any length of time far from their own shores. It might also be useful to take such steps as withdrawing vessels equipped with nuclear weapons from certain areas of the World Ocean, establishing limits for the presence in those areas of vessels of various classes, and so on.

The USSR could go even further towards the direct and effective limitation of naval armaments. Such measures could include, for example, limitation of the number of warships of the principal classes. Consideration should at the same time be given to the placing of limits on anti-submarine forces and weapons, as well as to measures concerning naval bases in foreign territories.

Subsequently, consideration could be given to the balanced reduction of the numbers of vessels in the combatant arm of the fleets of the great Powers. This applies particularly to such vessels as aircraft carriers, which have a highly destabilizing effect and are used for the demonstration of force and as an instrument for exerting pressure on independent States.

It could be of great political significance to achieve agreement on and the implementation of confidence-building measures, which help to avert conflict situations and to strengthen the security of sea communications.

All the necessary measures should of course be elaborated and implemented in accordance with the principle of not harming the security of anyone, with due account being taken of all factors that determine the relationship of forces at sea, as well as other ways of limiting weapons which affect naval forces in one way or another.

The possibilities of a regional approach to limiting naval activities and naval armaments should be fully utilized.

In the course of the negotiations the Soviet Union is also ready to consider the measures needed to ensure the mutual confidence of States in fulfilling their obligations.

6. In the opinion of the Soviet Union, all the major naval Powers and other interested States should take part in the negotiations on limiting naval activities and naval armaments. From this angle, it might be possible to consider conducting the negotiations in the context of the Conference on Disarmament at Geneva. The

Soviet Union, however, is also ready to study the possibility of holding separate multilateral negotiations on this whole range of questions. Moreover, it proceeds from the principle that holding multilateral negotiations on the limiting of naval activities and naval armaments should not serve as an obstacle to the consideration of these questions at negotiations among the nuclear Powers.

7. As to the study on the naval arms race called for in the General Assembly resolution adopted at the thirty-eighth session, the Soviet Union is of the opinion that the study should not only reveal the dangerous nature of such an arms race and its adverse effect on international peace, security and economic development, but should also help in arriving at tangible areas of agreement. The value of the study would be undermined if it led only to the gathering of information on naval armaments, the description of their technical details, the methods of comparing naval forces, and so on. Furthermore, the study should not serve as a pretext for delaying the start of practical negotiations or as a substitute for them.

A. GROMYKO  
First Deputy Chairman  
of the Council of Ministers of the USSR,  
Minister for Foreign Affairs of the USSR

9 April 1984

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Decision on the establishment of an Ad Hoc Committee  
on Radiological Weapons

(Adopted at the 259th Plenary meeting held on 17 April 1984)

The Conference on Disarmament decides to establish, for the duration of its 1984 session, an Ad Hoc Committee on Radiological Weapons with a view to reaching agreement on a convention prohibiting the development, production, stockpiling and use of radiological weapons.

The Conference also decides to appoint Ambassador Milós Vejvoda of Czechoslovakia as Chairman of the Ad Hoc Committee.

The Ad Hoc Committee will report to the Conference on the progress of its work before the conclusion of the 1984 session.



# CONFERENCE ON DISARMAMENT

CD/500

18 April 1984

Original: ENGLISH

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UNITED STATES OF AMERICA

DRAFT CONVENTION ON THE PROHIBITION OF CHEMICAL WEAPONS

GE.84-61689

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Document Regarding the Preparatory Commission

CONVENTION ON THE PROHIBITION OF CHEMICAL WEAPONS

The States Parties to this Convention,

Reaffirming their adherence to the objective of general and complete disarmament under strict and effective international control, including the prohibition and elimination of all types of weapons of mass destruction,

Desiring to contribute to the realization of the purposes and principles of the United Nations, as set forth in its Charter,

Recalling the significance of the Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or Other Gases, and of Bacteriological Methods of Warfare, signed at Geneva on 17 June 1925, and also of the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction, signed at Washington, London and Moscow on 10 April 1972, and calling upon all States to comply strictly with the said agreements,

Determined, for the sake of all mankind, to exclude completely the possibility of toxic chemicals being used as weapons,

Convinced that such use would be repugnant to the conscience of mankind and that no effort should be spared to minimize this risk,

Considering that achievements in the field of chemistry should be used exclusively for the benefit of mankind,

Convinced that the complete and effective prohibition of the development, production and stockpiling of chemical weapons, and their destruction, represents a necessary step towards the achievement of these common objectives,

Fulfilling the commitment under Article IX of the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction with regard to the effective prohibition of chemical weapons,

Have agreed as follows:

Article I

Basic Prohibition

Each Party undertakes not to:

- (a) develop, produce, otherwise acquire, stockpile, or retain chemical weapons, or transfer chemical weapons to anyone;
- (b) conduct other activities in preparation for use of chemical weapons;
- (c) use chemical weapons in any armed conflict; or
- (d) assist, encourage, or induce, directly or indirectly, anyone to engage in activities prohibited to Parties under this Convention.

Article II

Definitions

For the purposes of this Convention:

1. "Chemical weapons" means,

(a) super-toxic lethal, other lethal, and other harmful chemicals, and their precursors, except for those chemicals intended solely for permitted purposes as long as the types and quantities involved are consistent with such purposes and except for those chemicals which are not super-toxic lethal, or other lethal, chemicals and which are used by a Party for domestic law-enforcement and riot control purposes or used as a herbicide; or

(b) munitions or devices specifically designed to cause death or other harm through the toxic properties of any chemical which is defined as a chemical weapon under subparagraph (a) of this paragraph and which would be released as a result of the employment of such munitions and devices; or

(c) any equipment or chemical specifically designed for use directly in connection with the employment of such munitions or devices.

2. "Super-toxic lethal chemical" means any toxic chemical with a median lethal dose which is less than or equal to (0.5) mg/kg (subcutaneous administration) or (2,000) mg-min/m<sup>3</sup> (by inhalation), when measured by the standard methods specified in Schedule D.

3. "Other lethal chemical" means any toxic chemical with a median lethal dose which is greater than (0.5) mg/kg (subcutaneous administration) or (2,000) mg-min/m<sup>3</sup> (by inhalation) and which is less than or equal to 10 mg/kg (subcutaneous administration) or 20,000 mg-min/m<sup>3</sup> (by inhalation), when measured by the standard methods specified in Schedule D.

4. "Other harmful chemical" means any toxic chemical not covered under the terms "super-toxic lethal chemical" or "other lethal chemical", including chemicals which normally cause incapacitation rather than death.

5. "Toxic chemical" means any chemical substance, regardless of its origin or method of production, which through its chemical action can interfere directly with normal functioning of man or animals so as to cause death, temporary incapacitation or permanent damage.

6. "Precursor" means any chemical which may be used in production of a super-toxic lethal chemical, other lethal chemical, or other harmful chemical.

7. "Key precursor" means any precursor that is listed in Schedule C.

8. "Permitted purposes" means industrial, agricultural, research, medical or other peaceful purposes; protective purposes; and military purposes that do not make use of the chemical action of a toxic chemical to interfere directly with normal functioning of man and animals so as to cause death, temporary incapacitation or permanent damage.



9. "Protective purposes" means purposes directly related to protection against chemical weapons, but does not mean purposes directly related to the development, production, other acquisition, stockpiling, retention or transfer of chemical weapons.

10. "Chemical weapons production facility" means any building or any equipment which in any degree was designed, constructed or used since 1 January 1946, for:

(a) the production for chemical weapons of any toxic chemical, except for those listed in Schedule B, or the production for chemical weapons of any key precursor; or

(b) the filling of chemical weapons.

11. "Other activities in preparation for use of chemical weapons" means (to be elaborated), but does not mean activities directly related to protective purposes.

### Article III

#### Permitted Activities

1. Subject to the limitations contained in this Convention, each Party may retain, produce, acquire, transfer or use toxic chemicals, and their precursors, for permitted purposes, of types and in quantities consistent with such purposes.

2. The following measures shall apply to toxic chemicals for protective purposes:

(a) The retention, production, acquisition, and use of super-toxic lethal chemicals and key precursors for protective purposes shall be strictly limited to those amounts which can be justified for such purposes. At no time shall the aggregate amount possessed by a Party exceed one metric ton, nor shall the aggregate amount acquired by a Party in any calendar year through production, withdrawal from chemical weapons stocks, and transfer exceed one metric ton. Once a Party has reached the aggregate one metric ton permitted per year, it must not acquire any further such super-toxic lethal chemicals until the next year, at which time it may then acquire only those amounts of such chemicals to replace amounts used or transferred to another Party for protective purposes.

(b) Each Party which produces super-toxic lethal chemicals or key precursors for protective purposes shall carry out the production at a single specialized facility, the capacity of which shall not exceed (an agreed limit). Information on the facility and its operations shall be provided in accordance with Annex II. The facility shall be subject to systematic international on-site verification, through on-site inspection and continuous monitoring with on-site instruments in accordance with Annex II.

(c) Each Party shall, in accordance with Annex II, make an annual declaration regarding all key precursors devoted to protective purposes and all toxic chemicals that can be used as chemical weapons but are devoted to protective purposes, as well as provide other specified information on its protective activities.

(d) The provisions of the Convention do not preclude transfer for protective purposes of super-toxic lethal chemicals or key precursors produced or otherwise acquired for such purposes. Such transfers may be made only to another Party. The maximum quantity transferred to any Party shall not exceed (quantity) in any 12-month period, nor shall it cause the receiving Party to exceed the aggregate limit specified in subparagraph 2 (a) of this Article. Prior to any transfer of such a super-toxic lethal chemical or key precursor, the transferring Party shall provide the information specified in Annex II. Items transferred may not be retransferred to another State.

3. In view of the particular risk they pose to achieving the objectives of the Convention, the chemicals listed in Schedules A, B and C shall be subject to the special measures specified in Annex III.

(a)-- In respect of chemicals in Schedule A, each Party shall prohibit all production and use except for production and use of laboratory quantities for research, medical, or protective purposes at establishments approved by the Party; and

(b) Facilities producing chemicals listed in Schedule C for permitted purposes shall be subject to systematic international on-site verification, through on-site inspection and monitoring with on-site instruments, as specified in Annex II.

4. A Party in a position to do so may assist another Party in destruction of chemical weapons, including shipment of chemical weapons to its territory for the purpose of destroying them, or in destruction of chemical weapons production facilities.

5. This Convention shall be implemented in a manner designed in so far as possible to avoid hampering the economic or technological activities of Parties to the Convention or international co-operation in the field of peaceful chemical activities including the international exchange of toxic chemicals and equipment for the production, processing, or use of toxic chemicals for peaceful purposes in accordance with the provisions of the Convention.

#### Article IV

##### Declaration of Chemical Weapons, Chemical Weapons Production Facilities and Past Transfers

1. Each Party shall file a declaration, within 30 days after the Convention enters into force for it, stating whether it has under its control anywhere, any chemical weapons, any chemical weapons production facility, any super-toxic lethal chemicals or key precursors for protective purposes, or any production facility for super-toxic lethal chemicals and key precursors for protective purposes. The declaration shall also state whether the Party has on its territory, under the control of others, including a State not party to this Convention, any of the foregoing and their locations.

2. The declaration filed by each Party shall comply with the requirements of Annex II and shall state:

(a) the precise location of any chemical weapons under its control and the detailed inventory of the chemical weapons at each location;

- (b) its general plans for destruction of any chemical weapons under its control;
- (c) the precise location, nature, and capacity of any chemical weapons production facility under its control at any time since 1 January 1946;
- (d) its plans for closing and eventually destroying any chemical weapons production facilities under its control;
- (e) the precise location and capacity of the single specialized production facility, if any, for super-toxic lethal chemicals and key precursors permitted by subparagraph 2 (b) of Article III;
- (f) the precise location and nature of any other facility under its control designed, constructed or used, since (date) for the production of chemicals listed in Schedules B and C;
- (g) the precise location and nature of any facility under its control designed, constructed, or used since (date), for development of chemical weapons, including test and evaluation sites; and
- (h) whether the Party has transferred control of chemical weapons or equipment for their production since (date) or has received such weapons or equipment since that date. If so, specific information shall be provided in accordance with Annex II.

#### Article V

##### Chemical Weapons

1. Each Party shall, in accordance with Annex II:

- (a) provide information on the location and composition of any chemical weapons, pursuant to Article IV;
- (b) provide a general plan for destroying its chemical weapons, pursuant to Article IV and, subsequently, provide more detailed plans;
- (c) ensure access to its chemical weapons immediately after the declaration is filed, for the purpose of systematic international on-site verification of the declaration, through on-site inspection;
- (d) ensure, through access to its chemical weapons for the purpose of systematic international on-site verification, and through on-site inspection and continuous monitoring with on-site instruments, that the chemical weapons are not removed except to a destruction facility;
- (e) destroy its chemical weapons, pursuant to the time-table specified in Annex II, beginning not later than 12 months, and finishing not later than 10 years, after the Convention enters into force for it;
- (f) provide access to the destruction process for the purpose of systematic international on-site verification of destruction, through the continuous presence of inspectors and continuous monitoring with on-site instruments;

(g) provide information annually during the destruction process regarding implementation of its plan for destruction of chemical weapons; and

(h) certify, not later than 30 days after the destruction process has been completed, that its chemical weapons have been destroyed.

2. All locations where chemical weapons are stored or destroyed shall be subject to systematic international on-site verification, through on-site inspection and monitoring with on-site instruments in accordance with Annex II.

3. Old chemical weapons found after the declarations required by Article IV and this Article have been filed shall be subject to the provisions of Annex II regarding notification, interim storage, and destruction, as well as systematic international on-site verification of these actions. These provisions shall also apply to chemical weapons which were inadequately disposed of in the past and are subsequently retrieved. A detailed explanation shall be given as to why these chemical weapons were not declared in the declarations filed pursuant to Article IV and this Article.

4. Any Party which has on its territory chemical weapons which are under the control of a State which is not a Party to this Convention shall ensure that such weapons are removed from its territory not later than ( ) months after the date on which the Convention entered into force for it.

#### Article VI

##### Chemical Weapons Production Facilities

1. Each Party shall, in accordance with Annex II,

(a) cease immediately all activity at each of its chemical weapons production facilities, except that required for closure;

(b) close each of its chemical weapons production facilities within three months after the Convention enters into force for it in a manner that will render those facilities inoperable;

(c) provide information on the location, nature and capacity of any chemical weapons production facility, pursuant to Article IV;

(d) provide a general plan for destroying its chemical weapons production facilities, pursuant to Article IV and, subsequently, provide more detailed plans;

(e) provide access to each chemical weapons production facility immediately after the declaration is filed, for the purpose of systematic international on-site verification of the declaration through on-site inspection;

(f) provide access to each chemical weapons production facility for the purpose of systematic international on-site verification to ensure that the facility remains closed and is eventually destroyed, through periodic on-site inspection and continuous monitoring by on-site instruments;

(g) destroy its chemical weapons production facilities, pursuant to the time-table specified in Annex II, beginning not later than 12 months, and finishing not later than 10 years, after the Convention enters into force for it;

(h) provide information annually during the destruction period regarding the implementation of its plan for destruction of chemical weapons production facilities; and

(i) certify, not later than 30 days after the destruction process has been completed, that its chemical weapons production facilities have been destroyed.

2. All chemical weapons production facilities shall be subject to systematic international on-site verification, through on-site inspection and monitoring with on-site instruments in accordance with Annex II.

3. No Party shall construct any new chemical weapons production facilities, or modify any existing facilities, for purposes prohibited by the Convention.

4. A chemical weapons production facility may be temporarily converted for destruction of chemical weapons. Such a converted facility must be destroyed as soon as it is no longer in use for destruction of chemical weapons and, in any case, not later than the deadline for destruction of chemical weapons production facilities set forth in subparagraph 1 (g) of this Article.

#### Article VII

##### Consultative Committee

1. A Consultative Committee shall be established upon entry into force of this Convention. Each Party shall be entitled to designate a representative to the Consultative Committee.

2. The Consultative Committee shall oversee the implementation of the Convention, promote the verification of compliance with the Convention, and carry out international consultations and co-operation among Parties to the Convention. For these purposes it shall:

(a) carry out systematic international on-site verification, through on-site inspection and monitoring with on-site instruments, of:

- (i) chemical weapons,
- (ii) destruction of chemical weapons,
- (iii) closure and destruction of chemical weapons production facilities,
- (iv) permitted single specialized facilities for production of super-toxic lethal chemicals and key precursors for protective purposes, and
- (v) production for permitted purposes of the chemicals specified in Schedule C;

(b) provide a forum for discussion of any questions raised relating to the objectives, or the implementation, of the Convention;

(c) conduct special on-site inspections under Article X and ad hoc on-site inspections under Article XI;

(d) participate in any inspections agreed among two or more Parties as referred to in paragraph 2 of Article IX, if requested to do so by one of the Parties involved;

(e) develop, and revise as necessary, detailed procedures for exchange of information, for declarations and for technical matters related to the implementation of the Convention;

(f) review scientific and technical developments which could affect the operation of the Convention;

(g) meet in regular session annually; and

(h) review the operation of the Convention at five-year intervals unless otherwise agreed by a majority of the Parties.

3. The Consultative Committee shall establish an Executive Council which shall have delegated authority to discharge the functions of the Committee set out in subparagraphs 2 (a), 2 (c), 2 (d) and 2-(e) of this Article, and any other functions which the Committee may from time to time delegate to it. The Council shall report to the Committee at its regular sessions on its exercise of these functions.

4. Each Party shall co-operate fully with the Consultative Committee in the exercise of its verification responsibilities.

5. Further functions and the organization of the Consultative Committee, the Executive Council, the Fact-Finding Panel, the Technical Secretariat and other subsidiary organs are specified in Annex I.

#### Article VIII

##### Non-Interference with Verification

A Party shall not interfere with the conduct of verification activities. This shall apply to verification activities conducted in accordance with the Convention by the designated representatives of the Consultative Committee or by Parties, and shall include verification activities conducted by national technical means in a manner consistent with generally recognized principles of international law.

#### Article IX

##### Consultation and Co-operation; Resolving Compliance Issues

1. Parties shall consult and co-operate, directly among themselves, or through the Consultative Committee or other appropriate international procedures, including procedures within the framework of the United Nations and in accordance with its Charter, on any matter which may be raised relating to the objectives or the implementation of the provisions of this Convention.

2. Parties shall make every possible effort to clarify and resolve, through bilateral consultation, any matter which may cause doubts about compliance with this Convention or which gives rise to concerns about a related matter which may be considered ambiguous. A Party which receives a request from another Party for clarification of any matter which the requesting Party believes causes such doubts or concerns shall provide the requesting Party, within seven days of the request, with information sufficient to answer the doubts or concerns raised along with an explanation of how the information provided resolves the matter. Nothing in this Convention affects the right of any two or more Parties to arrange by mutual consent for inspections among themselves to clarify and resolve any matter which may cause doubts about compliance or gives rise to concerns about a related matter which may be considered ambiguous. Such arrangements shall not affect the rights and obligations of any Party under other provisions of this Convention.

3. In order to facilitate satisfactory resolution of matters raised, the Parties concerned may request the assistance of the Consultative Committee or its subsidiary organs. Any Party may request the Executive Council to conduct fact-finding procedures with regard to the Party's own activities or the activities of another Party in order to clarify and resolve any matter which may cause doubts about compliance with the Convention or gives rise to concerns about a related matter which may be considered ambiguous.

(a) Requests sent to the Executive Council under this Article shall state the doubts or concerns, the specific reasons for the doubts or concerns, and the action that the Council is being requested to undertake.

(b) Within two days of receipt of such a request, the Technical Secretariat shall, on behalf of the Council, request the Party whose activities create the doubts or concerns to clarify the state of affairs.

(c) If the doubts or concerns which gave rise to the request have not been resolved within 10 days of the receipt of the request by the Council, its Fact-Finding Panel shall immediately initiate a fact-finding inquiry, and transmit to the Chairman of the Council a report on its work, whether interim or final, within two months of the date of the request. Reports of the Panel shall include all views and information presented during its proceedings.

(d) All requests for special on-site inspections shall be governed by Article X and all requests for ad hoc on-site inspections by Article XI.

4. Any Party whose doubts or concerns about compliance have not been resolved within two months or any Party which has doubts or concerns it believes warrant urgent consideration by all Parties regarding compliance or regarding other matters directly related to the objectives of the Convention may request the Chairman of the Consultative Committee to convene a special meeting of the Committee. The Chairman of the Committee shall convene such a meeting as soon as possible and in any case within one month of the receipt of the request. Each Party may participate in such a meeting, whose functions and rules of procedures are established in Annex I.

5. All Parties shall co-operate fully with the Consultative Committee and its subsidiary organs, as well as with international organizations, which may, as appropriate, give scientific, technical and administrative support in order to facilitate fact-finding activities and thereby help to ensure the speedy resolution of the matter which gave rise to the original request.

6. The Executive Council shall promptly notify all Parties of the initiation of any fact-finding procedures and shall provide all available information related thereto to any Party upon request. All Parties shall also be promptly notified of the refusal by a Party of any request made by the Committee or its subsidiary organs as part of a fact-finding inquiry. All reports regarding the fact-finding activities conducted under this Article, as well as on-site inspections under Articles X and XI shall be distributed promptly to all Parties.

7. The provisions of this Article shall not be interpreted as affecting the rights and duties of Parties under Articles X and XI or under the Charter of the United Nations.

## Article X

### Special On-Site Inspection

1. In accordance with the provisions of this Article and Annex II, each member of the Fact-Finding Panel shall have the right to request at any time a special on-site inspection of any other Party, through the Technical Secretariat, to clarify and resolve any matter which may cause doubts about compliance or gives rise to concerns about a related matter which may be considered ambiguous, of:

(a) any location or facility subject to systematic international on-site inspection pursuant to Articles III, V and VI; or

(b) any military location or facility, any other location or facility owned by the Government of a Party, and as set forth in Annex II, locations or facilities controlled by the Government of a Party.

2. A request shall be handled in the following manner:

(a) Within 24 hours of the request, the Technical Secretariat shall notify the Party to be inspected and designate an inspection team in accordance with paragraph 4 of this Article; and

(b) Within 24 hours after the receipt of such notification, the Party to be inspected shall provide the inspection team unimpeded access to the location or facility.

3. Each Party may solicit from any member of the Fact-Finding Panel a request for an inspection of any other Party under this Article.

4. Any special on-site inspection requested through the Technical Secretariat shall be carried out by inspectors designated from among the full-time inspectors of the Secretariat. Each inspection team shall consist of one inspector from each member State of the Fact-Finding Panel, except that if the Party to be inspected is a member State of the Panel, the team shall not include any inspector from that State. The team shall promptly provide a written report to the requesting Party, the inspected Party, and the Fact-Finding Panel. Each inspector shall have the right to have his individual views included in the report.



## Article XI

### Ad Hoc On-Site Inspection

1. In accordance with the provisions of this Article and Annex II, each Party shall have the right to request, at any time, the Consultative Committee to conduct an ad hoc on-site inspection, to clarify and resolve any matter which may cause doubts about compliance or gives rise to concerns about a related matter which may be considered ambiguous, of any location or facility not subject to Article X.

2. A request shall be handled in the following manner:

(a) The Fact-Finding Panel shall meet within 24 hours to determine whether to request such an ad hoc on-site inspection using the guidelines in Section H of Annex II.

(b) If the Fact-Finding Panel decides to request an ad hoc inspection, the Party to be inspected shall, except for the most exceptional reasons, provide access within 24 hours of the Panel's request.

(c) If the Party to be inspected refuses such a request it shall provide a full explanation of the reasons for the refusal and a detailed, concrete proposal for an alternative means of resolving the concerns which gave rise to the request. The Fact-Finding Panel shall assess the explanation and alternative submitted, and may send another request, taking into account all relevant elements, including possible new elements received by the Panel after the original request.

(d) If the request is again rejected, the Chairman shall immediately inform the Security Council of the United Nations.

## Article XII

### Domestic Implementation Measures

Each Party shall:

(a) take any measures necessary in accordance with its constitutional processes to implement this Convention and, in particular, to prohibit and prevent any activity that a Party is prohibited from conducting by this Convention anywhere under its jurisdiction or control, and

(b) inform the Consultative Committee of the measures it has taken to implement the Convention.

## Article XIII

### Assistance to Parties Endangered by Chemical Weapons

Each Party undertakes, to the extent it deems appropriate, to render assistance to any Party to this Convention that the Security Council of the United Nations decides has been exposed to danger as a result of a violation of the Convention.

## Article XIV

### Non-Interference with Other Agreements

1. Nothing in this Convention shall be interpreted as in any way limiting or detracting from the obligations assumed by any State under the Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or Other Gases, and of Bacteriological Methods of Warfare, signed at Geneva on 17 June 1925, or under the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction, signed at Washington, London and Moscow on 10 April 1972.

2. Each Party to this Convention that is also a Party to the Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or Other Gases, and of Bacteriological Methods of Warfare, signed at Geneva on 17 June 1925, affirms that the obligation set forth in subparagraph (c) of Article I supplements its obligations under the Protocol.

## Article XV

### Amendments

Any Party may propose amendments to this Convention. Amendments shall enter into force for Parties ratifying or acceding to them on the thirtieth day following the deposit of instruments of ratification or accession by a majority of the Parties to the Convention and thereafter for each remaining Party on the thirtieth day following the deposit of its instrument of ratification or accession.

## Article XVI

### Duration; Withdrawal

1. This Convention shall be of unlimited duration.

2. Every Party to this Convention shall, in exercising its national sovereignty, have the right to withdraw from the Convention if it decides that extraordinary events, related to the subject-matter of the Convention, have jeopardized the supreme interests of its country. It shall give notice of such withdrawal to all other Parties to the Convention, to the Depositary and to the Security Council of the United Nations three months in advance. Such notice shall include a statement of the extraordinary events it regards as having jeopardized its supreme interests.

## Article XVII

### Signature; Ratification; Entry into Force

1. This Convention shall be open to all States for signature.

2. Any State which does not sign the Convention before its entry into force in accordance with paragraph 4 of this Article may accede to it at any time.

3. This Convention and its Annexes, which form an integral part thereof, shall be subject to ratification by signatory States. Instruments of ratification and instruments of accession shall be deposited with the Secretary-General of the United Nations, hereby designated as the Depositary.

4. This Convention shall enter into force 30 days after the date of deposit of the (fortieth) instrument of ratification.

5. For each State ratifying or acceding after the deposit of the (fortieth) instrument of ratification or accession, the Convention shall enter into force on the thirtieth day following the deposit of the instrument of ratification or accession.

6. The Depositary shall promptly inform all signatory and acceding States of the date of each signature, the date of deposit of each instrument of ratification or of accession and the date of the entry into force of this Convention, and of the receipt of other notices. The Depositary shall immediately upon receipt transmit any notices required by this Convention to every Party.

7. This Convention shall be registered by the Depositary pursuant to Article 102 of the Charter of the United Nations.

#### Article XVIII

##### Languages

This Convention, the English, Arabic, Chinese, French, Russian and Spanish texts of which are equally authentic, shall be deposited with the Secretary-General of the United Nations.



DETAILED UNITED STATES VIEWS ON THE CONTENTS  
OF THE ANNEXES TO THE CONVENTION \*/

Annex I

CONSULTATIVE COMMITTEE

Provisions should be included along the following lines:

Section A. General Provisions

1. The Consultative Committee established pursuant to Article VII should convene in (venue) not later than 30 days after the Convention enters into force.
2. The Consultative Committee should subsequently meet in regular sessions annually for the first 10 years after the Convention enters into force, and annually thereafter unless a majority of Parties agrees that a meeting is unnecessary. A special meeting may be convened at the request of any Party or of the Executive Council.
3. In order to assist it in carrying out its functions, the Consultative Committee should establish an Executive Council, as provided in Section B of this Annex, as well as a Fact-Finding Panel, a Technical Secretariat and such other subsidiary bodies as may be necessary for its work.
4. The Executive Council should be responsible for carrying out the functions of the Consultative Committee specified in paragraph 2 of Article VII during the period when the latter is not in session. In particular, it shall be responsible for the activities in paragraph 1 of Section B of this Annex.
5. Except as specified elsewhere, the Committee and its subordinate bodies should take decisions where possible by consensus. If consensus cannot be reached within 24 hours, a decision may be taken by a majority of those present and voting. The report on a fact-finding inquiry should not be put to a vote, nor should any decision be taken as to whether a Party is complying with the provisions of the Convention.
6. The chairman of the Committee should be chosen by the Committee itself.
7. The Committee should present an annual report on its activities to the Parties.
8. The expenses of the Committee should be met by (\_\_\_\_\_).
9. The question of international legal personality of the Committee and its subsidiary organs should be addressed.

Section B. Executive Council

1. In carrying out its responsibilities, the Executive Council should, in particular, be responsible for:

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\*/ This paper presents current United States views on the contents of the annexes of a chemical weapons convention. It is subject to further modification, elaboration and refinement.

- (a) carrying out systematic international on-site verification;
- (b) ensuring the implementation of, and compliance with, the Convention;
- (c) obtaining, keeping and disseminating information submitted by Parties regarding matters pertaining to the Convention;
- (d) rendering services to Parties and facilitating consultations among them;
- (e) receiving requests from Parties, including requests for fact-finding;
- (f) deciding and overseeing specific action to be taken regarding such requests;
- (g) overseeing the activities of the other subordinate bodies of the Consultative Committee, including ensuring the proper execution of the functions of the Technical Secretariat, including the carrying out of systematic international on-site verification pursuant to Articles III, V, VI; the carrying out of special on-site inspections pursuant to Article X; and the carrying out of ad hoc on-site inspections pursuant to Article XI;
- (h) reporting to the Consultative Committee; and
- (i) requesting, when it deems necessary, a special meeting of the Consultative Committee.

2. (a) The Executive Council should be established within 45 days after entry into force of the Convention and should be composed of one representative from each of not more than 15 Parties, plus a non-voting chairman.

(b) Ten members should be elected by the Consultative Committee after nominations by the chairman based on consultation with the Parties. In selecting these members, due regard should be given to ensuring an appropriate geographic balance. These members should serve for a two-year period, with five of these members replaced each year.

(c) In addition, those permanent members of the Security Council of the United Nations who are Parties to the Convention should be represented.

(d) Each member may be assisted at meetings by one or more technical or other advisers.

(e) The chairman of the Consultative Committee should serve as chairman of the Executive Council.

#### Section C. Fact-Finding Panel

1. Within 45 days after entry into force of the Convention, the Consultative Committee should establish a Fact-Finding Panel subordinate to the Executive Council, which should be responsible for conducting fact-finding inquiries pursuant to Article IX, considering reports on special on-site inspections pursuant to Article X, and overseeing ad hoc inspections pursuant to Article XI.

2. (a) The Fact-Finding Panel should consist of diplomatic representatives of five Parties, plus a non-voting chairman.

(b) Three Parties should be selected by the Consultative Committee by a four-fifths vote after nominations by the chairman based on consultations with Parties. These member States should serve for a six-year period, with one Party being replaced every other year. Of these three Parties, one should represent the (Western group), one the (Eastern group), and one the (neutral/non-aligned group).

(c) In addition there should be one diplomatic representative each from the United States and the Soviet Union.

(d) The chairman of the Executive Council should serve as chairman of the Fact-Finding Panel.

3. (a) The Panel should convene within 10 days after receipt of a request from a Party for a fact-finding inquiry, within 24 hours after a request for an ad hoc on-site inspection pursuant to Article XI, or immediately on completion of a special on-site inspection by inspectors from the Technical Secretariat pursuant to Article X, to review the information available, conduct necessary inquiries, and make appropriate findings of fact.

(b) The work of the Fact-Finding Panel should be organized in such a way as to permit it to perform its functions.

(c) The Panel should transmit to the chairman of the Executive Council its findings of fact, whether interim or final, within two months of the date of the convening of the Panel. Reports of the Panel's findings should include all views and information presented during the Panel's proceedings.

(d) Each member should have the right, through the chairman, to request from Parties and from international organizations such information and assistance as the member considers desirable for the accomplishment of the work of the Panel.

(e) The first meeting of the Panel should be held not later than 60 days after entry into force of the Convention to agree on its organization and rules of procedure. At this meeting the chairman should submit recommendations, based on consultations with Parties and signatories.

#### Section D. Technical Secretariat

1. The Technical Secretariat should:

(a) conduct on-site inspections pursuant to Articles III, V, VI, X, and XI;

(b) provide the necessary administrative support to the Consultative Committee, the Executive Council, the Fact-Finding Panel and such other subsidiary bodies as may be established;

(c) render appropriate technical assistance to Parties and to the Executive Council in implementing the provisions of the Convention, such as reviewing Schedules A, B, C, and D, developing technical procedures, and improving the effectiveness of verification methods;

(d) receive from Parties and distribute to them data relevant to the implementation of the Convention;

(e) negotiate the subsidiary arrangements for systematic international on-site inspections provided for in Annex II, section B, subsection A, paragraph 3; and

(f) assist the Executive Council on such other tasks as may be agreed.

2. The composition of the Technical Secretariat should be elaborated by the Preparatory Commission.

3. All inspectors should be technically qualified and acceptable to their governments.

Section E. Special Meeting of the Consultative Committee

1. The special meeting of the Consultative Committee provided for in Article IX should undertake to solve any problem which may be raised by the Party requesting the meeting. For this purpose, the assembled Parties should be entitled to request and receive any information which a Party is in a position to communicate.

2. The work of the special meeting should be organized in such a way as to permit it to perform its functions.

3. Any Party should be able to participate in the meeting. The meeting should be chaired by the chairman of the Committee.

4. Each Party should have the right, through the chairman, to request from States and from international organizations such information and assistance as the Party considers desirable for the accomplishment of the work of the meeting.

5. A summary of the meeting, incorporating all views and information presented during the meeting, should be prepared promptly and distributed to all Parties.



## Annex II

### VERIFICATION

Provisions along the following lines should be included:

#### Section A. Declarations

##### A. General Provisions

1. Unless otherwise stipulated, information required to be provided should be submitted to the Depositary until the Consultative Committee is established and thereafter to the Committee. The information should be provided according to a standard format, which should be specified by the Depositary, after consultation with signatories, for information submitted before establishment of the Committee, or specified by the Committee for information submitted after its establishment. The information should be made available to Parties.

2. Locations should be specified with sufficient precision to permit unambiguous identification of sites and facilities. For this reason all locations should be specified by geographical place name and co-ordinates, as well as by any other official or commonly used designation, and should be clearly marked on maps of a suitable scale. For facilities within complexes, the exact position within the complex should be specified.

3. The accuracy and completeness of all declarations should be subject to the procedures specified in Articles IX, X and XI. As specified in subsections B and C, declarations should also be subject to systematic international on-site verification.

##### B. Contents of the declarations required by Articles IV, V and VI

1. Chemicals should be declared by scientific chemical name, chemical structural formula, toxicity and weight. The fraction in munitions and devices should be given. Munitions and devices should be declared by type and quantity. "Specifically-designed" equipment and chemicals, referred to in Article II, subparagraph 1(c), should be declared by type and quantity.

2. The exact location of chemical weapons within a site and form of storage (bulk, cylinder, etc.) should be declared, and storage standards should be provided.

3. The general plan for destruction of chemical weapons should include the type of operation, schedules of quantities and types of chemical weapons to be destroyed, and products.

4. Chemical weapons production facilities should be declared even if they have been destroyed; are now being used for other purposes; or were or are dual-purpose facilities designed or used in any degree for civilian production. The declaration should specify the chemical name of any chemicals, including civilian products, if any, ever produced at the facility, whether the facility still exists; and, if not, its disposition.

5. The information regarding existing chemical weapons production facilities should include information about the chemical process used, precisely what equipment and structures are at the facility, including any old or replacement equipment not in use, as well as equipment and spare parts stored at the facility; the methods that

will be used to close and eventually to destroy the equipment and structures; the general methods that will be used to dispose of the debris left from the destruction process; and the time periods (i.e., the months or years) when specific production facilities will be destroyed, respectively.

6. The declaration regarding a single specialized production facility for super-toxic lethal chemicals and key precursors for protective purposes should include a detailed description of the equipment at the facility.

7. The capacity of a chemical weapons production facility, or of a single specialized facility for production of super-toxic lethal chemicals or key precursors for protective purposes, should be expressed in terms of the quantity of end product that can be produced in (period), assuming that the facility operates (schedule). The capacity of a chemical weapons production facility used for filling chemical weapons should be expressed as the quantity of chemical that can be filled into munitions or other chemical weapons in (period), assuming that the facility operates (schedule).

8. With respect to past transfers, Parties should be required to make a declaration covering activities since (date). The declaration should specify the supplier and recipient countries, the timing and nature of the transfer and the current location of the transferred items, if known. The following should be declared:

(a) transfer of any militarily significant quantities (e.g., one ton) of toxic chemicals, munitions, devices or equipment for chemical weapons purposes; and

(b) transfers of equipment specifically designed or constructed for production of chemicals, munitions, devices or equipment for chemical weapons purposes.

#### C. Contents of Other Declarations

1. A declaration should be made annually regarding activities for protective purposes. It should cover activities actually conducted in the past year and those planned for the coming year. Information should be provided on:

(a) operations of any single specialized facility for production of super-toxic lethal chemicals and key precursors, including the schedule and names and quantities of chemicals involved;

(b) the scientific chemical name, chemical structural formula, quantity and use of each key precursor devoted to protective purposes and each toxic chemical that can be used as a chemical weapon but is devoted to protective purposes;

(c) (other protective activities to be agreed).

2. As specified in Article III and Annex III, a declaration should be made annually regarding the chemicals listed in Schedules A, B, and C.

3. Thirty days prior to the transfer to another Party of any super-toxic lethal chemical or key precursor for protective purposes, information should be provided on the recipient, and on the scientific chemical name, chemical structural formula, quantity, and end use, of the chemical transferred.

4. The detailed plan for destruction of chemical weapons, to be provided pursuant to Article V, should be submitted six months before destruction operations are to begin and should contain agreed information necessary for the planning and carrying out of systematic international on-site verification.

5. The detailed plan for destruction of any chemical weapons production facility, to be provided pursuant to Article VI, should be submitted six months before destruction operations are to begin and should contain agreed information necessary for the planning and carrying out of systematic international on-site verification.
6. As specified in Articles V and VI, notifications should be provided annually regarding the implementation of plans for destruction of chemical weapons and chemical weapons production facilities, respectively. These notifications should contain agreed information on activities actually conducted in the past year and those planned for the coming year. Information should also be provided on any changes in the detailed plans for destruction.
7. Should any Party discover or retrieve any old chemical weapons (e.g., weapons found on World War I battlefields or dumped at sea after World War II) anywhere under its jurisdiction or control after the declarations required by Articles IV and V have been filed it should:

(a) notify the Consultative Committee promptly of the approximate quantity and type of the chemical weapons found. The notification should also specify how, where, and when the chemical weapons were found, why they were previously undeclared, and where they are located. The notification should be filed within 45 days of the discovery. In the case of multiple and frequent discoveries of small quantities, a notification may cover a one-month period; such a notification should be made within 30 days of the end of the reporting month; and

(b) notify the Consultative Committee, within five months of the first notification, regarding the exact quantity and type of chemical weapon found, including the scientific chemical name and chemical structural formula of any toxic chemical found and its quantity. The notification should specify plans for the destruction of the chemical weapons.

(c) In the event that some of the information stipulated under subparagraphs (a) and (b) of this paragraph cannot be provided within the periods specified, submit as much information as possible, specify the reasons the remainder is unavailable, and give an estimate of when such information might be provided.

## Section B. On-Site Verification

### A. General Provisions

1. All on-site verification, whether systematic international verification, special on-site inspection or ad hoc on-site inspection, under the auspices of the Consultative Committee should be carried out according to procedures which are agreed in advance and based on this Annex.
2. On-site verification should make use of both on-site inspectors and on-site instruments.
3. The Executive Council and the host Party should promptly agree upon subsidiary arrangements which specify in detail, to the extent necessary to permit the Committee to fulfill its verification responsibilities in an effective and efficient manner, how the on-site verification provisions will be implemented at each of the locations subject to systematic international on-site verification.

4. The privileges and immunities which should be granted to inspectors to ensure that they can discharge their functions effectively should be specified. The steps that a Party should take to ensure that inspectors can effectively discharge their functions in its territory should also be specified.

5. Certain rights of a Party with respect to the conduct of verification in its territory should be specified. For example, although it should not be required, host Party representatives should be allowed to accompany international inspectors during on-site inspections.

6. Pursuant to the obligation in Article VIII not to interfere in any manner with the conduct of verification activities:

(a) entry visas for inspectors should be issued promptly;

(b) host Party representatives should be ready to accompany the inspectors immediately. No delays in carrying out the inspections should be allowed to occur under the guise of the unavailability of appropriate host Party representation;

(c) no bureaucratic constraints (e.g., governmental travel approval) should be imposed which would interfere with the inspection or provide the host Party with sufficient advance notification of the site to be inspected that the host Party could cover up possible prohibited activities prior to the inspection.

7. The Consultative Committee and the Party concerned should be required to co-operate to facilitate the implementation of the verification measures specified by the Convention.

8. Verification measures should be implemented in a manner designed.

(a) to avoid hampering the economic and technological activities of Parties; and

(b) to be consistent with management practices required for the safe conduct of the activities subject to verification.

9. On-site instruments should incorporate a capability for remote monitoring. They should also incorporate data protection and tamper-detecting devices and be serviced only by international inspectors.

10. Full account should be taken of technological developments in order to ensure optimum effectiveness of verification.

11. An agreed timetable for destruction activities should be included to facilitate verification and to ensure that no Party gains military advantage during the destruction period.

#### B. Inspection and Interim Monitoring of Stocks

1. After a Party has filed its declarations pursuant to Articles IV and V, chemical weapons should be subject to inspection immediately, under agreed procedures, to confirm the accuracy of the declarations. These inspections should be completed within (number) days after the filing of the declarations.

2. To ensure that a Party does not move chemical weapons to a deployment site or to a clandestine site prior to destruction, the storage facilities should be equipped with monitoring instruments by international inspectors immediately following the confirmatory inspection.

3. During confirmatory inspection of chemical weapons, an on-site survey of each location should be made to determine what preagreed types of instruments would be emplaced to monitor the chemical weapons there prior to removal for destruction. The instruments should be installed and tested by the inspecting team, in the presence of host Party personnel, before the site and facility are declared secure. After emplacement of instruments is complete, on-site inspection should be repeated to confirm that no chemical weapons had been removed from that location since the initial confirmatory inspection. An additional set of agreed procedures should be developed for the removal of chemical weapons from each storage site for transfer to a destruction facility. Until all chemical weapons have been removed for destruction, the storage site should be visited periodically by an international inspection team for routine monitoring and maintenance purposes, e.g., testing the system of instruments.

#### C. Verification of the Destruction of Chemical Weapons

1. The verification procedures should be designed to confirm that chemical weapons are not diverted during transport or any phase of the destruction process and to confirm that the type and quantity of materials destroyed correspond to the declarations and that all materials are actually destroyed.
2. Transport of chemical weapons from storage sites and their destruction should be verified by systematic, international on-site procedures. International inspectors should be present at the storage facility when chemical weapons are removed for shipment to declared destruction facilities. The inspectors should verify the chemical weapons being moved and resecure the storage facility once they have been loaded on transports. (However, inspectors would not need to accompany the shipments.) Inspectors should verify that the chemical weapons are received at the destruction facility and placed in interim storage there. On-site instruments, as well as inspectors, should be utilized for verification of destruction. Inspectors should be present in the destruction facility continuously when the facility is operating.
3. The destruction procedures should permit systematic international on-site verification. The following procedures should not be used for the destruction of chemical weapons: dumping in any body of water, land burial, or open-air burning. The destruction process should, for practical purposes, be irreversible.

#### D. Closure, Inspection, and Interim Monitoring of Chemical Weapons Production Facilities

1. After a Party has filed its declarations pursuant to Articles IV and VI, chemical weapons production facilities should be immediately subject to inspection to confirm the accuracy of the declaration, and to confirm the implementation of agreed procedures for closure. These inspections should be completed within (number) days after the filing of the declaration. Subsequent verification procedures should be implemented to confirm that Parties have not resumed production or filling at the facility and to confirm that equipment has not been removed.
2. An inventory of key equipment should be prepared, and its accuracy verified by international inspectors during confirmatory inspection. At the same time, the inspector should survey the facility to determine which of the pre-agreed types of instruments should be emplaced to monitor the facility until it is destroyed. The instruments should be installed and tested by the inspecting team, in the presence of host Party personnel, before the facility is declared secure. During the interim between securing the facility and actually destroying it, the facility should be visited periodically by an international inspection team for routine monitoring and maintenance purposes, e.g., testing the system of instruments.

E. Verification of the Destruction of Chemical Weapons Production Facilities

1. The verification procedures should be designed to confirm that chemical weapons production facilities have been destroyed.
2. International inspectors should be present at the facility to be destroyed prior to beginning destruction to verify that the inventory of structures, equipment, parts, etc., at the facility is consistent with the inventory prepared when the facility was secured. During destruction, inspectors need not be present continuously, provided agreed procedures, including the use of on-site instruments, are implemented to ensure that the facility remains inoperative during the destruction phases. On-site inspections would be conducted periodically throughout the destruction process.
3. Equipment specifically designed for chemical weapons production should be destroyed. All items to be destroyed should be destroyed according to agreed procedures which permit systematic international on-site verification. No equipment may be removed from the site prior to check-off from the original inventory by the inspectors. Structures should be destroyed completely, by razing, and a final international inspection performed.

F. Inspection and Monitoring of the Permitted Single Specialized Production Facility

1. The verification procedures should be designed to confirm that the production of super-toxic lethal chemicals and key precursors in quantities significantly in excess of one ton does not occur at the single specialized production facility.
2. The precise location of the facility should be declared and the facility should be inspected by international inspectors before it is used to ensure that its capacity will not permit the production, on an annual basis, of quantities significantly in excess of one ton. On-site instruments should be installed which will signal whether the facility is active or inactive. An annual declaration should be made about planned production activities. International inspectors should have the right to visit the facility periodically to enable them to monitor production activities, as well as inactive periods, through on-site inspection.

G. Verification Measures Applicable to Production for Permitted Purposes of Chemicals Listed in Schedule C

1. The verification procedures should be designed to confirm that these facilities are not used to produce chemical weapons.
2. Inspections should occur periodically on a random basis. Such inspections should be conducted under agreed procedures which provide protection for proprietary information.
3. During an inspection, international inspectors should have the right to review certain agreed plant records and interview personnel under agreed procedures. Inspectors should be allowed to view agreed areas; take samples from agreed points, such as finished product storage containers and waste treatment areas; and analyse them using agreed methods. Inspectors would not have the right to interfere with plant operations more than necessary to carry out their agreed functions.
4. Use of special instruments (e.g., end product samplers) between inspections should be permitted when deemed necessary by the inspectors.

5. Plans to change the end product of the facility or substantially change its capacity should be reported in advance to international authorities. Details of process modification need not be disclosed; however, final products and estimated time for completing the work should be provided. International inspectors should be permitted to view agreed areas soon after completion of the modifications. At that time, new or altered instruments should be installed, as required.

H. On-site Inspections under Articles X and XI

1. Agreed procedures for conducting on-site inspections under Articles X and XI should be specified in this Annex, including:

- (a) a requirement for definition of the area to be inspected;
- (b) time limits for providing access to the area to be inspected;
- (c) the maximum number of personnel on an inspection team;
- (d) length of service requirements for designation of inspectors;
- (e) routes of access and means of transportation;
- (f) types of experimental and support equipment which may be employed and who shall furnish specific types of equipment;
- (g) procedures for making observations and measurements, including collecting samples and taking photographs;
- (h) protection of proprietary and confidential information including liability for unauthorized disclosure of such information;
- (i) services to be furnished by the host Party;
- (j) rights of inspection personnel, including privileges and immunities;
- (k) certain rights of the host Party;
- (l) allocation of expenses;
- (m) preparation of reports;
- (n) dissemination of findings;
- (o) additional rights to be exercised in specific situations; and
- (p) duration of an inspection.

2. With regard to "locations or facilities controlled by the Government of a Party," referred to in Article X, subparagraph 1(b), this Annex should provide the means of specifying those categories of locations or facilities which shall be subject to special on-site inspections, including the relevant facilities used for the provision of goods and services to the Government of a Party. It is intended that this provision reach any location or facility that in the future might be suspected of being used for activities in violation of this Convention. The specification of such locations and facilities should be a reasonable one.

3. The Committee should use the following guidelines in determining whether to request a Party to permit an ad hoc inspection pursuant to Article XI:

(a) whether the information available to it causes any doubts about compliance with the Convention or gives rise to any concerns about a related matter which may be considered ambiguous;

(b) whether the proposed inspection would assist in determining the facts;

(c) whether the locations to be inspected are clearly defined and limited to places relevant to determination of the facts; and

(d) whether the proposed arrangements will limit intrusion to the level necessary to determine the facts.

4. The Technical Secretariat should ensure that sufficient inspectors will always be readily available to carry out special on-site inspections pursuant to Article X and ad hoc on-site inspections pursuant to Article XI.



Annex III

SCHEDULES: CHEMICALS SUBJECT TO SPECIAL MEASURES;  
METHODS FOR MEASURING TOXICITY

Provisions along the following lines should be included:

1. Schedule A should contain ~~super-toxic~~ lethal chemicals, key precursors, and other particularly dangerous chemicals, which have been stockpiled as chemical weapons or which pose particular risk of such stockpiling. Information on the persons authorized to possess such chemicals, the quantity produced and used at each location and the end uses should be reported annually.
2. Schedule B should contain chemicals which are produced in large quantities for permitted purposes but which pose a particular risk of diversion to chemical weapons purposes. In respect of each chemical in Schedule B, every Party should report annually the location of each production facility and statistical data on the aggregate quantities produced, imported, and exported, and on the end uses of the chemical.
3. Schedule C should contain chemicals whose production for permitted purposes should be subject to systematic international on-site verification, including key precursors. In respect of each chemical listed in Schedule C, every Party should report annually, for each chemical which is produced, imported or exported in an aggregate amount greater than (quantity), the location of each production facility and statistical data on the aggregate quantities produced, imported, and exported, and on the end uses of the chemical. Plans to establish a new production facility or to change substantially the capacity of an existing production facility should be reported ninety days in advance. Production facilities should be subject to systematic international on-site inspection, pursuant to Article III.
4. Schedule D should contain agreed methods for measuring lethal toxicity.
5. If a Party has information which in its opinion may require a revision of Schedules A, B, C, or D, it should provide the information to the Chairman of the Consultative Committee who should transmit the information to all Parties. The Technical Secretariat should also submit any such information to the Committee.
6. The Executive Council should promptly examine, in the light of all information available to it, whether the Schedule in question should be revised. The Council may recommend that the Schedule be revised or it may recommend that no revision be made. Any recommendation should be communicated promptly to all Parties.
7. Any recommendation by the Executive Council should be reviewed by the Consultative Committee at its next regularly scheduled meeting. The Committee may decide to accept the recommendation as stated, or in revised form, or it may decide to reject the recommendation. If requested by five or more Parties, a special meeting of the Committee should be held to review the recommendation. A two-thirds vote of the Committee should be required to revise a Schedule.

SCHEDULE A

1. Ethyl S-2-diisopropylaminoethyl  
methylphosphonothioate (VX)
2. Ethyl N,N-dimethylphosphoramidocyanidate (Tabun)
3. iso-Propyl methylphosphonofluoridate (Sarin)
4. 1,2,2-Trimethylpropyl methylphosphonofluoridate (Soman)
5. Bis(2-chloroethyl)sulphide (Mustard gas)
6. 3-Quinuclidinyl benzilate (BZ)
7. Saxitoxin
8. 3,3-Dimethylbutanol-2 (Pinacolyl alcohol)
9. Methylphosphonyl difluoride

SCHEDULE B

1. Carbonyl chloride (phosgene)
2. Cyanogen chloride
3. Hydrogen cyanide
4. Phosphorus oxychloride
5. Phosphorus trichloride
6. Trichloronitromethane (chloropicrin)
7. Thiodiglycol

SCHEDULE C

Key precursors for super-toxic lethal chemicals

1. Chemicals containing the P-methyl, P-ethyl or P-propyl bond
2. Methyl and/or ethyl esters of phosphorous acid
3. 3,3-dimethyl butanol-2 (pinacolyl alcohol)
4. N,N disubstituted-B-amino ethanols
5. N,N disubstituted-B-amino ethane thiols
6. N,N disubstituted-B-aminoethyl halides  
(halide = Cl, Br or I)

Key Precursors for other toxic chemicals

1. Phenyl-, alkyl- or cycloalkyl-substituted glycolic acids
2. 3- or 4-hydroxypiperidine and their derivatives

Toxic chemicals

(To be discussed)

SCHEDULE D

Lethal toxicity should be measured by the procedures specified below:

(text of procedures contained in document CD/CW/WP.30, Annexes III and IV;  
22 March 1982)

## ANNEX III

### RECOMMENDED STANDARDIZED OPERATING PROCEDURES FOR ACUTE SUBCUTANEOUS TOXICITY DETERMINATIONS

#### 1. Introduction

Three categories of agents were defined on the basis of their toxicity:

- (i) super-toxic lethal chemicals;
- (ii) other lethal chemicals;
- (iii) other harmful chemicals.

Lethality limits in terms of LD<sub>50</sub> for subcutaneous administration were established to separate three toxic categories at 0.5 mg/kg and 10 mg/kg.

#### 2. Principles of the test method

The test substance is administered to a group of animals in doses corresponding exactly to the category limits (0.5 or 10 mg/kg respectively). If in an actual test the death rate was greater than 50 per cent, then the material would fall into the higher toxicity category; if it was lower than 50 per cent the material would fall into the lower toxicity category.

#### 3. Description of the test procedure

3.1 Experimental animal Healthy young adult male albino rats of Wistar strain weighing  $200 \pm 20$  g should be used. The animals should be acclimatized to the laboratory conditions for at least five days prior to the test. The temperature of the animal room before and during the test should be  $22 \pm 3$  °C and the relative humidity should be 50-70 per cent. With artificial lighting, the sequence should be 12 hours light, 12 hours dark. Conventional laboratory diets may be used for feeding with an unlimited supply of drinking water. The animals should be group-caged but the number of animals per cage should not interfere with proper observation of each animal. Prior to the test, the animals are randomized and divided into two groups; twenty animals in each group.

3.2 Test substance Each test substance should be appropriately identified (chemical composition, origin, batch number, purity, solubility, stability etc.) and stored under conditions ensuring its stability. The stability of the substance under the test conditions should also be known. A solution of the test substance should be prepared just before the test. Solutions with concentrations of 0.5 mg/ml and 10 mg/ml should be prepared. The preferable solvent is 0.85 per cent saline. Where the solubility of the test substance is a problem, a minimum amount of an organic solvent such as ethanol, propylene glycol or polyethylene glycol may be used to achieve solution.

3.3 Test method Twenty animals receive in the back region 1 ml/kg of the solution containing 0.5 mg/ml of the test substance. The number of dead animals is determined within 48 hours and again after seven days. If the death rate is lower than ten animals, another group of twenty animals should be injected by the same way with 1 ml/kg of the solution containing 10 mg/ml of the test substance. The number of dead animals should be determined within 48 hours and again after seven days. If the result is doubtful (e.g. death rate = 10), the test should be repeated.

3.4 Evaluation of the results If the death rate in the first group of animals (receiving a solution containing 0.5 mg/ml) is equal to or higher than 50 per cent, the test substance will fall into the "super-toxic lethal chemical" category. If the death rate in the second group (receiving a solution containing 10 mg/ml) is equal to or higher than 50 per cent, the test substance will fall into the "other lethal chemical" category; if lower than 50 per cent, the test substance will fall into the "other harmful chemical".

#### 4. Data reporting

A test report should include the following information:

- (i) test conditions: date and hour of the test, air temperature and humidity
- (ii) animal data: strain, weight and origin of the animals;
- (iii) test substance characterization: chemical composition, origin, batch number and purity (or impurities) of the substance; date of receipt, quantities received and used in the test; conditions of storage, solvent used in the test;
- (iv) results: the number of dead animals in each group, evaluation of results.

#### ANNEX IV

### RECOMMENDED STANDARDIZED OPERATING PROCEDURES FOR ACUTE INHALATION TOXICITY CRITERIA

1. In the assessment and evaluation of the toxic characteristics of chemicals in a vapour state determination of acute inhalation toxicity is necessary. In every case, when it is possible, this test should be preceded by subcutaneous toxicity determination. Data from these studies constitute the initial steps in the establishing of a dosage regimen in subchronic and other studies and may provide additional information on the mode of toxic action of a substance.

Three categories of agents were defined on the basis of their toxicity:

- (i) super-toxic lethal chemicals;
- (ii) other lethal chemicals;
- (iii) other harmful chemical.

Lethality limits in terms of  $LCT_{50}$  for inhalatory application were established to separate three toxic categories at 2,000 mg min/m<sup>3</sup> and 20,000 mg min/m<sup>3</sup>.

#### 2. Principles of the test method

A group of animals is exposed for a defined period to the test substance in concentration corresponding exactly to the category limits (2,000 mg min/m<sup>3</sup> or 20,000 mg min/m<sup>3</sup> respectively). If in an actual test the death rate was greater than 50 per cent, then the material would fall into the higher toxicity category; if it was lower than 50 per cent, the material would fall into the lower toxicity category.

#### 3. Description of the test procedure

3.1 Experimental animal. Healthy young adult male albino rats of Wistar strain weighing  $200 \pm 20$  g should be used. The animals should be acclimatized to the laboratory conditions for at least five days prior to the test. The temperature of the animal room before and during the test should be  $22 \pm 3^{\circ}\text{C}$  and the relative humidity should be 50-70 per cent. With artificial lighting, the sequence should be 12 hours light, 12 hours dark. Conventional laboratory diets may be used for feeding with an unlimited supply of drinking water. The animals should be group-caged but the number of animals per cage should not interfere with proper observation of each animal. Prior to the test the animals are randomized and divided into two groups, twenty animals in each group.

3.2 Test substance. Each test substance should be appropriately identified (chemical composition, origin, batch number, purity, solubility, stability, boiling point, flash point, vapour pressure etc) and stored under conditions ensuring its stability. The stability of the substance under the test conditions should also be known.



3.3 Equipment. A constant vapour concentration may be produced by one of several methods.

- (i) by means of an automatic syringe which drops the material onto a suitable heating system (e.g. hot plate),
- (ii) by sending airstream through a solution containing the material (e.g. bubbling chamber),
- (iii) by diffusion of the agent through a suitable material (e.g. diffusion chamber).

A dynamic inhalation system with a suitable analytical concentration control system should be used. The rate of air flow should be adjusted to ensure that conditions throughout the equipment are essentially the same. Both a whole body individual chamber exposure or head only exposure may be used.

3.4 Physical measurements. Measurements or monitoring should be conducted of the following parameters:

- (i) the rate of air flow (preferably continuously),
- (ii) the actual concentration of the test substance during the exposed period,
- (iii) temperature and humidity.

3.5 Test method. Twenty animals are exposed for 10 minutes to the concentration of  $200 \text{ mg/m}^3$  and then removed from the chamber. The number of dead animals is determined within 48 hours and again after 7 days. If the death rate is lower than 10 animals, another group of twenty animals should be exposed for 10 minutes to the concentration of  $2,000 \text{ mg/m}^3$ . The number of dead animals should be determined within 48 hours and again after 7 days. If the result is doubtful (e.g. death rate = 10), the test should be repeated.

3.6 Evaluation of results. If the death rate in the first group of animals (exposed to the concentration of  $200 \text{ mg/m}^3$ ) is equal to or higher than 50 per cent, the test substance will fall into the "super-toxic lethal chemical" category. If the death rate in the second group (exposed to the concentration of  $2,000 \text{ mg/m}^3$ ) is equal to or higher than 50 per cent, the test substance will fall into the "other legal chemical" category; if it is lower than 50 per cent, the test substance will fall into the "other harmful chemical".

#### 4. Data reporting

A test report should include the following information:

- (i) Test conditions. date and hour of the test, description of exposure chamber (type, dimensions, source of air, system for generating the test substance, method of conditioning air, treatment of exhaust air etc) and equipment for measuring temperature, humidity, air flow and concentration of the test substance.

- (ii) Exposure data: air flow rate, temperature and humidity of air, nominal concentration (total amount of test substance fed into the equipment divided by volume of air), actual concentration in test breathing zone.
- (iii) Animal data: strain, weight and origin of animals.
- (iv) Test substance characterization: chemical composition, origin, batch number and purity (or impurities) of the substance; boiling point, flash point, vapour pressure; date of receipt, quantities received and used in the test; condition of storage, solvent used in the test.
- (v) Results: number of dead animals in each group, evaluation of results.

Document Regarding Action Prior to Entry into Force of the  
Convention: Detailed Views

A document containing the following should be associated with the Convention:

1. When signing the Convention, every State should declare whether chemical weapons stocks or chemical weapons production facilities are under its control anywhere or located within its territory.
2. Not less than 90 days after the Convention is opened for signature a Preparatory Commission, composed of representatives of all signatory States, should be convened for the purpose of carrying out necessary preparations for the coming into force of the Convention's provisions, including preparing the first session of the Consultative Committee.
3. The Commission should include one representative from each signatory. All decisions should be made by consensus. The Preparatory Commission should remain in existence until the Convention comes into force and thereafter until the first meeting of the Consultative Committee. Its actions must be consistent with the provisions of the Convention.
4. The expenses of the Preparatory Commission should be met as follows (details).
5. The Preparatory Commission should:
  - (a) elect its own officers, adopt its own rules of procedure, meet as often as necessary, determine its own place of meeting and establish such committees as it deems necessary;
  - (b) appoint an executive secretary and staff, who shall exercise powers and perform such duties as the Commission determines;
  - (c) make arrangements for the first session of the Consultative Committee, including preparing a provisional agenda, drafting rules of procedure, and choosing the site; and
  - (d) make studies, reports, and recommendations for the consideration of the Consultative Committee at its first meeting on procedural matters of concern to the Committee which would require immediate attention, including:
    - (1) financing of the activities for which the Committee is responsible;
    - (2) the programs and budget for the first year of the Committee's activities;
    - (3) staffing of the Secretariat; and
    - (4) the location of the permanent offices of the Committee.
6. The Preparatory Commission should submit a comprehensive report on its activities to the Consultative Committee at the Committee's first session.



# CONFERENCE ON DISARMAMENT

CD/501

26 April 1984

ENGLISH

Original: ENGLISH/RUSSIAN

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LETTER DATED 25 APRIL 1984 FROM THE HEAD OF THE HUNGARIAN DELEGATION TO THE CONFERENCE ON DISARMAMENT TRANSMITTING THE TEXT OF THE COMMUNIQUE OF THE MEETING OF THE COMMITTEE OF FOREIGN MINISTERS OF THE STATES PARTIES TO THE WARSAW TREATY, HELD IN BUDAPEST ON 19 AND 20 APRIL 1984

I have the honour to inform you that the Committee of Foreign Ministers of the States Parties to the Warsaw Treaty held a meeting in Budapest on 19 and 20 April 1984.

Herewith enclosed is the text of the communiqué of the meeting in the original Russian language.

I shall be grateful if you would have the text of the communiqué circulated as an official document of the Conference on Disarmament.

(Signed)

David Meiszter  
Ambassador  
Head of the Hungarian delegation  
to the  
Conference on Disarmament

GE.84-61709

**COMMUNIQUE OF THE MEETING OF THE COMMITTEE OF MINISTERS FOR FOREIGN  
AFFAIRS OF THE STATES PARTIES TO THE WARSAW TREATY**

The Committee of Foreign Ministers of the States Parties to the Warsaw Treaty of Friendship, Co-operation and Mutual Assistance, held a regular meeting in Budapest on 19 and 20 April 1984.

The meeting was attended by: P. Mladenov, Minister for Foreign Affairs of the People's Republic of Bulgaria; P. Varkonyi, Minister for Foreign Affairs of the Hungarian People's Republic; O. Fischer, Minister for Foreign Affairs of the German Democratic Republic; S. Olszowski, Minister for Foreign Affairs of the Polish People's Republic; S. Andrei, Minister for Foreign Affairs of the Socialist Republic of Romania; A.A. Gromyko, First Deputy Chairman of the USSR Council of Ministers and Minister for Foreign Affairs of the Union of Soviet Socialist Republics and B. Chnoupek, Minister for Foreign Affairs of the Czechoslovak Socialist Republic.

1. The Ministers undertook a thorough examination of questions connected with the situation in Europe in the wider context of the general international situation.

It was noted that the assessments and conclusions concerning the dangerous development of events contained in the Prague Political Declaration of 5 January 1983 and the Moscow joint statement of 28 June 1983 are fully borne out by the recent course of events. An already tense situation became still more acute owing to the deployment of United States medium-range nuclear missiles which has begun in certain NATO countries, initiating a new and particularly dangerous stage in the nuclear-arms race on the continent of Europe. This forced the Soviet Union to undertake a number of countermeasures. Negotiations on nuclear weapons in Europe were discontinued.

As a result of the escalation of the nuclear-arms race which is taking place and which is consistently opposed by the States Parties to the Warsaw Treaty, the threat of nuclear war with all its catastrophic consequences for mankind and for life on earth itself has rapidly increased. Serious damage has been done to European security. Confidence in relations between States has been undermined.

The putting forward of concepts dangerous to peace which call into question existing frontiers between European States and are aimed against their social structure and other territorial and political realities in Europe, is giving grounds for concern. Relations between States are also rendered more difficult by the introduction of discriminatory limitations on economic links and attempts at external interference in the internal affairs of States.

The increasingly dangerous course of events on the European continent and throughout the world is intensifying the alarm felt among broad strata of the population and reflected in mass anti-war campaigns and movements, as well as among political figures, scholars and doctors. They demand the cessation of the arms race and the implementation of disarmament, particularly nuclear disarmament, co-operation between States in the interests of peace and stability, and a return to a policy of international détente. Leading statesmen from various countries are also speaking out against the policy of confrontation, for the curbing of the arms race and against its intensification.

The peoples of Europe and the whole world are protesting against imperialist policies and insisting that relations between States should be based on respect of independence and sovereignty, the non-use of force or threat of force, the inviolability of frontiers, territorial integrity, non-interference in the internal affairs of other States, equality of rights, and other fundamental principles of inter-State relations.

2. Emphasis was placed at the meeting on the conviction of the States Parties to the Warsaw Treaty that an improvement of the situation and a return to détente call for a dialogue between States on fundamental problems of the preservation and strengthening of peace - a serious and equitable dialogue permeated with a sense of responsibility.

The participants in the meeting also expressed the firm conviction that there are no questions which could not be resolved by negotiations, provided these were conducted on the basis of a constructive approach and of political will to achieve positive results, taking full account of the vital interests of peoples, the interests of peace and international security. This is also borne out by experience of international relations.

The States represented at the meeting are prepared to conduct such negotiations on all questions of ensuring peace in Europe which are of common interest. The negotiations should have as their aim the achievement of agreements based on the principle of equality and equal security.

As the States Parties to the Warsaw Treaty have repeatedly said in the past, they do not seek military superiority and will not allow military superiority over themselves; they are resolutely in favour of ensuring a balance of forces at the lowest levels.

3. The States Parties to the Warsaw Treaty proceed from the fact that questions pertaining to the elimination of the threat of nuclear war and the search of practical ways of putting an end to the arms race and proceeding to disarmament, particularly nuclear disarmament, should occupy the most important place in the present-day political dialogue.

Not considering the present course of events to be irreversible, they emphasize that the question of the reduction of both intermediate-range and tactical nuclear weapons in Europe until their complete elimination can be resolved by constructive and productive negotiations.

The vital requirement for peace and security in Europe under today's conditions is the cessation of the accumulation of new nuclear weapons on the continent. In this connection, the States represented at the meeting insist on the cessation of the deployment in Western Europe of United States intermediate-range nuclear missiles and declare that if such measures, leading to the withdrawal of missiles already deployed, are adopted, steps for the cancellation of countermeasures will be put into effect simultaneously. This will create a basis for the renewal of negotiations with the aim of reaching appropriate agreements to free Europe from nuclear weapons, both intermediate-range and tactical. Not a single possibility, not a single chance must be missed for a resumption of negotiations.

At the same time, participants in the meeting noted the great responsibility of those States in whose territory the deployment of intermediate-range nuclear missiles has begun or is to take place - responsibility for the fate of their

own and all European peoples, for European and universal peace. It is essential that these States in particular should immediately take steps that will ensure the cessation of the deployment of intermediate-range nuclear missiles in their territory and the withdrawal of those missiles.

Inasmuch as the accumulation of nuclear weapons in Europe touches upon interests of the life and existence of all European peoples, the States represented at the meeting consider it exceptionally important that all European States should consistently speak out for the removal of the threat of nuclear war and should actively assist the attainment of this goal. The way to nuclear war in Europe must be barred, and all European States must contribute towards this in some form.

In this connection, the States Parties to the Warsaw Treaty address a special appeal to the States members of NATO to co-operate in the interests of stopping the deployment of new intermediate-range nuclear missiles, the withdrawal of those already deployed, and the implementation of effective nuclear disarmament measures in Europe.

4. Proceeding from the fact that the cessation of the arms race and the transition to disarmament are the fundamental issues of our time, the States represented at the meeting declare their unchanging readiness to conduct negotiations on a wide range of questions which have come to maturity in connection with the curbing of the arms race and the reduction of armaments.

In this context, the participants in the meeting consider it necessary once more to draw attention to the proposal put forward in the Prague Political Declaration of 5 January 1983 for the conclusion of a treaty on the mutual non-use of military force and the maintenance of peaceful relations between the States Parties to the Warsaw Treaty and the States Parties to the North Atlantic Treaty. They also recall the appeals addressed recently by their States to the States members of NATO concerning direct negotiations on the question of freeing Europe from chemical weapons and on the question of the non-increase and reduction of military expenditures.

The States represented at the meeting are ready to embark at any time upon a preliminary discussion with the States members of NATO on questions relating to the preparation and holding of negotiations on all these proposals. They expect a positive and, if possible, prompt reaction to these appeals from the States members of NATO.

They also stress that it has become indispensable for the nuclear-weapon Powers which have not yet done so to undertake to renounce the first use of nuclear weapons. They are in favour of embarking more rapidly upon the businesslike consideration and solution of such important issues as the complete and general prohibition of nuclear-weapon tests; a quantitative and qualitative freeze of nuclear weapons; prohibition of the militarization of outer space and of the use of force in outer space and from space against the Earth; and the complete prohibition and elimination of chemical weapons on a global scale. All the proposals and initiatives on this score put forward jointly or individually by the States Parties to the Warsaw Treaty remain in force. A positive response to these proposals by the NATO countries would represent a concrete manifestation of their interest in ensuring constructive relations, as stated in their Brussels Declaration of 9 December 1983.



The States represented at the meeting also reaffirmed their readiness to study attentively, in a positive spirit, proposals by other countries aimed at reducing and eliminating the threat of nuclear war, halting the arms race, proceeding to disarmament and consolidating international security, and to exchange views on such proposals with all interested States.

In examining the situation at the Vienna talks on the mutual reduction of forces and armaments in Central Europe, the participants in the meeting again drew attention to the new approach proposed by the socialist countries directly participating in the talks, according to which lack of agreement on the question of the present numbers of armed forces would not stand in the way of reaching agreement on their reduction. Taking due account of this approach, and provided efforts are made by all participants in the talks, agreement on a substantial reduction of armed forces and armaments in Central Europe can and must be reached without further delay. The achievement of such agreement under present conditions would exercise a positive effect on the situation in Europe and on prospects of moving towards the curbing of the arms race and the transition to disarmament.

Considering the creation of nuclear-free zones to be a significant step forward towards freeing Europe of nuclear weapons and strengthening confidence, the participants in the meeting reaffirmed their States' position in favour of the creation of such zones in the Balkans, Northern Europe and other parts of the continent. They actively support efforts undertaken in this direction.

The conviction was expressed at the meeting that agreements of importance to international security can be reached at the Conference on Disarmament at Geneva if all participants work towards this end in a persistent and purpose-oriented manner.

5. Considerable attention was devoted at the meeting to the work of the Stockholm Conference on Confidence- and Security-Building Measures and Disarmament in Europe. It was noted with satisfaction that the opening of the Conference, towards whose convening the States Parties to the Warsaw Treaty had made a substantial contribution, had taken place at an appropriate political level commensurate with its importance.

It was further noted that at the first session of the Stockholm Conference an exchange of views was begun on the substance of the problems upon whose solution the work of the Conference should be concentrated, and that proposals and initiatives were put forward. It is important that all participants in the Conference should now make efforts to deepen mutual understanding with regard to those problems and negotiate on specific issues with the aim of reaching effective results. Political will and mutual understanding of this kind are needed if the negotiations are to be as productive as possible.

The States represented at the meeting consider that the Conference should elaborate mutually complementary confidence- and security-building measures which should meet the most acute and urgent needs of present-day Europe and should be directed towards allaying the threat of war and reducing military confrontation. Guided by this, they will, in the course of the work of the Stockholm Conference and in negotiations at the Conference, assist the reaching of agreement on such measures.

They also consider that, following the completion of work on confidence- and security-building measures, the Conference, in accordance with the Final Document of the Madrid Meeting, should proceed without delay to the consideration of measures of disarmament in Europe.

6. The participants in the meeting stressed the unchanging nature of their States' principled course towards the elimination of existing centres of tension and armed conflicts throughout the world and the prevention of new such centres, towards the settlement of all international disputes by peaceful means through negotiations. Solidarity was expressed once more with peoples fighting for freedom, independence and social progress, for economic development and against policies of imperialist aggression, colonialism and racism.

\* \* \*

The meeting of the Committee of Ministers for Foreign Affairs of the States Parties to the Warsaw Treaty took place in an atmosphere of comradely mutual understanding and desire to contribute towards a turn for the better in the development of international events.

The next regular meeting of the Committee of Ministers for Foreign Affairs of the States Parties to the Warsaw Treaty will be held in November 1984 in Berlin.

# CONFERENCE ON DISARMAMENT

CD/502  
6 June 1984

Original: ENGLISH

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LETTER DATED 5 JUNE 1984 ADDRESSED TO THE PRESIDENT OF THE CONFERENCE ON DISARMAMENT FROM THE REPRESENTATIVES OF ARGENTINA, INDIA, MEXICO AND SWEDEN ENCLOSING A JOINT DECLARATION ISSUED ON 22 MAY BY THE HEADS OF STATE OR GOVERNMENT OF ARGENTINA, GREECE, INDIA, MEXICO, SWEDEN AND TANZANIA

The enclosed Joint Declaration issued on 22 May by the Heads of State or Government of Argentina, Greece, India, Mexico, Sweden and Tanzania, deals with matters closely related to those included in the agenda of the Conference on Disarmament.

We are therefore requesting that it be reproduced as a document of the Conference. It is our conviction that its Members will find in the Declaration many ideas which may prove of particular value in our common struggle for ensuring human survival through disarmament and peace

Julio César Carasales  
Ambassador  
Representative of Argentina  
for Disarmament Affairs

M. Dubey  
Ambassador  
Permanent Representative of India  
to the United Nations Office  
at Geneva

Alfonso García Robles  
Ambassador  
Permanent Representative of Mexico  
to the Conference on Disarmament

Rolf Ekéus  
Ambassador  
Permanent Representative of Sweden  
to the Conference on Disarmament

JOINT DECLARATION

By

H.E. Mr. Raúl Alfonsín  
President of Argentina

H.E. Mr. Andreas Papandreu  
Prime Minister of Greece

H.E. Mrs. Indira Gandhi  
Prime Minister of India

H.E. Mr. Miguel de la Madrid  
President of Mexico

H.E. Mr. Olof Palme  
Prime Minister of Sweden

H.E. Mr. Julius Nyerere  
President of the United Republic  
of Tanzania

Issued on 22 May 1984

Annex

JOINT DECLARATION ISSUED ON 22 MAY 1984 BY H.E. MRS. INDIRA GANDHI, PRIME MINISTER OF INDIA, H.E. MR. MIGUEL DE LA MADRID, PRESIDENT OF MEXICO, H.E. MR. JULIUS NYERERE, PRESIDENT OF THE UNITED REPUBLIC OF TANZANIA, H.E. MR. OLOF PALME, PRIME MINISTER OF SWEDEN, H.E. MR. ANDREAS PAPANDREOU, PRIME MINISTER OF GREECE AND H.E. MR. RAUL RICARDO ALFONSIN, PRESIDENT OF ARGENTINA

TODAY, THE SURVIVAL OF HUMANKIND IS IN JEOPARDY. The escalating arms race, the rise in international tensions and the lack of constructive dialogue among the nuclear-weapons States has increased the risk of nuclear war. Such a war, even using part of the present stockpiles, would bring death and destruction to all peoples.

AS LEADERS OF NATIONS, Member States of the United Nations, we have a commitment to take constructive action towards halting and reversing the nuclear-arms race. The people we represent are no less threatened by nuclear war than the citizens of the nuclear weapons States. It is primarily the responsibility of the nuclear-weapons States to prevent a nuclear catastrophe, but this problem is too important to be left to those States alone.

WE COME FROM DIFFERENT PARTS OF THE GLOBE, with differences in religion, culture and political systems. But we are united in the conviction that there must not be another world war. On this, the most crucial of all issues, we have resolved to make a common effort in the interests of peace.

AGREEMENTS WHICH MERELY REGULATE AN ARMS BUILD-UP are clearly insufficient. The probability of nuclear holocaust increases as warning time decreases and the weapons become swifter, more accurate and more deadly. The rush towards global suicide must be stopped and then reversed. We urge, as a necessary first step, the United States and the Soviet Union, as well as the United Kingdom, France and China, to halt all testing, production and deployment of nuclear weapons and their delivery systems, to be immediately followed by substantial reductions in nuclear forces. We are convinced that it is possible to work out the details of an arrangement along these lines that takes into account the interests and concerns of all, and contains adequate measures for verification. This first step must be followed by a continuing programme of arms reductions leading to general and complete disarmament, accompanied by measures to strengthen the United Nations system and to ensure an urgently needed transfer of substantial resources from the arms race into social and economic development. The essential goal must be to reduce and then eliminate the risk of war between nations.

WE WILL DO EVERYTHING IN OUR POWER to facilitate agreement among the nuclear-weapons States. We will continue to keep in touch with one another about the best ways and means of achieving this objective. We will be consulting with the leaders of the nuclear weapons States and with other world leaders as well as pursuing discussions through United Nations channels.

WE AFFIRM OUR BELIEF IN DETENTE AND MUTUAL UNDERSTANDING, with broad international co-operation and respect for the right of each State to a peaceful, secure and independent existence and the right of each people to organize its life according to its own aspirations. There can be no assurance of safety for one side only. That is why we attach such importance to a halt in the nuclear-arms race that allows for renewed talks on nuclear disarmament.

ALL PEOPLE HAVE AN OVERRIDING INTEREST IN COMMON SECURITY and the avoidance of a nuclear war which threatens human survival. Citizens throughout the world are expressing, as never before, their concern for the future; this public discussion of peace and disarmament must continue and increase. The support and encouragement of an informed public will greatly strengthen governmental action to reverse the nuclear-arms race.

WE HAVE FAITH IN THE CAPACITY OF HUMAN BEINGS to rise above the current divisions and create a world free from the shadow of nuclear war. The power and ingenuity of the human race must be used, not to perfect weapons of annihilation, but to harness the resources of the earth so that all people may enjoy a life of security and dignity in an international system free of war and based on peace and justice.

TODAY, THE WORLD HANGS IN THE BALANCE BETWEEN WAR AND PEACE. We hope that our combined efforts will help to influence the outcome.

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# CONFERENCE ON DISARMAMENT

CD/503  
7 June 1984

ENGLISH  
Original: SPANISH

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LETTER DATED 5 JUNE 1984 FROM THE REPRESENTATIVE OF PERU,  
TO THE PRESIDENT OF THE CONFERENCE ON DISARMAMENT  
TRANSMITTING THE TEXT OF A COMMUNICATION ADDRESSED BY  
DR. SANDRO MARIATEGUI CHIAPPE, PRESIDENT OF THE COUNCIL  
OF MINISTERS AND MINISTER FOR FOREIGN AFFAIRS OF PERU,  
TO LICENCIADO BERNARDO SEPULVEDA, MINISTER FOR FOREIGN  
AFFAIRS OF MEXICO, ON 31 MAY 1984

I have the honour to transmit to you the text of a communication addressed by Dr. Sandro Mariátegui Chiappe, President of the Council of Ministers and Minister for Foreign Affairs of Peru, to Licenciado Bernardo Sepúlveda, Minister for Foreign Affairs of Mexico, on 31 May 1984, conveying the fullest support of the Peruvian Government to the Declaration issued on 22 May 1984 by the Heads of State or Government of Argentina, Greece, India, Mexico, Sweden and Tanzania, in which they call on the nuclear Powers to halt and reverse the arms race.

I should be most grateful, Mr. President, if you would make arrangements to have the text of the attached communication circulated as an official document of the Conference on Disarmament.

(Signed) PETER CANNOCK  
Ambassador  
Head of the Delegation of Peru

Lima, 31 May 1984

Sir,

I have the honour to refer to your communication concerning the important declaration issued on 22 May 1984 by Their Excellencies the Heads of State or Government of Mexico, Argentina, Greece, India, Sweden and Tanzania, in which they call on the nuclear Powers to halt and reverse the arms race.

Whether in the United Nations General Assembly, the Committee on Disarmament, the Conference on Disarmament or other international forums, Peru has constantly expressed its serious concern at the increasing tension in the world and at the serious threat posed by nuclear weapons, which, in an extravagance of expenditure and sophistication, are daily being multiplied and refined, draining resources that could very well be directed to meeting the pressing needs of mankind.

Aware of the need for an effort on the part of the entire international community to ward off the latent danger of nuclear war, my country has fully assumed its responsibilities in the maintenance of international peace and security as a State party to the Treaty on the Non-proliferation of Nuclear Weapons and the Treaty of Tlatelolco.

It therefore considers as extremely important the call that has just been made, urging the Governments of the United States, the Soviet Union, the United Kingdom, France and China to halt all testing, production and deployment of nuclear weapons and their delivery systems, to be immediately followed by substantial reductions in nuclear forces.

The danger of a nuclear war, which would affect the entire human race, makes it essential to co-ordinate action to halt and reverse the nuclear arms race — action that requires a radical change of attitude.

In this spirit, I am happy to express to Your Excellency, on behalf of the Government of Peru, the fullest possible support for the initiative taken in the declaration which Your Excellency transmitted to me.

I take this opportunity to renew to Your Excellency the assurances of my highest consideration.

SANDRO MARIATEGUI CHIAPPE  
President of the Council of Ministers  
and Minister for Foreign Affairs of  
Peru

His Excellency Licenciado Bernardo Sepúlveda  
Minister for Foreign Affairs of Mexico



# CONFERENCE ON DISARMAMENT

CD/504

7 June 1984

ENGLISH

Original: RUSSIAN

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LETTER DATED 6 JUNE 1984 ADDRESSED TO THE PRESIDENT OF  
THE CONFERENCE ON DISARMAMENT FROM THE REPRESENTATIVE  
OF THE UNION OF SOVIET SOCIALIST REPUBLICS TRANSMITTING  
THE TEXT OF THE STATEMENT OF THE SOVIET GOVERNMENT OF  
31 MAY 1984 IN CONNECTION WITH THE JOINT DECLARATION  
OF ARGENTINA, GREECE, INDIA, MEXICO, SWEDEN AND TANZANIA

I have the honour to transmit to you the text of the statement of the Soviet Government of 31 May 1984 in connection with the Joint Declaration of Argentina, Greece, India, Mexico, Tanzania and Sweden addressed to the nuclear Powers.

I should be grateful if you would circulate the statement as an official document of the Conference on Disarmament.

(Signed) V. Issraelyan

Representative of the USSR  
to the Conference on Disarmament

## STATEMENT OF THE SOVIET GOVERNMENT

The dangerous development of the situation in the world gives rise to legitimate alarm and concern on the part of peoples. The increasing pace of the arms race and the real danger of its spreading to new areas and escaping control sharply increase the risk of the outbreak of nuclear war. There is a growing understanding in the world, of the need for the adoption of urgent measures to halt the slide towards the fatal brink.

The Joint Declaration which the Heads of State and Government of Argentina, Greece, India, Mexico, Tanzania and Sweden addressed to all nuclear Powers is imbued with an awareness of the responsibility of all States to protect the world from the threat of nuclear catastrophes. The central point of the Declaration is an appeal to halt the further build-up of nuclear weapons, to freeze nuclear arsenals and to take immediate steps to bring about a substantial reduction in such arsenals.

To halt the arms race, to direct it along a descending spiral and to free humanity from the threat of war - it is on this that the efforts of all States, irrespective of their social, political and military status should now be concentrated. That is, indeed, now the question.

On the basis of this problem, the Soviet Union has put forward a specific programme of measures concerning a nuclear-weapons freeze. It includes a whole series of effective and mutually complementary steps. It is essential immediately to reach agreement on halting the quantitative build up of all components of nuclear arsenals, including all types of nuclear-weapon delivery system and the associated munitions, to renounce the deployment of new forms and types of nuclear weapon, to establish a moratorium on all nuclear-weapon tests, and to end the production of fissionable materials for the purpose of creating nuclear munitions. The Soviet proposals have met with understanding and support from the majority of Members of the United Nations.

The ideas contained in the Joint Declaration of six States representing various areas of the world are also along these lines. All of this indicates that the need for such measures has become urgent and that it is keenly felt by all.

Of course, the Soviet Union, like the countries that made the Declaration, does not consider the freezing of nuclear weapons to be an end in itself. It is only the first step on the road towards reducing nuclear weapons to the point where they have been completely eliminated. The Soviet Union has submitted far-reaching specific proposals for a radical lessening of nuclear confrontation - both on a global scale and in Europe - in strict accordance with the principle of equal and identical security. They are well known. These proposals can be translated immediately into concrete agreements as soon as the obstacles to their consideration that have been deliberately created by Washington, which is deploying its first-strike nuclear weapons in Western Europe in the hope of achieving military superiority, are removed.

The Soviet leadership unreservedly adheres to the self same point of view as the authors of the Declaration: nuclear war must not be allowed in any form. The foreign policy of the Soviet Union and its military doctrine are oriented to that end. Prevention of war must become the main goal, a compulsory standard for the conduct of all nuclear Powers irrespective of the size of their nuclear arsenals.

All Powers possessing nuclear weapons should undertake not to be the first to use them. The Soviet Union has already given such an undertaking.

The Powers in question should guarantee that they will not use nuclear weapons against those States that have no such weapons on their territory. The USSR has already given an undertaking on that score too and is prepared to confirm it contractually through the conclusion of multilateral or bilateral agreements.

It is important not to permit any further spread of nuclear weapons to those parts of the world where they do not exist and to set in motion the process for removing such weapons from areas where they are now deployed. As far as the USSR is concerned, it resolutely supports the creation and extension of nuclear-free zones.

It goes without saying that there can be no permitting the penetration of weapons of any kind into outer space. The Soviet Union has, once again, put forward entirely concrete proposals in that regard.

The Soviet Union is firmly convinced that the danger of war can be reduced and then fully eliminated. It has done and will do everything necessary to that end. It is prepared to co-operate in that field with all those who wish to contribute to the genuine reduction of tension and the removal of the threat of war. It is possible and necessary to correct the current abnormal situation in international affairs and revive détente. Those who are preventing this are opposing the interests of all peoples. To overcome the opposition of those forces is the task and duty of all who cherish peace and the future of humanity. The efforts of all States, nuclear and non-nuclear, large and small, must be combined in order to achieve this vitally important goal. The genius and material resources of humanity should be placed in the service of the cause of promoting the progress and well-being of peoples.



# CONFERENCE ON DISARMAMENT

CD/505<sup>1/</sup>  
13 June 1984

Original: ENGLISH

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LETTER DATED 12 JUNE 1984 ADDRESSED TO THE PRESIDENT OF THE  
CONFERENCE ON DISARMAMENT FROM THE PERMANENT REPRESENTATIVE OF  
FINLAND, TRANSMITTING A DOCUMENT ENTITLED "TECHNICAL EVALUATION  
OF SELECTED SCIENTIFIC METHODS FOR THE VERIFICATION OF CHEMICAL  
DISARMAMENT"

I have the honour to transmit to you a document entitled "Technical  
Evaluation of Selected Scientific Methods for the Verification of Chemical  
Disarmament". This study represents a further contribution of the  
Government of Finland to the work of the Conference on Disarmament on  
chemical weapons.

I would appreciate if the study would be circulated as an official  
CD document.

(Signed) Paavo Rantanen  
Ambassador  
Permanent Representative  
of Finland

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1/ A limited distribution of this document in English has been made to  
the members of the Conference on Disarmament. Additional copies are  
available from the Ministry of Foreign Affairs of Finland, Helsinki.

GE.84-62220



# CONFERENCE ON DISARMAMENT

CD/506

14 June 1984

Original: ENGLISH

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## PROGRAMME OF WORK FOR THE SECOND PART OF THE 1984 SESSION OF THE CONFERENCE ON DISARMAMENT

In compliance with rule 28 of its Rules of Procedure, the Conference on Disarmament adopts the following programme of work for the second part of its 1984 session:

- |                       |  |
|-----------------------|--|
| 12-15 June            | Statements in plenary meetings. Consideration of the programme of work and the question of the establishment of additional subsidiary bodies and other organizational questions which will continue to be considered beyond 15 June. |
| 18-22 June            | Nuclear test ban.  |
| 25-29 June            | Cessation of the nuclear arms race and nuclear disarmament.  |
| 2-6 July              | Prevention of nuclear war, including all related matters.  |
| 9-13 July             | Chemical Weapons.  |
| 16-20 July            | Prevention of an arms race in outer space.   |
| 23-27 July            | Effective international arrangements to assure non-nuclear-weapons States against the use or threat of use of nuclear weapons.   |
| 30 July -<br>3 August | New types of weapons of mass destruction and new systems of such weapons; radiological weapons.  |
| 6-10 August           | Comprehensive programme of disarmament.  |
| 13-31 August */)      | Reports of <u>ad hoc</u> subsidiary bodies; organizational questions;  |
| )                     | consideration and adoption of the Annual Report to the   |
| )                     | General Assembly of the United Nations.  |

The Conference will continue consideration of the proposals submitted by members for its improved and effective functioning.

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\*/ The closing date will be decided upon later, but it is presumed that the Conference will adjourn not later than 31 August.

The Conference will consider the selection of additional members in pursuance of paragraph 19 of its report (CD/421).

Meetings of subsidiary bodies will be arranged after consultations between the President of the Conference and the Chairmen of the subsidiary bodies, according to the circumstances and needs of those bodies.

The Ad Hoc Group of Scientific Experts to Consider International Co-operative Measures to Detect and Identify Seismic Events will meet from 30 July to 10 August 1984.

In adopting its programme of work, the Conference has kept in mind the provisions of rules 30 and 31 of its Rules of Procedure.



NORWAY

Working Paper

Seismic Verification of a Comprehensive Nuclear Test Ban:  
Future Directions

1. Introduction

Seismological means of verification would constitute a crucial element in ensuring compliance with a comprehensive nuclear test ban. In recent years, considerable progress has been made in specifying how an international seismic data exchange could be achieved. In particular, the three reports (CCD/558, CD/43 and CD/448) of the Ad Hoc Group of Scientific Experts to Consider International Co-operative Measures to Detect and Identify Seismic Events have provided a valuable contribution in this respect.

Norway has over the years devoted considerable resources to conducting seismological research in areas relevant to CTB verification. The operation of the large-aperture Norwegian Seismic Array (NORSAR) and the associated research activities have formed a key element in these efforts.

This document is a follow-up of two previous working papers (CD/310 of 11 August 1982 and CD/395 of 19 July 1983). It includes a presentation of a new, small-aperture array (NORESS) which is currently under development in Norway and which will incorporate many of the latest technological advances in seismic instrumentation, telecommunication and signal processing techniques.

The present paper also gives an overview over recent efforts to establish methods for rapid international exchange of seismic data under a future CTB, in particular seismic Level II (waveform) data exchange using modern telecommunication technology.

Finally, a review is given of recent research on topics relevant to the detection, location and identification of seismic events. In particular, attention is drawn to some new results which show that the possibilities of detecting seismic signals of very high frequencies are much better than previously assumed. This could have important implications for improved detection of weak seismic events as well as for seismic source identification.

2. The Norwegian Seismic Array (NORSAR)

The NORSAR observatory was established under a co-operative agreement on seismological research between the United States and Norway, and has been in operation since 1970. NORSAR, which is located in south-eastern Norway, is a large aperture seismic array comprising 42 vertical short period and 7 three-component long period seismometers, extending over an area of 60 kilometres

in diameter. The array is situated in a favourable geological area, well removed from major earthquake zones, and its event detection capability is excellent for most of the northern hemisphere.

NORSAR, which currently is one of the world's largest seismological observatories, has throughout its 14 years of operation recorded high quality seismic data in digital form for about 70,000 earthquakes and more than 500 presumed nuclear explosions, and has thus provided a data base of great value for seismological research. A monthly summary of recorded seismic events is regularly distributed to seismological agencies in 25 countries. All data and research results from NORSAR are openly available to the seismological community.

Norway has attached considerable importance to establishing NORSAR as a research facility open to scientists from all countries, and a number of international co-operative research projects have been carried out over the years.

### 3. The Norwegian Experimental Regional Array (NORESS)

Under the co-operative research agreement between the United States and Norway, a new experimental small-aperture array named NORESS is currently under construction in Norway. In contrast to NORSAR, which is primarily designed to achieve optimum performance for seismic events in the so-called teleseismic range (distances 3,000-10,000 km), the purpose of NORESS is to develop methods for detection and location of seismic events at so-called local and regional distances (less than 3,000 km). In a CTB environment, stations of this type would be of particular importance in detecting and locating events too weak to be observed at teleseismic distances. However, preliminary results have shown that such small arrays also hold promise in improving teleseismic detection of high frequency signals.

The NORESS development will incorporate the latest technological advances in seismic instrumentation; telecommunication and signal processing techniques. The array will comprise 21 vertical and 4 three-component short period seismometers deployed over an area of 3 km in diameter. In addition, a three-component broadband seismometer will be installed in a borehole at the centre of the array. The data will be converted to digital form at the recording site with transmission via fiber optic cables to the array centre. From this point, the data are to be further transmitted by a wide-band land line to the NORSAR data centre at Kjeller.

Data from NORESS will be processed in real time at the NORSAR data centre, and stored on magnetic tape for future reference. All data and processed results from NORESS will be made available to the international seismological community. The array is expected to be operational in the fall of 1984.

### 4. International Seismic Data Exchange

Norway has, through contributions by NORSAR scientists, participated actively in the work of the Ad Hoc Group of Scientific Experts on seismic events from its inception in 1976. A number of technical papers have been submitted by Norway toward the Group's three reports. Norway participated in both of the Ad Hoc Group's trial exchanges of seismic Level I data via the WMO/GTS in 1980 and 1981, and will also take part in the planned 1984 experiment, by contributing NORSAR data.

Norway has taken a special interest in the work of the Ad Hoc Group concerning exchange of seismic Level II (waveform) data. Sponsored by the Norwegian Ministry of Foreign Affairs, NORSAR scientists initiated in 1980 a research project to evaluate how modern telecommunications technology could be used to improve the exchange of

such data within a future global CTB verification system. In August 1982 the Norwegian delegation demonstrated for members of the Committee on Disarmament a prototype system developed for this purpose, based on a flexible, inexpensive microprocessor. This prototype has since been developed further, and will eventually include options for handling eight seismometers, real-time signal detection and off-line processing of detected events in the field.

The essence of the system is that both Level I and Level II data would be automatically extracted at the recording site and then temporarily stored. These data can then be retrieved either by a national or international data centre, through the ordinary telephone network or directly via satellite. Emphasis is placed on ensuring nearly real-time access to Level II data since many national investigations reported to the Ad Hoc Group have shown that such data are valuable for improved event analysis at data centres.

In September, 1982 NORSAR invited other seismological observatories to take part in experiments to exchange Level II data through international telecommunications services. Although this has been successfully achieved with several external centres, experience so far has shown that it is essential that national seismological centres contributing to the envisaged global network are equipped with adequate computer facilities. Further efforts to improve this type of data exchange are continuing, not only in Norway, but in many other countries as well.

## 5. Detection and Location of Seismic Events

At NORSAR, considerable research efforts have been devoted to improving the automatic detection of weak seismic events. It is well known that a seismic array can achieve improved detection capability compared to a single sensor station by combining the signals from individual array elements through a "delay-and-add" procedure known as beamforming. Research conducted at NORSAR has shown that further improvements can be obtained by applying special array processing techniques such as envelope beamforming and by assigning different weights to individual sensors in the beamforming process. Significant results have also been achieved in applying a technique known as high-resolution analysis to separate interfering events.

Because of the large geographical extent of NORSAR, it has been possible to study in detail the spatial variations of signals recorded from a given event. Of particular interest to the detection problem is the signal "focusing" effect that is regularly observed. Thus, for any given source region, particular sites within NORSAR can be found where signal detection is much better than average, and the difference in signal strength across the array often amounts to as much as an order of magnitude. The location of these "good" sites within NORSAR varies with the source region.

This focusing effect has been exploited at NORSAR to optimize detection capability for selected regions, and could possibly be applied in a global network by carefully selecting sites to improve teleseismic coverage of regions of special interest.

An array has the capability to provide initial estimates of the velocity and direction of arrival of incoming signals, and can thus be used for seismic phase determination and to give preliminary estimates of the locations of recorded seismic events. Experience from NORSAR has shown that even a large array cannot routinely provide very accurate location estimates, as the error is usually of the order of 50 kilometres or greater. While this precision is generally inferior to that obtained from a globally distributed network for large events, location estimates from arrays become increasingly important at low magnitudes. This is because the

location accuracy of global networks deteriorates rapidly when few stations report an event. In many cases, a sensitive array will provide the only available location estimates, and will thus be instrumental in the search for confirming detections from other stations.

In special cases, arrays can provide location accuracy much better than the average figure. Using NORSAR data, it has been found that information from secondary P-phases observed at distances less than 3,500 km can be used to obtain very precise epicentral distance estimates. Improvements are also possible by utilizing high-frequency signals in conjunction with detailed regional calibration.

Research conducted at NORSAR in preparation for the previously described NORESS array has shown that reliable phase determination and location estimates at short distances can be obtained from an array of very small aperture (diameter 1-3 km). An experiment conducted in this connection gave very small location errors (in many cases less than 10 km) for events within 1,000 km distance from the array. Further improvements should be possible when data from the full NORESS array become available.

## 6. Identification of Seismic Events

In CCD/558 a number of criteria useful in distinguishing between the signals from earthquakes and underground explosions were listed. A substantial research effort has been carried out at NORSAR both in evaluating these discriminants and in further developments. In particular, attention has been focused on surface wave versus body wave magnitude ( $M_s$  vs  $m_b$ ) and on identification criteria based on the observed frequency contents of P-waves.

An important prerequisite for applying many discriminants is to obtain an accurate estimate of the magnitude of a seismic event. Research at NORSAR has demonstrated that event magnitude estimates obtained from seismic networks can be substantially improved by taking into account both the signal level at those stations detecting a given event and the noise level at stations where the signal is too weak to be detected. This is of particular importance for low magnitude events, which of course are of utmost concern in a CTB context.

Methods have also been developed to characterize the P-wave recordings of a seismic event in terms of so-called autoregressive parameter representation. This procedure, which takes into account the character of the entire recorded seismic signal, has given promising results as a discriminant when applied to NORSAR data for seismic events in Eurasia.

Recent studies at NORSAR based upon data from new, high quality instruments have shown that the seismic noise level at high frequencies (up to at least 40 Hz) is much lower than previously assumed, and also that there is significant signal energy for regional events at these frequencies. This could open up new possibilities both in signal detection at regional distances and in seismic source identification using very high frequency signals. These possibilities will be further studied when data from the new NORESS array become available.

## 7. Future Plans

Some important topics for further research and development have already been outlined in this paper. Future Norwegian research efforts will place particular emphasis on improved detection, location and identification of low magnitude seismic events, especially in conjunction with the NORESS developments. An

important part of this is continued efforts in obtaining an improved understanding of the physical processes involved in the release of wave energy from underground explosions and natural earthquakes.

At the same time, further research will be conducted to improve methods for rapid exchange of Level II data in the context of an international seismic data exchange under a future CTB. Of particular importance here is to take advantage of the rapid, on-going developments in computer and telecommunication technology. Coupled with the steadily decreasing cost of data transmission via satellite, these developments will open up new possibilities for improving seismic data exchange under a future treaty.

Norway will continue to encourage and participate in international co-operative research projects, and will also in the future offer the facilities of NORSAR for such undertakings.



NORWAY

WORKING PAPER

Verification of a Chemical Weapons Convention.  
Sampling and Analysis of Chemical Warfare  
Agents under Winter Conditions

Introduction

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A primary objective of the research programme is to focus on the verification issues which would have to be dealt with within the framework of a Chemical Weapons Convention. More specifically, the aim is to establish the possibility of positive verification some weeks after alleged use, and developing a system for selection, handling, transportation and analysis of samples.

The first part of the programme was carried out in 1981/82. The analytical methods and the results were included in a report, which was presented to CD in August 1982, together with Working Paper CD/311. The English version of the report was annexed to CD/311.

The report of the second part of the programme, which was carried out in 1982/83, was presented to CD in July 1983. The English version of the report was annexed to Working Paper CD/396. At the same time Norway submitted Working Paper CD/397 on verification of non-production of chemical weapons.

The present Working Paper is based on the results of the third part of the research programme, which was carried out during the winter 1983/84. The research report is circulated as a separate CD document.

Figure 1

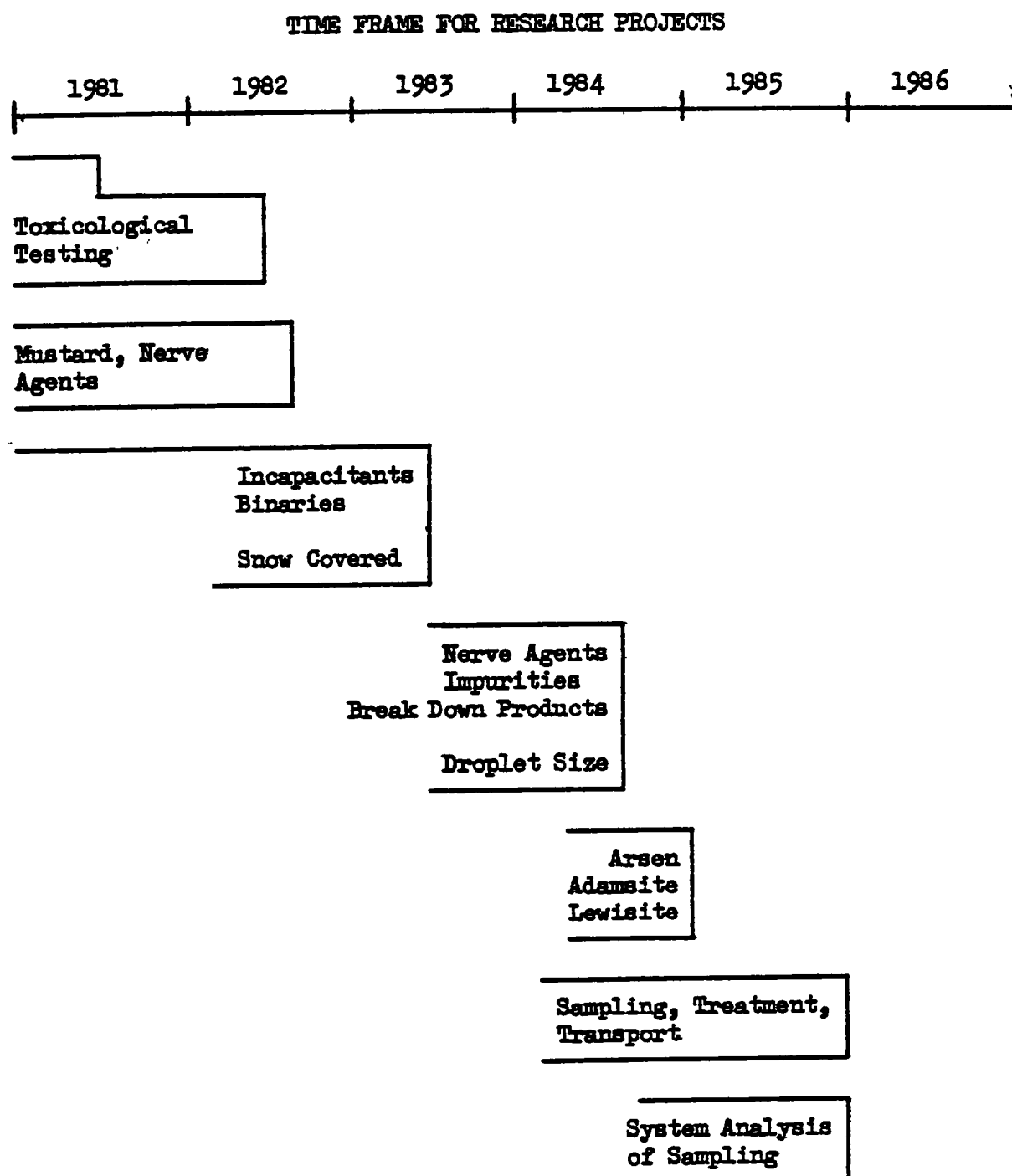


Figure 1 shows the progress of the Norwegian research programme. New factors and chemical warfare agents have been included in the investigation each year to establish complete verification procedures. The examination of sample treatment was started in 1983/84 and will be continued during the winter 1984/85. The main issue of future investigations is planned to be sampling procedures.



## Description of the Research Programme

The research programme is based on experiments carried out under field conditions. This implies that the samples are kept outdoor to deteriorate by exposure to the prevailing weather conditions, such as wind, changing temperature and snowfall. The sample preparation, collection and transportation to the laboratory for analysis have been tested in two practical exercises. The purpose of this has been to compare different procedures in order to find a procedure giving minimal deterioration of the samples.

The first part of the research programme in 1981/82 covered an investigation of representatives of nerve agents and mustard gas, ref. CD/311.

The second part of the programme in 1982/83 comprised a similar investigation, including incapacitating agents and precursors, ref. CD/396.

The agents investigated during the winter 1983/84 were the nerve agents GB and GD, both pure and mixed with 20 per cent of a corresponding diester usually found as a production impurity. In addition to analysis of the two agents, their decomposition products were also analyzed. The experiments with mustard gas included both pure mustard gas (HD) and mustard gas mixed with 20 per cent lewisite (HD + L). In addition to the standard 1 mg droplets samples were prepared using larger droplets (2, 4, 6, 8 and 10 mg). All agents were placed as a single droplet on the top of the snow. To simulate the effect of snowfall after the attack, duplicate samples were covered with 5 cm snow. The samples were collected for analysis after 14 and 28 days.

In order to gain practical experience in the problems of sample collection, sample preparation and transportation of samples, two exercises were carried out in 1983/84. The first exercise took place 100 km west of the main laboratory, whereas the second exercise took place 1400 km north of the laboratory.

The analyses were started by melting the snow samples. The volume of the melted samples varied from 100 to 150 ml. The samples were extracted with chloroform. The methods used for the analyses of the chemical warfare agents were combined gas chromatography/mass spectrometry (GC/MS) with multiple ion detection (MID). The quantitative analysis of the methyl esters of the hydrolysis products of GB and GD and the impurities of GB and GD did not require the high sensitivity of GC-MS and a gas chromatographic method was sufficient for the quantitative analysis.

## Results of the Research Programme

### Decomposition

The results of the analysis of the different groups of snow samples exposed to the prevailing winter conditions show that for the nerve agents GB and GD both the hydrolysis products and the impurities can be found in large amounts after two and four weeks. After four weeks most of the original agents have either evaporated or decomposed. For the diester impurities the recoveries were high, more than 50 per cent of the applied amount. For the decomposition products, the recoveries were slightly lower, generally between 10 and 50 per cent. This is in contrast to the recoveries for the agents themselves. After four weeks GB is present in concentrations about 100,000 times lower than the applied amount. The nerve agents were also applied in increasing droplet sizes to establish any effect on the agent recovery, but no significant effects were found.

For mustard gas, increasing droplet size was postulated to increase both stability and recovery. The results showed a marked increase in recovery with increased droplet size. Larger droplets both evaporate and dissolve in water more slowly. The latter is especially important, as mustard gas is very unstable towards hydrolysis when dissolved in water.

Other experiments on mustard gas were carried out to study the effects of mixing mustard gas with lewisite. These experiments showed an increase in recovery with increased droplet size. The effects were, however, smaller than for pure mustard gas. This may be due to lewisite and its hydrolysis products making mustard gas more soluble in water.

#### Sample preparation and transportation

In order to find the best method of transportation of samples the following methods were used in the two above-mentioned exercises of transporting the samples to the laboratory: on dry ice, in a polystyrene case, in chloroform solution, in water at room temperature and with no precaution.

For the most stable agents, the tear gas agents CN and CS, the results of the analysis of the samples show no significant difference between any of the transportation methods investigated. Recoveries are high and more than 50 per cent of the amount of agent originally applied were found.

For the nerve agent GB and mustard gas there are significant differences between the different methods of transportation. During transportation of sarin (GB), deterioration is negligible if the samples are kept at a temperature below  $-20^{\circ}$  on dry ice. If the samples are kept in water solution near zero, deterioration becomes slightly larger, but it is acceptable when the transportation time is one day or less. The rate of deterioration increases with temperature. In water at room temperature less than 10 per cent is left after one day of storage.

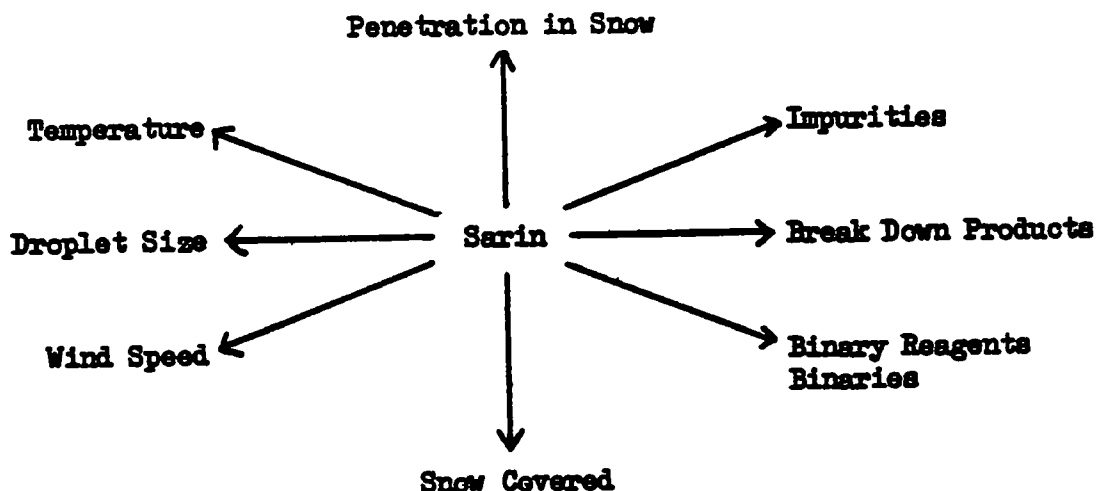
For mustard gas the difference in the results of the various transportation methods are even more pronounced. Samples transported at temperatures below  $-20^{\circ}$  show a slight, but significant deterioration. When the samples were transported at temperatures near zero, about 10 to 20 per cent were present after one day. Without any precaution regarding temperature, only 2 and 9 per cent were still present. After one day at room temperature most of the agent had hydrolyzed, and the concentration had decreased to less than 1/10,000 of its original value.

#### Conclusions

Experiments carried out during the winters 1981/82 to 1983/84 have shown that it is possible to verify use of chemical warfare agents under winter conditions. This can be accomplished by chemical analysis of snow samples at least four weeks after alleged use.

There are many factors that influence the possibility to verify chemical warfare agents. During this research programme an in-depth investigation of the most important factors has been carried out. Figure 2 illustrates the factors investigated, using sarin as an example.

Figure 2



Most agents are sufficiently persistent and stable to be verified as the original agent, but there are also some that are relatively unstable and difficult to verify as the original agent after four weeks. For these hydrolytically unstable agents, the temperature will have strong influence on the amount of agent to be found. In fact, both high temperature and strong wind is unfavourable to positive verification. On the other hand, a snowfall covering the samples reduce evaporation and has a preserving effect on the agents.

To increase the reliability of the verification procedure, methods for analysis of decomposition products and production impurities of some agents have been developed. The experiments carried out during the winter 1983/84 have shown that this extension is very useful in the verification of the unstable nerve agents sarin (GB) and soman (GD). The decomposition products and impurities of both agents are very persistent. They are not known to occur naturally in the environment in significant concentrations, and their presence is therefore a strong indication of the use of the corresponding nerve agents.

Mustard gas has proved to be difficult to verify after four weeks. Increased droplet size of the agent, however, improves the possibility for verification of mustard gas. The reasons for this is that mustard gas dissolves slowly from the droplet surface, and hydrolyses rapidly when dissolved in water. Larger droplets have relatively less surface, and decomposition is retarded. The nerve agent GB is so rapidly dissolved in water that this is not the main factor determining the rate of breakdown of the agent. Increased droplet size is therefore of less importance.

This means that use of selective and sensitive analytical methods, including analysis of decomposition products and production impurities make it possible to verify use of at least the following agents even after four weeks: the physical incapacitating agents CS, CN and DM, the immediate decomposition product of the "didi" precursor, the nerve agents VX, GA, GB, GD and the blister agent HD.

The collection of samples is of particular importance. The penetration of agents down through the snow layers differs from one agent to another, but as they migrate only a few centimeters this difference is of insignificant practical importance. This means that when collecting snow samples it is usually only necessary to take the upper three centimeters of the snow. Additional snowfall will have to be removed before taking the samples.

Sample handling is an important factor in all analyses when samples are to be moved from one place to another, or are to be stored before analysis can be carried out. This is specially important for unstable samples. When the samples are brought to the laboratory, they are extracted with chloroform, and experience has shown that the stability increases when the samples are transferred to this solvent. A good method would therefore be to extract the samples in an improvised field laboratory. The exercises in 1983/84 showed that this was a practical method. The stability of the samples may also be increased by lowering the temperature. The results show that transportation on dry ice induces a minimum of further decomposition, and this method may be as useful as extraction in the field. Both methods have, however, the disadvantage that prior preparation is needed as well as trained personnel. Transportation in a thermally insulated polystyrene box gives high recoveries of sarin (GB) and the tear gas agents CN and CS and satisfactory recovery for mustard gas. When no precautions are taken, the unstable compounds will undergo significant decomposition. Samples of unstable agents should therefore be transported at as low temperature as possible, or extracted into a chloroform solution.

# CONFERENCE ON DISARMAMENT

CD/509<sup>1/</sup>  
19 June 1984

Original: ENGLISH

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LETTER DATED 13 JUNE 1984 ADDRESSED TO THE PRESIDENT OF THE CONFERENCE ON DISARMAMENT FROM THE PERMANENT REPRESENTATIVE OF NORWAY TRANSMITTING A RESEARCH REPORT ENTITLED "VERIFICATION OF A CHEMICAL WEAPONS CONVENTION. SAMPLING AND ANALYSIS OF CHEMICAL WARFARE AGENTS UNDER WINTER CONDITIONS"

I have the honour to transmit to you a research report entitled "Verification of a Chemical Weapons Convention. Sampling and Analysis of Chemical Warfare Agents under Winter Conditions". This research represents a further contribution of the Government of Norway to the work of the Conference on Disarmament in the field of chemical weapons.

I would appreciate if the report would be circulated as an official CD document.

(Signed)

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GE.84-62488



**NORWAY**

**WORKING PAPER**

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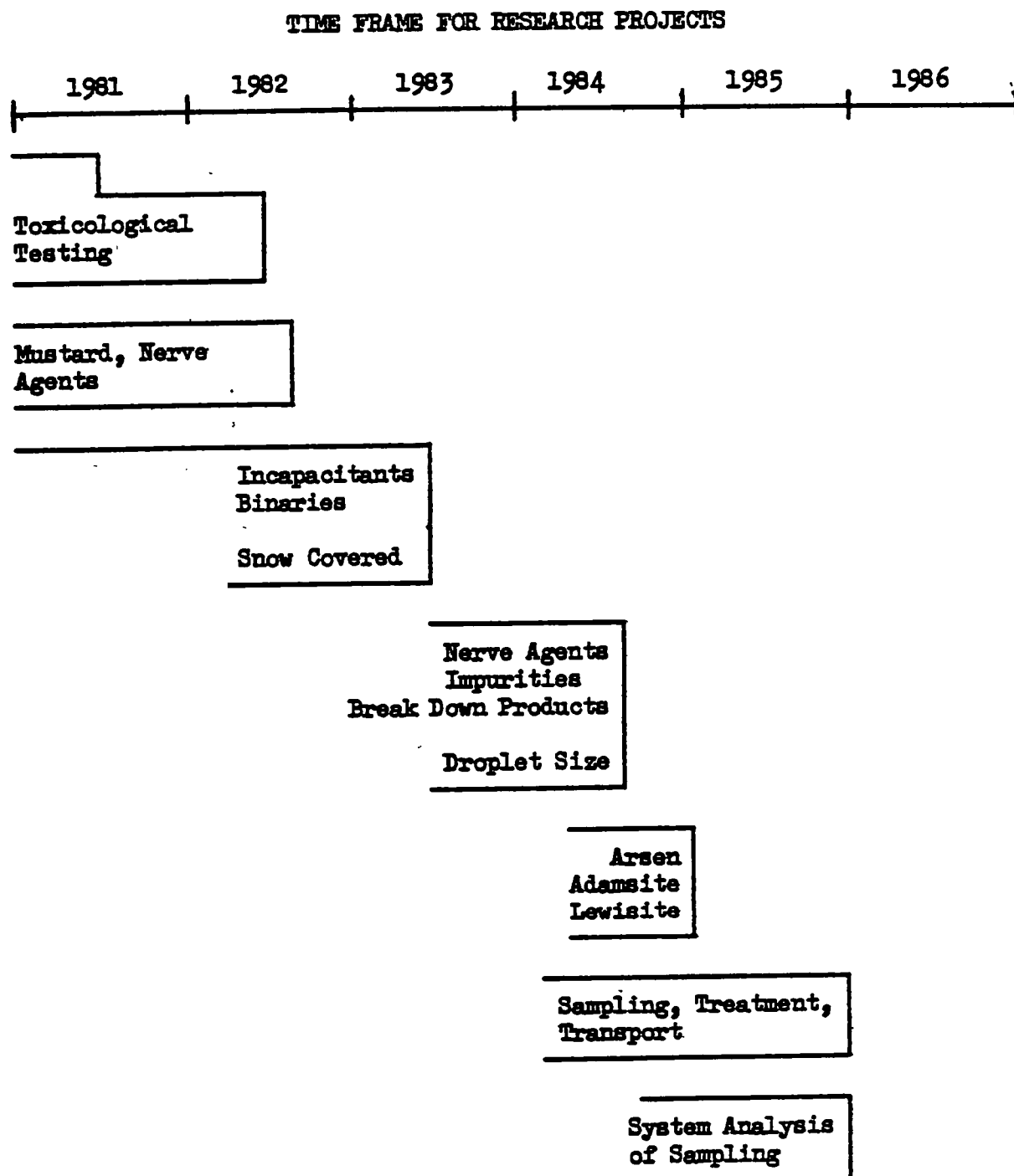


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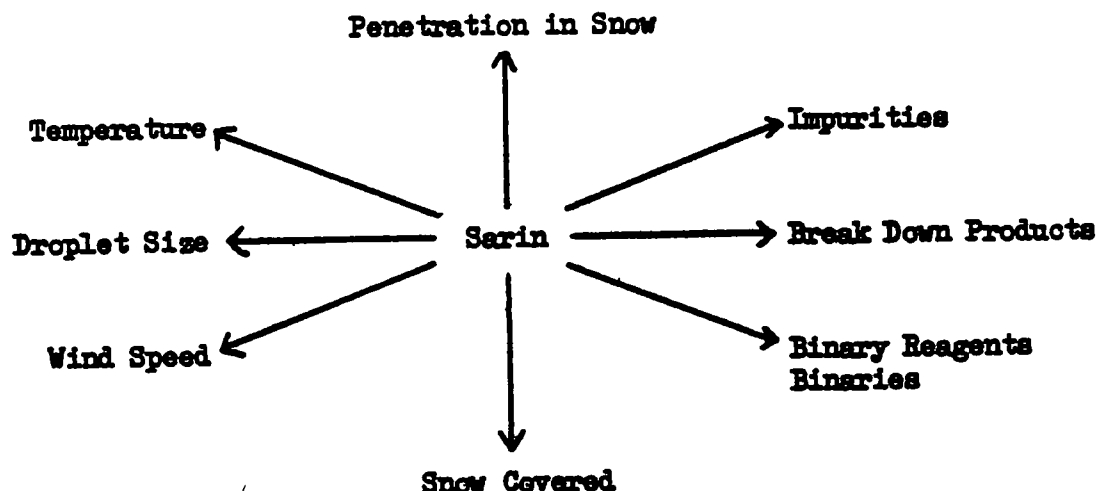
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# CONFERENCE ON DISARMAMENT

CD/509<sup>1/</sup>  
19 June 1984  
Original: ENGLISH

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GE.84-62488



# CONFERENCE ON DISARMAMENT

CD/511

19 June 1984

Original: ENGLISH

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LETTER DATED 13 JUNE 1984 FROM THE PERMANENT REPRESENTATIVE OF FINLAND  
ADDRESSED TO THE PRESIDENT OF THE CONFERENCE ON DISARMAMENT CONCERNING  
RULES 33 TO 35 OF THE RULES OF PROCEDURE

With reference to my letter dated 7 March 1984 concerning the participation of Finland to the various subsidiary bodies of the Conference on Disarmament, I wish to indicate the interest of Finland to participate also in the work of the Ad Hoc Committee on Radiological Weapons and of the Ad Hoc Committee on the Comprehensive Programme on Disarmament.

(Signed)

Paavo Rantanen  
Ambassador  
Permanent Representative  
of Finland





# CONFERENCE ON DISARMAMENT

CD/512

Original: ENGLISH

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LETTER DATED 26 JUNE 1984 FROM THE PERMANENT REPRESENTATIVE OF YUGOSLAVIA  
ADDRESSED TO THE PRESIDENT OF THE CONFERENCE ON DISARMAMENT TRANSMITTING  
THE TEXT OF THE STATEMENT MADE BY THE SPOKESMAN FOR THE FEDERAL  
SECRETARIAT FOR FOREIGN AFFAIRS OF THE SOCIALIST FEDERAL REPUBLIC OF  
YUGOSLAVIA CONCERNING THE JOINT DECLARATION ISSUED ON 22 MAY BY THE HEADS  
OF STATE OR GOVERNMENT OF ARGENTINA, GREECE, INDIA, MEXICO, SWEDEN AND  
TANZANIA

I have the honour to transmit to you the text of the statement made by the  
spokesman for the Federal Secretariat for Foreign Affairs of the Socialist Federal  
Republic of Yugoslavia on 22 June concerning the Joint Declaration issued on  
22 May by the Heads of State or Government of Argentina, Greece, India, Mexico,  
Sweden and Tanzania

I would be most grateful. Madam President, if you would make arrangements to  
have the text of the attached statement circulated as an official document of the  
Conference on Disarmament.

(Signed) Kazimir Vidas  
Ambassador  
Permanent Representative  
of Yugoslavia to the  
United Nations Office at Geneva

STATEMENT MADE BY THE SPOKESMAN FOR THE FEDERAL SECRETARIAT FOR  
FOREIGN AFFAIRS OF THE SOCIALIST FEDERAL REPUBLIC OF YUGOSLAVIA  
ON 22 JUNE 1984 IN CONNECTION WITH THE JOINT DECLARATION ISSUED  
ON 22 MAY BY THE HEADS OF STATE OR GOVERNMENT OF ARGENTINA,  
GREECE, INDIA, MEXICO, SWEDEN AND TANZANIA

In its international action, Yugoslavia has supported, inter alia, all initiatives motivated by the desire to overcome the present alarming state of international relations and to undertake negotiations on substantive issues of peace and security, development and disarmament, nuclear disarmament in particular.

The recent Joint Declaration of the six leading representatives of countries from four continents, aimed at achieving the very goals for which Yugoslavia and other non-aligned countries and all peace-loving forces in the world are consistently fighting, enjoys, therefore, our full support as well.

Finding that the survival of humankind has been jeopardized by the escalating arms race, the rise in international tensions and the lack of constructive dialogue among the nuclear-weapon States, the Heads of State or Government of Argentina, Greece, India, Mexico, Sweden and Tanzania have urged the nuclear-weapon States to halt all testing, production and deployment of nuclear weapons to be immediately followed by substantial reductions in nuclear forces. They have underlined in particular, which we consider very important, that this first step must be followed by a continuing programme of arms reductions leading to general and complete disarmament, accompanied by measures to strengthen the United Nations system and ensure an urgently needed transfer of substantial resources from the arms race into social and economic development. The essential goal must be to reduce and then eliminate the risk of war between nations.

This Declaration signed by President Alfonsín of Argentina, Greek Prime Minister Papandréou, Indian Prime Minister Indira Gandhi, Mexico's President de la Madrid, Tanzanian President Nyerere and Swedish Prime Minister Palme, has been communicated to the nuclear-weapon States and the Secretary-General of the United Nations, because the prevention of nuclear catastrophe is too important a problem to be left to these countries alone. I would particularly like to point out in this connection that the non-aligned countries at their Seventh Summit Conference have also emphasized that the responsibility for the future of mankind should not rest only with a small number of countries, and that there is no alternative to dialogue and equitable co-operation.

Yugoslavia, as a non-aligned country itself, has put forward a number of initiatives and actions in the field of disarmament - such as the initiative to convene the first special session of the United Nations General Assembly devoted to disarmament and the preparation of a Comprehensive Programme of Disarmament - which were aimed at launching the negotiations on the substantive questions of disarmament. In this context, we have always placed special emphasis on the need to resolve all the problems in this field of vital importance for the whole world with the participation of all countries, on the basis of equality, respect for the interests of all countries, and in accordance with the principles of active and peaceful co-existence, within the framework of the United Nations.

We hope that in conditions when world tensions have reached a disturbing level, this initiative of the prominent world leaders would also contribute to the efforts to avert the threat of another world war and create conditions for unhampered development and progress of all.

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## Statement of the Group of 21

1. The Group of 21 is deeply concerned that the Conference on Disarmament, during the first part of its 1984 session as well, has not been able to overcome the impasse confronting it since its first session in 1979, thus, removing the Conference further from the hopes and expectations of the world generated by the Final Document of the First Special Session of the United Nations General Assembly devoted to Disarmament (SSOD I). This impasse has been particularly distressing because the Conference, lacking political will on the part of certain nuclear powers, has not to date made any significant progress in negotiating on items of utmost concern on its Agenda such as Nuclear Test Ban, Cessation of the Nuclear Arms Race and Nuclear Disarmament and Prevention of Nuclear War to which the United Nations General Assembly has accorded the highest priority. As the Group of 21 has repeatedly stated this persistent state of affairs seriously undermines the effectiveness of the Conference as the single multilateral negotiating forum in the field of disarmament.
2. The absence of any significant progress must be viewed against the background of adverse trends in the international situation including, inter alia, an accelerated arms race, intensified re-armament programmes particularly in the nuclear field, the imminence of a major new arms race in outer space and the escalating military expenditure affecting the economic and social situation of all States especially the developing ones. These trends are viewed with deep alarm by the Group of 21 because of their possible consequences for the survival of mankind.
3. The Group of 21 deplures the fact that no consensus has been achieved so far over a negotiating mandate for the renewal of the work of the Ad hoc Committee on Nuclear Test Ban. The Group is firmly convinced that such a mandate should provide for the Ad hoc Committee to "initiate immediately the multilateral negotiation of a treaty for the prohibition of all nuclear-weapon tests" as recommended in UNGA Resolution 38/62.
4. All nations have a vital interest in negotiations on nuclear disarmament because the existence of nuclear weapons in the arsenals of a handful of States and the quantitative and qualitative development of such weapons directly and fundamentally jeopardize the vital security interests of both nuclear and non-nuclear weapon States alike. The Group of 21 reaffirms its conviction that multilateral negotiations on nuclear disarmament have been long overdue and notes with grave concern that, the Conference on Disarmament has failed even to begin serious consideration of item 2 of its Agenda, entitled "Cessation of the Nuclear Arms Race and Nuclear Disarmament".

5. The Group of 21 is convinced that, pending the complete elimination of nuclear weapons, urgent measures are necessary to prevent the outbreak of a nuclear war, which, as rightly stated in the Final Document of SSOD I, is the most acute and pressing task of the present day. There was a clear recommendation of the General Assembly to the Conference on Disarmament in Resolution 38/183 G adopted by an overwhelming majority of member States for urgent negotiations with a view to achieving agreement on appropriate and practical measures for the prevention of nuclear war. The Group of 21 has demonstrated great flexibility in order at least to get a serious discussion on this subject started in the Conference on Disarmament within an Ad hoc Committee. However, all these efforts have so far been in vain.

6. The Group of 21 is gravely concerned at the danger posed by the implications of the recent developments in regard to the arms race in outer space. Unless urgent steps are taken now to prevent the militarization of outer space, it will soon be too late to reverse the trend. Reaffirming its conviction that outer space should be used exclusively for peaceful purposes, the Group of 21 stresses the urgent need to begin within the CD the negotiation of an agreement or agreements, as appropriate, to prevent an arms race in all its aspects in outer space.

7. The Group of 21 wishes to express its satisfaction that the Conference has pursued its negotiating mandate and made progress in the elaboration of a convention on the prohibition of chemical weapons. The Group considers that in view of recent events the Ad hoc Committee on Chemical Weapons should continue the drafting of the convention with the greatest urgency and with a view to ensuring that a draft text of the convention should be submitted in the report of the Conference to the thirty-ninth session of the United Nations General Assembly or as soon as possible.

8. The Group of 21 deeply regrets that negotiations in the Ad hoc Committee on Negative Security Assurances have reached an impasse as a result of the refusal of several nuclear-weapon States to revise their existing unilateral declarations which are partial, conditional and subjective. The Group of 21 therefore urges, once again, the concerned nuclear-weapon States to enable the Ad hoc Committee to proceed to the elaboration of a common formula or common approach acceptable to all to be included in an international instrument as called for by the relevant resolutions of the United Nations.

9. The Group of 21 attaches great importance to the continuation of the work of the Ad hoc Committee on the Comprehensive Programme on Disarmament which it hopes will lead to a successful conclusion as envisaged in UNGA Resolution 38/183/K. It also hoped that progress will be achieved in the negotiations within the Ad hoc Committee on Radiological Weapons.

10. The Group of 21 appeals to all delegations to make sincere efforts to overcome the present impasse in which the Conference is placed by conducting negotiations in accordance with paragraph 120 of the Final Document of SSOD I, taking into account the positions and views of all its members. Failure to do

so will result in world public opinion placing the onus of responsibility on those delegations within the Conference who have either been reluctant to commence negotiations at all or have contributed inadequately to the negotiating process.

11. The Group of 21 pledges to continue to play an active role in the negotiations in the Conference on Disarmament and to contribute towards fulfilling the role of the Conference as the single multilateral disarmament negotiating forum.



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## UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND

### VERIFICATION OF NON-PRODUCTION OF CHEMICAL WEAPONS

1. In a previous paper (CD/353 of 8 March 1983) the United Kingdom delegation made proposals for verification of non-production of chemical weapons including monitoring by routine random inspections of certain sectors of the civil chemical industry in order to ensure that it was not used as a source of agents for chemical warfare. Attention was focused on a list of key precursors for chemical weapons. Delegations were invited to furnish data on the production of these substances by the chemical industries of their own countries. In the light of the replies received and of preliminary discussion of the subject, the present paper suggests a way forward in the consideration of this subject.

2. The list of key precursors annexed to CD/353 had been drawn up during consultations on technical matters by the Chairman of the working group with experts in January/February 1983. In addition to the organic key precursors for nerve agents and for the glycollate incapacitants, the list also contained phosphorus trichloride and phosphorus oxychloride, the inorganic starting materials from which all nerve agents are made. These two substances pose special problems of monitoring because they are manufactured industrially on a large scale (tens of thousands of tonnes per annum in the United Kingdom). When the list of key precursors was drawn up it was widely assumed that apart from phosphorus trichloride and phosphorus oxychloride the key precursors on the list had only modest civil use. It has, however, become clear as a result of discussions of the earlier paper that some of the other key precursors on the list are manufactured to an appreciable extent industrially. For example, dimethylmethylphosphonate (DMMP) is manufactured in quantities of about 1 000 tonnes per annum in the United Kingdom alone. The Delegation of the Federal Republic of Germany has indicated that

methyldichlorophosphine is to be produced industrially for the herbicide glufosinate (CD/CW/CRP.90). - Both of these substances fall into the important category of key precursors having a phosphorus-methyl bond, which have a special importance because of the close relationship of their structure to many nerve agents. The importance of this category of precursors has led to proposals by some Delegations that their manufacture should be banned altogether.

3. The United Kingdom Delegation would not propose to ban the manufacture of any substances with a legitimate civil use. The aim would be rather to monitor their manufacture in a way that provides confidence that there is no production of chemical weapons, and that the manufacture of any relevant precursors can be justified by their civil applications.

4. The verification of non-production would be carried out in co-operation with national chemical industries. In order to minimize the effect on civil industry it is clearly desirable to concentrate monitoring on compounds with fewest peaceful uses, but the application of this criterion should not provide a loophole whereby chemicals produced in industrial quantities which pose a real danger to the stability of the treaty remain unmonitored. It would be in the interests of all parties to the proposed convention to identify chemicals that might be used for the manufacture of chemical weapons and then to devise appropriate monitoring procedures. With this aim a classification of chemicals according to risk is proposed as a basis for further work.

#### Classification of chemicals and precursors

5. The chemicals listed below, be they chemical weapons or their precursors, are classified solely according to risk. It is important to remember that the word "risk" has two interpretations. First of all there is the biological risk (hazard) of poisoning associated with toxic chemicals. In addition there is the perceived risk (threat) to the convention if toxic materials and key precursors are manufactured industrially.

6. For the purposes of verifying the non-production of chemical weapons chemicals are placed in one of two categories according to the risk (hazard) associated with their chemical or toxic properties or according to the risk (threat) they pose to the convention. These two categories would, in the case of chemical agents themselves, correspond with the upper bands associated with the toxicity criteria. Associated with these categories of risk are appropriate verification procedures. Thus not all chemical production will be subject to the same degree or type of monitoring.



## Categories

7. Reasons for including precursors in a particular category and their known civil uses are given in the manner illustrated by the Australian and Netherlands Delegations (CD/CW/CRP.81).

### Category H 1: High risk chemical agents

Verification - regular reporting which will include description/  
justification of the civil uses for which the  
chemical is produced

- routine, random on-site inspection as outlined  
in CD/353

- (a) Supertoxic lethal chemicals, including sulphur mustard
- (b) Other named compounds which warrant similar attention, e.g.  
nitrogen mustards, lewisite and glycollate incapacitants.

### Category H 2: High risk precursors

Verification - as for H 1.

- (a) Chemicals containing one phosphorus-alkyl bond, where  
alkyl is methyl, ethyl or n- or isopropyl

Reason            key precursors for V agents and some G agents  
                  (including binary weapon components).

Civil use:        manufacture of flame retardants, pesticides,  
                  herbicides.

- (b) Di- and tri-methyl/ethyl esters of phosphorous (P<sup>III</sup>)  
acid

Reason:           key precursors for V agents and some G  
                  agents

Civil use:        same as H 2(a) as they are readily converted  
                  into phosphonates (P<sup>V</sup>)

- (c) Pinacolyl alcohol

Reason:           key precursor for G agents of the Soman type

Civil use:        little or none.

- (d) N,N- Diisopropylaminoethyl-2-halides,  
N,N- diisopropylaminoethan-2-ol and  
N,N- diisopropylaminoethane-2-thiol

Reason: key precursors for VX

Civil use: little or none.

- (e) Aryl, alkyl and cycloalkylglycollic acids/esters

Reason: key precursors for psychotomimetic incapacitants listed in H 1(b).

Civil use: pharmaceutical intermediates.

- (f) 2, 2'-dihydroxyethylsulphide (Thiodiglycol)

Reason: key precursor for sulphur mustard

Civil use: anti-oxidant, vulcanizing agent, solvent for textile dyes, synthetic intermediates

- (g) Arsenic trichloride

Reason: key precursor for lewisite

Civil use: preparation of chloroarsines; ceramic industry.

- (h) Other named compounds that warrant this level of monitoring.

Category M 1: Medium risk chemicals

Verification - Regular reporting to include information/data exchange on production statistics.

"Other lethal chemicals" which might be diverted to chemical warfare purposes:

- (a) Hydrogen cyanide (HCN)

Reason: known chemical warfare agent

Civil use: feedstock for polymers, weedkillers, sequestrants, pharmaceuticals manufacture, grain fumigation.

(b) Phosgene ( $\text{COCl}_2$ )

Reason: known chemical warfare agent

Civil use: general chlorinating agent; synthesis of dyes, pharmaceuticals, herbicides, pesticides, resins, polyurethane foams and lacquers.

(c) Cyanogen Chloride ( $\text{CNCl}$ )

Reason: known chemical warfare agent.

Civil use: synthesis of organic compounds; warning agent in fumigant gases.

(d) Other named chemicals that warrant this level of monitoring.

Category M 2: Medium Risk Precursors

Verification as for M 1

(a) Phosphorus trichloride ( $\text{PCl}_3$ )

Reason: precursor for most types of G and V agents.

Civil use: manufacture of phosphorus oxychloride; chlorinating agent; catalyst; textile finishing agent; making intermediates for organophosphorus pesticides; making surfactants, phosphites, gasoline additives, plasticizers and dyes.

(b) Phosphorus oxychloride ( $\text{POCl}_3$ )

Reason: precursor for some G agents

Civil use: manufacture of cyclic and acyclic esters for plasticizers, gasoline derivatives, hydraulic fluids, organophosphorus compounds, chlorinating agent; catalyst; making trichlorophenols and fire retarding agents.

(c) N,N-disubstituted- -aminoethanols ( $\text{R}_1\text{R}_2\text{NCH}_2\text{CH}_2\text{OH}$ )

Reason: precursor for V agents (including binary weapon components).

Civil use: corrosion control; synthesis of fine chemicals, surfactants, ion-exchange resins, oil additives, thickeners and pharmaceuticals.

(d) N,N-disubstituted- $\beta$ -aminoethylhalides ( $R_1R_2NCH_2CH_2X$ ) X = Cl, Br

Reason: precursor for V agents and some psychotomimetic incapacitants listed in H 1(b).

Civil use: paper production, preparation of pharmaceutical intermediates.

(e) N,N-disubstituted- $\beta$ -aminoethanethiols ( $R_1R_2NCH_2CH_2SH$ )

Reason: precursor of V agents.

Civil use: little or none.

(f) Quinuclidinols: 3- and 4-hydroxypiperidines

Reason: key precursors for psychotomimetic incapacitants listed in H 1(b).

Civil use: pharmaceutical intermediates.

(g) Sulphur monochloride ( $S_2Cl_2$ )

Reason: key precursor for mustard.

Civil use: manufacture of lubricating oil additives and agents for cold vulcanization of rubber products.

8. For the G and V agents both the phosphorus and the alcohol or aminoethyl moieties contribute to the character of the chemical agents. This is particularly so for Soman and VX and both moieties have accordingly been listed; namely pinacolyl alcohol and the appropriate N,N- diisopropylaminoethyl compounds respectively.

9. In considering the psychoactive glycollate incapacitants both the amine and glycollic acid moieties contribute to the biochemical action. However such pharmacological activity is not confined to quinuclidinyl or piperidinyl esters of glycollic acids - other amine esters can elicit it. The glycollate moiety is thus considered to be the most important precursor to monitor and placed in category H 2; the heterocyclic alcohols are nonetheless, important for the precise characteristics of these incapacitating weapons and are still included, but in category M 2.

10. Mustard can be prepared by two processes; from thiodiglycol using hydrogen chloride or from ethylene using sulphur monochloride. Hydrogen chloride and ethylene are employed on such a large scale industrially that it would be more logical to monitor the other reaction constituents - thiodiglycol and sulphur monochloride. The route from thiodiglycol is technically easier than the Leivinstein process from ethylene; consequently thiodiglycol is put in category H 2 and sulphur monochloride in M 2.

11. Similarly, of the two precursors for lewisite, arsenic trichloride is produced in a much lower quantity industrially than acetylene and is consequently selected as the precursor to monitor, as an H<sup>2</sup> Key precursor.

12. Quantity of production per se should not be a criterion for rejecting particular compounds for monitoring. But where one precursor of a pair is made in much smaller quantities than the other it could be argued that the prudent action would be to monitor that with the lower production rate. This reasoning has been applied to the compounds in paragraphs 10 and 11.

#### Modifications to the lists of chemicals

13. Any agreed list for the purpose of verification of non-production may need to be modified in the future, by agreement, to take account of technological advances. It would therefore be desirable for the convention to provide for the possibility of amendments to the list through the machinery of the Consultative Committee.

#### Declarations and Verification

14. All states in which any company or organization produces materials in the high and/or medium risk categories on a scale of one tonne or greater should declare:

- (a) Chemical name and formula of the material.
- (b) Name of the company or organization operating the plant in the state making the declaration.
- (c) The full postal address of site where the plant is located together with unequivocal grid references (geographical co-ordinates).
- (d) Whether the chemical is solely for domestic use or for export as well.
- (e) The state(s) to which the chemical is exported (if appropriate).
- (f) Whether the chemical is made in dedicated plant or by a batch process.
- (g) If by a dedicated plant, the maximum annual capacity in tonnes per annum.
- (h) If by a batch process, the weight in tonnes produced in the last calendar year.
- (i) Whether the chemical is stored on site and the maximum storage capacity (tonnes) if it is.
- (j) Whether the chemical is used "on stream".

15. The declarations 14(d) and 14(e) are important because a correlation should be observed between exporting and importing states. States should also declare whether or not any of the materials in the high or medium risk categories are imported in quantities of one tonne or greater by any one company or organisation and whether they are used in that state or re-exported.

Verification and monitoring

16. The need to describe the reason(s) why a compound in the H 1 (high risk chemicals) or H 2 (high risk precursors) should be manufactured for permitted purposes places the responsibility to provide this information on to the manufacturer. However this requirement would also enable the bona fide production of a high risk chemical or key precursor to continue if a legitimate purpose for such a compound were revealed and the manufacturer submitted to an appropriate monitoring scheme.

17. The declarations in paragraph 14 would be made to the appropriate body of the Consultative Committee. The substance in the high risk categories would be subject to stringent monitoring including on-site inspection on a random basis. The same degree of stringency would not be appropriate for the medium risk category. Much could be done by exchanging information and data about the production process with the appropriate organ of the Consultative Committee.

18. While it is important that confidence in the convention should rest as far as possible on routine methods of verification, it would of course be open to any party to the convention to challenge another party suspected of non-compliance with any aspect of the convention, including the provisions on non-production, in accordance with the proposals in the United Kingdom paper CD/431 and other proposals on the table.

Group of 21

Draft Mandate for an Ad Hoc Committee on item 3 of the agenda  
of the Conference on Disarmament

1. In the discharge of its responsibility as the single multilateral disarmament negotiating forum, in accordance with paragraph 120 of the Final Document of SSOD I, the Conference on Disarmament decides to establish an ad hoc Committee under agenda item 3 entitled "Prevention of Nuclear War, including all related matters".
2. The Conference requests the ad hoc Committee, as a first step, to consider all proposals relevant to agenda item 3, including appropriate and practical measures for the prevention of nuclear war. The ad hoc Committee will take into account all existing proposals and future initiatives and report on its work to the Conference on Disarmament before the end of its 1984 session.





# CONFERENCE ON DISARMAMENT

CD/516

13 July 1984

Original: ENGLISH

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## UNITED STATES OF AMERICA

### THE DECLARATION AND INTERIM MONITORING OF CHEMICAL WEAPONS STOCKPILES

#### Introduction

The over-all United States approach to a complete and effective chemical weapons (CW) prohibition is contained in CD/500, "United States Draft Convention on the Prohibition of Chemical Weapons" presented to the Conference on 18 April 1984. The United States approach is designed to give all parties to a chemical weapons convention confidence that other parties are complying with all provisions of the convention and to reduce the risk that violations of the convention could go undetected. A principal means for attaining such confidence involves the initial declaration and subsequent monitoring of CW stockpiles prior to destruction. The purpose of this paper is to stimulate discussion of such monitoring arrangements and to outline in detail the approach contained in our draft convention.

#### Declaration and Inspection of Chemical Weapons Stockpiles

As set forth in the United States Draft Convention, each party would be obliged to declare all chemical weapons stocks (bulk agent and filled munitions) under its jurisdiction or control and the precise location of those stocks. The declarations would include the detailed composition of the stocks at each location, and the chemicals would be declared by scientific chemical name, toxicity and weight. The fraction in munitions would be specified and munitions/devices would be declared by type and quantity. Confidence in the accuracy of these declarations is essential and will be particularly useful for promoting early confidence in the effectiveness of the treaty regime as a whole. For this reason, the United States maintains that any party having CW stocks should be obligated to accept international on-site inspection of its stocks promptly after declaration, on an agreed basis, to confirm that declarations are accurate.

#### International Monitoring of Chemical Weapons Stockpiles

As pointed out by several delegations, chemical weapons stockpiles would continue to pose a security risk until they have been destroyed; thus, the stocks must be placed under effective international monitoring arrangements until the destruction process has been completed.

Monitoring arrangements could in principle take the form of continuous on-site presence of verification personnel or a combination of continuous monitoring by on-site sensors and periodic verification visits by international personnel.

In our view a combination of on-site sensors and periodic on-site visits would be the optimum approach. Under the United States Draft Convention such monitoring could be required for up to ten years.

During the initial confirmatory on-site inspection of declared stockpiles to assure the accuracy of a declaration, an on-site survey would be undertaken at each location to determine which of the agreed types of sensors would be required for monitoring the stocks there, prior to removal for destruction. After emplacement of sensors by international personnel was completed, on-site inspection would be performed to ensure no stocks had been removed from that location since the initial confirmatory inspection.

The types of sensors to be installed would depend on such variables as the type of storage structure, the nature of the structure floor and the climate of the area. (For stocks in open-in storage, temporary storage structures may be required to accommodate sensor emplacement.) Redundancy should be built into the monitoring system to ensure that failure of an individual sensor will not jeopardize the monitoring capability of the system. Similarly a back-up power supply would be needed to ensure that sensors (and the lighting for a TV system) would continue to operate in the event of a power failure. To increase confidence and minimize false alarms, three types of tamper resistant sensors should be utilized:

Point sensors, such as a balanced magnetic sensor, would detect and record -- entries into the storage structure through normally used or available entry points.

Volumetric sensors, such as a motion detecting sensor, would detect the presence of an individual or vehicle within the storage building and ensure against entry gained by defeating the point sensor.

An exterior TV system should be installed so as to permit unobstructed coverage of several bunker or storage structures (actual placement would be determined during the site survey). To minimize equipment problems, the TV cameras would be enclosed in special boxes to protect them from the weather and tampering. Adequate lighting would also be required within the facility. The emplacement of this exterior system should not interfere with the operation of existing exterior security systems.

#### Remote Monitoring of On-Site Sensors

An international verification center (IVC) operated by international personnel could be established at an agreed location (for example, Geneva, Switzerland). Data from each site would be sent, through a location transmitter, to a receiver in the IVC.

The sensor system, including the television camera, would operate 24 hours per day. Transmission of data would only occur, however, when one of the sensors indicated that a storage structure was being opened.

To ensure the integrity of the data, the sensors and cables between the sensors and transmitter would be protected by tamper-indicating devices. Data would be converted from analog to digital form whenever necessary and an "authentication" scheme would be adopted. Data would not be encrypted, but a unique identifier would be added to each group of data points transmitted. This identifying "tag" or signal would be generated by each sensor. Any attempt to alter the data during transmission

could be detected at the IVC since it would cause a mismatch between the expected and received signals. The IVC would also have a capability to make routine checks of the sensor system to ensure that the sensors were functioning properly.

In the event that data from the sensors, loss of power, or a routine system check, indicated some problem, the international personnel would thoroughly and rapidly check the data and the monitoring system to determine whether the anomaly resulted from equipment malfunction or from activities at the storage site. If, after a thorough check, the problem was unresolved, the IVC would be empowered to take immediate action to ascertain the actual situation, including thorough on-site inspection. If the problem was judged due to simple equipment malfunction, expeditious repair would be carried out under agreed procedures.

#### Stockpile and Sensor Maintenance

Agreed procedures would be adopted for routine maintenance of sensors, storage buildings, and bulk agent and munitions in storage. General routine maintenance of stored bulk agent and munitions by host nation maintenance crews could be carried out without interference. Such maintenance would, of course, activate the sensors, alerting the IVC. Advance notification of the maintenance schedule would prevent unnecessary IVC queries and serve as a confidence-building measure. Removal or sealing of leaking munitions and/or bulk agent containers (should it be necessary) could be performed upon detection on an emergency basis, outside the pre-arranged schedule. Visual confirmation of the emergency and actions taken would be received by the IVC through the exterior TV cameras. Periodic exterior checks and maintenance of buildings (such as roof repair) need not be pre-arranged; however, post-notification of these activities would prevent unnecessary IVC queries and serve as a confidence building measure. Maintenance of sensors would be performed only by international personnel on an agreed basis which would provide for unencumbered routine maintenance and emergency repair.

An additional set of agreed procedures would be developed for the removal of stocks from each storage site for transfer to a destruction facility.



# CONFERENCE ON DISARMAMENT

CD/517  
17 July 1984

Original: ENGLISH

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LETTER DATED 4 JULY 1984 FROM THE PERMANENT REPRESENTATIVE OF  
VIET NAM ADDRESSED TO THE PRESIDENT OF THE CONFERENCE ON DISARMAMENT  
CONCERNING RULES 33 TO 35 OF THE RULES OF PROCEDURE

Pursuant to my letter of 9 March and on the basis of my letter of 31 January 1984 addressed to the President of the Conference, I should be obliged if you would agree to my speaking in plenary on the agenda item entitled "Comprehensive programme of disarmament" on 26 July 1984, as I shall have to be away from Geneva as of 30 July in order to take part in the forthcoming General Conference of UNIDO.

I hope that you will be able to respond favourably to this request.

(Signed) NGUYEN THUONG  
Ambassador  
Permanent Representative



FEDERAL REPUBLIC OF GERMANY

Verification of the Destruction of Chemical Weapons

Report on the workshop from the 12th to the 14th of June 1984  
organized by the Government of the Federal Republic of Germany  
in Munster, Lower Saxony

1. The Government of the Federal Republic of Germany organized a workshop for the discussion of problems relating to the verification of the destruction of chemical weapons from 12 - 14 June 1984 at the chemical weapons destruction facility in Munster, Lower Saxony.

It was the purpose of the workshop to which member and observer delegations of the Conference on Disarmament were invited to acquaint these delegations with the procedures used by a destruction facility of chemical weapons and to provide a forum for discussions of all aspects relating to the verification of destruction of chemical weapons. The destruction facility in Munster undertakes to eliminate old stocks of chemical weapons that were found after World Wars I and II.

The recent workshop in Munster followed the tradition of the Federal Government of making particular contributions in the field of verification. In this endeavour the Federal Government has been guided by the intention to develop a concept of verification that establishes a careful balance between the need to maximize the risk factor for anyone who intends to violate the convention on the one hand, and the principle that international verification measures while being effective should be manageable and practical at the same time.

The Federal Government had chosen to devote its 1984 workshop to the verification of the destruction of chemical weapons stocks because it holds the view, that the destruction of stocks deserve a particularly high priority in the

negotiations on a future chemical weapons ban. A threat to use chemical weapons emanates in the first instance from the existence of chemical weapons stockpiles. Furthermore, the Federal Government considers the verification of the destruction of chemical weapons stocks to be a key problem of the entire verification complex of a future CW Convention. If it proves possible to reach agreement on the verification of the destruction of stocks, it should also be possible to agree on the necessary inspections for the other areas of the Convention.

The Workshop on the Verification of the Destruction of Stocks of Chemical Weapons organized by the Federal Government in Munster was attended by 51 participants representing 39 nations. By demonstrating the operations in a plant for the destruction of old chemical weapons from World Wars I and II it was the intention to show how verification measures can be applied and what form they should take.

2. The conclusions drawn by the Federal Government from the workshop in Munster as far as they relate to the negotiations of a total ban on chemical weapons are as follows:

- The requirement of effective verification of the destruction of stocks of chemical weapons can be met only with a monitoring system operating on a continuous basis.
- A continuous monitoring system should comprise a complementary combination of checks by inspectors and monitoring by tamper-proof measuring devices.
- The integration of technical monitoring devices should aim at reducing the number of inspectors required to be present at all times thus diminishing the degree of intrusiveness that inspections can evoke.
- All technical problems relating to the destruction of chemical weapons can be solved with current technology.

3. It is the purpose of the Working Paper to record the results of the Workshop and thus make them available to the participants as well as to those countries not represented in the Workshop. In the following shortened versions of three lectures are provided, namely:

- "Verification of the Destruction of Chemical Weapons under a Chemical Weapons Convention"  
by Professor Dr. Johannes Pfirschke, Federal Ministry of Defence



- "The Use of Optoelectronic Sensors to Support Verification by International Inspectors"  
by Dr. H. Bueker, Nuclear Research Center Juelich, and
- "Application of Mass Spectrometry to Qualitative Analysis of Chemical Warfare Agents in Demilitarisation of CW Agent Supplies"  
by Dr. B. Odernheimer, Federal Armed Forces Defence Science Agency for NBC Protection (WWDBw ABC-Schutz).

**Annexes:**

**"Verification of the Destruction of Chemical Weapons under a Chemical Weapons Convention"**  
by Professor Dr. Johannes Pfirschke, Federal Ministry of Defence

1. There is a general consensus that international verification measures are indispensable in monitoring compliance with a convention prohibiting the development, production and stockpiling of chemical weapons. Such measures should comprise systematic inspections, including on-site inspections, for particularly sensitive elements of the convention as well as on-challenge inspections on special grounds when suspecting that another Party is violating the convention.

There is also a consensus that the destruction of existing stocks necessitates reliable verification, which should include continuous monitoring of the destruction process.

2. An effective system for verifying the destruction of stocks must be equipped in terms of staff, installations and organizational facilities in such a manner that the Consultative Committee or its executive body obtains reliable confirmation of the national declarations on the type and quantity of material to be destroyed and of the actual, complete destruction of the material from the start to the end of the allowed period of destruction. Such confirmation is necessary not least from the point of view of internationally balanced destruction, meaning that during the period of destruction no Contracting Party should derive advantages or disadvantages from the stocks still to be destroyed.

The requirement of effective verification of the destruction of stocks can be met only with a monitoring system operating on a continuous basis.

3. Since a readiness is now generally emerging to allow the constant presence of an international team of inspectors to verify the destruction of stocks, the implementation of the necessary inspection measures is generally facilitated. The continuous monitoring system could comprise a complementary combination of systematic international on-site inspections and monitoring with the aid of secure and reliable measuring instruments.

The operating conditions of a plant should be such that it is possible for the inspector to confirm that the verification requirements of the convention are met with regard to the determination of the declared type and quantity of the material to be destroyed and its actual and complete destruction and that no pathways for diversion exist. For this purpose, a coordinated degree of verification, comparable monitoring procedures with a high degree of accuracy and reliability, and the calibration of sensors and other measuring devices in the presence of the inspector must be agreed on.

4. The workshop which took place in Munster afforded an opportunity to participants, on the basis of the organizational and technical operations involved in destroying stocks of chemical weapons from World Wars I and II, to acquaint themselves with aspects of systematic monitoring from a particular angle.

In working paper CD/CW/CTC 18 of August 1982, it was pointed out in connection with the verification of the destruction of stocks that the inspections and monitoring to be carried out in this incineration plant correspond to national measures prescribed by the authorities for the purposes of operating safety and environmental protection. The inspection facilities of this plant are therefore not to be regarded as a model for international verification measures.

The intention of the workshop was to draw attention to the specific problems relating to the destruction of chemical weapons. We regarded the workshop as an opportunity to present our efforts and experience in the field of the destruction of stocks so as to provide better information and wider knowledge for the elaboration of international verification measures.

On the basis of verbal explanations and visual observation, participants were able to convince themselves that not only the capacity and specific features of the incineration plant but also the heterogeneous composition of the generally highly corroded remaining stocks of chemical weapons of varying, limited quantities preclude a highly technicized, automatic control mechanism for the determination of quantities and identities. In the light of the technical

conditions and operating experience of this plant, the effective, continuous monitoring of the destruction of stocks under a chemical weapons convention requires the constant presence of inspectors.

5. The small size of the overall plant at Munster for the destruction of chemical weapons produced a good overview of technical and organizational procedures in the areas of storage, demilitarization and incineration. This could give participants some ideas for proposals on how to effect combined international inspections of central stores and destruction plants. Several concepts exist which envisage the destruction of stocks in the immediate vicinity of central stores, which means that it would obviously be expedient to combine the inspection measures.

In this context, one can assume that the existing safeguards and monitoring facilities for stores of chemical weapons have attained a similar high level of development in every country. Optimum monitoring will therefore involve numerous technical means designed to prevent unauthorized and unnoticed entry from without and to guarantee safe storage within, observance of transport procedures and early detection of any leaks. It can be assumed that, like the destruction of stocks, the monitoring processes of individual areas can be combined at a central station, which can in turn control the various stations. Joint monitoring of the central store and the incineration plant for chemical weapons by means of systematic international on-site inspections should therefore be possible, provided that certain technical and local requirements are met.

"The Use of Optoelectronic Sensors to Support Verification by International Inspectors"  
by Dr. H. Bueker, Nuclear Research Center Juelich

#### 1. The Principle of the Control System

Within the framework of the Non-Proliferation Treaty, the IAEA has been operating an international control system for nuclear material for many years. Many components of the IAEA control system can be analogously transferred into an international safeguards system for the destruction of CW-Stocks.

In the case of a warfare agent store or destruction facility the principle of material balancing can be applied as follows:

1. A routine check of the store's inventory with respect to the type and quantity of warfare agent must be undertaken at regular intervals. In addition to checking the accountancy, individual projectiles must be selected on a random basis, opened and their content of warfare agent analyzed with respect to type and quantity. If the projectiles are in sealed containers then a check on the seal integrity and integrity of the container walls is sufficient. In this case the book values of the warfare agent contents can be carried over.

2. The type and quantity of the warfare agent taken out of the store under safeguards are registered upon entering the material balance area of the destruction facility - e.g. the intermediate store - first of all as book values.

3. Immediately before beginning destruction random samples are taken from the projectiles taken from the intermediate store or, depending on the number of containers or projectiles, the samples are generally taken and an in-coming analysis is made. The type and quantity of warfare agent being fed into the destruction process is thus known.

4. During combustion the relevant process parameters must be continuously recorded at strategically important points of the facility. This means that the temperature-time and pressure-time profiles should be recorded in the main burn chamber and the evaporation chamber.

5. At the end of the combustion process the inspector can satisfy himself of the completeness of the destruction by a "product analysis".

There are two main groups of instrumentation, which in principle can be used for safeguards systems: measuring instruments and containment/surveillance instrumentations.

To date there are still no tamper-proof measuring procedures which can be integrated into a safeguards system for destruction facilities. Furthermore, incorporation of process instrumentation into the control system represents a serious safeguards problem since the control authority must undertake "independent" verifications which is only possible with the authority's own instrumentation. Apart from being tamper-proof, the operational reliability of the measuring instruments is of great significance. Thus, for example, a slow drift of the measuring instrument calibration can lead to erroneous conclusions on the part of the inspector and thus possibly cause great political problems for the safeguarded state. Moreover, failure of a measuring instrument can lead to

the facility being shut down since the inspector cannot fulfil his control tasks without this instrument. In order to be able to employ measuring systems comparable with the process instrumentation as sensors in a control system considerable development efforts still have to be invested in candidate systems in order to make them sufficiently tamper-proof and operationally reliable.

On the basis of the above description and with regard to the spatial and technical factors, it would appear meaningful here not to undertake controls by means of measuring procedures or with the aid of process instrumentation, but rather by employing containment/surveillance measures.

As indicated above in the case of such a control system it is also especially important that the sensors used - e.g. TV cameras, electronic seals, instrumented containers, pressure load cells, flow meters etc. - are maintenance-free, operationally reliable and tamper-proof. Moreover, the whole system must be designed for fully automatic operation in order to generate control information in a verifiable form by correlating the various sensor signals, thus reducing the inspector's work load as well as minimizing the duration of the inspector's presence in the dangerous sections of the facility. This means that the generation, transmission and evaluation of the control data must be tamper-proof. To put the control authorities in a position to satisfy themselves at all times that no warfare agent is being channelled out of the store or past the extensive and complex combustion facility, the whole control system must be designed on the basis of on-site remote verification. This means that all control information must converge on a central monitoring station, the verification center, which can for example be located in a separate room inside the facility. The on-site remote verification system must be designed in such a way that the safeguards-relevant sensor information can be interrogated individually or in a correlated form at any time, and that an alarm is automatically set off in the central monitoring station in the case of an irregularity. Studies must be made of the most favourable transmission path for the control data from the sensor to the verification center. This has to be done under the aspects of security and cost-effectiveness. Such transmission path may be e.g. the in-plant telephone network, special lines, radio transmission etc.. Furthermore, the whole remote verification system must be designed in such a way that in the case of a line interruption or power failure no control information can be lost so that the "continuity of knowledge" is ensured for the control authority.

## 2. The Control System for a CW-Store

On the basis of the above explanation, a control system for a CW-store could be designed in the following way:

The whole store is regarded as one material balance area. The control system must ensure that no CW-container brought into the store can leave it again clandestinely. Furthermore, it must also be guaranteed that no container can be opened in the store and the warfare agent removed without this being registered. Safeguarding the store would then be restricted to so-called "item counting". This means that during an inspection it would only have to be checked whether all declared containers were still present and that no container had been opened or its walls damaged.

A control system supplying this information in a tamper-proof manner can be implemented relatively rapidly. This merely requires the utilization of some electronic seals and, depending on the application (size of the container), some geometrically suitably designed transport or storage containers which are automatically and continuously monitored with respect to their opening status and the integrity of their shell. An on-site or local remote verification system connected to all the seals and containers is also required. All safeguards-relevant information converge via this system in a control room (verification center) where the inspector sits.

## 3. The Control System for a CW-Destruction-Facility

A control system for a CW-destruction-facility (combustion facility) can be approximately outlined as follows:

The combustion facility, including the intermediate store, is regarded as one material balance area. It must be ensured that all warfare agent containers brought into this MBA either end up in the intermediate store or in the evaporation or burn-out chambers. If this can be established in a verifiable form and it can moreover be proved that the warfare agent containers brought into the evaporation chamber also reach the burn-out chamber and have there been heated to 1200°C for a certain period so that all the warfare agent is definitely evaporated then this thus documents that the warfare agent has reached the actual main burn chamber. By providing evidence of simultaneous burner operation and the intactness of the hot gas tubes from the evaporation and burn-out chamber to the main burn chamber, destruction of the warfare agent brought in can be conclusively proved.

Monitoring the destruction of liquid warfare agents can be carried out analogously. However, in this case suitable sensors - e.g. flow meters - must be installed in the warfare agent tube to document in a verifiable manner that the tube feeds warfare agent into the main burn chamber during burner operation.

Safeguarding the intermediate store is implemented as described in the previous chapter.

From the set-up of the control system outlined above it can be seen that no complicated physical or chemical measuring systems are required at any point. Moreover, data from the control system are not influenced by operational stoppages or similar events. Accordingly, the control system does not influence the actual process sequence.

The inspector of the international control authority sits in the in-plant verification center where he has direct access to all safeguards-relevant data and thus, as far as necessary, to all process data to be supplied by the operator.

The realization of this system requires the utilization of several electronic seal systems and monitoring cameras, several sensors for recording the direction of movement of the furnace loading cars, several flowmeters, one or more monitorable transport containers for transporting the projectiles or the warfare agent containers to the intermediate store, monitorable storage containers in the intermediate store - these could be the transport containers - as well as an in-plant remote verification system connected to all the sensors.

#### 4. The Components of the Control System

##### 4.1 The Optoelectronic Sensors

###### 4.1.1 The electronic seal system VACOSS-3

The electronic seal system VACOSS-3 consists of three components: the seal itself with a light guide as the "seal wire" and the adapter-boxes I and II. Each of these components is equipped with a microcomputer. The seal stores up to 10 opening and closing events, the current status of the light guide, the battery status and the status of the seal casing, i.e. whether it has been opened or not. Opening and closing times of the light guide circuit are stored together with the date and time. Attempts to manipulate the seal casing are also recorded.

The seal is initialized (i.e. activated) by the adapter-box I. The memory contents of the seal will be interrogated with this box, too. All the data are then shown in decoded form on the adapter-box-display. This is therefore the instrument with which the inspector can verify the statuses of the individual seals when he goes through the facility.

Adapter-box II has basically the same task as adapter-box I; but it only reads out all the seal data in encrypted form and does not permit to initialize the seal. It is intended for "manual" remote verification of the seal with the aid of the facility operator in that the control authority rings him up and asks him to read out the data from the seals and to inform the authority by telephone of the coded data appearing on the display of the adapter-box. The authority can decode the data with the aid of adapter-box I and thus verify the seal status. The coded information appears on the display in the form of 16 alpha-numeric characters.

The seal can either be initialized in-situ or in the control authority's headquarters. Every 250 ms it automatically checks the light guide circuit. The time resolution of opening and closing events is approximately 1 min. Up to 10 such events can be stored in the seal.

Up to 255 seals can be connected simultaneously to one adapter-box with a four-wire "party-line" and also individually interrogated by this means. The seal number programmed into each seal is the individual address by means of which it is dialed by the adapter-box.

#### 4.1.2 The Transport-Container ELCODRUM-I

The transport-container ELCODRUM-I (Electronically Controlled Drum) represents a technological advancement in the optoelectronic sensor principle which first became ready for application with the development of VACOSS-3. This is a container where both the opening status as well as the integrity of its whole surface can be automatically verified at any time in a tamper-proof manner. The central component of the container is a VACOSS-3. The container is composed of an outer and an inner drum, which are open at the top. An unsheathed light guide 125  $\mu\text{m}$  in diameter is positioned in the space between the two drums. When the drum is closed, the light guides of the container and the lid are automatically linked with each other by means of internal connector plugs and connected to the VACOSS-3. This produces a closed light guide circuit covering the entire container surface.



The spaces between the two drums and the two layers of the lid are foamed with polyurethane.

If several containers are involved, then they can be interconnected via a "party-line". The status data of each container can then be interrogated individually from one location by means of an adapter-box. In addition, control commands such as recalibrating the time, setting the counters to zero, initializing the seals etc. can be transmitted from this location to each individual container.

#### 4.1.3 The Other Sensors

Further sensors in the automatic monitoring system discussed here for CW-combustion-facilities are, in addition to monitoring cameras, also temperature sensors, flowmeters and electronic load cells and pressure transducers. These sensors are all currently commercially available and operate with high reliability. In order to integrate them into the verification system discussed here, however, they still have to be equipped with a microcomputer-based "universal interface" which converts the monitoring and status data supplied by the sensor in such a way that they can be transmitted in encrypted form to the sub-station and evaluated by it.

#### 4.2 The Local Remote Verification System

For the instrumented monitoring of CW-stores and facilities for destroying CW-stocks a number of optoelectronic sensors has to be installed in every facility. A suitable on-site or local remote verification system is required to maintain continuous, automatic monitoring. The system serves to monitor a large number of sensors operating on the basis of the VACOSS-3 system. An in-plant verification center is located inside the facility where all information converges. This station is equipped with a computer (CPU) which handles the data evaluation and the control of the sensors. In addition to this central processor unit (CPU) the system also has satellite processor units (SPU) located decentrally in the individual sections of the facility, e.g. in the individual buildings. The satellite processor units are connected to the sensors of each section of the facility via a "party-line". Communication between the central processor unit and the decentralized satellite processor units, the so-called sub-stations, is effected via the normal in-plant telephone system or via dedicated lines. Up to 255 sensors can be connected to each sub-station.

The current status of the individual sensors, the verification-relevant correlations of their data as well as the status of the whole system are continuously recorded and can be interrogated by an inspector in the in-plan verification center at any time. As can be seen from the preceding description, the local remote verification system is structured hierarchically and consists of three levels: central station, sub-station, sensor.

In order to prevent data transfer between the various levels being manipulated it takes place in an encrypted form. This means that the data lines used do not have to be especially secured, i.e. the normal in-plant telephone system can for example be used.

#### 5. Concluding Remarks

An automatic monitoring system to support international inspectors in verifying the destruction of CW-stocks seems to be realizable on the basis of containment and surveillance methods. This can be done with technologies currently available. Such a verification system will make safeguarding of the facilities considerably simpler and more effective. This will enable to reduce the number of inspectors continuously present. The development and implementation of this control system can be carried out in a relatively short period of time and does not require any extensive design changes of existing facilities.

"Application of Mass Spectrometry to Qualitative Analysis of Chemical Warfare Agents in Demilitarisation of CW Agent Supplies"  
by Dr. B. Odernheimer, Federal Armed Forces Defence Science Agency for NBC Protection (WWDBw ABC-Schutz)

1. For more than two decades, mass spectrometry (MS) has been well-established as a versatile and extremely powerful method routinely applied to qualitative and quantitative analysis of a large variety of materials, including toxic organic chemicals. As part of a verification system in demilitarisation plants, a computerised MS system with automated sampling device and combined with a simplified gas chromatographic (GC) system for sample pre-separation will meet all of the requirements essential for qualitative verification. It meets the requirements of specificity, flexible selectivity, adequate sensitivity and speed as well as automation and reliability. Furthermore, the mass spectrometric data of all CW agents stockpiled in various countries, including major decomposition products or by-products, solvents and stabilisers, as well as large libraries of other mass spectra, are available.

2. Qualitative as well as quantitative information of the composition of war gas mixtures, whether they are liquids or vapours, is obtained from representative samples taken permanently or at certain pre-programmed intervals as small portions out of the process line prior to incineration. With the option of either a continuous real-time monitoring, or a discontinuous mode of sample pick-up and analysis using a simplified gas chromatographic system for pre-separation, a very flexible and effective tool is provided for easy inspection of the materials transferred to the incineration chamber. Analytical data can be automatically stored and combined with date and time of analysis, flow rates, temperatures or any other data relevant for inspection.

The sensor system consists of a one-stage membrane separator for enrichment, sample introduction and pressure reduction, combined with a high vacuum tight valve; a dual electron impact ioniser for ion production; a rugged quadrupole mass filter for ion separation with a mass range of 1-400 atomic mass units, and a secondary electron multiplier connected with a highly sophisticated digital amplification system, which has a dynamic range of seven orders of magnitude. The ultra high vacuum required for operation is provided by an ion getter pump. No mechanical pump is needed. With the inlet valve closed, the vacuum inside the sensor recipient is maintained for months, when the mass spectrometer is switched off. The system is fully micro-processor-controlled and analytical data are automatically displayed, documented and stored.

3. The commercial system demonstrated during the workshop has been developed for mobile environmental survey and rapid point analyses of contamination in the air, in water and on the ground. Therefore, certain modifications would be necessary according to requirements that would have to be worked out and specified in detail for the application in the field of verification.

A MS or GC-MS identification system dedicated to that purpose can be developed at moderate costs using state-of-art technology. The particular analytical problem does not require the MS sensor to perform at maximum sensitivity as normally specified. Main features of the system will have to be specificity and a high degree of automation and reliability with minimum of down-time for maintenance.



# CONFERENCE ON DISARMAMENT

CD/519  
18 July 1984

Original: ENGLISH

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LETTER DATED 16 JULY 1984 FROM THE PERMANENT REPRESENTATIVE OF THE ISLAMIC REPUBLIC OF IRAN ADDRESSED TO THE PRESIDENT OF THE CONFERENCE ON DISARMAMENT TRANSMITTING THE TEXT OF THE RESPONSE OF HIS EXCELLENCY SEYYED ALI KHAMENEI, PRESIDENT OF THE ISLAMIC REPUBLIC OF IRAN, TO A MESSAGE OF THE SECRETARY-GENERAL OF THE UNITED NATIONS

I have the honour to refer to the message of the Secretary-General of the United Nations, Mr. Perez de Cuellar, to my Government and to the Government of Iraq, requesting a solemn commitment not to use chemical weapons of any kind for any reason in the course of the war imposed on my country. My Government, in pursuit of its policy of respect for the 1925 Geneva Protocol, immediately communicated its positive response to the Secretary-General, a copy of which is attached for your kind consideration.

It would be deeply appreciated if the attached response of His Excellency Seyyed Ali Khamenshi, President of the Islamic Republic of Iran, to the Secretary-General of the United Nations, could be printed and distributed as an official document in the Conference.

(Signed) Nasrollah KAZEMI KAMYAB  
Ambassador  
Permanent Representative

GE.84-63959

In the Name of God, the Almighty

Excellency,

I acknowledge the receipt of your message about terminating the use of chemical weapons in the course of the war imposed on Iran by Iraq. His Excellency is fully aware that, despite the fact that the Iraqi Regime, in contravention of all international norms and conventions, has resorted to extensive use of chemical weapons against our forces, the Islamic Republic of Iran has never indulged in reciprocal measures. The Islamic Republic of Iran categorically opposes any resort to their use.

Although Iraqi use of chemical weapons drew widespread international condemnation, the United Nations Security Council, in continuation of its partial and unfair policy, chose to adopt the same position as it had previously in the case of the destruction of civilian areas. Unfortunately, this position was adopted even in the case of the disruption of security in the Persian Gulf by Iraq.

Notwithstanding this bitter fact, the Government of the Islamic Republic of Iran, out of respect for the United Nations Charter as well as His Excellency's recent proposals and also in order to reaffirm its good faith, welcomes your appeal and declares that it is willing and ready to continue its policy not to use chemical weapons.

However, I deem it necessary to express once again our total lack of faith in the commitments undertaken by the Iraqi Regime. The claim as to the concentration of military forces in civilian areas (civilian population centres) is merely an excuse for the bombardment of these areas. These acts justify our lack of faith in the Iraqi Regime's reliability. The situation requires His Excellency's vigilance and firmness.

With my best regards, Seyyed Ali Khamenei, President of the Islamic Republic of Iran.

# CONFERENCE ON DISARMAMENT

CD/520  
19 July 1984  
Original: ENGLISH

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## GROUP OF 21

### Draft mandate for the Ad Hoc Committee on a Nuclear Test Ban

The Conference on Disarmament decides to establish for the remainder of its 1984 session an ad hoc Committee on a Nuclear Test Ban to initiate the multilateral negotiation of a treaty for the prohibition of all nuclear-weapon tests and report to the Conference on the progress of its work before the conclusion of the session.

Pursuant to its mandate, the ad hoc Committee on a Nuclear Test Ban will take into account all existing proposals and future initiatives. In addition, it will draw on the knowledge and experience that have been accumulated over the years in the consideration of a comprehensive test ban in the successive multilateral negotiating bodies and the trilateral negotiations. The ad hoc Committee will also take into account the work of the ad hoc Group of Scientific Experts to Consider International Co-operative Measures to Detect and Identify Seismic Events.

GE.84-64012





# CONFERENCE ON DISARMAMENT

CD/521  
20 July 1984

Original: ENGLISH

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AUSTRALIA, BELGIUM, CANADA, FEDERAL REPUBLIC OF GERMANY, ITALY,  
JAPAN, NETHERLANDS, UNITED KINGDOM, UNITED STATES OF AMERICA

Draft Mandate for the Ad Hoc Subsidiary Body on Item 1 of the Agenda  
of the Conference on Disarmament entitled "Nuclear Test Ban"

In the exercise of its responsibilities as the multilateral disarmament negotiating forum in accordance with paragraph 120 of the final document the Conference on Disarmament decides to re-establish an Ad Hoc Committee under item 1 of its agenda entitled "Nuclear Test Ban".

The Conference requests the Ad Hoc Committee to resume its substantive examination of specific issues relating to a comprehensive test ban, including the issue of scope as well as those of verification and compliance with a view to negotiation of a treaty on the subject.

The Conference also requests the Ad Hoc Committee to examine the institutional and administrative arrangements necessary for establishing, testing and operating an international seismic monitoring network as part of an effective verification system.

The Ad Hoc Committee will take into account all existing proposals and future initiatives, and will report to the Conference on the progress of its work before the conclusion of the 1984 session. The Conference will thereafter take a decision on subsequent courses of action with a view to fulfilling its responsibilities in this regard.



# CONFERENCE ON DISARMAMENT

CD/522  
20 July 1984

Original: ENGLISH

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## Draft Mandate for an Ad Hoc Committee on item 1 of the agenda of the Conference on Disarmament submitted by a group of socialist States

"The Conference on Disarmament decides to establish for the remainder of its 1984 session, and Ad Hoc Committee to carry out practical negotiations with a view to elaborating a treaty prohibiting all nuclear-weapon tests, taking into account all existing drafts, proposals and future initiatives. The Ad Hoc Committee will report to the Conference on Disarmament on the progress of its work at the end of its 1984 session."



# CONFERENCE ON DISARMAMENT

CD/523  
20 July 1984  
Original: ENGLISH

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Draft Mandate for an Ad Hoc Committee on item 2 of the  
agenda of the Conference on Disarmament submitted by  
a group of socialist States

"The Conference on Disarmament decides to establish, for the remainder of its 1984 session, an Ad Hoc Committee for negotiations to begin the elaboration of practical measures for the cessation of the nuclear-arms race and for nuclear disarmament in accordance with paragraph 50 of the Final Document of the first special session of the General Assembly devoted to disarmament, including a nuclear-disarmament programme. The Ad Hoc Committee will report to the Conference on Disarmament on the progress of its work at the end of its 1984 session".



## WORKING PAPER BY JAPAN

### STEP-BY-STEP APPROACH TO A COMPREHENSIVE TEST BAN

1. It goes without saying that an early cessation of all nuclear testing is an important step toward the final goal of general and complete disarmament. A comprehensive test ban will be a very effective instrument to curb both horizontal and vertical nuclear proliferation.

A long history of negotiation on this subject, however, seems to indicate that complicated interactions between political, strategic, technical and other factors are at work around this subject. Quick and easy solution and agreement has unfortunately not been possible so far. It must also be admitted that prospects for it to become reality in the immediate future are not particularly bright. If that is the case, steps should be taken as soon as possible to overcome difficulties and enter into the process leading to the desired goal.

2. On 12 June, Mr. S. ABE, Minister for Foreign Affairs of Japan, submitted the following proposal in his statement at the plenary meeting of the Conference on Disarmament:

"If a CTB cannot be achieved at one stroke, we should make an in-depth study on a second best measure, namely, a step-by-step formula, under which underground nuclear test explosions of a yield now considered technically verifiable on a multinational basis will be taken as the threshold, and an agreement will be reached on banning test explosions overstepping this threshold, and then the threshold will be lowered, by improving the verification capability itself".

This proposal does not claim to realize a comprehensive test ban in a single step, but to go through realistic steps to get there. At least in the present circumstances, it would be the most realistic approach to make a breakthrough in the stalemate that seems to prevail in our deliberations on this subject and to bring us ever closer to our goal.

3. Japan sincerely expects that an Ad Hoc Committee on a Nuclear Test Ban will be established as soon as possible. We wish also that this step-by-step approach will be taken up there for favourable consideration.

4. One key issue of difficulty with the prohibition of nuclear testing has been the establishment of a verification system which can convincingly persuade all concerned and give assurance that all and any violation will be promptly detected.

Pending an agreement on a comprehensive test ban, a full measure of co-operation must be undertaken on the establishment of a multilateral verification system and on its continued improvement.

5. For the purpose of implementing the step-by-step approach and establishing a multilateral verification system at an early date, it will be advisable to take up two important aspects of the problem:

The first step is the determination of a "threshold", the magnitude of nuclear explosion which is at present multilaterally verifiable on the basis of existing multilateral capabilities.

The second step is the search for methods of co-operation between States for improvements of such capabilities in order to bring down gradually the level of threshold.

Simultaneously with these exercises it will also be advisable to start discussions on an institutional mechanism to put the whole process into operation.

6. The technical portion of the above-mentioned exercises may most appropriately be assigned to the Ad Hoc Group of Scientific Experts to consider International Co-operative Measures to Detect and Identify Seismic Events which has already been making significant contributions in this context. In particular, we are convinced that the experience gained from technical tests of the Group relating to the international seismic data exchange can play a very important role in examining the extent of multilateral verification capabilities.

Also the importance of the national technical means must be fully recognized in supplementing and making contribution to the multilateral system.



# CONFERENCE ON DISARMAMENT

CD/525

25 July 1984

Original: ENGLISH

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## PROGRESS REPORT OF THE AD HOC COMMITTEE ON THE COMPREHENSIVE PROGRAMME OF DISARMAMENT

### I. INTRODUCTION

1. At its 245th plenary meeting, on 28 February 1984, the Conference on Disarmament decided to re-establish an ad hoc subsidiary body on the Comprehensive Programme of Disarmament to renew, as soon as the circumstances were propitious for that purpose, its work on the elaboration of the Programme with a view to the submission to the General Assembly, not later than at its forty-first session, a complete draft of such a Programme. The Conference further decided that the ad hoc subsidiary body would report to the Conference on the progress of its work before the conclusion of its 1984 session, in order that the Conference may be in a position to submit to the General Assembly the progress report requested in resolution 38/183 K. The term "ad hoc subsidiary body" was used pending a decision by the Conference on its designation.

2. At its 248th plenary meeting, on 8 March 1984, the Conference on Disarmament decided to designate the ad hoc subsidiary body as "Ad Hoc Committee".

### II. ORGANIZATION OF WORK AND DOCUMENTS

3. At its 266th plenary meeting, on 21 June 1984, the Conference on Disarmament appointed Ambassador Alfonso García Robles (Mexico) as Chairman of the Ad Hoc Committee. Miss Aida Luisa Levin, United Nations Department of Disarmament Affairs, served as Secretary of the Committee.

4. The Ad Hoc Committee held two meetings between 10 and 24 July 1984.

5. At their request, the Conference on Disarmament decided to invite the representatives of the following States not members of the Conference to participate in the meetings of the Ad Hoc Committee: Bangladesh, Colombia, Democratic Yemen, Finland, Norway, Portugal and Spain.

6. The Ad Hoc Committee had before it the documents of previous sessions related to the agenda item. 1/

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1/ The list of documents may be found in the reports of the previous Ad Hoc Working Group on the Comprehensive Programme of Disarmament which are an integral part of the reports of the Committee on Disarmament (CD/139, CD/228, CD/292, CD/335 and CD/421).

III. WORK DURING THE 1984 SESSION

7. In accordance with its mandate and as provided in General Assembly resolution 38/183 K, the Ad Hoc Committee was called upon to renew its work on the elaboration of the Comprehensive Programme of Disarmament as soon as the circumstances were propitious for that purpose. It was agreed that present circumstances were not conducive to making progress towards the resolution of outstanding issues and that, therefore, it would not be fruitful to pursue the elaboration of the Comprehensive Programme of Disarmament at this session.

IV. CONCLUSIONS

8. Bearing in mind that under the terms of the Ad Hoc Committee's mandate the complete draft of the Comprehensive Programme of Disarmament should be submitted to the General Assembly not later than at the Assembly's forty-first session and in view of the difficulties encountered in the past, it is to be hoped that maximum efforts will be exerted to ensure that early next year the circumstances will be such as to permit the resumption of the work on the elaboration of the Programme and its successful conclusion.

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# CONFERENCE ON DISARMAMENT

CD/526  
26 July 1984

Original: ENGLISH

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## STATEMENT BY THE GROUP OF 21 ON ITEM 2 OF THE AGENDA OF THE CONFERENCE ON DISARMAMENT ENTITLED "CESSATION OF THE NUCLEAR ARMS RACE AND NUCLEAR DISARMAMENT"

1. The Group of 21 is convinced of the paramount need for urgent multilateral negotiations on the cessation of the nuclear arms race and nuclear disarmament through the adoption of concrete measures. The Group of 21 reiterates the views contained in documents CD/116 and CD/180 of 9 July 1980 and 6 August 1980 respectively. In its opinion, multilateral negotiations on nuclear disarmament have been long overdue and in any event bilateral negotiations, because of their limited scope and the number of parties involved, can never replace or nullify the genuinely multilateral search for concrete disarmament measures. The Conference on Disarmament as the sole multilateral negotiating body in the field of disarmament should play its role in regard to the urgent question of nuclear disarmament.
2. The Group of 21 fully shares the view stated in the Final Document of the SSOD I that the nuclear arms race, far from contributing to the strengthening of the security of all States, on the contrary weakens it, and increases the danger of the outbreak of a nuclear war. In addition, the nuclear arms race thwarts efforts towards a greater relaxation of international tensions. On the other hand progress in the sphere of nuclear disarmament would help ensure international peace and security and improve the international climate, which would in turn facilitate further progress. All nations have a vital interest in negotiations on nuclear disarmament because the existence of nuclear weapons in the arsenals of a handful of States and the quantitative and qualitative development of such weapons directly and fundamentally jeopardize the vital security interests of both nuclear and non-nuclear weapon States alike.
3. The Group of 21 is further convinced that doctrines of nuclear deterrence, far from being responsible for the maintenance of international peace and security, lie at the root of the continuing escalation of the quantitative and qualitative development of nuclear armaments and lead to greater insecurity and instability in international relations. Moreover, such doctrines, which in the ultimate analysis are predicated upon the willingness to use nuclear weapons, cannot be the basis for preventing the outbreak of a nuclear war, a war which would affect belligerents and non-belligerents alike. The competitive accumulation of nuclear arms by the nuclear weapon States cannot be condoned on grounds that it is indispensable to their security. Moreover, the Group of 21 rejects as politically and morally unjustifiable that the security of the whole world should be made to depend on the state of relations existing among nuclear weapon States.
4. The Group of 21 is firmly convinced that the greatest peril facing the world today is the threat to the survival of mankind from a nuclear war. It reiterates the message issued by the VIIth Conference of Heads of State or Government of Non-aligned countries held in New Delhi in March 1983 which, inter alia, expressed "the renewed escalation in the nuclear arms race, both in

its quantitative and qualitative dimensions, as well as reliance on doctrines of nuclear deterrence, has heightened the risk of the outbreak of nuclear war and led to greater insecurity and instability in international relations. Nuclear weapons are more than weapons of war. They are instruments of mass annihilation. The Heads of State or Governments therefore find it unacceptable that the security of all States and the very survival of mankind should be held hostage to the security interests of a handful of nuclear weapon States. Measures for the prevention of nuclear war and of nuclear disarmament must take into account the security interests of nuclear and non-nuclear weapon States alike and ensure that the survival of mankind is not endangered. They rejected all theories and concepts pertaining to the possession of nuclear weapons and their use under any circumstances."

5. The Group of 21 is convinced of the need to take constructive action towards halting and reversing the nuclear arms race and in this context it recalls once again paragraph 50 of the Final Document which sets out the stages of nuclear disarmament. To this end, as a first step, the Group considers it necessary to halt all testing, production and deployment of nuclear weapons and their delivery systems to be immediately followed by substantial reductions in nuclear forces. In this regard the Group of 21 welcomes the Joint Declaration issued on 22 May 1984 by the Heads of States or Governments of Argentina, Greece, India, Mexico, Sweden and Tanzania as in document CD/502.

6. The Group of 21 believes, in accordance with its considered view already expressed in documents CD/64, CD/116 and CD/180, that the immediate objective of the consideration of item 2 by the Conference, should be the establishment of an ad hoc Committee to elaborate on paragraph 50 of the Final Document and to identify substantive issues for multilateral negotiations, as suggested in document CD/116 and CD/180.

7. In the light of this assessment, the Group of 21 submits the following mandate: "In the discharge of its responsibility as the only multilateral disarmament negotiating forum, in accordance with paragraph 120 of the Final Document of SSOD I, the Conference on Disarmament decides to establish an ad hoc Committee under agenda item 2.

The Conference requests the ad hoc Committee to elaborate on paragraph 50 of the Final Document of SSOD I and to submit recommendations to the Conference as to how it could best initiate, at the beginning of its 1985 session, multilateral negotiations of agreements, with adequate measures of verification, in appropriate stages for:

- (a) Cessation of the qualitative improvement and development of nuclear weapons systems;
- (b) Cessation of the production of all types of nuclear weapons and their means of delivery and the production of fissionable material for weapons purposes;
- (c) Substantial reduction in the existing nuclear weapons with a view to their ultimate elimination.

The ad hoc Committee will take into account all existing proposals and future initiatives and report on its work to the Conference on Disarmament before the end of its 1984 session."

# CONFERENCE ON DISARMAMENT

CD/527

30 July 1984

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AUSTRALIA, BELGIUM, CANADA, FRANCE, GERMANY, FEDERAL REPUBLIC OF,  
ITALY, JAPAN, NETHERLANDS, UNITED KINGDOM, UNITED STATES OF AMERICA

Draft Mandate for an Ad Hoc Committee on item 5 of the  
Agenda of the Conference on Disarmament, entitled:  
"Prevention of an Arms Race in Outer Space"

"In the exercise of its responsibilities as the multilateral disarmament negotiating forum in accordance with paragraph 120 of the Final Document of the First Special Session of the General Assembly devoted to Disarmament, the Conference on Disarmament decides to establish an Ad Hoc Committee under item 5 of its agenda entitled 'Prevention of an arms race in outer space'.

The Conference requests the Ad Hoc Committee - in discharging that responsibility - to identify, in the first instance, through substantive examination, issues relevant to the prevention of an arms race in outer space.

The Ad Hoc Committee will take into account all existing agreements, existing proposals and future initiatives and report on the progress of its work to the Conference on Disarmament".

**DOCUMENT IDENTIQUE A L'ORIGINAL**

**DOCUMENT IDENTICAL TO THE ORIGINAL**