CONFERENCE ON DISARMAMENT

CD/1173
Appendix I/Volume V
3 September 1992

Original: ENGLISH

REPORT OF THE CONFERENCE ON DISARMAMENT

APPENDIX I

Texts of documents issued by the

Conference on Disarmament

GE.92-71410

CONFERENCE ON DISARMAMENT

CD/1148
14 May 1992

Original: ENGLISH

LETTER ADDRESSED TO THE SECRETARY-GENERAL OF THE CONFERENCE ON DISARMAMENT BY THE PERMANENT REPRESENTATIVE OF HUNGARY ON 6 MAY 1992

In connection with the "Declaration of the representatives of the people of the Republic of Serbia and the Republic of Montenegro" of 27 April 1992, Hungary - as outlined in a letter of May 6 1992 to the President of the General Assembly of the United Nations and the Secretary-General of the United Nations - is of the view that a unilateral statement of this nature does not by itself create a legal basis for the continuity of the membership of the defunct Socialist Federal Republic of Yugoslavia in international bodies and organizations. In its view, the settlement of the question of continuity should be based upon the agreement of all successor states of the former Socialist Federal Republic of Yugoslavia. Only such an agreement can form a basis for any decisions to be taken of the question of representation of the Federal Republic of Yugoslavia in international fora, including the Conference on Disarmament. Hungary believes that any procedural arrangements that the Conference on Disarmament may follow in this regard in the interim period should in no way prejudge its position on the question of the status of the Federal Republic of Yugoslavia in the Conference on Disarmament.

I should be grateful if you could arrange for this letter to be circulated as an official document of the Conference on Disarmament.

(Signed) *Tibor Tóth*
Ambassador

GE.92-61147

CONFERENCE ON DISARMAMENT

CD/1149
14 May 1992

Original: ENGLISH

LETTER ADDRESSED TO THE SECRETARY-GENERAL OF THE CONFERENCE ON DISARMAMENT BY THE PERMANENT REPRESENTATIVE OF CANADA ON 13 MAY 1992

Canada has taken note of the Declaration by the representatives of the people of the Republic of Serbia and the Republic of Montenegro on 27 April 1992 announcing the creation of the Federal Republic of Yugoslavia.

The Government of Canada wishes to place on record its view that the current participation of representatives of the Federal Republic of Yugoslavia in all United Nations and other inter-related international bodies is without prejudice to the eventual determination of the status of the Federal Republic of Yugoslavia. As you know, the Conference on Yugoslavia is currently addressing the issues of the continuity to and succession of the Yugoslav state.

This message has been transmitted to the Secretary-General of the United Nations with a request that it be circulated as a document of the General Assembly under Agenda Item 68, and of the Security Council. I would be grateful if this letter could be circulated as an official document of the Conference on Disarmament.

(Signed) Gerald E. Shannon
Ambassador and
Permanent Representative

CONFERENCE ON DISARMAMENT

CD/1150
27 May 1992

Original: ENGLISH

Decision on organizational arrangements in connection with General Assembly resolution 46/36 L

(Adopted at the 622nd plenary meeting on 26 May 1992)

The Conference on Disarmament, having considered the requests of the United Nations General Assembly included in its resolution 46/36 L, "to address, as soon as possible, the question of the interrelated aspects of the excessive and destabilizing accumulation of arms, including military holdings and procurement through national production, and to elaborate universal and non-discriminatory practical means to increase openness and transparency in this field; to address the problems of, and the elaboration of practical means to increase openness and transparency related to the transfer of high technology with military applications and to weapons of mass destruction, in accordance with existing legal instruments; and to include in its annual report to the General Assembly a report on its work on this issue", and bearing in mind the time-frame established in paragraph 11 (b) of said resolution, decides to add to its agenda for its 1992 session an item entitled "Transparency in armaments", under which it can address those issues. The Conference on Disarmament further decides to include in its 1992 report to the United Nations General Assembly a section covering its work on this agenda item.

The Conference also decides to address the agenda item in a series of informal meetings, under the chairmanship of Ambassador Zahran of Egypt.

The Conference has taken due note of the request of the General Assembly to the Secretary-General of the United Nations in paragraph 11 (b) of resolution 46/36 L, to take into account the work of the Conference in his preparation of a report in 1994 on the continuing operation of the United Nations Register and its further development. Further, the Conference has also taken note of the request made to the Secretary-General of the United Nations in paragraph 14 of the same resolution to provide the Conference all relevant information, including, inter alia, views submitted to him by Member States and information provided under the United Nations system for the standardized reporting of military expenditures, as well as on the work of the Disarmament Commission under its agenda item entitled "Objective information on military matters".

GE.92-61573/4114H

CONFERENCE ON DISARMAMENT

CD/1151
1 June 1992

Original: ENGLISH

LETTER DATED 29 MAY 1992 FROM THE REPRESENTATIVE OF NORWAY ADDRESSED TO THE SECRETARY-GENERAL OF THE CONFERENCE ON DISARMAMENT TRANSMITTING A SUMMARY OF A STUDY ON A COMPREHENSIVE TEST-BAN TREATY

My delegation would request your kind assistance in having the enclosed contribution by Norway circulated as a CD document.

The document gives a summary of a study on a Comprehensive Test Ban Treaty which was the subject of a Workshop in Oslo in late March this year.

The full report from the study will be made available later.

(Signed) Jostein Bernhardsen
Minister Counsellor

GE.92-61615/4134H

Introduction

For many years the achievement of a Comprehensive Test-Ban Treaty (CTBT) has been a central Norwegian foreign policy goal. A total and permanent ban on all nuclear testing is essential in order to halt effectively both the vertical and horizontal proliferation of nuclear weapons. Furthermore, another important reason for the discontinuance of all nuclear test explosions is the environmental and health risks associated with underground nuclear explosions.

The Conference on Disarmament is an appropriate forum for dealing with the issue of a Comprehensive Test-Ban Treaty. The Norwegian Ministry of Foreign Affairs wished to contribute to the work of the Conference on Disarmament when it took the initiative to carry out a study on some of the most important questions related to a CTBT.

Individual chapters were prepared by renowned international experts and modified in view of comments at a workshop held in Oslo late in March 1992. These chapters discuss reasons for nuclear testing, the history of public opinion on the matter, environmental effects of underground nuclear explosions, partial test limitation treaties in force, attempts at reaching a CTBT, and verifying compliance with a CTBT.

A final chapter presents the assessment of the experts assembled at the workshop on the utility and feasibility of a CTBT, based on the material of the individual chapters and the discussion and analysis at the workshop. This document consists of the final chapter of the study.

The members of the expert group were:

- Professor Steven A. Fetter
  University of Maryland
- Professor Trevor Findlay
  The Australian National University
- Professor Joseph Rotblat
  Pugwash Conferences on Science and World Affairs
- Professor Richard L. Garwin
  Columbia University/IBM Research Division
- Dr. Jozef Goldblat
  Arms Control Consultant
  Senior Lecturer and Research Fellow at the Geneva Graduate Institute of International Studies
- Phil.lic. Jan Prawitz
  Ministry of Defence, Sweden
- Director Frode Ringdal
  Norwegian Seismic Array (NORSAR)

The report was finalized at a workshop in Oslo 30-31 March 1992. Director Sverre Lodgaard of the International Peace Research Institute, Oslo, chaired the workshop.

PERSPECTIVES FOR A FUTURE COMPREHENSIVE TEST-BAN TREATY (CTBT)

I. Purpose and objectives of a CTBT

Ever since the destruction of Hiroshima and Nagasaki in 1945, nuclear test explosions have served as a constant reminder of the threat to the survival of mankind. For years they were also seen as a manifestation of the nuclear arms race and of the competition between the super-Powers for world hegemony.

Nuclear testing is now on the decline. In 1991, the total number of test explosions was the lowest in 30 years. At the same time, major reductions in the nuclear armories are being planned.

The main argument for a CTBT is no longer the need to halt the arms race among the nuclear-weapon States. Today, the two overriding concerns are:

- the environmental effects of continued nuclear testing;

- the dangers of nuclear proliferation.

These aspects, as well as the military and political implications of a CTBT are discussed in detail in the various chapters of this report. A brief summary of the motivation for a CTBT is given below:

Environmental aspects

One of the central purposes of the 1963 Partial Test-Ban Treaty was to reduce the radiation hazard from nuclear tests. This has been borne out by the experience since then, but nevertheless there are numerous examples of venting of radioactive debris following underground nuclear tests.

Venting has occurred at all the major nuclear test sites, and has in some cases been detected across national borders. In the United States, a particularly serious incident was the venting from the Baneberry test on 18 December 1970, which was also registered in Canada. At the Semipalatinsk test site in Kazakhstan, many people appear to have been exposed over the years to significant doses of radiation after venting. A recent example of venting at the Novaya Zemlya test site in the Arctic part of Russia is the nuclear explosion on 2 August 1987, which caused radioactivity to be detected in Scandinavia.

An almost permanent legacy of underground tests is the inventory of long-lived radioactive elements deposited underground. In terms of health effects, this addition to the radioactive burden is small. However in some cases, as in the Moruroa Atoll, leakage may occur also in the short term. Little is known about the long term effects of such contamination, and this is clearly a case for concern.

Special concern has been expressed in the Nordic countries about the potentially adverse effects of continuing nuclear testing in the fragile Arctic environment of Novaya Zemlya.

A CTBT would put an end to the additional contamination of the environment with radioactive substances released by future nuclear explosions.

Non-proliferation aspects

A CTBT would help legitimize increased international pressure on the nuclear threshold countries who have not joined the NPT to forgo the nuclear weapon option. In some cases, regional approaches to a CTBT might be important steps toward this aim.

A CTBT would strengthen the non-proliferation regime by eliminating one element of friction concerning the inequality of the obligations assumed under the Non-Proliferation Treaty by the nuclear haves and nuclear have-nots.

A CTBT would satisfy an important requirement put forward by some non-nuclear-weapon countries for the extension of the duration of the Non-Proliferation Treaty after 1995 - for another lengthy period (or periods) or indefinitely.

In principle, it would be possible for a non-nuclear-weapon State to build a nuclear armoury without testing. This is surely far more feasible than it was in 1945 or during the 1950s. However, in an era in which both a CTBT and the NPT were in force, such an activity would be fraught with political hazards. There is also a high likelihood that a non-tested stockpile would in fact not function.

An important psychological impact, not usually taken into account, would occur through the weapon scientists and engineers of the advanced nuclear States. If nuclear testing is made illegal, the nuclear weapon personnel in the United States and Russia will be extremely vigorous about policing such a ban in the rest of the world, as well as in their own countries.

For these two reasons - the psychological motivation of large numbers of people in the nuclear-weapon establishment in the nuclear-weapon States to police vigorously a CTBT, and the hazards, impediments and uncertainties which a CTBT era would impose on the would-be proliferators - a CTBT would be a major tool to inhibit proliferation of nuclear weaponry.

Military and political implications

A CTBT would be an event with considerable confidence-building effects. It might strengthen the growing conviction about the uselessness of nuclear weaponry for the security of nations.

It might relieve the psychological stress associated with the apocalyptic nature of nuclear weapons.

In so far as concern about "technological surprise" has driven the arms race, a CTBT may remove one of the causes of this apprehension: it would make it unlikely that something completely new, unpredictable and exotic would suddenly emerge in the nuclear field.

Under a CTBT regime, the nuclear-weapon States would be expected to maintain high reliability of nuclear weapons to ensure deterrence. However, if confidence in the stockpiled weapons were to be gradually eroded, the probability that a nuclear-weapon Power would launch a first disarming nuclear strike would be further diminished.

A CTBT would provide a tangible proof that the nuclear-weapon Powers have decided to proceed from quantitative cuts of their arsenals to qualitative constraints.

By contributing to confidence building, a CTBT may facilitate the negotiation of other multilateral arms control measures. It is noteworthy that no multilateral nuclear arms control agreement of a global nature has been concluded since 1980.

A CTBT would signal a considerable reduction in the human and material resources which are spent on the development and modernization of nuclear weapons. The savings would be substantial; the cost of a single nuclear weapon test explosion is estimated at 30-100 million US dollars.

The conclusion of a CTBT would fulfil the pledge undertaken by the parties to the 1963 Partial Test-Ban Treaty to negotiate a total ban on nuclear weapon test explosions. It would also go some way towards meeting the obligation undertaken by the nuclear-weapon Powers under the 1968 Non-Proliferation Treaty, and included in United Nations resolutions, to bring about nuclear disarmament.

In the early days of the nuclear era, a CTBT would have had a major impact on limiting the numbers of nuclear weapons and their overall capability. Today, the major reductions that are underway in the United States and former Soviet armouries are more significant than a CTBT would be at this moment. Nevertheless, a CTBT would add to the benefits of these reductions.

II. Arguments for further testing - an assessment

Many reasons have been advanced in favour of nuclear testing. Among the main arguments are: to support the development of new nuclear weapons, to ensure confidence in the nuclear stockpile and to improve the safety and security of nuclear weapons. Some of these arguments have merit. However, they must be weighed carefully against the arguments in favour of a CTBT.

Looking back over more than three decades of occasionally intense public debate over nuclear test limitations and the advisability of a CTBT, it is striking how the arguments against a CTBT are now weakened.

During the 1980s the traditional objection in the United States to a CTBT (lack of verifiability) was supplemented by a long list of objections. Each is considered in turn below.

Safety considerations

If nuclear weapons must exist, they should be as safe and secure as possible. Nuclear weapons should be immune from accidents such as a nuclear explosion or a dispersal of plutonium if a bomb is dropped accidentally, and they should be protected from unauthorized use by both terrorists and armed forces personnel.

Questions of safety and security of nuclear weapons can be explored by analysis and non-nuclear tests. Enhanced control over nuclear weapons can be obtained by refitting modern permissive action links (PAL), but in an era in which there is a massive decrease in numbers of nuclear weapons, older weapons can be destroyed first, leaving the surviving warheads as the safest and most secure.

Not only do reduced numbers of warheads contribute to enhanced overall safety and control, but the lack of a requirement for a hairtrigger response allows them to be stored and maintained more securely.

Development of new warheads

The principal argument for nuclear testing, now as always, is to support the development of new nuclear weapons. Whatever the urgency in the past of weapon tests to develop new warheads in order to respond to developments on the other side, it is far less now.

Indeed, the argument was never compelling. When the United States sent John Glenn, the astronaut, into space, it did not redevelop him. Instead, NASA packaged him, so that he would be protected against the vacuum, cold, heat, and shock of the flight.

New delivery vehicles can be built around the existing designs of warheads. It is not necessary to develop new warheads to achieve this aim.

Finally, there are experiments in physics that can best be done with nuclear explosions and sometimes in no other way. But the physics community, in fact, has not in general proposed to spend money on such experiments, even when there was no bar to doing so.

Stockpile confidence

Much of the nuclear nations' drive for nuclear testing in the past arose from the desire to gain an advantage over the other side, or to learn what the other side might already have learned in nuclear testing or might be able to learn, so as not to be "behind" the other side.

It was argued that many deficiencies had been discovered in stockpile nuclear weapons through nuclear testing, and that they required nuclear testing to remedy. In reality, no weapon that had been thoroughly tested in development revealed unexpected troubles in stockpile testing, within the range over which it had been tested. Nuclear tests did reveal deficiencies at

extremely low ambient temperature, or with older tritium boost gas than had been used in the test. But suspected deficiencies of this type could have been countered by non-nuclear measures.

Although nuclear redesign or the substitution of a new development was sometimes the preferred "remedy", this was certainly not necessary. For the future, there is technical agreement between those in the weapon laboratories and those outside that a vigilant programme of stockpile inspection and non-nuclear testing will suffice to reveal potential problems. These problems can then be remedied by re-manufacturing the warheads to the original specifications. Fifty years from now that may not be the most convenient approach, since industrial processes will surely change, but it will just as surely be a feasible one.

The proposal is not to keep individual nuclear warheads reliable for 100 years, which would lead to a whole new field of weapon geriatrics, but to remanufacture them after 10-15 years, so that one would always be dealing with weapons precisely of an age and type with which the weapon establishments have experience.

Maintaining expertise

It is inevitable that the technological base for weapon development and stockpile maintenance will erode under a CTBT, but this process is likely to be gradual. Moreover, it is likely that the nuclear-weapon States would continue to give considerable support of their weapon laboratories, in order to ensure that essential expertise is not lost.

To prevent a kind of genetic drift by the accumulation of small changes, each one "certified" to be insignificant by a responsible board, is a matter of putting in place a board composed of responsible technical people interested in maintaining the stockpile at initial performance, rather than in incorporating "bright" ideas.

Expertise can also be maintained in the study of inertial confinement fusion (ICF), and there is, in fact, a problem of definition if one approaches useful power release from multiple explosions of tiny pellets in the ICF programme.

In the context of a CTBT, a possible approach would be to announce in advance the location and time of every explosion of any kind with an explosive yield above 10 tons, and to carry out nuclear-related explosions, such as ICF, only in permanently occupied buildings.

III. Verification of compliance with a CTBT

A CTBT would need to be accompanied by a global verification system. The principal component of such a system would be an international monitoring network of sensitive seismic stations. Such a system should make use of the most recent technological advances and also incorporate high-quality stations of the array type. On-site challenge inspection, use of satellite imagery,

measurement of airborne radionuclides and other supplementary verification measures are also envisaged. Provisions for reporting and possibly observing chemical explosions exceeding a specified size should be worked out.

The text of a CTBT should be publicized widely by all treaty parties. All parties should also enact national legislation prohibiting their citizens from engaging in activities that are banned internationally under a CTBT, including a requirement that violations must be reported to national and international authorities. In fact, verification by the people, or "whistle-blowing", might add an entirely new dimension to the effectiveness of CTBT verification. This is particularly relevant in view of the recent developments in the formerly closed Soviet society.

Given a CTBT era in which the State's commitment and its domestic legal standing is widely publicized, and in which United Nations sanctions may follow discovery of a clandestine test, it seems unlikely that a signatory State would attempt clandestine testing.

IV. Possible approaches to a CTBT

A Comprehensive Test-Ban Treaty (CTBT) would be a multilateral treaty banning all nuclear test explosions by all States for all time:

> We recommend the early signing and ratification by the nuclear-weapon States of a CTBT to take effect, say, in 1995.

If the United States and Russia decide instead to negotiate further limitations on nuclear tests, as they have pledged to do, the first step should be meaningful: it should severely constrain, if not render impossible, the development of new designs of nuclear weapons by the nuclear-weapon States and the manufacture of nuclear weapons by non-nuclear-weapon States.

A limited test ban, whatever the threshold or annual quota, may apply only to nuclear-weapon States. Any tests still permitted under such an agreement would have to be subject to stringent measures to prevent environmental damage. Any new limited test ban would have to contain a binding commitment to a total ban.

A nuclear test ban concluded among the States in particularly sensitive regions, like South Asia or the Middle East, could constitute an early step toward renunciation by these States of the nuclear weapon option.

CONFERENCE ON DISARMAMENT

CD/1152
CD/CW/WP.410
5 June 1992

ENGLISH
Original: SPANISH

SPAIN

REPORT ON A TRIAL CHALLENGE INSPECTION

1. INTRODUCTION

In May 1991, Spain carried out a trial inspection in a civilian chemical plant in an attempt to comply with the rules that the Convention on the prohibition of chemical weapons will in time lay down for systematic inspections of declared facilities producing or capable of producing substances listed in Schedules 2 and 3.

The Government of Spain recently decided to take the steps necessary to carry out a trial inspection at a military facility according to the rules for challenge inspection at an undeclared facility. That is the subject of the present report.

Among the main objectives of that operation there naturally stands out that of testing the currently foreseeable provisions of the final text of the Convention. However, the inspection was also aimed at:

Defining with greater precision the competence of the National Authority regarding the organization and conduct of this type of inspection;

Identifying the real difficulties that the effecting of a trial inspection may cause at the national level;

Testing the challenging State's observer status under the Convention;

Acquiring experience in searching for and processing evidence of the existence of chemical warfare agents in a military facility;

Analysing the suitable composition of inspection teams;

Studying criteria applicable to the protection of the confidentiality of information provided to inspectors and to the security in general terms of the challenged country.

The participants in the inspection included, for purely learning purposes, a far larger group of military and civilian experts than that described in this report. Those purposes being considered internal to the Spanish armed forces, the report contains no detailed information on the activities of the persons in question, their assignment falling outside the scope of the Convention.

The provisions taken into account for the conduct of the inspection were those contained in the rolling text in document CD/1116.

2. PREPARATION FOR THE INSPECTION

2.1 Facility inspected

At the first preparatory meeting for the inspection, it was decided that the site selected should be one where conditions were as difficult and realistic as possible. Consequently, of the alternatives available, the choice finally settled on a naval base where, within an area of 400 hectares, there are 138 structures comprising above-ground and underground munitions dumps, laboratories, workshops, fuelling stations and health and logistical support facilities, as well as administrative buildings and living quarters. The site lies in a deep valley surrounded by high hills and open to the sea, with rolling terrain largely covered by trees. The entire perimeter is closed off by a fence and there are two road entrances and an exclusively military harbour.

2.2 Challenge

The ground on which the implementation of the inspection machinery was based was taken to be a challenge for possible storage and handling in the facility of munitions filled with chemical warfare agents, i.e. for breach of articles I and VI of the Convention.

The challenge specified the location of the suspect facility by means of broad geographical coordinates and references that did not relate strictly to the facility, but to the zone in which it lies.

2.3 Composition of the teams

2.3.1 Inspection team

A team leader with experience of CFE inspections;

A weapons engineer (chemist) from the La Marañosa National Factory with extensive knowledge of the Convention;

Two experts in CFE inspections;

An expert in nuclear, bacteriological and chemical (NBC) warfare and instructor at the Army NBC College.

2.3.2 Composition of the escort team

This team, which represented the National Authority, comprised:

A team leader with experience of CFE inspections;

An expert in NBC warfare and instructor at the Army NBC College;

A naval weapons engineer designated by the inspected facility;

Two experts in CFE inspections and arms control negotiations;

A chemist from the La Marañosa National Factory with expert knowledge of laboratory techniques;

A naval munitions specialist designated by the facility.

2.4 Observer from the challenged State

The person designated for this function was a nuclear engineer representing the General Directorate of Armaments and Equipment.

2.5 National observers

Although their presence is not provided for in the text of the Convention, the following persons participated, for learning purposes, as observers:

Two diplomats familiar with the text of the Convention;

Two representatives of the Ministry of Defence;

One representative of each verification cell from each of the three General Staffs.

3. CONDUCT OF THE INSPECTION

3.1 Prior stages

The sequence of events that triggered the inspection was taken to be the following:

The Director General of the Technical Secretariat notifies the Spanish Government of the existence of a challenge against Spain for possession and storage of chemical weapons in an undeclared facility identified by geographical coordinates;

The National Authority takes measures to facilitate the inspection team's entry to Spanish territory via the point of entry and sets in motion the machinery for the provision to the inspectors of escort and transport

services and assistance. The inspection team's arrival at the point of entry was assumed to have occurred within 24 hours of the notification to the Spanish Government;

At an initial coordination meeting between the inspection team and the Spanish authorities, the team spells out in greater detail the content of the challenge, its requirements for the inspection and the perimeter to which access is sought;

Simultaneously with this first meeting, the entrances to the perimeter requested by the inspection team are closed, except for one, chosen on a map provided by the National Authority, which is placed under surveillance by means of continuous video recordings;

Following the definition of the facility to which the challenge relates and the securing of the tentative perimeter, all participants in the inspection are flown to the airport closest to the zone containing the facility.

3.2 Negotiation concerning the perimeter and controlled access

The leader of the inspection team, the facility chief and the representative of the National Authority negotiated to reach agreement on the perimeter of the challenged facility.

In view of the geographical features of the terrain and of the need to apply the procedures and techniques of "controlled access" by the inspectors to the various buildings in the facility, thereby protecting effectively the security of the challenged State, the negotiation concerning the perimeter was assumed to be straightforward and the requested perimeter was made to match the agreed perimeter from the outset.

Immediately thereafter, and thus within the time-limit laid down in the text of the Convention, the inspection team was taken to the final perimeter.

To make the trial inspection as effective as possible while safeguarding the security of the facility, the next step was to define, within the agreed final perimeter, a system of controlled access defined as follows:

All the land entrances except one were kept closed, and a check was kept on entry and exit by goods vehicles via the only open such entrance and on berthings and sailings via the marine access;

Random access to the munitions tunnels, powder stores and workshops through the selection in each case of 20 per cent of the total, it being considered that the quantity chosen represented a sufficiently meaningful sample.

3.3 Inspection plan

On receiving the inspectors, the facility authorities conducted a briefing session and provided the inspectors with the following documentation:

1. A sketch map of the facility referring to all the significant elements within it;

2. A diagram of the wastewater system.

The authorities described the activities carried on within the facility and were simultaneously informed of the inspection team's logistical and administrative needs.

There followed a brief overflight of the perimeter immediately outside it in a helicopter without any type of sensor.

During the overflight, special attention was paid to the usable access points in the fence marking the perimeter of the facility.

The inspection plan was drawn up to allow for a maximum reasonable time for the inspection of 48 hours.

The members of the team, in keeping with the assumptions for the trial, were divided into the following groups:

A. Management of the inspection and visual inspection.

B. Taking, custody and, where appropriate, analysis of samples "in situ".

C. Surveillance of the perimeter and of the inside of the facility.

The management groups assignment was to go through the specified facilities, to look for evidence and to decide what samples should be taken and where they should be taken.

The sampling group's assignment was to go only to the points identified by the management group in order to take the samples requested by that group and to seal and guard those samples.

The assignment of the perimeter surveillance group was to monitor the exit of goods vehicles by the land access point and the marine access point and to check that the other land entrances and the perimeter fence remained closed.

The buildings and facilities that it was agreed to inspect were the following:

Above-ground powder magazines: one from each module in each group;

Munitions storage tunnels: two from each group;

Laboratories: reagents, documentation, instruments, analytical equipment;

Workshops: infrastructure, ventilation system, etc.;

Wastewater disposal and treatment system: sampling;

Waste treatment plant: sampling of the air and of suspect containers;

Fuelling station: non-fuel chemicals;

Fire service: equipment for the neutralization of chemical agents;

Medical service: drugs, casualty records for chemical agents, etc;

Library: books and documents on the use and storage of chemical agents.

The itinerary drawn up for the inspection group precluded the transfer of munitions from uninspected to inspected buildings.

3.4 Search for evidence

3.4.1 Munitions

The methods employed to investigate the presence of possible chemical agents in munitions were non-destructive.

The first step was to select and weigh various projectiles.

Then ultrasound was used to determine for each of them the thickness of their steel casing at various points.

On the one hand, these measures gave an idea of the inside shape of the projectile and on the other they provided information necessary for the subsequent gamma-radiographic examination.

This examination was made with the projectile placed at an inclination of 30° such that, had the charge been liquid, the horizontal surface line would have been detectable.

Once the gammagram was available, it was studied for the presence of cylinders, partitions, etc.

In any event, the gammagram made it possible to estimate the volume, and thus the weight of the metal section.

Deducting the weight of the metal section from the total weight of the projectile gave the weight of the charge; the volume of the charge being known, the final step was to deduce its density.

Had the density been between 1 and 1.5, there would have been grounds for suspecting the charge to comprise chemical agents and other, more conclusive types of test would have been made.

The non-destructive methods of analysis were supplemented by the taking of samples.

3.4.2 Facilities

As regards the search for evidence in other buildings and facilities, the procedure was as follows:

A search was made for the presence or otherwise of collective chemical protection systems such as water or air filters, the electrical capacity and installation were investigated, etc.;

In the munitions, gunpowder and explosives storage tunnels, the ventilation systems were also examined in a search for collective filters, and in conclusion air and powder samples were taken;

In the chemical laboratories, inspections were made of the equipment and reagents present and of the buildings' infrastructure;

In the workshops, checks were made of whether the tools and facilities could be used for the assembly, handling or filling of chemical munitions and whether the facility's structure and departments were capable of supporting such activities;

In the case of the fire service, a search was made for chemical protection and decontamination equipment;

In the infirmary, a search was made for evidence of the presence of antidotes to chemical warfare agents such as Oximas or any other pharmacological compound usable to treat lesions caused by chemical agents.

3.5 Collection of samples

Samples were taken in the places indicated and on the elements marked by the management group and all of them were held permanently in the custody of the sampling group.

All the samples were taken in duplicate, with one of them, after having been duly authenticated by the inspectors, being left in the control of the facility authorities.

3.5.1 Gaseous samples

For the samples of ambient air, use was made of a Gibson-type constant-flow pump with an intake of 1 litre/minute through tubes filled with activated charcoal into an 8 x 70 mm column.

The selective samples of gases in projectiles explosives canisters were taken with small-diameter (6 mm) glass tubes filled with 0.1 gr of TENAX- and XAD-2-type resins. The plug replacing the fuse in the projectile was unscrewed without removing it completely and the tube with the resin was inserted into the canister and 250 cc of air were slowly absorbed.

3.5.2 Liquid samples

Samples of waste water were taken in two different forms:

Volume of 200 cc in glass flasks with an airtight Teflon plug;

Volume of 1 litre through glass tubes filled with TENAX resin.

3.5.3 Solid samples

Depending on their origin, these were collected using two different procedures:

Samples of earth, solids, rubber, fabrics, etc., were taken by placing in glass tubes with airtight Teflon plugs small quantities of the substance together with a small amount of anhydrous potassium sulphate to reduce hydrolysis during transport;

Samples of stains on concrete which could not be extracted by scraping with a spatula were obtained by using cotton wool soaked in dichloromethane that was then placed in an airtight tube with anhydrous potassium sulphate.

3.6 Transport of samples

The gaseous samples were suitably packaged and transported in an icebox with Jelly-Ice.

The liquid samples were transported in glass flasks with the products separated into TENAX- and XAD-4-type columns.

The solid samples, like the others, were sealed and labelled with a code corresponding to the record made out for each sample.

3.7 Analysis of samples

The analyses were carried out in the NBC laboratory of the La Marañosa National Factory after the inspection and lasted two days.

3.7.1 Preparation of samples

The gaseous samples absorbed by the tubes of activated charcoal were extracted by the counterflow technique using 20 cc of dichloromethane and were then concentrated to 0.5 cc in a microconcentrator.

The liquid samples transported in glass bottles were passed by gravity through small glass tubes filled with 50 mg of XAD-4. After drying by centrifuging and the passage of dry nitrogen, they were extracted with 0.5 cc of ethyl acetate.

The solid samples were placed in a SOLHET extractor with 25 cc of dichloromethane. After being subjected to various extraction cycles, the solution was treated with anhydrous potassium sulphate and concentrated in a microconcentrator to a volume of 0.5 cc.

3.7.2 Qualitative analysis

The following methods were employed:

Gas chromatography with flame-photometric detector (GC-FPD);

Gas chromatography with selective mass detector (GC-MS);

Gas chromatography with infrared detector (GC-(FT)IR).

The first method is of high sensitivity for indicating the presence of agents containing sulphur or phosphorus.

The second is a more powerful means of identifying, with adequate precision, the compounds extracted.

In the event of the detection of a sufficiently high concentration of warfare agents in the sample, the most suitable method of confirming the result obtained by MS is considered to be GC-FIR analysis.

3.8 Taking of photographs

By prior agreement between the inspection team and the local authority, the photographs requested by the team were taken by personnel belonging to the facility. The camera was of the instantaneous development type and the photographs were taken in two copies, of which one was handed over to the inspection team and the other to the facility personnel.

Only photographs directly relating to disagreements arising during the inspection with regard to matters such as the capacity of ventilation systems, suitability of infrastructure, safety signs, etc., were taken.

4. ANALYSIS AND COMMENTS

4.1 Security of information

Meticulous preparation of the facility personnel and the escort team is necessary in order to avoid the disclosure of sensitive information and, at the same time, provide the information necessary for the inspection team to be able to do its work.

4.2 Composition of the inspection team

The number of inspectors will depend on factors that will vary with each facility, bearing in mind that the inspection must furnish the best possible guarantee of the non-presence of chemical weapons and that the inspection team should be kept as small as possible.

Account must be taken of the following:

In most cases, the inspection team will have to split into at least two subteams having similar or different functions and each comprising at least two inspectors;

Each subteam will have to have at least one assistant to help with record-making, the transport of equipment and the search for evidence.

4.3 Composition of the escort team

The escort team will have to have a technical capability equivalent to that of the inspection team so that it can serve as a competent interlocutor between the inspection team and the inspected facility.

There should be at least one of its members in each of the groups into which the inspection team divides.

Lastly, the escort team will have to manage all the support services and infrastructure needed by the inspection team.

4.4 Closing off of the perimeter of the facility

For understandable reasons of shortage of staff, and on the other hand, because of the need not to paralyse the activities of the facility, the closing-off and surveillance of the perimeter of the inspected facility turned out to be one of the inspection team's hardest tasks.

In the trial, control of the perimeter was achieved by closing and sealing all the access points in the perimeter except one, over which the inspection team exercised surveillance by making random checks of the goods vehicles entering or leaving the enclosed area.

In the trial in question, the ideal minimum number of staff assigned to the closing and controlling of the perimeter of the facility was set at four people, which, despite being a minimum figure, significantly increases (by almost 75 per cent) the ideal number of members of the inspection team, which may be estimated at about five.

While four men would have been sufficient in this case, it must be borne in mind that the military facility inspected on this occasion is perfectly delimited by the surrounding hills and by a well-nigh impenetrable fencing system and that there are very few vehicular entry or exit points.

4.5 Initial tour of the facility

In most cases, the initial tour of the facility will be of substantial assistance in drawing up the inspection plan, even though it may in some instances take a considerable amount of time.

Sometimes the value of a tour made by terrestrial transport may be small if it is not supplemented by observation from a point dominating the entire

facility or by a short overflight by helicopter; the latter is considered very useful both from the point of view of time-saving and because it enables the inspection team to set an overall idea of the facility without revealing details that the inspected State may wish to keep secret.

4.6 Taking of samples

Sample-taking is an arduous task that requires a great deal of time and therefore determines the rhythm of the inspection. Consequently, the inspection team should, if possible, be organized in such a way that the inspectors who are specifically concerned with sample-taking can begin their work as soon as possible and, if that can be managed, immediately following the initial tour of the facility after the team leaders have negotiated and agreed a mutually acceptable inspection plan with the authorities of the inspected facility.

Consequently, the inspection team's tasks should be flexibly organized so as to save time, even though that necessitates using more vehicles, means of communication and personnel, which will have to be supplied by the facility.

Each sample must be duplicated. This result can be achieved by simultaneous sampling by the inspection and escort teams using the same apparatus and procedures or by division of a single sample.

For each sample obtained, a record must be made out showing: the date, time and place of the taking of the sample; the procedure used to obtain the sample; the team employed; the type of sample; the inspector or technician who took the sample.

In many cases, sampling need not be destructive, since it is generally possible to determine whether a charge is chemical or not by means of sensitive non-destructive techniques.

The sampling groups must comprise one or two technicians from the inspection team, another from the escort team and at least one assistant to help with packing, registering, etc.

4.7 Analysis of samples

Only in very specific cases will the evidence found enable definitive conclusions to be reached without the need to analyse the samples taken.

Moreover, carrying out the analyses at the inspected facility will, as a general rule, be impossible for one of the following reasons:

The inspected State or the facility's process of work will not permit it;

There will not be enough time for the analysis during the period set for the inspection;

The facility will not have the right staff or instruments to carry out the analysis.

Lastly, it should be borne in mind, that although "in situ" analysis is very convenient, qualitative analyses undertaken under such conditions cannot be very reliable. It is preferable to take the samples to a laboratory and to analyse them there.

4.8 Photographs

The taking of photographs is one of the most delicate aspects of the security of the facility during the inspection and it must be ensured that it does not represent a breach of that security. For this reason, it is advisable that:

Photographs should be taken only of the documents or equipment that are needed as evidence in order to resolve a difference in interpretation;

In order to avoid unauthorized shots, photographs should be taken by the escort team at the request of the inspection team. Accordingly, the inspection team should not carry either still or video cameras;

The photographs that are taken should be made in two copies for the inspection and escort teams and should permit immediate verification, for which reason they should be of the instantaneous development type;

All the photographs taken should be attached to the inspection report and should be signed by the leaders of the inspection and escort teams, with an indication of the date, time and place of their taking and a brief description of what they show;

For the use of flash units in the taking of photographs, account should be taken of the safety regulations at the facility.

4.9 Reliability of challenge inspections

Recourse by a State party to the future Convention on the prohibition of chemical weapons to the challenging of another State party before the Organization on the basis of reasonable evidence entails a definite political risk deriving from, inter alia, the fundamental limitations of such inspection at a party's request.

Challenge inspection has, indeed, a conceptual limitation that derives from its nature, by virtue whereof there can only be certainty as to its result if the latter is positive, that is, if evidence is found of the current or past presence of chemical weapons.

It is obvious that proof of non-presence, however exhaustive the operation may be, always leaves room for doubt; hence, also, the fundamental differences proven by the experts of the Spanish armed forces between this

system of inspection in the Convention on Chemical Weapons and the similar systems in the CFE Conventions, in which the object is to verify the existence of various equipment.

In view of all this, it was possible to prove in practice through the trial what was already a virtual certainty before the trial was carried out: challenge inspection must be a last resort, being markedly political in nature, and the more closely the interests of the inspected State and the inspection team coincide - a coincidence based on the desire on the one hand to dispel the doubts affecting the security of the challenging State, and the existence on the other hand of an overwhelming desire to prove the "innocence" of the inspected State and thereby its proper fulfilment of the provisions of the Convention - the more reliable will be its result.

Subject to these conditions, the institution of challenge inspection will be totally effective and will fill the role expected of it within the framework of the overall system of verification and the Convention on Chemical Weapons.

4.10 Observer

As was foreseeable, the figure of the observer proved controversial and it was therefore agreed to restrict his access to and participation in the inspection to the strict limits compatible with his existence.

While the observer fulfils the important purpose of providing the challenging State with guarantees as to the efficiency with which the inspection team performs its duty, his constant presence in inspection activities is impossible because it transforms security problems into matters more important than the inspection itself and provokes on the part of the challenged State attitudes of excessive rejection and distrust that can vastly complicate an exercise of this nature.

Notwithstanding, the observer was informed, solely by the leader of the inspection team and/or the leader of the escort team, about all the aspects of the inspection, beginning from the time when the plan was drawn up until the preparation of the final report, and including all the intermediate stages.

The observer was prevented from having access to any type of documentation and to any of the facilities inspected and remained, with an escort, in a facility building until the operation was completed, with periodic reports being made to him on its progress.

4.11 Time-limits

In conclusion, emphasis must be placed on the importance according to Spain's experience as described in this report of time-limits during the initial stages of the conduct of a challenge inspection. This point may indeed be of such importance as to compromise the very reliability of the

results obtained. The time that elapses between the notification to the challenged State and the completion of the negotiations concerning the perimeter and the actual entry of the inspection team into the area where it is to begin its work must be kept to the minimum compatible with the resolution of the difficulties there are to be overcome: the negotiations concerning the perimeter, while probably the greatest problem and the greatest point of concern for legitimate security reasons, can be reduced in importance if it is borne in mind that controlled access techniques are an effective means of catering to those security concerns and can thus lessen the drama of negotiating the final perimeter.

CONFERENCE ON DISARMAMENT

CD/1153
CD/CW/WP.412
11 June 1992

ENGLISH ONLY

LETTER DATED 11 JUNE 1992 FROM THE CHARGE D'AFFAIRES A.I. OF NORWAY ADDRESSED TO THE PRESIDENT OF THE CONFERENCE ON DISARMAMENT, TRANSMITTING A RESEARCH REPORT ENTITLED "VERIFICATION OF A CHEMICAL WEAPONS CONVENTION: RECOMMENDED OPERATING PROCEDURES FOR SAMPLING AND SAMPLE HANDLING, PART XI"

I have the honour to transmit to you a research report entitled "Verification of a Chemical Weapons Convention: Recommended Operating Procedures for Sampling and Sample Handling, Part XI". This research report represents a further contribution of Norway to the negotiations in the Conference on Disarmament on a Chemical Weapons Convention.

I would appreciate it if the report could be circulated as an official document of the Conference on Disarmament as well as the Ad Hoc Committee on Chemical Weapons.

(Signed) Bjørn Skogmo
Ambassador
Chargé d'affaires a.i.

GE.92-61774

RESEARCH REPORT ON VERIFICATION OF A CHEMICAL WEAPONS CONVENTION

RECOMMENDED OPERATING PROCEDURES FOR SAMPLING AND SAMPLE HANDLING

PART XI

ROYAL NORWEGIAN MINISTRY OF FOREIGN AFFAIRS
OSLO, JUNE 1992

CONTENTS

SUMMARY

The collection and handling of samples is an important part in verification of a chemical weapons convention. Reliable results from sophisticated analytical equipment can only be obtained if the samples have been collected and treated properly. This report gives complete procedures for sampling and sample handling in connection with both verification of alleged use and verification of alleged production in a chemical facility.

The recommended operating procedures presented here are based on extensive field testing at the Norwegian Defence Research Establishment during the last ten years in order to reveal problems which do not arise in laboratory experiments.

The procedures deal with all parts of sampling and sample handling, including localization of the contaminated area, the amounts and sizes of samples which should be collected, and the preferred sample materials. Methods for packing, securing and transport of samples are also described together with sample handling in the laboratory.

One of the most important parts of the sampling procedure is proper documentation of the samples, sampling site and sampling procedures. A form has therefore been drawn up in which all information obtained during sampling should be written. A transport log which should follow the samples from the sampling site to their destination has also been worked out and is presented in this report.

The last part of sample handling is treatment of the sample in the laboratory. Procedures for sample homogenization, splitting and preparation before the final analysis have been developed.

It is important to have proper equipment available for sample collection and sample handling. A list of suitable equipment has therefore been included in this report.

1 INTRODUCTION

In order to implement a chemical weapons convention successfully, it must be possible to verify violation of any part of the convention. Procedures should be available in connection with verification of alleged use of chemical weapons, existing stocks, their destruction, and the non-production of chemical weapons by the chemical industry. Verification of alleged use requires somewhat different procedures from verification of a production facility. This paper presents one complete procedure for each of these separate activities, even if parts of the procedures are similar.

A complete verification procedure may be divided into several parts, including methods for localization of the contaminated area, sampling, sample handling including preservation, packaging, coding and documentation, transport, sample handling in the laboratory and laboratory analysis. In the context, the laboratory could either be a designated laboratory or the laboratory of the Technical Secretariat. All these stages must be carried out properly in order to ensure that verification is as reliable as possible.

The recommended operating procedures for sampling and sample handling, which are crucial steps in any verification procedure, are based on several years of extensive study. The reliability of verification is influenced by various factors such as where the samples are collected, the kinds of sample materials chosen and how the samples are treated before reaching the laboratory. During transport, it is important to ensure that the transport log is properly completed in order to maintain un unbroken chain of custody.

All the procedures recommended have been thoroughly tested in field trails, which are used to test all methods and techniques and make them functional for field use. Efforts have been made to develop procedures using readily available, unsophisticated equipment.

2 ALLEGED USE

2.1 Verification of location

Upon arrival in an area where use of chemical warfare agents is alleged to have taken place, the position (coordinates) should be checked against the information given by the requesting state party to ensure that the correct area is examined. This should be done by comparing the terrain with a map, or by using navigational aids such as the global positioning system (GPS).

2.2 Localization of the contaminated area

When the reported position has been verified according to the methods in Chapter 2.1, the area possibly contaminated with chemical warfare agents should be localized. This localization should be based on information collected in the following ways:

- Possible eye witnesses should be interviewed to obtain information about the attack, the existence of bomb craters, remnants from shells etc or about animals or people affected by the attack.

- Signs of battle activity, remnants of bombs, shells, etc., and the position of injured animals or people should be inspected and taken as an indication of the position of the contaminated area.

- A limited area may be examined using hand held detection devices such as the chemical agent monitor (CAM) and detection paper or reconnaissance vehicles (e.g. Fuchs). Such devices should also be used to define the pattern of contamination in the area. To make it easier to define the upwind edge of the contaminated area, the examination should

be started upwind of the area and be continued in the wind direction to the other side.

2.3 Sampling

2.3.1 Recommended sampling sites

When the contaminated area has been localized and examined in accordance with the methods described in Chapter 2.2, the sampling sites should be selected using the following criteria:

- Samples should be collected within the area where the highest concentrations of chemical agents are believed to be found, i.e. in the area where the highest concentrations have been indicated by the localization procedures (Chapter 2.2).

- Weather conditions influence the persistence of chemical warfare agents. Samples should therefore be collected from sites where weather conditions have least influence on the recovery of the various agents.

- If it is impossible to define the contaminated area, samples should be collected randomly over the whole area where the use of chemical warfare agents was alleged to have taken place.

2.3.2 Recommended sample materials

When samples are collected for verification of the use of chemical warfare agents, it is important to consider the sample materials which should be selected:

- Sample materials which adsorb the chemical warfare agents efficiently should be selected.

- It must be possible to desorb the agents from the sample materials for analysis.

- The sample material should not have properties which accelerate the breakdown rate of the chemical warfare agents.

Several different types of sample materials may be found in a battlefield environment, and the recommended types are listed below:

- *Liquids from bombs or shells.* If bombs or shells containing liquids are found, they should be sampled because the liquid is likely to be a chemical warfare agent.

- *Other liquids.* Liquids or damp spots found in the contaminated area should be checked with detection paper for the presence of chemical warfare agents. If the test result is positive, samples should be collected for further analysis.

- *Filter canisters.* Filter canisters used by personnel exposed to, or believed to be exposed to, the chemical warfare agents should be collected.

- *Textile materials, leather.* Samples of textile materials or leather used by personnel exposed to the chemical attack should be collected because these materials have been shown to adsorb chemical warfare agents efficiently.

- *Polymers.* Polymers such as rubber, plastic, paint etc. also adsorb chemical warfare agents efficiently and should be collected if they are found in the contaminated area.

- *Environmental samples*. Environmental samples such as snow, sand, soil, vegetation, surface water, concrete, etc. should be collected from several sites in the contaminated area. Since experiments have shown low vertical diffusion rates for chemical warfare agents in solid samples, only the top layer (about 2 cm) should be collected.

Biological samples may be of interest, but may be more difficult to collect for religious or ethical reasons. Such sampling also requires special techniques and should be carried out by medical personnel.

- *Body liquids*. Blood, urine or other body liquids should be collected from humans or animals exposed to the chemical warfare agents, since hydrophilic compounds will be concentrated in such liquids. The cholinesterase activity in blood should be measured to indicate possible exposure to nerve agents.

- *Cadavers*. Tissues or organs from dead humans or animals believed to have been exposed to the chemical warfare agents should be collected. The organs which provide most information are the kidneys, liver, heart and fatty tissue. These organs concentrate lipophilic compounds. Absorbed chemical agent my also be found in hair samples. In addition, samples from the skin or lungs should be collected to document any damage caused by vesicants. Nervous tissue could be collected to document exposure to nerve agents or other agents affecting the nervous system.

2.3.3 Numbers and sizes of samples

It is important to consider the number of samples which are required to allow correct conclusions to be drawn from the results of the sample analysis. We normally have little or no knowledge of the background concentrations in environmental and biological samples. Controls are therefore of the utmost importance if we are to obtain conclusive results from the analyses of such samples.

The following instructions should be followed in collecting environmental and biological samples:

- At least two liquid samples from bombs or shells should be collected in separate containers.

- In order to achieve at least 90 % probability of verifying a chemical attack, 20 environmental or battlefield samples should be randomly collected per area of 100 000 m^2 where the use of chemical weapons is alleged to have taken place. Fewer samples are necessary if clear evidence of such an attack has been obtained using devices such as CAM or detection paper. Three controls should be collected well outside the contaminated area and treated in the same way as the samples. The controls should be of a matrix as similar as possible to that of the samples.

- If it is possible to collect biological samples from humans or animals, at least two samples should be taken from each individual. If only one individual is available, more (10) samples should be taken. Body liquids from individuals not exposed to chemical weapons should also be collected as controls.

- The sample size should be about 50 g in the case of environmental samples (snow, water, sand, soil, concrete, etc) and about 20 cm^2 in the case of polymers, clothing or leather. About 10-50 g of body liquids or organs from dead humans or animals is considered sufficient. If the

samples need to be split before analysis, larger samples should be collected to get the above-mentioned sizes of each sub-sample.

2.3.4 Sample containers

The most satisfactory sample containers are glass bottles with leakproof caps, but mylar bags or metallized plastic bags may also be used. The containers should fulfil the following requirements:

- The containers should not release any chemicals which could contaminate the samples.

- It should not be possible for volatile compounds to escape from the containers.

- The containers should not consist of materials which strongly adsorb chemical warfare agents

- The containers should not accelerate the breakdown rate of chemical warfare agents.

- Gas samples should be passed through a column containing an adsorbent (e.g. Tenax) and should be placed in gas-tight containers.

2.3.5 Sampling procedure

To ensure the integrity of the samples, they should be collected by the inspection team itself. A spoon, spatula, scissors, knife, scalpel, scoop and pipette should be available for sample collection. In addition, personnel carrying out the sampling should wear full protective equipment. The sample containers and sampling equipment should be decontaminated after sampling by washing with 5 % sodium

hydroxide in a mixture of 2-propanol and water (1:1). Fullers' earth may also be used.

2.4 Field analysis

Field analysis can give the first indication of which chemical warfare agents are present in the area. This information may make it easier to select the best method for sample preparation and analysis, and thereby give the most reliable results.

The following techniques may be used for field analyses:

- Thin layer chromatography (TLC).

  Samples collected as described above are extracted with a small volume of dichloromethane, 20 μl of which are applied to silica TLC plates. Use the following mobile phases:
  cyclohexane:ethylacetate:acetone = 5:3:3 for sarin, soman and tabun,
  methanol:acetone = 4:1 for VX,
  n-hexane:methanol:dichloromethane = 7:1:2 for lewisite, clark and adamsite, and toluene for mustard gas.

  The nerve agents sarin, soman, tabun and VX are detected by an enzymatic reaction. Spray with cholinesterase (250 IU in 100 ml phosphate buffer pH=7.4), warm gently (30°C-40°C for 5 min) and spray with a mixture of 1-naphtylacetate (250 mg) and fast blue salt (400 mg) in ethanol (100 ml). White spots on a red background indicate the presence of nerve agents. Note that this reaction is very sensitive. If the concentrations of nerve agents in the samples are too high the spots become large and difficult to define.

Lewisite, clark and adamsite are detected by oxidation with potassium permanganate. Spray with potassium permanganate (40 mg in 100 ml water). White to yellow spots indicate the presence of these compounds.

Mustard gas is detected by spraying with 4(4'-nitrobenzyl)-pyridine (5g in 100 ml ethanol), heating to high temperature (150°C) and spraying with sodium hydroxide (4 g in 100 ml water:methanol=1:1). Blue spots which disappear quite rapidly indicate the presence of mustard gas.

The retention factors using the mobil phases described above are: tabun: 0.43, sarin: 0.34, soman: 0.48, VX: 0.62, lewisite I: 0.27, clark I: 0.52, clark II: 0.51, adamsite: 0.15 and mustard gas: 0.71.

- Information obtained by CAM should be used as an indication of the presence of nerve agents or mustard gas.

- Detection paper should be used on droplets or damp spots to give a indication of the presence of nerve agents or mustard gas.

- Other instruments should be considered as soon as miniaturization has made them available as mobile field equipment.

2.5 Sample handling

2.5.1 Sample sealing

The samples should be sealed and secured immediately after collection to prevent loss or tampering before analysis. The plastic bags and glass bottles used for sampling should be sealed with a lead seal to prevent tampering during transport and storage. It is also important that the containers used for sampling are airtight to prevent any loss of sample.

2.5.2 Sample coding and documentation

Each sample should receive a unique identification code, and all information should be recorded in a sample documentation form with corresponding coding. A three-page form has been drawn up for use by the sampling team and is shown as annex 1 to this report. The following information should be recorded in the form:

- On the first page, information on the sampling procedure is entered, including the reason for sampling, an indication of the priority or importance of the samples, description of samples and sampling site, sampling methods and results of field analyses.

- On the second page, a sketch of the sampling site should be drawn, indicating topography, any bomb craters observed and wind direction. The positions of the sampling sites should also be indicated on this sketch.

- The third page should be filled in if information on the attack is available. Reports from eyewitnesses, casualties, effects on vegetation and meteorological data such as temperature, wind and precipitation since the attack should be entered here. If there are casualties, reports from medical inspections should also be entered.

Two copies of the form should be made, one of which should accompany the samples to the Technical Secretariat, while the other should be kept by the sampling team.

2.5.3 Sample preservation

All samples should be treated as soon as possible after collection, to ensure that the chemical warfare agents are still present on arrival at the laboratory. The appropriate treatment varies according to the origin of the samples. To ensure the integrity of the samples, in some situations, no treatment is desirable. Sample preservation

should be performed outside the contaminated area in order to prevent cross-contamination of the samples and contamination of the equipment.

- As an easy means of field preservation, aqueous samples may be passed through a cartridge filled with a polymer C_{18} adsorbent (Analytichem International Inc.) which retains chemical warfare agents. The cartridge may then be transported to the laboratory for subsequent elution and analysis. Solid samples may be extracted with water and the extract passed through the C_{18} cartridge in the same way.

  Procedure:

  Wash the solid sample with 50 ml water and pass the sample through a 200 mg C_{18} cartridge which has been pre-wetted with 0.5 ml methanol and 5 ml water. In order to prevent clogging of the cartridge, samples containing large amounts of particulate matter should be filtered through a 20 μm pore-size frit filter or through a Whatman microfibre filter grade GF/A.

- Phosphonic acids, which are decomposition products from nerve agents, are preserved by sorption onto an aminopropyl weak anion exchanger (NH_2). Cartridges filled with 100 mg NH_2 material (Analytichem International Inc.) are attached after the C_{18} cartridges and the sample solution is passed through the combined cartridges. The chemical warfare agents are retained on the C_{18} cartridge (top) and the phosphonic acids on the NH_2 cartridge (bottom).

- Organs or tissues from humans or animals should be placed in ethanol for preservation during transport to the laboratory.

2.6 Sample transport

All samples should be properly secured to avoid injury to personnel handling the samples. This means that all samples should be transported surrounded by activated charcoal in a solid shock-resistant container. In addition, the samples should be treated in accordance with the following guidelines:

- To prevent degradation of chemical warfare agents during transport and storage, both the untreated samples and the C_{18} cartridges should be kept cold, preferably in a box filled with dry ice (-78.5°C). A freezing mixture, for example sodium chloride:ice = 1:3 (-21.3°C) or calcium chloride:ice (min. -55°C) could also be used.

- Liquid samples should not be frozen but should be transported cold in an insulated box with cooling elements.

- Each container should be properly packed and labelled according to the "Technical Instructions for the Safe Transport of Dangerous Goods by Air" (ICAO Doc 9284-AN/905). The shipping names: poisonous solid n.o.s (not otherwise specified) or poisonous liquid n.o.s in class 6.1 (UN no. 2811 and UN no. 2810, respectively) may be used for environmental samples containing only traces of chemical warfare agents. These compounds may be transported by passenger aircraft, except for those with an inhalation toxicity of Packing Group I (Great danger). It should be noted, however, that only boxes which are type approved for transport of dangerous goods may be used. A completed copy of the Shipper's Declaration for Dangerous Goods is shown in annex 2 to this report.

- A transport log should follow each parcel and be filled in by personnel in charge of each stage of the transport from the sampling site to the destination in order to maintain an unbroken chain of custody. The maximum permissible temperature during transport should be filled in by

the sampling team as information for personnel in charge of transport. A transport log has been drawn up and is shown as annex 3 to this report.

2.7 Sample handling in the laboratory

When the samples arrive at the laboratory, they should be treated in such a way that all information contained in the samples remains intact until the final analysis. This means that the following instructions should be followed:

- Upon arrival at the laboratory, the samples should be stored in a safe and tamper-proof place. Solid samples should be stored in a freezer at -20°C or lower and liquid samples preferably at +4°C in a refrigerator. Biological samples (including body liquids) should also be stored in a freezer, but serum or plasma should be separated from the blood samples before storage. The analyses should be carried out as soon as possible. If re-coding is necessary, all information given on the sample documentation form and in the transport log should be linked with the new coding.

- Before the main sample is split into sub-samples, it should be properly homogenized. Dry particulate samples such as sand or dry soil should be homogenized by shaking for three minutes in a shaking machine, while a mortar should be used for wet particulate samples. Other solid samples like concrete may, if necessary, be crushed into small pieces with a mortar. Since chemical warfare agents do not penetrate far into the material, the outer part of the sample is of most importance. Clothing, leather and polymers should be divided into sub-samples with a knife or scissors, and liquid samples well mixed before splitting.

- The extraction of the samples should be carried out in accordance with the recommended operating procedures for each sample material.

- The C_{18} cartridges brought back from the field should be eluted with 500μl of an organic solvent suitable for the final analysis. Acetone and dichloromethane have satisfactory eluting properties for chemical warfare agents and may be used for analysis by gas chromatography or mass spectrometry. For NMR or liquid chromatography, methanol may be used.

- The phosphonic acids are eluted from the NH_2 cartridges with 300 μl methanol. The eluates may be analyzed directly by HPLC or by GC after derivatization of the acids.

- The controls should be processed and analyzed in the same way as the samples in order to be sure that there has been no cross-contamination. The controls should also be spiked with any chemical warfare agent found to establish the recovery rate for the analytical method used.

- The recommended operating procedures for quality control for each instrument should be followed.

3 CHEMICAL PRODUCTION FACILITIES

3.1 Verification of location

Upon arrival at a chemical facility which is to be inspected, the position (coordinates) should be checked against the information given by the requesting state party to ensure that the correct area is examined. This should be done by comparing the terrain with a map, or by using navigational aids such as the global positioning system (GPS).

3.2 Where to take samples

The samples should be collected at the points specified in any facility agreement, or in the case of challenge inspection, at sites recommended by a process engineer in the inspection team. Samples most likely to contain information of interest are from feed stocks, process streams, reactors, storage tanks and waste. Samples from equipment not currently in use, but suspected to have been used for activities prohibited by the convention, may be collected by wiping with Whatman 41 filter paper.

3.3 Sampling

3.3.1 Recommended sample materials

The sample materials which are most likely to contain information of interest are:

- feed chemicals
- process liquids
- reaction mixtures
- products
- volatile and non-volatile waste (drainage ditches)
- wipe samples from equipment suspected to be contaminated with scheduled chemicals
- filter canisters used by personnel exposed to, or believed to be exposed to scheduled chemicals
- gasket materials

3.3.2 Numbers and sizes of samples

At least two samples should be collected from each sampling site in separate containers. The amount needed depends on the type of sample. For samples of the process steams and feed chemicals storage areas only a few grams are needed, but larger amounts (about 50 g) are needed for samples of waste. If the samples need to be split before analysis, larger samples should be collected to get the above-mentioned sizes of each sub-sample.

Controls should be collected to ensure that chemicals normally present in industrial samples do not interfere with the analysis of chemical warfare agents.

3.3.3 Sample containers

The most satisfactory sample containers are glass bottles with leakproof caps, but mylar bags or metallized plastic bags may also be used. The containers should fulfil the following requirements:

- The containers should not release any chemicals which cause contamination of the samples.

- It should not be possible for volatile compounds to escape from the containers.

- The containers should not consist of materials which strongly adsorb chemical warfare agents

- The containers should not accelerate the breakdown rate of chemical warfare agents.

- Gas samples should be passed through a column containing an adsorbent (e.g. Tenax) and should be placed in gas-tight containers.

3.3.4 Sampling procedure

To ensure the integrity of the samples, they should be collected by personnel from the chemical facility supervised by the inspection team. A spoon, spatula, scissors, knife, scoop and pipette should be available for sample collection. In addition, personnel carrying out the sampling should wear appropriate protective equipment. After sampling, the sample containers and sampling equipment should, if necessary, be decontaminated by washing with 5 % sodium hydroxide in a mixture of 2-propanol and water (1:1).

3.4 On-site analysis

The samples collected at the facility should, if possible, be analyzed on-site using in-house equipment or instrumentation brought by the inspection team. Simple equipment and methods such as CAM, detection paper and thin layer chromatography (see Chapter 2.4) may be used to screen for known chemical warfare agents. Electrical equipment has to be approved for use in the production facility.

3.5 Sample handling

3.5.1 Sample sealing

The samples should be sealed and secured immediately after collection to prevent loss or tampering before analysis. The plastic bags and glass bottles used for sampling should be sealed with a lead seal to prevent tampering during transport and storage. It is also important that the containers used for sampling are air tight to prevent any loss of sample.

3.5.2 Sample coding and documentation

Each sample should receive a unique identification code, and all information should be recorded in a sample documentation form with corresponding coding. The first two pages of the three-page form described in Chapter 2.5.2 may be used and completed with the following information:

- On the first page, information on the sampling procedure is entered, including the reason for sampling, an indication of the priority or importance of the samples, description of samples and sampling site, sampling methods and results of on-site analyses.

- On the second page, a sketch of the relevant part of the chemical production facility should be drawn, indicating pipelines, reactors and the positions of the sampling sites.

Three copies of the form should be made, one of which should accompany the samples to the Technical Secretariat, one should be left with the state party inspected and one should be kept by the sampling team.

3.5.3 Sample preservation

All samples should be treated as soon as possible after collection, to ensure that the chemical warfare agents are still present on arrival at the laboratory. The appropriate treatment varies according to the origin of the samples. To ensure the integrity of the samples, in some situation, no treatment is desirable.

- Aqueous samples (e.g. waste water) should be preserved by passing the sample through a cartridge filled with a polymer C_{18} adsorbent which retains most of the scheduled chemicals. The cartridge may then be transported to the laboratory for subsequent elution and analysis.

Procedure:

Pass 50 ml of the aqueous sample through a 200 mg C_{18} cartridge which has been pre-wetted with 0.5 ml methanol and 5 ml water. In order to prevent clogging of the cartridge, samples containing large amounts of particulate matter should be filtered through a 20 μm pore-size frit filter or through a Whatman microfibre filter grade GF/A.

- Phosphonic acids, which are decomposition products from nerve agents, are preserved by sorption to an aminopropyl weak anion exchanger (NH_2). Cartridges filled with 100 mg NH_2 material (Analytichem International Inc.) are attached after the C_{18} cartridges and the sample solution is passed through the combined cartridges. The chemical warfare agents are retained on the C_{18} cartridge (top) and the phosphonic acids on the NH_2 cartridge (bottom).

3.6 Sample transport

All samples should be properly secured to avoid injury to personnel handling the samples. This means that all samples should be transported surrounded by activated charcoal in a solid shock-resistant container. In addition, the samples should be treated in accordance with the following guidelines:

- To prevent degradation of chemical warfare agents during transport and storage, both the untreated samples and the C_{18} cartridges should be kept cold, preferably in a box filled with dry ice (-78.5°C). A freezing mixture, for example sodium chloride:ice = 1:3 (-21.3°C) or calcium chloride:ice (min. -55°C) could also be used.

- Liquid samples should not be frozen but should be transported cold in an insulated box with cooling elements.

- Each container should be properly packed and labelled according to the "Technical Instructions for the Safe Transport of Dangerous Goods by Air" (ICAO Doc 9284-AN/905). The shipping names: poisonous solid n.o.s or poisonous liquid n.o.s in class 6.1 (UN no. 2811 and UN no. 2810 respectively), may be used for samples containing only traces of chemical warfare agents. These compounds can be transported by passenger aircraft, except for those with an inhalation toxicity of Packing Group I (Great danger). It should be noted, however, that only boxes which are type approved for transport of dangerous goods may be used. A completed copy of the Shipper's Declaration for Dangerous Goods is shown in annex 2 to this report.

- A transport log should follow each parcel and be filled in by the personnel in charge of each part of the transport from the sampling site to the destination in order to maintain an unbroken chain of custody. The maximum permissible temperature during transport should be filled in by the sampling team as information for the personnel in charge of transport. A transport log has been drawn up and is shown as annex 3 to this report.

3.7 Sample handling in the laboratory

When the samples arrive at the laboratory, they should be treated in such a way that all information contained in the samples remains intact until the final analysis. This means that the following instructions should be followed:

- Upon arrival at the laboratory, the samples should be stored in a safe and tamper-proof place. Solid samples should be stored at -20°C or -70°C in a freezer and liquid samples preferably at +4°C in a refrigerator. The analysis should be carried out as soon as possible. If re-coding is necessary, all information given on the sample documentation form and in the transport log should be linked with the new coding.

- Before the main sample is split into sub-samples, it should be properly homogenized. Dry particulate samples should be homogenized by shaking for three minutes in a shaking machine, while a mortar should be used for wet particulate samples. Other solid samples may be crushed into small pieces with a mortar, and liquid samples well mixed before splitting.

- The extraction of the samples should be carried out in accordance with the recommended operating procedures for each sample material.

- The C_{18} cartridges brought back from the facility should be eluted with 500 μl of an organic solvent which is suitable for the final analysis. Acetone and dichloromethane have satisfactory eluting properties for chemical warfare agents and may be used for analysis by gas chromatography or mass spectrometry. For NMR or liquid chromatography methanol may be used.

- The phosphonic acids are eluted from the NH_2 cartridges with 300 μl methanol. The eluates may be analyzed directly by HPLC or by GC after derivatization of the acids.

- The controls should be processed and analyzed in the same way as the samples in order to be sure that there has been no cross-contamination. The controls should also be spiked with any chemical warfare agent found to establish the recovery rate for the analytical method used.

- The recommended operating procedures for quality control for each instrument should be followed.

4 LIST OF EQUIPMENT

The equipment needed for sampling, field analysis and sample handling in the field before transport should be packed in suitable (aluminum) boxes for easy transport to the sampling area, each box containing the equipment needed to carry out one part of the sampling and sample preparation procedure. If any part of the procedure is to be omitted, the corresponding equipment may be left behind without repacking.

The suggested composition of the boxes is listed below.

Box A: Equipment for sample collection

24 glass bottles (250ml) with screw caps
25 mylar bags
25 labels
1 box Whatman 41 filter paper
1 measuring cylinder (100 ml)
2 spoons
1 spatula
1 pair of scissors
1 scalpel
2 funnels
1 spray candle paint to mark the contaminated area
1 thermometer
1 measuring tape
equipment for sealing the samples
stationery
adhesive tape
10 sample documentation forms
5 transport logs

Box B: Equipment for solid-phase extraction

30 C_{18} cartridges (200 mg sorbent)
30 NH_2 cartridges (100 mg sorbent)
4 adapters
2 vacuum equipment (model NDRE)
1 microlitre pipette with tips (5 ml)
1 vacuum pump (12 VDC) with cable
1 thermos
8 glass bottles (50 ml) with screw caps
1 pair of tweezers
1 box Whatman filter GF-A
250 ml methanol
1 measuring cylinder (100 ml)
stationery

Box C: Equipment for TLC

250 ml chloroform
2 separating chambers with teflon covers
10 blotting papers
15 TLC plates
50 microcapillary applicators
1 spray equipment
1 microlitre pipette with tips (5 ml)
1 pair of tweezers
stationery
mobile phases
developing reagents

Box D: Protective equipment

Individual items: respirator
protective suit
2 pairs of boots
5 pairs of gloves
atropine/oxime autoinjectors
fullers' earth

1 box latex gloves (100 pieces)

Box E: Additional equipment

1 spraygun
1 spare bottle for spraygun
decontamination liquid (2-propanol/water/NaOH)
chloramine T
1 water can
1 funnel
1 measuring cylinder
1 primus
4 l kerosene
100 ml methylated spirit
1 adhesive tape (2-sided)
1 adhesive tape (1-sided)
1 box kleenex tissue paper
atropine/oxime autoinjectors
pyrido prophylactic
fullers' earth
10 plastic bags (for litter)
stationery

In addition the following equipment should be available:

map of the area under verification
GPS receiver (global positioning system)
chemical agent monitor (CAM)
detection paper
water analysis kit

5 REFERENCES

(1) Norwegian Working Paper on Verification of a Chemical Weapons Convention - Sampling and analysis of chemical warfare agents under winter conditions. Document CD/311 of 11 August 1982.

Research Report on Verification of a Chemical Weapons Convention. Sampling and analysis of chemical warfare agents under winter conditions. Annex to Document CD/311 of 11 August 1982.

(2) Norwegian Working Paper on Verification of a Chemical Weapons Convention - Sampling and analysis of chemical warfare agents under winter conditions. Document CD/396 of 19 July 1983.

Research Report on Verification of a Chemical Weapons Convention. Sampling and analysis of chemical warfare agents under winter conditions. Part II. Annex to Document CD/396 of 19 July 1983.

(3) Norwegian Working Paper on Verification of a Chemical Weapons Convention - Sampling and analysis of chemical warfare agents under winter conditions. Document CD/508 of 15 June 1984.

Research Report on Verification of a Chemical Weapons Convention. Sampling and analysis of chemical warfare agents under winter conditions. Part III. Presented as Document CD/509 of 15 June 1984.

(4) Norwegian Working Paper on Verification of a Chemical Weapons Convention - Sampling and analysis of chemical warfare agents under winter conditions. Document CD/600 of 20 June 1985.

Norwegian Working Paper on Alleged Use of Chemical Warfare Agents under Winter Conditions. Document CD/601 of 20 June 1985.

Research Report on Verification of a Chemical Weapons Convention. Sampling and analysis of chemical warfare agents under winter conditions. Part IV. Presented as Document CD/598 of 20 June 1985.

(5) Norwegian Working Paper on Verification of a Chemical Weapons Convention - Procedures for verification of alleged use of chemical weapons. Document CD/703 of 16 June 1986.

Norwegian Working Paper on Verification of a Chemical Weapons Convention - Evaluation of methods for identification of arsenic containing chemical warfare agents. Document CD/704 of 16 June 1986.

Research Report on Verification of a Chemical Weapons Convention. Sample handling of chemical warfare agents. Part V. Presented as Document CD/702 of 16 June 1986.

(6) Norwegian Working Paper on Verification of Alleged Use of Chemical Weapons - Summary of research results 1986/87. Document CD/761 of 24 June 1987.

Norwegian Working Paper on General Procedures for Verification of Alleged Use of Chemical Weapons for Consideration in the Negotiations on the Chemical Weapons Convention. Document CD/762 of 24 June 1987.

Research Report on Verification of a Chemical Weapons Convention. Development of procedures for verification of alleged use of chemical warfare agents. Part VI. Presented as Document CD/776 of 28 July 1987.

(7) Norwegian Working Paper on Verification of Alleged Use of Chemical Warfare Agents. Document CD/861 of 22 August 1988.

Research Report on Verification of a Chemical Weapons Convention. Development of procedures for verification of alleged use of chemical warfare agents. Part VII. Presented as Document CD/857 of 12 August 1988.

(8) Norwegian Working Paper on Verification of Alleged Use of Chemical Weapons: A new approach for verification procedures. Document CD/936 of 21 July 1989.

Research Report on Verification of a Chemical Weapons Convention. Headspace Gas Chromatography - A new technique in verification of alleged use of chemical warfare agents. Part VIII. Presented as Document CD/940 of 31 July 1989.

(9) Report on a national trial inspection of an industrial chemical facility. Document CD/CW/WP.285 of 10 April 1990.

Norwegian Working Paper on Verification of Alleged Use of Chemical Weapons: Use of sorbent extraction in verification of alleged use of chemical weapons. Document CD/1008 of 26 June 1990.

Research Report on Verification of a Chemical Weapons Convention. Use of sorbent extraction in verification of alleged use of chemical weapons. Part IX. Presented as Document CD/1019 of 23 July 1990.

(10) Norwegian Working Paper on Verification of Alleged Use of Chemical Warfare Agents: Application of procedures after a simulated chemical attack on an air base. Document CD/CW/WP.340 of 30 May 1991.

Research Report on Verification of a Chemical Weapons Convention. Application of procedures after a simulated chemical attack on an air base. Part X. Presented as Document CD/1084 of 14 June 1991.

ANNEX 1 SAMPLE DOCUMENTATION FORM

SAMPLE DOCUMENTATION. SAMPLING.	Page 1 of 3

Items 1-11 refer to the sampling procedure.

1. Name : John Tørnes Date : 31.10.90 Time : 09:20

   Position : Scientist

2. Reason for sampling :
   Suspected attack on airbase with chemical weapons

3. Sample priority : First ☒ Second ☐ Third ☐

4. Sample code number :	d 3110-4
a 3110-1	e
b 3110-2	f
c 3110-3	g
5. Description of sample :	d Water
a Soil	e
b Sand	f
c Protective clothing from leg	g
6. Method of obtaining the sample(s) :	d Surface water
a Spooned from the surface	e
b Spooned from the surface	f
c Scissors	g

7. Results of field analysis (CAM, TLC) :

   CAM positive response in G mode
   TLC positive response for GA, GB, L, VX and H

8. Weather conditions :
   Partly cloudy, good weather, no precipitation
   Wind 14 kts from SSE, temperature 8°C

9. Description of sample site (topography, vegetation etc) :

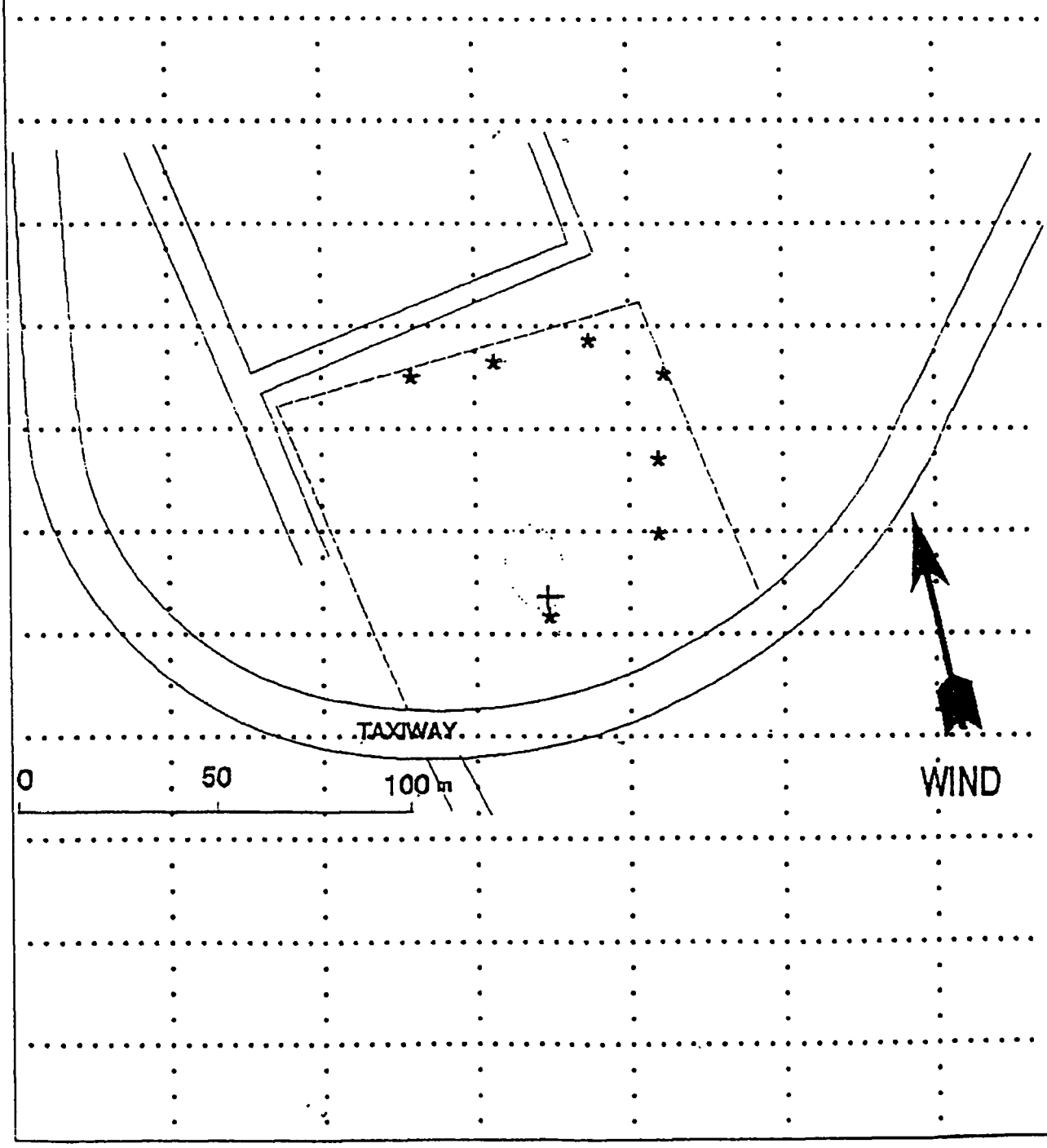
   Relatively flat field with black soil covered with long grass and low birches

10. Location of sample site (map reference UTM) :

    Northing: Easting:

SAMPLE DOCUMENTATION. SAMPLING. Page 2 of 3

11. Sketch of site , topography, bomb craters etc.
Use cross and sample code number to give sample site.
Please indicate North-South and wind direction.



SAMPLE DOCUMENTATION. ATTACK.	Page 3 of 3

Items 12-17 refer to observations concerning the attack.

12. Date : Time :

13. Weather conditions since the attack :

14. Symptoms of casualties (humans/animals) :

15. Effect on vegetation :

16. Description of the attack method of delivery, smell, sound etc)

17. Description of munitions found at the site :

18. Remarks :

ANNEX 2 SHIPPER'S DECLARATION

Shippers Declaration for Dangerous Goods

Shipper

NORWEGIAN DEFENCE RESEARCH
Establishment
P.O. Box 25,

N-2007 KJELLER, NORWAY

Air Waybill No.

Page of Pages

Shipper's Reference Number

Consignee

ANDØYA AIRPORT
Andenes

Norway

Two completed and signed copies of this Declaration must be handed to the operator

TRANSPORT DETAILS

This shipment is within the limitations prescribed for (delete non-applicable)

~~PASSENGER AND CARGO AIRCRAFT~~ | ~~CARGO AIRCRAFT ONLY~~

Airport of Departure: Oslo, Fornebu

WARNING

Failure to comply in all respects with the applicable Dangerous Goods Regulations may be in breach of the applicable law, subject to legal penalties. This Declaration must not, in any circumstances, be completed and/or signed by a consolidator, a forwarder or an IATA cargo agent.

Airport of Destination: ANDENES

Shipment type (delete non-applicable)

~~NON-RADIOACTIVE~~ | ~~RADIOACTIVE~~

NATURE AND QUANTITY OF DANGEROUS GOODS (see sub-Section 8.1 of IATA Dangerous Goods Regulations)

Dangerous Goods Identification						
Proper Shipping Name	Class or Division	UN or ID No.	Subsidiary risk	Quantity and type of packing	Packing Inst.	Authorization
Poisonous solids n.o.s. (Environmental samples containing chemical warfare agents)	6.1	UN2811		1 Plywood box x 2 kg	606	
Poisonous liquids n.o.s. (Water containg chemical warfare agents)	6.1	UN2810		1 Plywood box x 1 l	603	

Additional Handling Information

I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked and labelled, and are in all respects in the proper condition for transport by air according to the applicable International and National Government Regulations.

Name/Title of Signatory

Place and Date

Signature (see warning above)

ANNEX 3 TRANSPORT LOG

TRANSPORT LOG.

1. Sampling carried out by : B.A.Johnsen

   Confirmed by : P.J.Karlsen

   Date : 31/10-90 Time : 09:20 Parcel number : 1

   Total number of parcels in shipment : 1

   Temp should not exceed : 10 °C Description of parcel : Wooden case

2. Transport and storage information.

Date and time received	Place received	Means of transport	Temperature during transport	Name and position
31/10-90 12:30	Airbase terminal	Car	8	Terminal leader
31/10-90 19:00	Oslo airport	Military plane	25	Private M.Plassen
31/10-90 19:30	NDRE Kjeller	Car	10	Scient. J.Tørnes

3. Received by J.Aa.Tørnes (sign)

   Institution NDRE Date : 31/10-90 Time : 19:30

CONFERENCE ON DISARMAMENT

CD/1154
12 June 1992

Original: ENGLISH

LETTER ADDRESSED TO THE SECRETARY-GENERAL OF THE CONFERENCE ON DISARMAMENT BY THE PERMANENT REPRESENTATIVE OF TURKEY ON 9 JUNE 1992

The Government of the Republic of Turkey took note of the declaration made on 27 April 1992 on behalf of the Republic of Serbia and the Republic of Montenegro, announcing the inception of the "Federal Republic of Yugoslavia", and asserting that the "Federal Republic of Yugoslavia" is the legal and political successor of the former Socialist Federal Republic of Yugoslavia.

The said declaration raises the question of representation of the former Socialist Federal Republic of Yugoslavia by the "Federal Republic of Yugoslavia" at international organizations, including the Conference on Disarmament.

I have the honour to inform you that, under the present circumstances, Turkey cannot recognize the "Federal Republic of Yugoslavia". In this context, the participation of the representatives of that country to the meetings of the United Nations and other related international bodies including the Conference on Disarmament does not prejudice Turkey's position regarding the matter.

The contents of this message has been transmitted to the Secretary-General of the United Nations with a request that it be circulated as a document of the General Assembly. I would be grateful if this letter could be circulated as an official document of the Conference on Disarmament.

(Signed): Gündüz AKTAN
Ambassador
Permanent Representative

GE.92-61801/9852a

CONFERENCE ON DISARMAMENT

CD/1155
22 June 1992

Original: ENGLISH

LETTER DATED 19 JUNE 1992 FROM THE PERMANENT REPRESENTATIVE OF FINLAND ADDRESSED TO THE SECRETARY-GENERAL OF THE CONFERENCE ON DISARMAMENT TRANSMITTING THE LATEST VOLUME OF THE BLUE BOOK SERIES ON VERIFICATION OF CHEMICAL DISARMAMENT ENTITLED "INTERNATIONAL INTERLABORATORY COMPARISON (ROUND-ROBIN) TEST FOR THE VERIFICATION OF CHEMICAL DISARMAMENT; F.3. TESTING OF PROCEDURES ON SIMULATED MILITARY FACILITY SAMPLES" 1/

I have the honour to enclose herewith the latest volume of the Blue Book series on verification of chemical disarmament entitled "International Interlaboratory Comparison (Round-Robin) Test for the Verification of Chemical Disarmament; F.3. Testing of Procedures on Simulated Military Facility Samples".

This seventeenth volume of the series is the third report describing the results of international experiments on verification analysis. Laboratories from 15 different countries participated in the experiment which was coordinated by Finland. The presentation of this report would not have been possible without close cooperation by all participants throughout the experiment and it should indeed be considered as a joint contribution of all participating laboratories.

I would kindly request you to circulate the report as an official document of the Conference on Disarmament.

(Signed) Antti Hynninen
Ambassador
Permanent Representative
of Finland

1/ A limited distribution of this volume in English only has been made available to the members and non-members invited to participate in the work of the Conference on Disarmament. Additional copies are available from the Permanent Mission of Finland at Geneva.

CONFERENCE ON DISARMAMENT

CD/1156
23 June 1992

Original: ENGLISH

LETTER ADDRESSED TO THE SECRETARY-GENERAL OF THE CONFERENCE ON DISARMAMENT BY THE LEADER OF THE UNITED KINGDOM DELEGATION ON 23 JUNE 1992

I should like to draw your attention to the following announcement made by Mr. Malcolm Rifkind MP, United Kingdom, Secretary of State for Defence, in answer to a Parliamentary Question in the House of Commons on 15 June 1992:

> "The North Atlantic Treaty Organization confirmed last autumn that the sub-strategic nuclear capability remains essential to provide the link between conventional and strategic forces, but that significant reductions in sub-strategic nuclear forces were now possible. In addition to the reductions announced last autumn, the alliance has decided to terminate the deployment of United States nuclear depth bombs on NATO maritime patrol aircraft.
>
> "The Government are committed to maintaining the United Kingdom's nuclear arsenal at the minimum level necessary for our deterrent needs. My predecessor announced last September that tactical nuclear weapons would no longer be deployed on Royal Navy ships in normal circumstances. The Government have now decided that this residual capability is no longer needed. Royal Navy ships and aircraft and Royal Air Force maritime patrol aircraft will therefore no longer have the capability to deploy tactical nuclear weapons. The United Kingdom weapons previously earmarked for this role will be destroyed. The United Kingdom's sub-strategic nuclear capability will therefore consist of Royal Air Force dual-capable aircraft with the WE177 free-fall bomb."

I believe the above statement has a direct relevance to the work of the Conference on Disarmament and I should be grateful if you would circulate this letter as an official document of the Conference.

(Signed) Michael Weston
Ambassador

GE.92-61962/4369H

CONFERENCE ON DISARMAMENT

CD/1157
25 June 1992

Original: ENGLISH

LETTER DATED 24 JUNE 1992 FROM THE PERMANENT REPRESENTATIVE OF AUSTRALIA TO THE UNITED NATIONS FOR DISARMAMENT MATTERS ADDRESSED TO THE SECRETARY-GENERAL OF THE CONFERENCE ON DISARMAMENT TRANSMITTING THE STATEMENT ISSUED BY PARTICIPATING STATES AT THE CONCLUSION OF THE THIRD CHEMICAL WEAPONS REGIONAL SEMINAR, HELD IN SYDNEY, AUSTRALIA, FROM 21 TO 23 JUNE 1992

I have the honour to transmit herewith the Statement issued by participating States at the conclusion of the third Chemical Weapons Regional Seminar, held in Sydney, Australia, from 21-23 June 1992.

I should be grateful if you would take the necessary steps to circulate this Statement as an official document of the Conference on Disarmament.

(Signed): Paul O'Sullivan

GE.92-61988/9926a

CHEMICAL WEAPONS REGIONAL INITIATIVE (CWRI)
THIRD SEMINAR SYDNEY - 21-23 JUNE, 1992
SEMINAR STATEMENT

Seminar participants from Australia, Brunei Darussalam, the Cook Islands, Fiji, Indonesia, Kiribati, Laos, Malaysia, the Federated States of Micronesia, Myanmar, New Zealand, Papua New Guinea, the Philippines, Singapore, the Solomon Islands, Thailand, Tonga, Tuvalu, Vanuatu, Vietnam and Western Samoa met informally in Sydney on 21-23 June, 1992 in order to consider progress towards eliminating chemical weapons and preventing their future development under a global Chemical Weapons Convention (CWC), and to share views and exchange information on recent developments.

Seminar participants noted that their countries are not producers of chemical weapons, and have no intention of developing, stockpiling, deploying or using such weapons, nor of allowing their introduction into the region. Seminar participants affirmed their respective government's shared abhorrence of chemical weapons, their use or threat of use. They call upon all states which possess chemical weapons and/or chemical weapons production facilities on their territories or in any place under their jurisdiction or control to respect the regional consensus against chemical weapons, and to take early steps to become party to the Convention, with the objective of totally banning and destroying this class of weapon and its production facilities.

In particular, participants agreed that the conclusion of a comprehensive, verifiable, universal and non-discriminatory CWC remains absolutely central to ensuring a world freed from the use and threat of use of chemical weapons.

Participants urged those involved in the Conference on Disarmament (CD) to redouble their negotiating efforts as a matter of the highest priority, in response to the 1991 call of the United Nations General Assembly that a Convention be agreed during the CD's 1992 session. Participants noted with satisfaction the role in support of this objective being played by regional states which are CD members or observers and the favourable response given to the Australian proposal of 19 March, 1992 with a view to speeding up negotiations on the basis of a compromise package approach, taking into account the security and economic interests of all countries.

Participants affirmed their respective governments' views that the global and regional effectiveness of the forthcoming Convention would be considerably enhanced by early action by all states of South East Asia and the South Pacific to adhere

as original states parties. Participants confirmed that their respective governments were giving favourable consideration to the United Nations General Assembly's call to all states to commit themselves to becoming original states parties to the CWC.

In this context, participants noted the requirement in the Chemical Weapons Convention draft text for each state party to make initial declarations on chemical weapons - relevant matters. In preparation for signature of the Convention, and noting the potential regional confidence-building benefits of such declarations in their own right, participants recommended that governments in the region mutually exchange statements in the terms required for such declarations. Participants agreed that this regional initiative in support of the Convention be drawn to the attention of the Conference on Disarmament.

Although unable to participate in the Seminar, Nauru has expressed a wish formally to associate itself with the above Statement.

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CONFERENCE ON DISARMAMENT

CD/1158
22 July 1992

Original: ENGLISH

LETTER DATED 20 JULY 1992 FROM THE REPRESENTATIVE OF THE UNITED STATES OF AMERICA ADDRESSED TO THE PRESIDENT OF THE CONFERENCE ON DISARMAMENT TRANSMITTING A STATEMENT BY PRESIDENT BUSH ON THE NON-PROLIFERATION INITIATIVE, ANNOUNCED BY HIM ON 13 JULY 1992, AS WELL AS TWO RELATED FACT SHEETS ISSUED BY THE WHITE HOUSE

I have the honour to forward to you the attached Statement by President Bush on the non-proliferation initiative, announced by him on 13 July, as well as two related Fact Sheets issued by the White House.

Could you please take the appropriate steps to register this Statement and the attached Fact Sheets as official documents of the Conference on Disarmament, and to have them distributed to all member delegations and non-member States participating in the work of the Conference.

(Signed): Stephen J. Ledogar
Representative of the
United States of America to
the Conference on Disarmament

GE.92-62365/4661H

FACT SHEET

The White House
Office of the Press Secretary
Kennebunkport, Maine 13 July 1992

STATEMENT BY THE PRESIDENT

A few weeks ago President Boris Yeltsin and I agreed to the most far-reaching reductions in nuclear weaponry since the dawn of the atomic age. Yet even as our own arsenals diminish, the spread of the capability to produce or acquire weapons of mass destruction and the means to deliver them constitutes a growing threat to United States national security interests and world peace. In a world in which regional tensions may unpredictably erupt into war, these weapons could have devastating consequences.

That is why this Administration has fought so hard to stem the proliferation of these terrible weapons. We look back with pride on a solid record of accomplishment. Membership in the Nuclear Non-Proliferation Treaty has grown. The Missile Technology Control Regime and Australia Group have broadened their membership and expanded their controls against trade useful to the development of missiles and chemical and biological weapons. We have toughened our non-proliferation export controls, and other nations have followed suit. We have seen remarkable progress in building and strengthening regional arms control arrangements in Latin America, the Korean Peninsula, and the Middle East.

Yet we need to do more. The demand for these weapons persists and new suppliers of key technologies are emerging. Export controls alone cannot create an airtight seal against proliferation. In an era of advancing technology and trade liberalization, we need to employ the full range of political security, intelligence, and other tools at our disposal.

Therefore, I have set forth today a set of principles to guide our non-proliferation efforts in the years ahead, and directed a number of steps to supplement our existing efforts. These steps include a decision not to produce plutonium and highly-enriched uranium for nuclear explosive purposes and a number of proposals to strengthen international actions against those who contribute to the spread of weapons of mass destruction and the missiles that deliver them.

While these steps will strengthen the barriers against proliferation, success will require hard work and, at times, hard choices. The United States, however, is committed to take a leading role in the international effort to thwart the spread of technologies and weapons that cast a cloud over our future.

FACT SHEET

The White House
Office of the Press Secretary
Kennebunkport, Maine 13 July 1992

NON-PROLIFERATION INITIATIVE

Noting that "the potential spread of the capability to produce or acquire weapons of mass destruction and the means to deliver them constitutes a growing threat to US national security interests", the President today announced a comprehensive initiative to bolster American efforts to stem the spread of these capabilities and to discourage any use of such weapons. The initiative seeks to integrate new and existing policies in an overall framework to guide United States non-proliferation policy in the years ahead.

GUIDING PRINCIPLES

First, the United States will build on existing global norms against proliferation and, where possible, strengthen and broaden them.

Second, the United States will focus special efforts on those areas where the dangers of proliferation remain acute, notably the Middle East, the Persian Gulf, South Asia, and the Korean Peninsula.

Third, United States non-proliferation policy will seek the broadest possible multilateral support, while continuing to show leadership on critical issues.

Fourth, the United States will address the proliferation issue through the entire range of political, diplomatic, economic, intelligence, regional security, export controls, and other tools available.

POLICY OBJECTIVES

Nuclear materials

- Nuclear materials production. The United States shall not produce plutonium or highly-enriched uranium for nuclear explosive purposes. This step is intended to encourage countries in regions of tension such as the Middle East and South Asia to take similar actions, such as those proposed in the May 1991 Middle East Arms Control Initiative. The United States will seek further multilateral support for concrete measures to discourage production or acquisition of weapons-usable nuclear materials in South Asia, the Korean Peninsula, or other areas where they would increase the risk of proliferation.

Multilateral actions

- Compliance with international non-proliferation norms. The United States will take into account other countries' performance on key international non-proliferation norms in developing its cooperation and technology transfer relationships, and will consult with friends and allies on similar approaches.

- Enforcement of international non-proliferation norms. The United States will consult with friends and allies on international actions to be taken against serious violations of non-proliferation norms, e.g., the transfer of any weapon of mass destruction or key weapon facilities, violation of safeguards agreements, or confirmed use of nuclear, chemical, or biological weapons. Actions could include United Nations Security Council embargoes or inspections, assistance to victims of attacks by such weapons, extradition agreements, or immigration restrictions against individuals who have knowingly contributed to proliferation.

- Support for special inspections and weapon destruction. The United States will examine, in consultation with friends and allies, establishment of multilateral funding efforts to support special inspection regimes where necessary and to help States destroy existing weapon stockpiles.

- Harmonization of export controls. The United States will promote harmonized non-proliferation export control lists and enforcement, including an agreement among suppliers not to undercut one another's export restraint decisions.

Regional efforts

- Targeted approaches. The United States will continue to focus special efforts on the dangers of proliferation in South Asia, the Persian Gulf, the Middle East, and on the Korean Peninsula, including efforts to achieve confidence-building measures, inspection regimes, and other economic, political, and security-related measures.

- Former Soviet Union. The United States will continue to work with authorities from Russia and the other new States toward the following objectives:

  - Implementation of all relevant international agreements, such as the Non-Proliferation Treaty, Biological Weapons Convention and, when opened for signature, the Chemical Weapons Convention.

  - Effective internal accounting and physical protection against theft or diversion of nuclear-related materials and equipment.

  - Effective export controls on chemical, biological, nuclear and missile technologies consistent with existing multilateral regimes, including appropriate laws and regulations, as well as education of exporters and customs and enforcement officials.

- Safe and secure dismantlement of nuclear warheads, and effective controls over nuclear-weapon material.

- Creation of opportunities for weapons scientists and engineers to redirect their talents to peaceful endeavours.

- Consideration of requests for assistance in dismantling or destroying Russian biological weapons facilities or in converting these facilities to production of vaccines and other pharmaceutical products, provided Russia is in full compliance with the Biological Weapons Convention.

Global norms

. Chemical Weapons Convention. The United States reaffirms its commitment to see a CWC concluded this year, and calls on all nations to commit to become original signatories.

. NPT and Tlatelolco. The United States will seek the indefinite extension of the NPT in 1995 and full entry into force of the Treaty of Tlatelolco by 1993.

. International Atomic Energy Agency. The United States will work with other nations to strengthen the International Atomic Energy Agency (IAEA), and will support needed increases in the safeguards budget.

. Biological Weapons Convention. The United States will continue to urge universal adherence to the Biological Weapons Convention and increased support for the confidence-building measures agreed by the parties at the 1991 Review Conference.

. Missile Technology Control Regime. The United States reiterates the call of the MTCR Partners for all Governments to adopt the MTCR Guidelines as part of their national policy.

Intelligence

. Non-proliferation Center. The Intelligence Community, including the newly-created Non-proliferation Center, will increase support to international non-proliferation regimes and seek to enlarge the pool of experienced, well-trained experts committed to the non-proliferation mission.

FACT SHEET

The White House
Office of the Press Secretary
Kennebunkport, Maine 13 July 1992

EXISTING NON-PROLIFERATION EFFORTS

- Nuclear Non-Proliferation Treaty (NPT). In the past year, China, South Africa, Latvia, Lithuania, Estonia, and other new parties brought NPT membership to 149. France will soon be a party. In the START Protocol signed in Lisbon, Belarus, Kazakhstan, and Ukraine agreed to join the NPT as non-nuclear weapon States.

- International Atomic Energy Agency (IAEA). The IAEA confirmed its right to conduct "special inspections" at undeclared nuclear facilities. Argentina and Brazil reversed longstanding positions to adopt full-scope IAEA safeguards. After years of delay, North Korea finally complied with its NPT obligations to ratify an IAEA safeguards agreement and accept IAEA inspections.

- Nuclear Suppliers Group (NSG). In April 1992, the 27 NSG members agreed to extend nuclear export controls to dual-use items, and to require full-scope IAEA safeguards as a condition of significant new nuclear supply.

- Missile Technology Control Regime (MTCR). The MTCR expanded its membership to 22, updated its export control list, and agreed to extend its focus to any missile intended to deliver weapons of mass destruction. China, Argentina, and Israel have pledged to observe the MTCR guidelines.

- Enhanced Proliferation Control Initiative (EPCI). Under EPCI, the United States expanded its export controls to cover all 50 identified chemical weapons (CW) precursors, dual-use equipment relevant to chemical and biological weapons production, whole chemical plants, and knowing assistance to chemical or biological weapon or missile programmes.

- Strengthened National Export Controls. Several suppliers have strengthened their domestic export control laws and enforcement mechanisms. Several countries have adopted laws or regulations similar to our EPCI, which restrict assistance by their citizens to nuclear, chemical, biological, or missile programmes.

- Australia Group. The Australia Group expanded its membership to 22 nations, and followed the United States lead in EPCI by expanding its export controls to cover the 50 chemical weapon precursors as well as CW-related dual-use equipment. The Group has just adopted a multilateral control list of biological organisms, toxins, and equipment.

- Middle East Arms Control Initiative. In May 1991, the President launched a process among the five leading conventional arms suppliers - the United States, United Kingdom, France, Russia, and China. In October, the five agreed to observe guidelines of restraint in conventional transfers and to information exchange. In May 1992, the five agreed to interim guidelines for exports related to weapons of mass destruction. Under the Middle East peace process, 23 delegations (including Israel and 12 Arab States) gathered in Washington in May 1992 to discuss regional security and arms control.

- United Nations. The United Nations Special Commission and the IAEA have carried out 39 inspections in Iraq, identified and begun to destroy tens of thousands of chemical munitions, destroyed missile-production equipment and over 150 missiles, revealed an extensive nuclear weapons programme, and oversaw destruction of nuclear weapon-related facilities.

- Latin America. In addition to adopting full-scope IAEA safeguards, Argentina and Brazil joined with Chile to ban chemical and biological weapons in their countries.

CONFERENCE ON DISARMAMENT

CD/1159
28 July 1992

Original: ENGLISH

REPORT OF THE AD HOC COMMITTEE ON RADIOLOGICAL WEAPONS

I. INTRODUCTION

1. In accordance with the decision taken by the Conference on Disarmament at its 606th plenary meeting held on 21 January 1992, as contained in document CD/1122, the Ad Hoc Committee on Radiological Weapons was re-established, for the duration of the 1992 session, with a view to reaching agreement on a convention prohibiting the development, production, stockpiling and use of radiological weapons. The Conference further decided that the Ad Hoc Committee would report to it on the progress of its work before the conclusion of its 1992 session.

II. ORGANIZATION OF WORK AND DOCUMENTATION

2. At its 613th plenary meeting on 20 February 1992, the Conference on Disarmament appointed Ambassador Serguei Batsanov of the Russian Federation as Chairman of the Ad Hoc Committee. Mr. Michael Cassandra of the United Nations Office for Disarmament Affairs served as Secretary of the Ad Hoc Committee.

3. The Ad Hoc Committee held four meetings from 17 March to 27 July 1992. In addition, the Chairman held a number of informal consultations with delegations.

4. In accordance with the decision of the Conference at its 603rd plenary meeting on 22 August 1991, the Ad hoc Committee was open to non-member States invited by the Conference to participate in its work.

5. In addition to various resolutions adopted by the United Nations General Assembly on the subject at its previous sessions, the Ad Hoc Committee had before it resolution 46/36E adopted by the General Assembly at its forty-sixth session entrusting specific responsibilities to the Conference on Disarmament on this subject.

6. The following working papers were presented to the Ad Hoc Committee:

CD/RW/WP.94 dated 17 March 1992 entitled "Programme of Work and Tentative Timetable for the 1992 session"

CD/RW/WP.94/Add.1 dated 22 June 1992 entitled "Timetable for the remainder of the 1992 session"

CD/RW/WP.95 dated 22 June 1992 entitled "Report of Contact Group A"

CD/RW/WP.96 dated 27 July 1992 entitled "Report of Contact Group B"

III. WORK DURING THE 1992 SESSION

7. At its first meeting on 17 March 1992, at the suggestion of the Chairman, the Ad Hoc Committee agreed that it continue the same method of work adopted since 1987, that is, that Contact Group A continue to consider the prohibition of radiological weapons in the "traditional" sense and that Contact Group B continue to consider issues relevant to the prohibition of attacks against nuclear facilities. */ It was also agreed that the work of the two groups should be pursued as recommended in the 1991 report of the Ad Hoc Committee (CD/1099), that is, to draw upon the two annexes contained in that report as a basis for its work.

8. At the same meeting, the Ad Hoc Committee appointed Mr. John L. Ausman of Canada to co-ordinate the work of Contact Group B. At a subsequent meeting on 23 March 1992, the Ad hoc Committee appointed Mr. Nebojsa Dimitrijevic of Yugoslavia to co-ordinate the work of Contact Group A.

9. The Ad Hoc Committee held a general exchange of views, after which its work was carried out principally in the framework of the Contact Groups as established above. On the basis of that work, the Co-ordinator of Contact Group A presented to the Ad Hoc Committee, at its 3rd meeting on 22 June 1992, the report of the Contact Group (CD/RW/WP.95). The Co-ordinator of Contact Group B presented the report of the Contact Group (CD/RW/WP.96) on 27 July 1992. These two reports are reproduced in Annexes I and II to the present report and reflect the current state of consideration of the issues before the Ad Hoc Committee. It is understood that the contents of the Annexes are not binding on any delegation and are without prejudice to further work.

IV. CONCLUSIONS AND RECOMMENDATIONS

10. The work conducted by the Ad Hoc Committee during its 1992 session contributed further to the clarification of different approaches which continue to exist with regard to both the important subjects under consideration. It is recommended that the Conference on Disarmament re-establish the Ad hoc Committee at the beginning of the 1993 session and that it give guidance to the Ad hoc Committee on reviewing the organization of its work with the aim of fulfilling its mandate.

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*/ One delegation did not take part in the work on the prohibition of attacks against nuclear facilities.

ANNEX I

Report of Contact Group A

1. In accordance with the decision taken by the Ad Hoc Committee on Radiological Weapons at its first meeting on 17 March 1992, Contact Group A was re-established to continue consideration of the issues relevant to the prohibition of radiological weapons.

2. Contact Group A held 4 meetings from 23 March to 22 June 1992. In addition, the Co-ordinator held a number of informal consultations with delegations.

3. According to the guidelines set out during the first meeting of the Ad Hoc Committee, Contact Group A used as a basis for its substantive work the Co-ordinator's record as contained in the Report of the Ad Hoc Committee to the Conference on Disarmament in 1991 (CD/1099, Annex I, Attachment). The Contact Group reviewed the draft articles for a convention on the prohibition of radiological weapons contained therein. New language was added in the footnote attached to the second alternative of both "Scope" and "Definitions". Further, in the section "Verification and Compliance" the bracketted language in paragraph 3 was deleted, as well as the proposal in paragraph 2 of the "Annex". In consequence, the footnote attached to paragraph 6 of "Other Main Elements" was also deleted.

4. The amended Co-ordinator's record is attached to the report and reflects the current stage of the Contact Group's consideration of the question.

5. The Co-ordinator's record is not binding upon any delegation and does not preclude any delegation from introducing proposals to the text as a whole or the elements thereof at a later stage. It is recommended that it be appended to the Ad Hoc Committee's report to the Conference on Disarmament, as a basis for future work.

Attachment

DRAFT ARTICLES FOR A CONVENTION ON THE PROHIBITION OF RADIOLOGICAL WEAPONS

PREAMBLE

The States Parties to this Convention, hereinafter referred to as the "Parties to the Convention",

desiring to contribute to the realization of the purposes and principles of the Charter of the United Nations,

determined to act with a view to achieving progress towards general and complete disarmament under strict and effective international control, including the prohibition and elimination of all types of weapons of mass destruction as well as the development of new types of such weapons as radiological weapons,

....

bearing in mind that the prohibition of radiological weapons is a step in the process towards general and complete disarmament,

further bearing in mind longlasting effects of radioactive contamination on living creatures as well as on the environment,

Have agreed as follows:

I. SCOPE

Paragraph 1

First alternative

Each Party to the Convention undertakes to prohibit radiological weapons and hence never under any circumstances

(a) to disseminate deliberately any radioactive material, including radioactive waste, for the purpose of causing injury, death, damage or destruction by means of the radiation produced directly or indirectly by the decay of such material,

(b) to develop, produce, stockpile, otherwise acquire, possess or transfer any device specifically designed for the dissemination of radioactive material prohibited under (a) of this paragraph.

Second alternative

[Each Party to the Convention undertakes not to develop, produce, stockpile, otherwise acquire, possess, transfer or use under any circumstances Radiological Weapons as defined in Section II.] 1/

1/ Views were expressed that the second alternative of paragraph one of "Scope", combined with the second alternative of "Definitions" needed further study by all delegations to see whether this or modified language would provide a definition of a radiological weapon which would allow for the deletion of the first alternative and possibly for the deletion of paragraphs one and two of "Other Main Elements".

Paragraph 2

Each Party to the Convention undertakes to take any measures it considers necessary in accordance with its constitutional procedures and its international obligations anywhere under its jurisdiction and control to

(a) prohibit and prevent any activity which would constitute a violation of the obligations undertaken by the Parties to the Convention,

(b) prohibit the diversion and prevent the loss of radioactive material which could be used for purposes prohibited by this Convention.

Paragraph 3

Each Party to the Convention undertakes not to assist, encourage or induce anyone to engage in activities prohibited by the provisions of this Convention.

[II. DEFINITIONS]

First alternative

[For the purposes of this Convention the term "radiological weapon" means:

(i) any device specifically designed for the dissemination of radioactive material to cause [as its primary effect] injury, death, damage or destruction by means of the decay of such material,

(ii) any radioactive material specifically designed and prepared for employment, by its dissemination, to cause injury, death, damage or destruction by the decay of such material,

(iii) any other radioactive material if used for employment by its dissemination to cause injury, death, damage or destruction by the decay of such material.]

Second alternative

[For the purpose of the Convention, the term "radiological weapon" means any device containing radioactive material or waste as its principal harmful element and specifically designed or used to cause injury, death, environmental damage, or destruction through the direct or indirect effects of ionizing radiation, without involving the critical assembly of any fissile material.] 1/

1/ Views were expressed that the second alternative of paragraph one of "Scope", combined with the second alternative of "Definitions" needed further study by all delegations to see whether this or modified language would provide a definition of a radiological weapon which would allow for the deletion of the first alternative and possibly for the deletion of paragraphs one and two of "Other Main Elements".

III. PEACEFUL USES

Paragraph 1

Nothing in this Convention should be interpreted as affecting in any way

(a) the full exercise of the inalienable rights of all Parties to the Convention, without discrimination, to develop, acquire and use nuclear technology, equipment and materials for the peaceful use of nuclear energy and all peaceful applications of their nuclear programmes for economic and social development in accordance with their national pripriţies, needs and interests, bearing in mind the need to prevent the proliferation of nuclear weapons in all its forms. International co-operation in the peaceful uses of nuclear energy should be conducted under agreed and appropriate international safeguards applied on a non-discriminatory basis,

(b) the undertakings of Parties to the Convention to contribute to the fullest possible extent to international co-operation and assistance to ensure the development and effective implementation of adequate measures of protection for all States against the harmful effects of radiation.

Paragraph 2

Nothing in this Convention shall be interpreted as requiring or permitting a Party to the Convention to take measures which could affect the programmes of other States for peaceful uses of nuclear energy or technology for their economic or social development.

IV. OTHER MAIN ELEMENTS

Paragraph 1

The provisions of this Convention shall not apply to nuclear explosive devices or to radioactive material produced by them 1/.

Paragraph 2

Nothing in this Convention shall be interpreted as in any way legitimizing the development and the use of nuclear weapons or detracting from the obligations of States to refrain from the use or threat of use of such weapons 1/, 2/.

Paragraph 3

Parties to the Convention undertake to pursue urgently negotiations for the cessation of the nuclear arms race, the conclusion of effective measures to prevent the use or threat of use of nuclear weapons and the achievement of nuclear disarmament. 2/, 3/.

1/ Objections were raised against the need for this paragraph.

2/ A view was expressed that this subject might be better dealt with in the preambular part.

3/ Some delegations were of the view that such an undertaking was outside the purview of this Convention.

Paragraph 4

Nothing in this Convention shall be interpreted as in any way limiting or detracting from rules of international law, including

(a) the Charter of the United Nations,

(b) law applicable to armed conflicts,

(c) obligations assumed by Parties to the Convention under other international agreements.

Paragraph 5

Ten years after entry into force of the Convention, or earlier if requested by a simple majority of States Parties, a Conference of States Parties to the Convention shall be held at Geneva, Switzerland. The Conference shall review the operation of the Convention with a view to assuring that the purposes of the preamble and the provisions of the Convention were being realized. Such review shall take into account any relevant technological developments.

At intervals of not less than five years thereafter, a simple majority of the States Parties to the Convention may obtain by submitting a proposal to this effect to the Depositary, the convening of a Conference with the same objectives.

If no Conference has been convened pursuant to paragraph 2 of this Article within ten years following the conclusion of a previous Conference, the Depositary shall solicit the views of all States Parties to this Convention, concerning the convening of such a Conference. If one third of the States Parties respond affirmatively, the Depositary shall take immediate steps to convene the Conference.

Paragraph 6

Each State Party to the Convention undertakes as it considers appropriate to provide or support technical and humanitarian assistance in accordance with the provisions of the Charter of the United Nations, to any State Party which so requests, harmed as a result of a violation of the Convention by another State Party or as a result of the use of radiological weapons by a State not party to the Convention.

For purposes of assistance, the services of appropriate international organisations may also be utilized.

Paragraph 7

Any State Party to this Convention may propose amendments to the Convention. The text of any proposed amendment shall be submitted to the Depositary, who shall promptly circulate it to all States Parties.

An amendment shall enter into force for all States Parties to this Convention which have accepted it, upon the deposit with the Depositary of instruments of acceptance by a majority of States Parties. Thereafter it shall enter into force for any remaining State Party on the date of deposit of its instrument of acceptance.

Paragraph 8

The Secretary-General of the United Nations shall be the Depositary of this Convention.

V. VERIFICATION AND COMPLIANCE

Paragraph 1

Parties to the Convention shall exchange to the fullest possible extent, bilaterally or multilaterally, information necessary to provide assurance of fulfilment of their obligations under the Convention.

Paragraph 2

Parties to the Convention undertake to consult one another and to co-operate in solving any problems which may be raised in relation to the objectives of, or in the application of, the provisions of the Convention.

Consultation and co-operation pursuant to this paragraph may also be undertaken through appropriate international procedures within the framework of the United Nations and in accordance with its Charter. These international procedures may include the services of appropriate international organizations, as well as of a Committee of Experts. For these purposes the Depositary shall, within one month of the receipt of a request from any State Party to the Convention, convene a Committee of Experts.

Paragraph 3

Each Party to the Convention which has reasons to believe that any other Party to the Convention is acting in breach of the obligations deriving from the provisions of the Convention may lodge a complaint with the Depositary. Such a complaint shall include all relevant information as well as all possible evidence supporting its validity. In order to evaluate such information, the Depositary may convene the Committee of Experts.

The Depositary, assisted by the Committee of Experts, shall conduct an investigation of the alleged facts, whenever the evaluation of the information provided to him indicates that such an investigation is warranted.

The Committee shall transmit to the Depositary a summary of its findings of fact, incorporating all views and information presented to the Committee during its proceedings. The Depositary shall distribute the summary to all Parties to the Convention and to the Security Council and shall indicate his conclusions and suggestions for possible action. In case of urgency ,the Depositary may request the Committee to submit its report within 10 days.

Paragraph 4

Each Party to the Convention undertakes to co-operate to the fullest possible extent with the Committee of Experts, in accordance with the provisions of the Charter of the United Nations.

Paragraph 5

The functions and rules of procedure of the Committee of Experts mentioned in the above Paragraphs 2, 3, and 4 are set out in the Annex, which constitutes an integral part of the Convention.

Paragraph 6

The provisions of Paragraph 3 of this section shall not be interpreted as affecting the rights and duties of Parties under the Charter of the United Nations, including bringing to the attention of the Security Council concerns about compliance with this Convention.

ANNEX

1. The Committee of Experts shall undertake to make appropriate findings of fact and provide expert views relevant to any problem raised pursuant to the Convention by the Party requesting the convening of the Committee. It may be requested by the Depositary to carry out investigations in case of complaints lodged by a Party to the Convention.

2. The work of the Committee of Experts shall be organized in such a way as to permit it to perform the functions set forth in Paragraph 1 of the Annex. In the process of such investigations, including fact-finding, every effort should be made to apply appropriate methods and procedures which are non-discriminatory and which do not unduly interfere with the internal affairs of other States or jeopardize their economic and social development.

3. The Depositary shall:

- compile and maintain a list of qualified experts whose services may be available for the work of the Committee of Experts in accordance with Paragraphs 1 and 2 of the Annex;

- base the list of qualified experts on proposals which had been made to him by Parties to the Convention;

- appoint members of the Committee of Experts from such a list with due regard to ensuring appropriate geographical balance and to the character of the question involved.

4. The Depositary or his representative shall serve as the Chairman of the Committee.

5. Each expert may be assisted at meetings by one or more advisers.

6. Each expert shall have the right, through the Chairman, to request from States, and from international organizations, such information and assistance as the expert considers desirable for the accomplishment of the Committee's work. Each Party undertakes not to use deliberate concealment measures which impede verification of compliance with the Convention.

ANNEX II

Report of Contact Group B

1. In accordance with the decision taken by the Ad hoc Committee on Radiological Weapons at its 1st meeting on 17 March 1992, Contact Group B was re-established to continue consideration of the issues relevant to the prohibition of attacks against nuclear facilities.

2. Contact Group B held 5 meetings from 23 March to 27 July 1992. In addition, the Co-ordinator held private consultations with some delegations.

3. According to guidelines set out during the 1st meeting of the Ad hoc Committee, Contact Group B used as a basis for its substantive work the Co-ordinator's record as contained in the Report of the Ad hoc Committee to the Conference on Disarmament in 1991 (CD/1099, Annex II, Attachment). The Contact Group focussed on the most basic elements of its work, that related to the scope of an agreement, and reviewed one by one the three existing alternatives. Two new alternatives were circulated as informal documents but were withdrawn as neither attracted wide support. A modification has been made under the "Criteria" section, with the deletion of "[10^{18}]" in paragraph 1 (iii), (iv) and (v).

4. The amended Co-ordinator's record is attached to the report and reflects the current stage of the Contact Group's consideration of the question.

5. The Co-ordinator's record is not binding upon any delegation and its main purpose is to facilitate future consideration. It is recommended that it be appended to the Ad hoc Committee's report to the Conference on Disarmament, as a basis for future work.

Attachment

POSSIBLE ELEMENTS RELEVANT TO THE PROHIBITION OF ATTACKS AGAINST NUCLEAR FACILITIES 1/ 2/

I. SCOPE

Paragraph 1

First alternative

Each State Party undertakes never under any circumstances to attack nuclear facilities covered by this Treaty.

Second alternative

Each State Party undertakes never under any circumstances to attack or to threaten to attack any nuclear facility.

Third alternative 3/

Each State Party undertakes never under any circumstances to release and disseminate radioactive substances by attacking nuclear facilities covered by this Treaty.

Paragraph 2

Each State Party undertakes not in any way to assist, encourage or induce any person, State, group of States, or international organization to act in contravention of this Treaty.

1/ This record does not prejudice the eventual positions of delegations relating to the question of "linkage", or the positions of delegations on the question of the need of having additional legal protection for nuclear facilities. As to the latter, a view was expressed that additional discussion on existing international agreements pertaining to the question is needed.

2/ One delegation stated that, apart from the fact that the elements listed were controversial, the third alternative under Scope, paragraph 1 of the Definitions and the sections on Criteria and Special Marking were not essential to the elaboration of a convention. The section on Special Marking could have been recast within the section on Register. That was not, however, the case of the other elements mentioned, particularly the section on Criteria, which, in its opinion, seemed incompatible with the rule of jus cogens in article 2, paragraph 4, of the Charter of the United Nations.

3/ Some delegations stated that the third alternative of Scope based on the criterion of mass destruction read in conjunction with the first alternative of paragraph 2 of Definitions, paragraph 1 of Criteria, paragraph 1 to 3, the first alternative of paragraph 4, paragraphs 5 and 6 of Register as well as Special Marking in Paragraph 1 under Other Main Elements constitute one complete and consistent set of elements to be included in a draft Treaty.

II. DEFINITIONS

Paragraph 1

For the purposes of this Treaty, the term "attack" means any act by a State which is designed to cause or causes, directly or indirectly:

(i) any damage to, or the destruction of, a nuclear facility; or

(ii) any interference, interruption, impediment, stoppage or breakdown in the operation of a nuclear facility; or

(iii) any injury to, or the death of, any of the personnel of a nuclear facility.

Paragraph 2

First alternative

For the purpose of this Treaty, the term "nuclear facilities" means: 1/

(i) Nuclear reactors;

(ii) Intermediate spent fuel storages;

(iii) Reprocessing plants;

(iv) Waste deposits, including temporary waste storages;

(v) Installations for production or use of important and intensive sources of gamma radiation; 2/

which are included in a Register maintained by the Depositary.

Second alternative

A nuclear facility means a nuclear reactor or any other facility for the production, handling, treatment, processing or storage of nuclear fuel or other nuclear material.

1/ A suggestion was made to add two further categories after "(iii) Reprocessing plants;"

(iv) Nuclear fuel processing plants;

(v) Uranium enrichment plants.

2/ A view was expressed that this provision should be further refined.

III. CRITERIA

Paragraph 1

The nuclear facilities mentioned in paragraph 2 of Definitions shall meet the following specifications: 1/

(i) They shall be stationary on land; 2/ 3/

(ii) Nuclear reactors; designed for a thermal power which could exceed 1 [10] Megawatt, shall have reached their first criticality and shall not have been decommissioned;

(iii) Intermediate spent fuel storages; designed for storing radioactive material exceeding 10^{17} Bq;

(iv) Reprocessing plants; designed for containing radioactive material exceeding 10^{17} Bq;

(v) Waste deposits: containing radioactive material exceeding 10^{17} Bq;

(vi) Installations for production or use of intensive sources of gamma radiation: designed to contain radioactive material whose gamma-radiation-dissipated power is equal to or greater than 6 x 10^{16} [10^{17}] Bq x Mev.

Paragraph 2

Additional specification suggested to the above specifications:

Nuclear facilities mentioned in paragraph 2 of Definitions which are under the safeguards of the International Atomic Energy Agency are covered by the provision of this Treaty.

1/ Views were expressed that nuclear facilities mentioned in paragraph 2 of Definitions shall be used for peaceful purposes and subject to IAEA safeguards.

2/ Views were expressed that nuclear facilities stationed in territorial waters and the exclusive economic zones should also be considered.

3/ Views were expressed that such nuclear facilities should not belong to weapons systems.

IV. REGISTER

Paragraph 1

The Depositary shall establish, on the basis of initial communications by States Parties, as set out in paragraph 2 below, a comprehensive Register of nuclear facilities covered by this Treaty, and shall maintain this Register on the basis of subsequent communications on changes, as set out in paragraph 5 below.

Certified copies of the Register shall be transmitted to each State Party ... days after entry into force of the Treaty.

Certified copies of the Register in its entirety including all modifications shall be transmitted to each State Party at intervals of ... and be available to States Parties at any time in the offices of the Depositary.

Paragraph 2

States Parties requesting that nuclear facilities under their jurisdiction be included in the Register shall for each such facility communicate to the Depositary the following written information:

(a) Identification of the type of nuclear facility;

(b) Detailed specifications in accordance with Paragraph 1 of Criteria of this Treaty;

(c) Details on the exact geographical location of the nuclear facility.

Paragraph 3 1/

Upon receipt of a request for an inclusion in the Register, the Depositary shall without delay initiate procedures to confirm that the information contained in the request is correct:

(a) Through, to the extent possible, documentation from the IAEA; and/or

(b) Through other means, including a mission to the facility, when necessary.

For the purpose of carrying out the procedures in paragraph 3 (a) above the Depositary may, as it deems necessary, enter into agreement with the IAEA.

For the purpose of carrying out the procedures in paragraph 3 (b) above the Depositary shall, with the co-operation of States Party to the Treaty, compile and maintain a list of qualified experts, whose services could be made available to undertake such missions.

1/ A view was expressed that this provision calls for further discussion.

Paragraph 4

First alternative

The Depositary shall include the facility in the Register as well as the information required by paragraph 2 of this section, as soon as the information given in the request has been confirmed according to paragraph 3 above, and shall immediately notify States Parties to the Treaty of the aforesaid inclusion.

Second alternative

The Depositary shall include the facility in the Register as well as the information required by paragraph 2 of this section and shall immediately notify States Party to the Treaty of aforesaid inclusion.

Paragraph 5

A State Party shall inform the Depositary, within ...days/months, of any change in the information it had provided for inclusion in the Register. Upon the receipt of such information, the Depositary shall act, mutatis mutandi, in accordance with the procedures outlined in paragraphs 3 and 4 of this section.

Paragraph 6 1/

The costs for implementing these procedures shall be borne by the requesting State.

V. VERIFICATION AND COMPLIANCE

Paragraph 1

States Parties to this Treaty shall make every possible effort to consult one another and to co-operate in solving any problems which may be raised in relation to the objectives of, or in the application of the provisions of, the Treaty.

Paragraph 2

A State Party may lodge a complaint with the Depositary in case it believes that any other State Party is in breach of obligations deriving from this Treaty. Such complaint shall include all relevant information and all possible evidence supporting the validity of the complaint.

1/ There was general agreement that the modalities as well as the placement of this provision should be further discussed.

Paragraph 3

First alternative

Within ... days of the receipt of a complaint from any State Party the Depositary shall initiate an investigation to ascertain facts relevant to the complaint. Such an investigation may include a fact-finding mission to or at the site of the nuclear facility concerned and to any other site as may be appropriate. The fact-finding mission shall submit its findings to the Depositary within ... days.

Second alternative

Within ... days of the receipt of a complaint from any State Party the Depositary shall initiate an investigation to ascertain facts relevant to the complaint. Such an investigation shall include a fact-finding mission to or at the site of the nuclear facility concerned and to any other site as may be appropriate. The fact-finding mission shall submit its findings to the Depositary within ... days.

Paragraph 4

For purposes of carrying out a fact-finding mission the Depositary shall maintain a list of qualified experts, selected on as wide a geographical basis as possible, whose services may be available to undertake such missions.

Paragraph 5

States Parties undertake to co-operate in carrying out the investigation which the Depositary may initiate on a complaint received from any State Party. The Depositary shall inform the States Parties of the results of the investigation. A copy of the report on the investigation shall be transmitted also to the Security Council and the General Assembly of the United Nations.

Paragraph 6

First alternative

The Depositary shall, upon request of a State Party, convene the Conference of States Parties to consider the report on the investigation as well as possible courses of action.

Second alternative

The Depositary shall immediately convene the Conference of States Parties to consider the report on the investigation and to adopt such measures as may be appropriate.

Paragraph 7

First alternative

The continuing application of IAEA safeguards at a nuclear facility will form an essential part of the arrangements to verify that the facility is a peaceful nuclear facility within the meaning of the Treaty. 1/ 2/

Second alternative

The determination that a facility is and remains a peaceful nuclear facility within the meaning of the Treaty shall be made by the application of IAEA safeguards. 1/ 2/

Third alternative

The application of IAEA safeguards to a nuclear facility shall be of no relevance to the verification of compliance with obligations assumed by States Parties to this Treaty.

VI. OTHER MAIN ELEMENTS

Paragraph 1

A State Party may mark its nuclear facilities included in the Register with Special Marking.

Paragraph 2 3/ 4/ 5/

States Parties undertake to provide or support assistance to any State Party harmed as a result of the violation of the Treaty.

Paragraph 3

Provisions of this Treaty are without prejudice to the obligations of State Parties undertaken in other international instruments relevant to the subject of this Treaty.

Paragraph 4

The Secretary-General shall be designated as Depositary of this Treaty.

1/ It was stated that the application of IAEA safeguards was irrelevant to the objectives of this Treaty and that if anyway addressed, the issue belonged under the provisions for inclusion in the Register.

2/ The view was expressed that the application of IAEA safeguards could not verify that a nuclear facility was a peaceful one but rather that nuclear material remained in peaceful use.

3/ A view was expressed that the obligation of States Parties to provide assistance was limited to the radiological damage caused by an attack.

4/ Views were expressed that the assistance to be provided or supported to any harmed State Party should not be limited to cases of violations by States Parties, but should also cover harm inflicted by attacks from States not party to the Convention.

5/ Views were expressed that there should be no mandatory obligation of States Parties to provide assistance.

CONFERENCE ON DISARMAMENT

CD/1160
3 August 1992

Original: ENGLISH

REPORT OF THE AD HOC COMMITTEE ON EFFECTIVE INTERNATIONAL ARRANGEMENTS TO ASSURE NON-NUCLEAR-WEAPON STATES AGAINST THE USE OR THREAT OF USE OF NUCLEAR WEAPONS

I. Introduction

1. At its 606th plenary meeting on 21 January 1992 the Conference on Disarmament decided to re-establish, for the duration of its 1992 session, an Ad Hoc Committee to continue to negotiate with a view to reaching agreement on effective international arrangements to assure non-nuclear-weapon States against the use or threat of use of nuclear weapons. It further decided that the Ad Hoc Committee would report to the Conference on the progress of its work before the conclusion of the 1992 annual session (CD/1121).

II. Organization of work

2. At its 613th plenary meeting on 20 February 1992, the Conference on Disarmament appointed Ambassador Sirous Nasseri of the Islamic Republic of Iran as Chairman of the Ad Hoc Committee. Mr. V. Bogomolov, Political Affairs Officer, United Nations Office for Disarmament Affairs, served as Secretary of the Ad Hoc Committee.

3. The Ad Hoc Committee held three meetings between 22 June and 3 August 1992.

4. In addition to the documents of the previous sessions related to this item, the following working paper was submitted to the Ad Hoc Committee by France at this annual session: CD/SA/WP.14 dated 3 August 1992 entitled "Basic elements for a legally binding agreement on negative security assurances".

III. Substantive work

5. At the beginning of the annual session, the Chairman of the Ad Hoc Committee conducted informal consultations with the delegations and the Group coordinators to determine the best way to address the item entitled "Effective

International Arrangements to Assure Non-nuclear-weapon States against the Use or Threat of Use of Nuclear Weapons" this year, particularly in light of the Conference's focus on concluding the Chemical Weapons Convention. These consultations revealed that all delegations, including those of the nuclear weapon States, continued to attach importance to the agenda item and were ready to engage in substantive discussions on the issue.

6. During the formal meetings of the Ad Hoc Committee, various groups and individual delegations reaffirmed or further elaborated their respective positions, the detailed descriptions of which can be found in the previous annual reports of the Committee, related Conference documents and working papers, and Plenary records.

IV. Conclusions and recommendations

7. The Ad Hoc Committee reaffirmed that non-nuclear-weapon States should be effectively assured by the nuclear-weapon States against the use or threat of use of nuclear weapons pending effective measures of nuclear disarmament. Work on the substance of the effective arrangements and discussion on some aspects and elements of a solution, together with the series of informal consultations by the Chairman, revealed that specific difficulties relating to differing perceptions of security interests of nuclear-weapon States and non-nuclear weapon States persisted and that the complex nature of the issues involved continued to prevent agreement on a 'common formula'. The formal debates and informal consultations demonstrated the readiness of delegations to continue the search for a common approach on the substance of Negative Security Assurances.

8. Against this background the Conference on Disarmament continued to recognize the importance of the question of effective international arrangements to assure non-nuclear-weapon States against the use or threat of use of nuclear weapons and felt that there was a need to take a fresh look at this question, in light of recent transformations in the international political climate and other positive developments in order to achieve forward movement in this extremely important area so as to enable the Ad Hoc Committee to fulfil its mandate as soon as possible.

9. Accordingly there was agreement on the recommendation that the Ad Hoc Committee should be re-established at the beginning of the 1993 session.

CONFERENCE ON DISARMAMENT

CD/1161
CD/CW/WP.426
5 August 1992

Original: ENGLISH

LETTER DATED 3 AUGUST 1992 FROM THE REPRESENTATIVE OF THE UNITED STATES OF AMERICA ADDRESSED TO THE PRESIDENT OF THE CONFERENCE ON DISARMAMENT TRANSMITTING THE AGREEMENT BETWEEN THE DEPARTMENT OF DEFENSE OF THE UNITED STATES OF AMERICA AND THE PRESIDENT'S COMMITTEE ON CONVENTIONAL PROBLEMS OF CHEMICAL AND BIOLOGICAL WEAPONS OF THE RUSSIAN FEDERATION CONCERNING THE SAFE, SECURE AND ECOLOGICALLY SOUND DESTRUCTION OF CHEMICAL WEAPONS

I have the honour to forward to you the attached Agreement between the United States of America and the Russian Federation concerning the Safe, Secure and Ecologically Sound Destruction of Chemical Weapons, signed at Washington, D.C. on July 30, 1992.

Could you please take the appropriate steps to register this Agreement as an official document of the Conference on Disarmament and of the Ad Hoc Committee on Chemical Weapons, and to have it distributed to all in the work of the Conference. It is my understanding that Ambassador Batsanov, Head of the Russian Delegation to the Conference on Disarmament, would plan to submit to you the Russian language version of this agreement.

(Signed) STEPHEN J. LEDOGAR
Representative of the United States of America
to the Conference on Disarmament

GE.92-62553

AGREEMENT
BETWEEN
THE DEPARTMENT OF DEFENSE OF THE
UNITED STATES OF AMERICA
AND
THE PRESIDENT'S COMMITTEE ON CONVENTIONAL PROBLEMS OF CHEMICAL
AND BIOLOGICAL WEAPONS OF THE RUSSIAN FEDERATION
CONCERNING
THE SAFE, SECURE AND ECOLOGICALLY SOUND DESTRUCTION
OF CHEMICAL WEAPONS

The Department of Defense of the United States of America and the President's Committee on Conventional Problems of Chemical and Biological Weapons of the Russian Federation, hereinafter referred to as the Parties,

Desiring to facilitate the safe, secure and ecologically sound destruction of chemical weapons in the Russian Federation and to assist in the prevention of weapons proliferation,

Have agreed as follows:

ARTICLE I

1. In order to assist the Russian Federation in the safe, secure, ecologically sound and expeditious destruction of chemical weapons in accordance with existing or future agreements between the Parties, the Department of Defense of the United States of America, hereinafter referred to as DOD, shall provide at no cost to the President's Committee on Conventional Problems of Chemical and Biological Weapons of the Russian Federation, hereinafter referred to as the Committee, chemical weapons destruction assistance in accordance with the terms of this Agreement.

2. The Committee shall use all material (including projects, equipment and instruments), training and services provided in accordance with this Agreement exclusively for the purpose of facilitating the safe, secure, ecologically sound and expeditious destruction of chemical weapons.

3. The DOD and the United States of America shall not be responsible for ensuring either the proper use of material, training or services provided in accordance with this Agreement or against any failure of the material, training or services.

4. This Agreement and all activities undertaken in accordance with this Agreement shall be subject to the provisions of the Agreement between the United States of America and the Russian Federation Concerning the Safe and Secure Transportation, Storage and Destruction of Weapons and the Prevention of Weapons Proliferation of June 17, 1992, hereinafter referred to as the Weapons Destruction and Non-Proliferation Agreement.

ARTICLE II

1. Each Party to this Agreement shall have the right, following written notification to the other Party, to delegate responsibilities for the implementation of this Agreement to other agencies, departments or units of their respective governments.

2. Each Party to this Agreement shall have the right, following written notification to the other Party, to designate technical liaison representatives for material, training and services provided pursuant to this Agreement.

ARTICLE III

1. The total cost to DOD of all material, training and services provided pursuant to this Agreement and associated expenses, including costs related to the transportation of material and personnel to and from the Russian Federation, shall not exceed twenty-five million U.S. Dollars.

2. Pursuant to the terms of this Agreement, the DOD shall provide to the Committee the following assistance:

(a) Development with the Committee of a concept plan, including systems analysis and design, for chemical weapons destruction. This concept plan shall be developed by the DOD, in consultation with the Committee and the United States contractor and/or contractors. In developing this plan, the DOD shall take into account Committee recommendations regarding the statement of work.

(b) Provision of detection, systems of analysis, and alarm systems for the transport of chemical weapons and/or for safety and warning purposes at chemical weapons destruction sites. The quantity and specifications for such material shall be determined by the DOD, in consultation with the Committee.

(c) Establishment of a familiarization program for Russian Federation chemical weapons destruction experts and engineers at facilities in the United States of America selected by the Department of Defense. The number of experts and engineers to participate in this program shall be determined by the DOD, in consultation with the Committee.

(d) Visits by Committee technical representatives to chemical weapons destruction facilities in the United States of America. The number of representatives to participate in these visits shall be determined by the DOD, in consultation with the Committee.

(e) Demonstration of protective equipment and provision of other training or tutorials related to chemical weapons destruction. Scheduling and additional procedures related to the provision of this training shall be established by the DOD, in consultation with the Committee.

3. The DOD may also provide, at its discretion, to the Committee pursuant to this Agreement the following types of assistance:

(a) Development of mobile chemical weapons destruction systems.

(b) Participation in the creation of national laboratory complexes for control and destruction sites, to include providing the technical equipment necessary to stock the laboratories.

(c) Provision, in accordance with procedures to be agreed upon by the Parties, of technical equipment such as control and metering systems and other automation systems required for destruction sites.

(d) Provision of medical facilities at destruction sites.

(e) Joint DOD/Committee testing or experimentation related to chemical weapons destruction.

(f) Such other cooperation related to chemical weapons destruction as may be agreed by the Parties.

4. Unless otherwise agreed by the Parties, the material to be provided by the DOD to the Committee pursuant to this Agreement shall be delivered to Moscow. The DOD shall notify the Committee of the planned date of each shipment at least seven days in advance of the anticipated shipping date. The Committee shall take possession of material within six hours after receipt of the notification of the arrival of such material.

ARTICLE IV

The Committee shall examine all material received pursuant to this Agreement and provide confirmation to the DOD within 10 days of receipt that they conform with the technical specifications established by the DOD. Material failing to conform with agreed specifications shall be returned to the United States of America through the Embassy of the United States of America at Moscow within 30 days of receipt for replacement.

ARTICLE V

1. Upon 30 days advance notice and no more than three times in each calendar year, representatives of the DOD shall have the right to examine the use of any material, training or other services provided in accordance with this Agreement, if possible at sites of their location or use, and shall have the right to inspect any and all related records or documentation during the period of this Agreement and for three years thereafter.

2. In addition to the inspections provided for by paragraph 1 of this article, representatives of the DOD shall have the right to conduct visits to locations in the Russian Federation in which DOD contractor work is being performed in order to monitor progress on approved projects and assure fulfillment of the terms of applicable contracts.

ARTICLE VI

As appropriate, the Parties may enter into implementing arrangements to carry out the provisions of this Agreement. In case of any inconsistency between this Agreement and any such arrangements, the provisions of this Agreement shall prevail.

ARTICLE VII

This Agreement shall enter into force upon signature and shall remain in force for the duration of the Weapons Destruction and Non-Proliferation Agreement. This Agreement may be amended or extended by the written agreement of the Parties and may be terminated by either Party upon ninety days written notification to the other Party of its intention to do so.

IN WITNESS WHEREOF, the undersigned, being duly authorized by their respective Governments, have signed this agreeement.

DONE at Washington, this Thirty day of July, 1992, in duplicate in the English and Russian languages, both texts being equally authentic.

FOR THE DEPARTMENT OF DEFENSE OF THE UNITED STATES OF AMERICA:

FOR THE PRESIDENT'S COMMITTEE ON CONVENTIONAL PROBLEMS OF CHEMICAL AND BIOLOGICAL WEAPONS OF THE RUSSIAN PEDERATION:

CONFERENCE ON DISARMAMENT

CD/1162
12 August 1992

Original: ENGLISH

LETTER DATED 3 AUGUST 1992 FROM THE REPRESENTATIVE OF THE UNITED STATES OF AMERICA ADDRESSED TO THE PRESIDENT OF THE CONFERENCE ON DISARMAMENT TRANSMITTING DOCUMENTS RELATING TO ARMS CONTROL AND DISARMAMENT ISSUES AGREED ON DURING THE SUMMIT MEETING HELD BY PRESIDENTS BUSH AND YELTSIN IN WASHINGTON, D.C. IN JUNE 1992*

I have the honour to forward to you the attached documents relating to arms control and disarmament issues agreed on during the Summit Meeting held by Presidents Bush and Yeltsin in Washington, D.C. in June 1992:

- A Charter for American-Russian Partnership and Friendship;
- Joint Understanding (on further reductions in strategic offensive arms);
- Joint Statement on Chemical Weapons;
- Joint Russia-United States Statement on Korean Nuclear Non-proliferation;
- Joint Statement on a Global Protection System;
- Joint Russian-American Declaration on Defence Conversion;
- Agreement on the Safe and Secure Transportation, Storage and Destruction of Weapons and the Prevention of Weapons Proliferation;
- Agreement Concerning the Safe and Secure Transportation and Storage of Nuclear Weapons through the Provision of Emergency Response Equipment and Related Training;

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* The official Russian texts of the above-mentioned documents are to be found in CD/1166.

GE.92-62608/4785B (E)

- Agreement Concerning the Safe and Secure Transportation and Storage of Nuclear Weapons through the Provision of Armoured Blankets; and

- Agreement Concerning the Safe and Secure Transportation and Storage of Nuclear Weapons Material through the Provision of Fissile Material Containers.

Could you please take the appropriate steps to register these documents as official documents of the Conference on Disarmament, and to have them distributed to all member delegations and non-member States participating in the work of the Conference. It is my understanding that Ambassador Batsanov, Head of the Russian Delegation to the Conference on Disarmament, would plan to submit to you the Russian language version of these documents.

(Signed) Stephen J. Ledogar
Representative of the
United States of America
to the Conference on Disarmament

17 June 1992

A CHARTER FOR AMERICAN-RUSSIAN PARTNERSHIP AND FRIENDSHIP

The United States of America and the Russian Federation,

Striving to provide a solid and enduring basis for American-Russian relations of partnership and friendship;

Believing that the advancement of the well-being, prosperity, and security of a democratic Russian Federation and the United States of America are vitally interrelated;

Declaring their determination to observe strictly democratic principles and practices, including the rule of law and respect for human rights and fundamental freedoms, including the rights of persons belonging to minorities;

Recognizing the importance of the rights of the individual in building a just and prosperous society;

Reaffirming their commitment to the purposes and principles of the United Nations Charter, the Helsinki Final Act, and subsequent CSCE documents;

Desiring to build a democratic peace that unites the entire community of democratic nations;

Noting their special responsibility as permanent members of the United Nations Security Council for maintaining international peace and security;

Wishing to promote the development of free markets, economic recovery and growth, and closer economic cooperation, trade, and investment;

Have established the following Charter for American-Russian Partnership and Friendship:

DEMOCRACY AND PARTNERSHIP

The United States of America and the Russian Federation reaffirm their commitment to the ideals of democracy, to the primacy of the rule of law, and to respect for human rights and fundamental freedoms. The United States of America fully supports the Russian Federation's efforts to build a democratic State and society founded on the rule of law and respect for fundamental human rights. Beginning with mutual trust and respect as the basis for their relations, they are developing relations of partnership and friendship.

The United States of America and the Russian Federation will cooperate closely in the international arena in the interest of advancing and defending common democratic values and human rights and fundamental freedoms.

The United States of America and the Russian Federation intend to expand and intensify a comprehensive dialogue at various levels on both bilateral and international issues.

Given the crucial importance of contacts between the President of the United States of America and the President of the Russian Federation for defining the basic directions of bilateral relations and also in terms of global cooperation and stability, Summit meetings will be held on a regular basis.

The United States of America and the Russian Federation express their determination to promote confidence and enhance understanding between their peoples. They proceed on the assumption that an expansion of contacts between citizens will help ensure the irreversibility of the new quality of American-Russian relations.

For this purpose, they intend to facilitate the establishment of direct contacts between citizens and political, social, labour, religious and other organizations.

The United States of America and the Russian Federation are prepared to facilitate the work of each other's diplomats, journalists, businessmen, scientists, and other citizens by reaching agreement in opening their lands to travel, by lifting other travel restrictions, and by expanding their consulates.

The United States of America and the Russian Federation place particular emphasis on developing appropriate contacts between all levels of government - federal, regional, and local - and between private sector and voluntary organizations.

The United States of America intends to continue cooperation toward strengthening democratic institutions and a rule of law state in Russia, including developing an independent judiciary and institutionalizing guarantees for respect of individual rights.

INTERNATIONAL PEACE AND SECURITY

The United States of America and the Russian Federation reiterate their determination to build a democratic peace, one founded on the twin pillars of political and economic freedom. The United States of America and the Russian Federation recognize the critical importance that democracy's success in Russia and the other former Soviet republics can have on international peace and security.

The United States of America and the Russian Federation, proceeding from the basis of mutual trust and respect and a common commitment to democracy and economic freedom and reaffirming the Camp David Declaration of February 1992, the November 1990 Charter of Paris, the December 1991, March 1992, and June 1992 communiqués of the North Atlantic Cooperation Council, and the April 1992 communiqué of the Defence Ministers' Meeting, once again declare that they do not regard each other as adversaries and are developing relations of partnership and friendship.

Consistent with the United Nations Charter and other treaty obligations, the United States of America and the Russian Federation confirm their commitments to settle disputes between them by peaceful means and to refrain from the threat or use of force against the territorial integrity and political independence of each other.

Beginning on the basis of their shared democratic values, the United States of America and the Russian Federation will unite in their efforts toward strengthening international peace and security, preventing and settling regional conflicts, and solving global problems.

While working toward a democratic peace, the United States of America and the Russian Federation realize that the end of the cold war has not meant the end of insecurity and conflict in Europe. Ethnic tensions, territorial disputes, and international rivalries already threaten to turn an opportunity for peace into yet another phase of European turmoil.

The United States of America and the Russian Federation reaffirm their respect for the independence and sovereignty and the existing borders of the CSCE-participating States, including the new independent States, and recognize that border changes can be made only by peaceful and consensual means, in accordance with the rules of international law and the principles of CSCE.

Like the other nations of the Euro-Atlantic Community, the United States of America and the Russian Federation cannot accept another phase of European instability. They therefore intend to lend both support and leadership to the effort to spare this community further tragedies like that which has befallen the peoples of Yugoslavia. The need is clear: International means of collective engagement must be devised and strengthened to help prevent conflicts by addressing their root causes, to help resolve disputes before they become violent, to help mediate an end to conflicts wherever they occur, and to help keep the peace once it is established.

Therefore, mechanisms for conflict prevention, management, and settlement and European peace-keeping capabilities must be strengthened if we are to adequately cope with future conflicts. To this end, the United States of America and the Russian Federation support the following initiatives:

The creation of a CSCE special representative to help strengthen efforts to address ethnic antagonisms and the treatment of minorities.

The strengthening of means within CSCE to provide for more effective international dispute prevention, management, and settlement.

The creation of a credible Euro-Atlantic peace-keeping capability, based on CSCE political authority, which allows for the use of the capacities of NACC, NATO, and WEU to prepare, support, and manage operations for CSCE as well as allows for the contribution of forces and resources from any and all CSCE States.

With the security of North America and Europe inseparable, the United States of America and the Russian Federation support the strengthening of the Euro-Atlantic Community, believing that security is indivisible from

Vancouver to Vladivostok. The parties share a vision of such a Euro-Atlantic Community as being open to cooperation with all democratic societies. A prominent role for institutions like NACC, NATO, and WEU along with CSCE contributes uniquely to Euro-Atlantic security. The potential of other institutions and mechanisms, including the Commonwealth of Independent States, in support of security and peace in the area is also noted.

The United States of America and the Russian Federation believe that strengthening confidence and stability in Asia and the Pacific region in cooperation with other States will also promote global security. The parties are prepared to cooperate on these goals. They aim at a fuller utilization of the potential of economic-commercial cooperation in this region of the world, particularly in view of the geographic positions of the United States of America and Russia.

Noting the progress in the resolution of long-standing conflicts, promotion of democracy and human rights, and advancement of economic freedom and prosperity in vast areas of Latin America, Africa, and Asia, the United States of America and the Russian Federation stress the necessity to continue this process. Both sides are ready to contribute to tapping the new potential for peace, to putting an end to conflicts, to bolstering mutual confidence and trust, and to enhancing democracy - which forms the basis of an enduring peace in all parts of the world.

With the aim of coordinating crisis prevention activities, the United States of America and the Russian Federation recognize the critical importance of maintaining open lines of communication and exchange. The United States of America and the Russian Federation recognize the importance of the United Nations Security Council and intend to maintain communications with other members of the Security Council to prevent, manage, and resolve crises. The United States and the Russian Federation recognize the prominent role of the United Nations in solving major international problems. They welcome in particular the contribution of the United Nations to peace and security, including the strengthening of United Nations peace-keeping.

The United States of America and the Russian Federation are prepared to work together toward further arms control and disarmament with the aim of promoting stability through implementation with all countries involved of the treaties on conventional forces in Europe and on the reduction and limitation of strategic offensive arms and by carrying out respective United States and Russian unilateral and complementary nuclear initiatives. They are committed to discuss further steps which might improve stability and result in further reductions of nuclear and conventional weapons, the global elimination of chemical weapons, and the promotion of confidence-building and crisis prevention measures.

The United States of America and the Russian Federation are prepared to cooperate in the matter of eliminating nuclear warheads and chemical weapons subject to destruction within the framework of treaty obligations and unilateral and complementary initiatives.

The United States of America and the Russian Federation believe that non-proliferation of weapons of mass destruction is a critical priority. Both parties will work towards strengthening and improving the non-proliferation regimes of weapons of mass destruction, including nuclear, biological, and chemical weapons; of missiles and missile technology; as well as of destabilizing conventional weapons in accordance with international rules and agreements.

In this regard, the United States of America and the Russian Federation, in a separate statement, have expressed their determination to cooperate in exploring the potential to create a Ballistic Missile Early Warning Centre and to cooperate in the development of ballistic missile defence capabilities and technologies.

In view of the potential for building a strategic partnership between the United States of America and the Russian Federation, the parties intend to accelerate defence cooperation between their military establishments including: intensifying contacts at all levels; expanding activities that encourage doctrinal and operational openness; establishing expanded exchange and liaison programmes; exchanging ideas on fostering proper civil-military relations in a democratic society. The parties will also pursue cooperation in peacekeeping, counter-terrorism, and counter-narcotics missions.

The United States of America and the Russian Federation intend to accelerate joint work on the conversion of defence industries to civilian production.

DONE at Washington, in duplicate, this seventeenth day of June 1992, in the English and Russian languages, each text being equally authentic.

17 June 1992

JOINT UNDERSTANDING

The President of the United States and the President of the Russian Federation have agreed to substantial further reductions in strategic offensive arms. Specifically, the two sides have agreed upon and will promptly conclude a Treaty with the following provisions:

Within the seven-year period following entry into force of the START Treaty, they will reduce their strategic forces to no more than:

- An overall total number of warheads for each between 3,800 and 4,250 (as each nation shall determine) or such lower number as each nation shall decide.

- 1,200 MIRVed ICBM warheads.

- 650 heavy ICBM warheads.

- 2,160 SLBM warheads.

By the year 2003 (or by the end of the year 2000 if the United States can contribute to the financing of the destruction or elimination of strategic offensive arms in Russia), they will:

- Reduce the overall total to no more than a number of warheads for each between 3,000 and 3,500 (as each nation shall determine) or such lower number as each nation shall decide.

- Eliminate all MIRVed ICBMs.

- Reduce SLBM warheads to no more than 1,750.

For the purpose of calculating the overall totals described above:

The number of warheads counted for heavy bombers with nuclear roles will be the number of nuclear weapons they are actually equipped to carry.

Under agreed procedures, heavy bombers not to exceed 100 that were never equipped for long-range nuclear ALCMs and that are reoriented to conventional roles will not count against the overall total established by this agreement.

- Such heavy bombers will be based separately from heavy bombers with nuclear roles.

- No nuclear weapons will be located at bases for heavy bombers with conventional roles.

- Such aircraft and crews will not train or exercise for nuclear missions.

- Current inspection procedures already agreed in the START Treaty will help affirm that these bombers have conventional roles. No new verification procedures are required.

- Except as otherwise agreed, these bombers will remain subject to the provisions of the START Treaty, including the inspection provisions.

The reductions required by this agreement will be carried out by eliminating missile launchers and heavy bombers using START procedures, and, in accordance with the plans of the two sides, by reducing the number of warheads on existing ballistic missiles other than the SS-18. Except as otherwise agreed, ballistic missile warheads will be calculated according to START counting rules.

The two Presidents directed that this agreement be promptly recorded in a brief Treaty document which they will sign and submit for ratification in their respective countries. Because this new agreement is separate from but builds upon the START Treaty, they continue to urge that the START Treaty be ratified and implemented as soon as possible.

For the United States of America:

(Signed): George Bush

For the Russian Federation:

(Signed): Boris Yeltsin

17 June 1992

JOINT STATEMENT ON CHEMICAL WEAPONS

President Bush and President Yeltsin stressed their continuing commitment to the global elimination of chemical weapons. They expressed their conviction that the Geneva negotiations on a multilateral convention banning chemical weapons can be concluded by the end of August. They agreed to instruct their representatives accordingly, and called on all participants in the negotiations to do their utmost to achieve this goal. They expressed the hope that a ministerial meeting could be convened in that time-frame to approve the convention.

The two leaders underscored their support for the 1989 Wyoming Joint Memorandum on phased confidence-building measures in the area of chemical weapons destruction, and agreed to implement the new, cooperative provisions for detailed data exchanges and inspections included in the Joint Memorandum as soon as arrangements can be completed. They also agreed that the June 1990 bilateral chemical weapons Destruction Agreement would be updated and brought into force promptly.

17 June 1992

JOINT RUSSIA-UNITED STATES STATEMENT
ON KOREAN NUCLEAR NON-PROLIFERATION

Russia and the United States, supporting the efforts by the international community to counter the proliferation of nuclear weapons, note the positive changes in strengthening the nuclear non-proliferation regime in Korea. They applaud the North-South Joint Declaration on the Denuclearization of the Korean Peninsula of 31 December 1991, and call for the full implementation of this agreement, which will make an essential contribution to strengthening regional peace and security and to reconciliation and stability on the Korean Peninsula. The sides welcome the Democratic People's Republic of Korea ratification of the safeguards agreement with the IAEA and encourage further cooperation with the agency in placing its nuclear facilities under appropriate safeguards. Full compliance by the Democratic People's Republic of Korea with its obligations under the non-proliferation Treaty and the Joint Declaration, including IAEA safeguards as well as credible and effective bilateral nuclear inspections, will make possible the full resolution of international concerns over the nuclear problem on the Korean Peninsula.

17 June 1992

JOINT STATEMENT ON A GLOBAL PROTECTION SYSTEM

The Presidents continued their discussion of the potential benefits of a global protection system (GPS) against ballistic missiles, agreeing that it is important to explore the role for defences in protecting against limited ballistic missile attacks. The two Presidents agreed that their two nations should work together with allies and other interested States in developing a concept for such a system as part of an overall strategy regarding the proliferation of ballistic missiles and weapons of mass destruction. Such cooperation would be a tangible expression of the new relationship that exists between Russia and the United States and would involve them in an important undertaking with other nations of the world community.

The two Presidents agreed it is necessary to start work without delay to develop the concept of the GPS. For this purpose they agreed to establish a high-level group to explore on a priority basis the following practical steps:

- The potential for sharing of early warning information through the establishment of an early warning centre.

- The potential for cooperation with participating States in developing ballistic missile defence capabilities and technologies.

- The development of a legal basis for cooperation, including new treaties and agreements and possible changes to existing treaties and agreements necessary to implement the global protection system.

17 June 1992

JOINT RUSSIAN-AMERICAN DECLARATION ON DEFENCE CONVERSION

The United States of America and the Russian Federation recognize that defence conversion is a key challenge of the post Cold War era and essential for building a democratic peace. Both parties realize the hardships involved in defence conversion efforts. But the parties realize, too, that the successful conversion of resources no longer needed for defence is in the long-term economic and national security interests of their peoples. Therefore, the United States of America and the Russian Federation declare their intention to devote priority to cooperation in advancing defence conversion.

Recognizing the important role of the private sector and of practical participation by business communities in the complex task of defence conversion, the United States of America and the Russian Federation are establishing a United States-Russian Defence Conversion Committee to facilitate conversion through expanded trade and investment. The intergovernmental committee will be established within the framework of the United States-Russian Business Development Committee and will be designed to facilitate the exchange of information and the promotion of trade and investment, including through the development of contacts between interested groups, the expansion of information exchange on enterprises undergoing conversion, and, the improvement of conditions for commercial activities in both countries through the identification and removal of obstacles to expanded trade and investment. The Committee will inform the Governments of both countries on a regular basis of the results of its activities, in order that they may take timely and effective measures to eliminate impediments to bilateral cooperation in the area of conversion.

With the aim of promoting successful cooperation in conversion, each of the parties intends to take a number of practical steps in the near future.

The Russian Federation intends to establish on its territory a favourable political, economic, legal and regulatory climate for American trade and investment, including the adoption of macroeconomic reforms necessary to institute convertibility of the rouble; the pursuit of complementary microeconomic reforms to support the privatization and demonopolization of industry; the enactment of laws to guarantee contract and property rights; and, the dissemination of internationally accepted standards of basic business and financial information on enterprises undergoing conversion.

The United States intends to facilitate United States business engagement in commercially viable conversion projects in Russia, including joint ventures, through the placement of long-term defence conversion resident advisers to serve as catalysts for United States business engagement and to provide expertise to local leaders and enterprise directors; the establishment in Russia of business centres with translation, education and training facilities for United States businesses operating in Russia; the creation of a business information service ("BISNIS") in Washington to match businesses in Russia with potential investors in the United States; and, the involvement of the

Trade and Development Programme, the Overseas Private Investment Corporation, and the Export-Import Bank to provide incentives to American private investment in commercially viable defence conversion projects.

The United States of America and the Russian Federation endorse the COCOM Cooperation Forum on Export Control as a means to heal Cold War divisions and advance conversion through helping to remove barriers to high-technology trade, assisting in the establishment of COCOM-comparable export control regimes in Russia and the other new independent States, and establishing procedures to ensure the civil end-use of sensitive goods and technologies on matters of common concern. Both parties agree that this process is based on their mutual determination strictly to adhere to world standards of export controls in the area of the non-proliferation of weapons of mass destruction and related technologies, missiles and missile technology, destabilizing conventional armaments, and dual-use goods and technologies.

The parties strongly encourage the expansion of bilateral defence and military contacts and the work of the North Atlantic Cooperation Council in addressing the full range of military issues that are critically linked to the success of conversion including civilian control of the military in a democracy; defence planning, budgeting and procurement in a market economy; base closings and conversions; and demobilization and retraining as well as social protection.

AGREEMENT BETWEEN THE UNITED STATES OF AMERICA AND THE RUSSIAN FEDERATION CONCERNING THE SAFE AND SECURE TRANSPORTATION, STORAGE AND DESTRUCTION OF WEAPONS AND THE PREVENTION OF WEAPONS PROLIFERATION

The United States of America and the Russian Federation hereinafter referred to as the Parties,

Desiring to facilitate the safe and secure transportation and storage of nuclear, chemical, and other weapons in the Russian Federation in connection with their destruction,

Intending to build upon the framework for cooperation set forth in the Agreement Between the Government of the United States of America and the Government of the Russian Federation Regarding Cooperation to Facilitate the Provision of Assistance of 4 April 1992,

Have agreed as follows:

ARTICLE I

The Parties shall cooperate in order to assist the Russian Federation in achieving the following objectives:

(a) the destruction of nuclear, chemical, and other weapons;

(b) the safe and secure transportation and storage of such weapons in connection with their destruction; and

(c) the establishment of additional verifiable measures against the proliferation of such weapons that pose a risk of proliferation.

ARTICLE II

1. The Parties, through their Executive Agents, shall enter into implementing agreements as appropriate to accomplish the objectives set forth in Article I of this Agreement. The implementing agreements shall include, inter alia:

(a) a description of the activities to be undertaken;

(b) provisions concerning the sequence of activities;

(c) provisions concerning access to material, training or services provided at sites of their use, if possible, for monitoring and inspection; and

(d) other provisions as appropriate.

2. In case of any inconsistency between this Agreement and any implementing agreements, the provisions of this Agreement shall prevail.

ARTICLE III

Each Party shall designate an Executive Agent to implement this Agreement. For the United States of America, the Executive Agent shall be the Department of Defense. For the Russian Federation, with respect to nuclear weapons, the Executive Agent shall be the Ministry of Atomic Energy.

ARTICLE IV

Except as otherwise provided in this Agreement or in an implementing agreement, the terms of this Agreement shall apply to all material, training or services provided in accordance with this Agreement or implementing agreements, and to all related activities and personnel.

ARTICLE V

1. The Russian Federation shall facilitate the entry and exit of employees of the Government of the United States of America and contractor personnel of the United States of America into and out of the territory of the Russian Federation for the purpose of carrying out activities in accordance with this Agreement.

2. Aircraft and vessels, other than regularly scheduled commercial aircraft and vessels, used by the United States of America in connection with activities pursuant to this Agreement in the Russian Federation shall, in accordance with international law, be free of customs inspections, customs charges, landing fees, navigation charges, port charges, tolls, and any other charges by the Russian Federation or any of its instrumentalities.

3. If an aircraft other than a regularly scheduled commercial aircraft is used by the United States of America for transportation to the Russian Federation, its flight plan shall be filed in accordance with the procedures of the International Civil Aviation Organization applicable to civil aircraft, including in the remarks section of the flight plan confirmation that the appropriate clearance has been obtained. The Russian Federation shall provide parking, security protection, servicing, and fuel for aircraft of the United States of America.

ARTICLE VI

Unless the written consent of the United States of America has first been obtained, the Russian Federation shall not transfer title to, or possession of, any material, training or services provided pursuant to this Agreement to any entity, other than on officer, employee or agent of a Party to this Agreement and shall not permit the use of such material, training or services for purposes other than those for which it has been furnished.

ARTICLE VII

1. The Russian Federation shall, in respect of legal proceedings and claims, other than contractual claims, hold harmless and bring no legal proceedings against the United States of America and personnel, contractors,

and contractors' personnel of the United States of America, for damage to property owned by the Russian Federation, or death or injury to any personnel of the Russian Federation, arising out of activities pursuant to this Agreement.

2. Claims by third parties, arising out of the acts or omissions of any employees of the United States of America or contractors or contractors' personnel of the United States of America done in the performance of official duty, shall be the responsibility of the Russian Federation.

3. The provisions of this Article shall not prevent the Parties from providing compensation in accordance with their national laws.

4. The Parties may consult, as appropriate, on claims and proceedings under this Article.

5. Nothing in this Article shall be construed to prevent legal proceedings or claims against nationals of the Russian Federation or permanent residents of the Russian Federation.

ARTICLE VIII

The activities of the United States of America under this Ageement are subject to availability of appropriated funds.

ARTICLE IX

Employees of the Government of the United States of America present in the territory of the Russian Federation for activities related to this Agreement shall be accorded privileges and immunities equivalent to that accorded administrative and technical staff personnel in accordance with the Vienna Convention on Diplomatic Relations of 18 April 1961.

ARTICLE X

1. The United States of America, its personnel, contractors, and contractors' personnel shall not be liable to pay any tax or similar charge by the Russian Federation or any of its instrumentalities on activities undertaken in accordance with this Agreement.

2. The United States of America, its personnel, contractors, and contractors' personnel may import into, and export out of, the Russian Federation any equipment, supplies, material or services required to implement this Agreement. Such importation and exportation of articles or services shall not be subject to any licence, other constrictions, customs, duties, taxes or any other charges or inspections by the Russian Federation or any of its instrumentalities.

ARTICLE XI

In the event that a Party awards contracts for the acquisition of articles and services, including construction, to implement this Agreement, such contracts shall be awarded in accordance with the laws and regulations of

that Party. Acquisition of articles and services in the Russian Federation by or on behalf of the United States of America in implementing this Agreement shall not be subject to any taxes, customs, duties or similar charges by the Russian Federation or its instrumentalities.

ARTICLE XII

The Russian Federation shall take all reasonable measures within its power to ensure the security of material, training or services provided pursuant to this Agreement and shall protect them against seizure or conversion.

ARTICLE XIII

Upon request, representatives of the Government of the United States of America shall have the right to examine the use of any material, training or other services provided in accordance with this Agreement, if possible at sites of their location or use, and shall have the right to inspect any and all related records or documentation during the period of this Agreement and for three years thereafter. These inspections shall be carried out in accordance with procedures to be agreed upon by the Parties.

ARTICLE XIV

This Agreement shall enter into force upon signature and shall remain in force for seven years. This Agreement may be amended or extended by the written agreement of the Parties and may be terminated by either Party upon 90 days' written notification to the other Party of its intention to do so. Notwithstanding the termination of this Agreement or the implementing agreements, the obligations of the Russian Federation in accordance with Articles VI, VII, IX, X, XII of this Agreement shall continue to apply without respect to time, unless otherwise agreed in writing by the Parties.

DONE at Washington this 17th day of June 1992, in two copies, each in the English and Russian languages, both texts being equally authentic.

FOR THE UNITED STATES
OF AMERICA:

(Signed): George Bush

FOR THE RUSSIAN
FEDERATION:

(Signed) Boris Yeltsin

AGREEMENT BETWEEN THE DEPARTMENT OF DEFENSE OF THE UNITED STATES OF AMERICA AND THE MINISTRY OF ATOMIC ENERGY OF THE RUSSIAN FEDERATION CONCERNING THE SAFE AND SECURE TRANSPORTATION AND STORAGE OF NUCLEAR WEAPONS THROUGH THE PROVISION OF EMERGENCY RESPONSE EQUIPMENT AND RELATED TRAINING

The Department of Defense of the United States of America and the Ministry of Atomic Energy of the Russian Federation, hereinafter referred to as the Parties,

Desiring to facilitate the safe and secure transportation and storage of nuclear weapons in the Russian Federation in connection with the destruction of nuclear weapons and to assist in the prevention of weapons proliferation,

Have agreed as follows:

ARTICLE I

1. In order to assist the Russian Federation in the safe and secure transportation and storage of nuclear weapons in connection with the expeditious destruction of nuclear weapons, the Department of Defense of the United States of America, hereinafter referred to as DOD, shall provide at no cost to the Ministry of Atomic Energy of the Russian Federation, hereinafter referred to as MINATOM, the emergency nuclear weapon accident response equipment specified in Annex A, which is an integral part of this Agreement, together with related technical manuals. This equipment shall conform with the technical specifications established by the DOD.

2. The MINATOM shall use all material, training and services provided in accordance with this Agreement exclusively for the purpose of facilitating the safe and secure transportation and storage of nuclear weapons in connection with their destruction.

3. The DOD and the United States of America shall not be responsible for ensuring either the proper use of material, training or services provided in accordance with this Agreement or against any failure of the material, training or services to provide intended levels of protection.

4. This Agreement and all activities undertaken in accordance with this Agreement shall be subject to the provisions of the Agreement between the United States of America and the Russian Federation Concerning the Safe and Secure Transportation, Storage and Destruction of Weapons and the Prevention of Weapons Proliferation of 17 June 1992, hereinafter referred to as the Weapons Destruction and Non-Proliferation Agreement.

ARTICLE II

1. Each Party to this Agreement shall have the right, following written notification of the other Party, to delegate responsibilities for the implementation of this Agreement to other agencies, departments or units of their respective Governments.

2. Each Party to this Agreement shall have the right, following written notification of the other Party, to designate technical liaison representatives for material, training and services provided pursuant to this Agreement.

ARTICLE III

1. The total cost of material, training and services provided pursuant to this Agreement and associated expenses, including costs related to the transportation of material and personnel to and from the Russian Federation, to the DOD shall not exceed $US 10 million.

2. Delivery of material and training pursuant to this Agreement shall commence within eight months after this Agreement shall enter into force.

3. The equipment to be provided pursuant to this Agreement shall be delivered to Moscow, unless the Parties otherwise agree. The DOD shall notify MINATOM of the planned date of each shipment at least 72 hours in advance. The MINATOM shall take possession of the equipment within six hours after the receipt of the notification of the arrival of such shipment.

ARTICLE IV

The MINATOM shall examine all material received pursuant to this Agreement and provide confirmation to the DOD within ten days of receipt that it conforms with the specifications established by the DOD. Any material failing to conform with these specifications shall be returned to the United States of America through the Embassy of the United States of America at Moscow within 30 days of receipt for replacement.

ARTICLE V

Upon 30 days' advance notice and no more than three times in each calendar year, representatives of the DOD shall have the right to examine the use of any material, training or other services provided in accordance with this Agreement, if possible at sites of their location or use, and shall have the right to inspect any and all related records or documentation during the period of this Agreement and for three years thereafter.

ARTICLE VI

1. The DOD shall provide the MINATOM with a set of technical manuals and initial operator training on the equipment in accordance with the terms of this Article. The delivery of the manuals and training shall be integrated, to the maximum extent feasible, with the delivery of the equipment such that the equipment may be operated safely as soon as practical after it is delivered.

2. The DOD may provide, in its discretion, training to the MINATOM representatives related to the operation of equipment provided pursuant to this Agreement in a maximum of five phases:

(a) A training programme review phase during which representatives of the MINATOM may have an opportunity to review the training programme and suggest modifications which address specific needs in the Russian Federation. This phase of training, if undertaken, would be conducted in the United States of America;

(b) An initial operator training phase during which personnel of the Russian Federation may be trained on the operation of equipment. This phase of training, if undertaken, would be conducted in the Russian Federation;

(c) A periodic review training phase. This phase of training, if undertaken, would be conducted in either the Russian Federation or the United States of America, as agreed by the Parties;

(d) An update training phase, as required by unforeseen circumstances or equipment modifications. This phase of training, if undertaken, would be conducted in either the Russian Federation or the United States of America, as agreed by the Parties;

(e) A maintenance and calibration training phase. This training may be provided by the DOD until such time as the representatives of the MINATOM have acquired sufficient familiarity with the equipment to assume responsibility for maintenance and calibration as described in this Agreement. This training, if undertaken, would be conducted in the Russian Federation.

ARTICLE VII

The DOD may provide, in its discretion, initial maintenance and calibration services, spare parts, and repair parts to the MINATOM for the operation of equipment provided pursuant to this Agreement.

ARTICLE VIII

As appropriate, the Parties may enter into implementing arrangements to carry out the provisions of this Agreement. In case of any inconsistency between this Agreement and any such arrangements, the provisions of this Agreement shall prevail.

ARTICLE IX

This Agreement shall enter into force upon signature and shall remain in force for two years or for the duration of the Weapons Destruction and Non-Proliferation Agreement, which ever is shorter. This Agreement may be amended or extended by the written agreement of the Parties and may be terminated by either Party upon 90 days written notification to the other Party of its intention to do so.

DONE at Washington D.C. this 17th day of June 1992, in two copies, each in the English and Russian languages, both texts being equally authentic.

FOR THE DEPARTMENT OF DEFENSE OF THE UNITED STATES OF AMERICA

(Signed): Donald Atwood

FOR THE MINISTRY OF THE ATOMIC ENERGY OF THE RUSSIAN FEDERATION

(Signed): A. Kozyrev

ANNEX A TO THE AGREEMENT BETWEEN THE DEPARTMENT OF DEFENSE OF THE UNITED STATES OF AMERICA AND THE MINISTRY OF ATOMIC ENERGY OF THE RUSSIAN FEDERATION CONCERNING THE SAFE AND SECURE TRANSPORTATION AND STORAGE OF NUCLEAR WEAPONS THROUGH THE PROVISION OF EMERGENCY RESPONSE EQUIPMENT AND RELATED TRAINING

Item description	Quantity
Communication equipment	
Saber I radio system	100
Protective clothing	
Various clothing sets	820
Survey instrumentation	
Violinist II Kits	100
Radiography	
High energy radiography	1
Video and optics	
Portable integrated video system (PIVS)	4
Fiberscope system	4
Access equipment	
Emergency access equipment	10
Liquid abrasive cutter	2
Computer network	
Laptop system	3
Stabilization system	
Silicon rubber/polyurethane Damaged weapon packaging/equipment module	3

AGREEMENT BETWEEN THE DEPARTMENT OF DEFENSE OF THE UNITED STATES OF AMERICA AND THE MINISTRY OF ATOMIC ENERGY OF THE RUSSIAN FEDERATION CONCERNING THE SAFE AND SECURE TRANSPORTATION AND STORAGE OF NUCLEAR WEAPONS THROUGH THE PROVISION OF ARMOURED BLANKETS

The Department of Defense of the United States of America and the Ministry of Atomic Energy of the Russian Federation, hereinafter referred to as the Parties,

Desiring to facilitate the safe and secure transportation and storage of nuclear weapons in the Russian Federation in connection with their destruction and to assist in the prevention of weapons proliferation,

Have agreed as follows:

ARTICLE I

1. In order to assist the Russian Federation in the safe and secure transportation and storage of nuclear weapons in connection with their expeditious destruction, the Department of Defense of the United States of America, hereinafter referred to as DOD, shall provide at no cost to the Ministry of Atomic Energy of the Russian Federation, hereinafter referred to as MINATOM, armoured blankets, hereinafter referred to as blankets, as specified in Article VI of this Agreement.

2. The MINATOM shall use all material, training and services provided in accordance with this Agreement exclusively for the purpose of augmenting the protective capability of nuclear weapon containers and vehicles carrying nuclear weapons to and within destruction facilities and necessary related storage facilities.

3. The DOD and the United States of America shall not be responsible for ensuring either the proper use of material, training or services provided in accordance with this Agreement or against any failure of the material, training or services to provide intended levels of protection.

4. This Agreement and all activities undertaken in accordance with this Agreement shall be subject to the provisions of the Agreement Between the United States of America and the Russian Federation Concerning the Safe and Secure Transportation, Storage and Destruction of Weapons and the Prevention of Weapons Proliferation of 17 June 1992, hereinafter referred to as the Weapons Destruction and Non-Proliferation Agreement.

ARTICLE II

1. Each Party to this Agreement shall have the right, following written notification to the other Party, to delegate responsibilities for the implementation of this Agreement to other agencies, departments or units of their respective governments.

2. Each Party to this Agreement shall have the right, following written notification to the other Party, to designate technical liaison representatives for material, training and services provided pursuant to this Agreement.

ARTICLE III

1. The total cost of all material, training and services provided pursuant to this Agreement and associated expenses, including costs related to the transportation of material and personnel to and from the Russian Federation, to the DOD shall not exceed $US 5 million.

2. Delivery of blanekts pursuant to this Agrement shall commence as follows:

(a) for existing United States Army nylon blankets, up to 200 sets within 60 days after this Agreement enters into force; and

(b) for soft armour blankets, lots of 30-40 sets as they are produced with total delivery of up to 250 sets within one year after this Agreement enters into force.

3. The blankets shall be delivered to Moscow, unless the Parties otherwise agree. The DOD shall notify the MINATOM of the planned date of each shipment at least 72 hours in advance. The MINATOM shall take possession of the blankets within six hours after the receipt of the notification of the arrival of such blankets.

ARTICLE IV

The MINATOM shall examine all blankets received pursuant to this Agreement and provide confirmation to the DOD within ten days of receipt that they conform with the technical characteristics and specifications set forth in Article VI of this Agreement. Any blankets failing to conform with these standards shall be returned to the United States of America through the Embassy of the United States of America at Moscow within 30 days of receipt for replacement.

ARTICLE V

Upon 30 days' advance notice and no more than three times in each calendar year, representatives of the DOD shall have the right to examine the use of any material, training or other services provided in accordance with this Agreement, if possible at sites of their location or use, and shall have the right to inspect any and all related records or documentation during the period of this Agreement and for three years thereafter.

ARTICLE VI

Blankets provided to the MINATOM pursuant to this Agreement shall conform to the standards listed in the following categories:

(a) Up to 250 soft armour blankets, to be manufactured, each consisting of ten identical 2 m x 1 m all-purpose panels with eyelets and velcro fasteners that can be assembled into blankets for various size nuclear weapon containers and designed to be capable of protecting such containers against damage by 9.00 mm Makarov-pistol bullets and hand grenade fragments; and

(b) Up to 200 existing sets of United States Army nylon armour blankets, each consisting of six panels, 1.52 metres x 1.04 metres in size and designed to be capable of protecting nuclear weapon containers against damage by 9.00 mm Makarov-pistol bullets and hand grenade fragments.

ARTICLE VII

The DOD may provide, in its discretion, training to the MINATOM related to the use of material provided in accordance with this Agreement.

ARTICLE VIII

As appropriate, the Parties may enter into implementing arrangements to carry out the provisions of this Agreement. In case of any inconsistency between this Agreement and any such arrangements, the provisions of this Agreement shall prevail.

ARTICLE IX

This Agreement shall enter into force upon signature and shall remain in force for two years or for the duration of the Weapons Destruction and Non-Proliferation Agreement, whichever is shorter. This Agreement may be amended or extended by the written agreement of the Parties and may be terminated by either Party upon 90 days written notification to the other Party of its intention to do so.

DONE at Washington, D.C. this 17th day of June 1992, in two copies, each in the English and Russian languages, both texts being equally authentic.

FOR THE DEPARTMENT OF DEFENSE OF THE UNITED STATES OF AMERICA

(Signed): Donald Atwood

FOR THE MINISTRY OF THE ATOMIC ENERGY OF THE RUSSIAN FEDERATION

(Signed): A. Kozyrev

AGREEMENT BETWEEN THE DEPARTMENT OF DEFENSE OF THE UNITED STATES OF AMERICA AND THE MINISTRY OF ATOMIC ENERGY OF THE RUSSIAN FEDERATION CONCERNING THE SAFE AND SECURE TRANSPORTATION AND STORAGE OF NUCLEAR WEAPONS MATERIAL THROUGH THE PROVISION OF FISSILE MATERIAL CONTAINERS

The Department of Defense of the United States of America and the Ministry of Atomic Energy of the Russian Federation, hereinafter referred to as the Parties,

Desiring to facilitate the safe and secure transportation and storage of nuclear weapons and nuclear weapons material in the Russian Federation in connection with the destruction of nuclear weapons and to assist in the prevention of weapons proliferation,

Have agreed as follows:

ARTICLE I

1. In order to assist the Russian Federation in the safe and secure transportation and storage of nuclear weapons and nuclear weapons material in connection with the expeditious destruction of nuclear weapons, the Department of Defense of the United States of America, hereinafter referred to as DOD, shall provide at no cost to the Ministry of Atomic Energy of the Russian Federation, hereinafter referred to as the MINATOM, fissile material containers, hereinafter referred to as the containers, in accordance with the terms of this Agreement and conforming with technical specifications established by the DOD. In establishing these technical specifications, the DOD shall take into account the recommendations of the MINATOM and the results of technical discussions between the Parties. Additional procedures and requirements related to the provision of the containers are specified in Annex A, which is an integral part of this Agreement.

2. The MINATOM shall use all material, training and services provided in accordance with this Agreement exclusively for the purpose of providing protective transport and storage of fissile material in connection with the expeditious destruction of nuclear weapons.

3. The DOD and the United States of America shall not be responsible for ensuring either the proper use of material, training or services provided in accordance with this Agreement or against any failure of the material, training or services to provide intended levels of protection.

4. This Agreement and all activities undertaken in accordance with this Agreement shall be subject to the provisions of the Agreement Between the United States of America and the Russian Federation Concerning the Safe and Secure Transportation, Storage and Destruction of Weapons and the Prevention of Weapons Proliferation of 17 June 1992, hereinafter referred to as the Weapons Destruction and Non-Proliferation Agreement.

ARTICLE II

1. Each Party to this Agreement shall have the right, following written notification to the other Party, to delegate responsibilities for the implementation of this Agreement to other agencies, departments or units of their respective governments.

2. Each Party to this Agreement shall have the right, following written notification to the other Party, to designate technical liaison representatives for material, training and services provided pursuant to this Agreement.

ARTICLE III

1. The total cost of all material, training and services provided pursuant to this Agreement and associated expenses, including costs related to the transportation of material and personnel to and from the Russian Federation, to the DOD shall not exceed US$ 50 million.

2. The DOD shall initially deliver up to ten thousand containers to the MINATOM pursuant to this Agreement. The non-binding target date for completion of the delivery of these containers is 31 December 1995. The DOD may, at its discretion, increase the number of containers to be delivered pursuant to this Agreement, provided that the total cost of such additional containers and related services and training does not exceed US$ 50 million.

3. The equipment to be provided pursuant to this Agreement shall be delivered to Moscow, unless the Parties otherwise agree. The DOD shall notify the MINATOM of the planned date of each shipment at least seven days in advance of the anticipated shipping date. The MINATOM shall take possession of the containers within six hours after receipt of the notification of the arrival of such containers.

ARTICLE IV

The MINATOM shall examine all containers received purusant to this Agreement and provide confirmation to the DOD within ten days of receipt that they conform with the technical specifications established by the DOD. Damaged containers and material failing to conform with agreed specifications shall be returned to the United States of America through the Embassy of the United States of America at Moscow within 30 days of receipt for replacement.

ARTICLE V

Upon 30 days' advance notice and no more than three times in each calendar year, representatives of the DOD shall have the right to examine the use of any material, training or other services provided in accordance with this Agreement, if possible at sites of their location or use, and shall have the right to inspect any and all related records or documentation during the period of this Agreement and for three years thereafter.

ARTICLE VI

As appropriate, the Parties may enter into implementing arrangements to carry out the provisions of this Agreement. In case of any inconsistency between this Agreement and any such arrangements, the provisions of this Agreement shall prevail.

ARTICLE VII

This Agreement shall enter into force upon signature and shall remain in force for four years or for the duration of the Weapons Destruction and Non-Proliferation Agreement, whichever is shorter. This Agreement may be amended or extended by the written agreement of the Parties and may be terminated by either Party upon ninety days written notification to the other Party of its intention to do so.

DONE at Washington, D.C. this 17th day of June, 1992, in two copies, each in the English and Russian languages, both texts being equally authentic.

FOR THE DEPARTMENT OF DEFENSE OF THE UNITED STATES OF AMERICA:

(Signed): Donald Atwood

FOR THE MINISTRY OF ATOMIC ENERGY OF THE RUSSIAN FEDERATION:

(Signed): A. Kozyrev

ANNEX A TO THE AGREEMENT BETWEEN THE DEPARTMENT OF DEFENSE OF THE UNITED STATES OF AMERICA AND THE MINISTRY OF ATOMIC ENERGY OF THE RUSSIAN FEDERATION CONCERNING THE SAFE AND SECURE TRANSPORTATION AND STORAGE OF NUCLEAR WEAPONS MATERIAL THROUGH THE PROVISION OF FISSILE MATERIAL CONTAINERS

ARTICLE I

Within 30 days of the entry into force of this Agreement, the MINATOM shall provide a document, in Russian and English, to the DOD which fully describes design requirements recommended by the MINATOM for the containers. This document shall include the following information: vibration input environments; permissible vibration levels in the inner vessel; acceptable leak rate levels of the inner vessel in all environments; requirements not defined by the International Atomic Energy Safety Series No. 6; and other design requirements. This document shall constitute only a MINATOM recommendation and the DOD shall, to the maximum extent practical, use it in the design of containers to be provided to the MINATOM.

ARTICLE II

1. Within 60 days of the entry into force of this Agreement, the DOD shall provide to the MINATOM, for information purposes only, cost estimates and a schedule for the design, qualification and production activities for ten thousand containers, designated as the AT400R. These scheduled activities shall include: a test plan for the qualification tests which shall ensure compliance with DOD design requirements; identification of witness points for the MINATOM technical experts to observe the qualification tests; development of operating procedures for the use of the AT400R container; and, preparation of acceptance test plans, to include witness points for the MINATOM technical experts.

2. When available, the DOD shall provide to the MINATOM designs, specifications, and reports detailing the results of analysis and tests of the AT400R containers' mechanical and thermal performance in normal and accident situations or environments.

ARTICLE III

DOD may, in its discretion and in accordance with Article I of this Annex, invite the MINATOM technical experts to the United States of America or other locations to witness qualification and acceptance tests for the containers. The costs associated with these observation activities shall be borne by the DOD; the number of the MINATOM experts shall be determined by the DOD after consultation with the MINATOM.

ARTICLE IV

The DOD shall prepare and provide to the MINATOM operating specifications for the containers. The DOD may provide, at its discretion, training and supplementary materials and services to the MINATOM in order to carry out the purposes of this agreement.

ARTICLE V

The DOD shall not be responsible for payment of expenses related to the construction procedures or modification of containers that are not required for conformance with the DOD standards and specifications for containers provided pursuant to this Agreement.

CONFERENCE ON DISARMAMENT

CD/1163/Corr.1
13 August 1992

Original: ENGLISH

PROGRESS REPORT TO THE CONFERENCE ON DISARMAMENT ON THE THIRTY-FOURTH SESSION OF THE AD HOC GROUP OF SCIENTIFIC EXPERTS TO CONSIDER INTERNATIONAL COOPERATIVE MEASURES TO DETECT AND IDENTIFY SEISMIC EVENTS

Corrigendum

Page 4, paragraph 14, line 3:

correct "Authority" to read "Agency".

GE.92-62622

CONFERENCE ON DISARMAMENT

CD/1163
7 August 1992

Original: ENGLISH

PROGRESS REPORT TO THE CONFERENCE ON DISARMAMENT ON THE THIRTY-FOURTH SESSION OF THE AD HOC GROUP OF SCIENTIFIC EXPERTS TO CONSIDER INTERNATIONAL COOPERATIVE MEASURES TO DETECT AND IDENTIFY SEISMIC EVENTS

1. The Ad Hoc Group of Scientific Experts to Consider International Cooperative 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 thirty-fourth formal session from 27 July to 7 August 1992, in the Palais des Nations, Geneva, under the Chairmanship of Dr. Ola Dahlman of Sweden. This was the twenty-sixth 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 is open to all member States of the Conference on Disarmament. It is also open on a standing basis to all non-member States which have been invited upon their request by the Conference on Disarmament to participate in its work. Accordingly, scientific experts and representatives of the following member States of the Conference on Disarmament participated in the session: Australia, Canada, China, Czech and Slovak Federal Republic, Egypt, France, Germany, Hungary, India, Indonesia, Iran (Islamic Republic of), Italy, Japan, Netherlands, Pakistan, Peru, Romania, Russian Federation, Sweden, United Kingdom of Great Britain and Northern Ireland and the United States of America.

3. Scientific experts and representatives from the following non-member States of the Conference on Disarmament participated in the session: Austria, Finland, New Zealand, Norway, Spain and Switzerland.

4. During the session, 38 papers containing information on national investigations related to the work of the Group were presented by experts from: Australia, Austria, Czech and Slovak Federal Republic, Finland, Germany, Hungary, Indonesia, Italy, Japan, New Zealand, Norway, Peru, Romania, Russian Federation, Sweden, United Kingdom of Great Britain and Northern Ireland and United States of America.

5. During its previous session, the Ad Hoc Group completed a technical evaluation of its Second Technical Test (GSETT-2). The results are contained in its sixth main report, submitted to the Conference on Disarmament as document CD/1144. During the present session, the Group completed five appendices to the sixth report, containing detailed technical material.

6. The Group continued its discussions on the seismological evaluation of the GSETT-2 and reviewed national investigations relevant in this regard. Subsequently the Group discussed a draft outline of the evaluation report and agreed on focusing this report on the detection and location capabilities achieved during GSETT-2. The Group envisages a report on this evaluation during its next session.

7. The Ad Hoc Group conducted in-depth discussions on the reassessment of the concept of a global system for the exchange of seismic data worked out in its Fifth Report (CD/903), based on the results and experiences gained from GSETT-2 and on recent scientific and technological developments. The discussions were focused on the overall design of the system and provided a basis for the direction of the Group's future work.

8. The Group noted that many of the results and experiences obtained in GSETT-2 will be important in reassessing the system concept and its various components. Some of the conclusions the Group drew from GSETT-2 will have a significant influence on the overall design of the system, e.g.:

- the need to take into account information from local and regional seismic networks;

- the future use of only one IDC (International Data Centre) in the global system;

- the need for improved analysis procedures, with emphasis on automation especially for event definition, location and depth estimation;

- the need for a network with adequate global coverage of high-quality stations, especially arrays.

9. The Group noted that many countries had undertaken bilateral cooperation in upgrading data acquisition, communication and data exchange systems during the GSETT-2. The Group encourages this cooperation to continue as it would contribute significantly to the future improvement of the system.

10. Over the last decade, scientific and technological developments have been significant not only in seismology, but also in information technology, an area of great importance for global seismological monitoring systems. The Group firmly believes that the design of the global system should fully utilize recent developments in science and technology. The Group identified the following areas as being important for the overall system concept:

- the rapid developments in global telecommunications;

- the general availability of high performance computers and methods and procedures for data management and analysis;

- the developments in regional seismology, i.e., based on seismological observations at distances less than 2,000 km.;

- the issues of redundancy, data authenticity, reliability and security.

The Ad Hoc Group envisages continuing the discussion of its future work, including the incorporation of new technologies, at its next session.

11. As to the overall conceptual design, the Group agreed on a tentative framework for studying design options, thus providing guidance to the more detailed work on the individual components of the system. This overall design concept might be revised in the light of results obtained from analysis of individual components.

This overall framework includes, inter alia:

- There should be only one IDC, which would operate on the basis of:

  (i) providing high quality data for national verification needs;

  (ii) increased automation in the analysis and operational procedures;

  (iii) improved quality control in all aspects of the system;

  (iv) improved procedures for waveform analysis;

  (v) the possibility of accepting and processing continuous digital data, provided that the seismological value of this can be demonstrated.

- The system would be composed of a global network of arrays and single stations, complemented by national regional networks consisting of stations intended primarily for surveillance of national and regional seismicity.

- The global network would consist of high quality stations and arrays. Such a network could be modelled by starting with the best stations in operation during GSETT-2, and extending these geographically to give uniform coverage. This network could then be extended or reduced in size to demonstrate several networks of varying sensitivity. Station types might be site-dependent. They should be open stations. Network studies should be based on revised event definition criteria to be proposed by the "Procedures" working group. Standards for station operation should be high.

- For the national regional networks, NDCs should be encouraged to report as accurately as possible on seismic events occurring within their territories. NDCs should be responsive to requests for data from their national networks.

In addition to the items listed above, the Group will endeavour to estimate the detection and identification capability of such global systems (see CCD/PV.713 of 22 July 1976 and CD/PV.48 of 7 August 1979).

12. The Ad Hoc Group established nine working groups of participating experts to elaborate on the following topics relevant to the design of the global system:

- Overall concepts
- Station design
- Site selection
- Network studies
- Seismological procedures
- Establishment of a single International Data Center
- Communications
- Interaction by the IDC with national regional networks
- Cost estimates

13. The Ad Hoc Group noted with appreciation the convening of an informal technical workshop by Australia in Canberra from 27 April to 1 May 1992 to evaluate the results of GSETT-2. Many participants of the Group were able to attend and contribute to the workshop. This aided in the Group's continued work on this subject.

14. The Ad Hoc Group has expressed the view that it might be useful, on a scientific and technical level, to share with the International Atomic Energy Authority (IAEA) the GSE technical concepts for the global exchange of seismic data in order to determine if the IAEA has particular technologies or experiences that might be useful to the Group in its work. To this end, the Ad Hoc Group suggests that, without any financial implications to the Conference, the IAEA be invited to send an observer to attend the Ad Hoc Group's next session.

15. The Ad Hoc Group suggests that its next session, subject to approval by the Conference on Disarmament, should be convened from 15 to 26 February 1993.

CONFERENCE ON DISARMAMENT

CD/1164
7 August 1992

Original: ENGLISH

STATEMENT MADE ON BEHALF OF THE "AUSTRALIA GROUP"
BY THE REPRESENTATIVE OF AUSTRALIA, AMBASSADOR PAUL O'SULLIVAN,
AT THE 629TH PLENARY MEETING OF THE CONFERENCE ON DISARMAMENT

I wish to refer in particular to the activities of the Australia Group. These are informal consultations on harmonising export control policies which were initiated in the absence of any global agreement on this subject. This issue has come up in the discussion about Article XI of the Chemical Weapons Convention. In order to help address some of the concerns that have been raised in that discussion I am authorised to make the following statement:

"The following States: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Japan, Luxemburg, Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, the United Kingdom of Great Britain and Northern Ireland and the United States of America, members of the 'Australia Group', welcome the forthcoming signing of the Convention on the Prohibition of Chemical Weapons.

"This Convention, the first multilateral disarmament agreement of a universal character to include an international verification regime, offers a unique opportunity to eliminate a whole class of inhumane and abhorrent weapons.

"The strengthening of world security which will derive from the effective implementation of this Convention should be accompanied by increased co-operation among States. This is the objective of Article XI of the Convention, which the abovementioned States undertake fully to comply with.

"This Article aims at facilitating the fullest possible exchanges in the field of chemical activities for purposes not prohibited under the Convention so as to promote the harmonious economic or technological development of all States Parties.

"The abovementioned States are particularly aware of the need to preserve the proper balance between, on the one hand, the imperatives of the economic and technological development of States, especially in the chemical field, and, on the other hand, the security constraints placed upon them.

"The use which can be made of certain chemical products and equipment for purposes prohibited under the Convention should cause States which are future parties to the Convention to exercise the greatest vigilance so that the desire to ensure the greatest chance of development to all does not as a consequence facilitate, for certain proliferators, prohibited activities which constitute a potential threat to global security.

"The abovementioned States consider that the Convention on the Prohibition of Chemical Weapons, of which they undertake to be original signatories, will be a most valuable instrument to reach this goal.

"They undertake to review, in the light of the implementation of the Convention, the measures that they take to prevent the spread of chemical substances and equipment for purposes contrary to the objectives of the Convention, with the aim of removing such measures for the benefit of States Parties to the Convention acting in full compliance with their obligations under the Convention.

"They intend thus to contribute actively to an increase in commercial and technological exchanges between States and to the universal and full implementation of the Convention on the Prohibition of Chemical Weapons."

CONFERENCE ON DISARMAMENT

CD/1165
12 August 1992

Original: ENGLISH

REPORT OF THE AD HOC COMMITTEE ON PREVENTION OF AN ARMS RACE IN OUTER SPACE

I. INTRODUCTION

1. At its 612th plenary meeting on 13 February 1992, the Conference on Disarmament adopted the following decision (CD/1125):

> 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 re-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 continue to examine, and to identify, through substantive and general consideration, issues relevant to the prevention of an arms race in outer space.
>
> The Ad Hoc Committee, in carrying out this work, will take into account all existing agreements, existing proposals and future initiatives as well as developments which have taken place since the establishment of the Ad Hoc Committee, in 1985, and report on the progress of its work to the Conference on Disarmament before the end of its 1992 session.

2. In that connection, some delegations made statements regarding the scope of the mandate.

II. ORGANIZATION OF WORK AND DOCUMENTS

3. At its 613th plenary meeting on 20th February 1992, the Conference on Disarmament appointed Ambassador Romulus Neagu of Romania as Chairman of the Ad Hoc Committee. Mr. Vladimir Bogomolov, Political Affairs Officer, United Nations Office for Disarmament Affairs served as the Committee's Secretary.

GE.92-62596

4. The Ad Hoc Committee held 13 meetings between 10th March and 11 August 1992.

5. In addition to the documents of the previous sessions [1/] the Ad Hoc Committee had before it the following documents relating to the agenda item submitted to the Conference on Disarmament during the 1992 session:

CD/1142 Letter dated 11 March 1992 from the Permanent Representative of Canada addressed to the Secretary-General of the Conference on Disarmament transmitting Compendia on Outer Space comprising Plenary Statements and Working Papers from 1991 Session of the Conference on Disarmament.

CD/OS/WP.52 Programme of Work

CD/OS/WP.53 Letter dated 15 May 1992 from the Friend of the Chairman of the Ad Hoc Committee on the Prevention of an Arms Race in Outer Space addressed to the Chairman of the Ad Hoc Committee on the Prevention of an Arms Race in Outer Space, forwarding the Working Paper "Table of Statements and Proposals by the members of the Conference on Disarmament relating to Confidence-Building Measures (CBMs) in Outer Space Activities".

CD/OS/WP.54 Working Paper entitled "Confidence-Building Measures in Space Activities", submitted by the Friend of the Chair, Col. G. Diachenko of the Delegation of the Russian Federation.

CD/OS/WP.55 Working Paper entitled "Nuclear Power Systems in Space", submitted by Mr Luciano Anselmo, Expert of the Delegation of Italy.

CD/OS/WP.56 Working Paper entitled "Remarks on keep-out zones in a code of conduct regime for outer space", submitted by Dr Hubert Feigl, Expert of the Delegation of Germany.

III. SUBSTANTIVE WORK DURING THE 1992 SESSION

6. Following consultations on the organization of work, at its first meeting on 10th March 1992, the Ad Hoc Committee adopted the following Programme of Work for the 1992 Session:

"1. Examination and identification of issues relevant to the prevention of an arms race in outer space;

1/ The List of Documents of the previous Sessions may be found in the 1985, 1986, 1987, 1988, 1989, 1990 and 1991 Reports of the Ad Hoc Committee, and in the special report to the Third Special Session of the General Assembly devoted to Disarmament (CD/642, CD/732, CD/787, CD/870, CD/834, CD/956, CD/1039 and CD/1111, respectively).

"2. Existing agreements relevant to the prevention of an arms race in outer space;

"3. Existing proposals and future initiatives on the prevention of an arms race in outer space;

"In carrying out its work with a view to finding and building upon areas of convergence, the Ad Hoc Committee will take into account relevant proposals, initiatives and developments since the establishment of the Committee in 1985 including those presented at the 1991 session of the Conference on Disarmament aimed at enhancing the work of the Ad Hoc Committee as reflected in the work of the Friends of the Chairman, who dealt with the following specific issues in open-ended consultations: Terminological Aspects related to the prevention of an arms race in outer space, issues related to Verification of ASATs and Confidence Building Measures, including improvement of existing and future data bases relating to space activities."

7. With regard to the organization of work, the Ad Hoc Committee agreed that it would give equal treatment to the subjects covered by its mandate and specified in its Programme of Work. Accordingly, the Committee agreed to allocate the same number of meetings to each of those subjects. It was noted that any member wishing to do so may discuss any subject important and relevant to the work of the Committee.

8. The work of the Ad Hoc Committee was governed by the mandate which aims at the Prevention of an Arms Race in Outer Space.

9. The Ad Hoc Committee agreed to continue to enjoy the assistance of the Friends of the Chairman who were appointed by the Chairman to deal with the following issues without prejudice to positions of delegations in open-ended consultations: a) terminological aspects, related to prevention of an arms race in outer space (The Hon. Anthony Monckton, Delegation of the United Kingdom of Great Britain and Northern Ireland); b) issues related to verification of ASATs (antisatellite weapons) (Dr. M. Karem, Delegation of Egypt); c) confidence-building measures in space activities (Col. G. Diachenko, Delegation of the Russian Federation).

10. The Committee benefitted from the scientific and technical contributions of experts from various delegations, who addressed specific issues and initiatives under consideration in the Committee. The subjects addressed

included technical, legal and terminological issues, i.e. peaceful and military uses, protection of satellites, keep-out zones, radioactive materials in outer space and principles governing the re-entry of nuclear power sources in the atmosphere, a need to build a set of principles of CBMs.

A. Examination and identification of issues relevant to the prevention of an arms race in outer space

11. Many delegations considered that, in the post Cold-war period, preventing an arms race in outer space was one of the principal tasks facing the Conference on Disarmament. In this age of high technology and qualitative increases in weapons precision, outer space stood out as an environment vulnerable to militarization. Some delegations stressed that action by the Conference on Disarmament in preventing an arms race in outer space was not only timely, but essential for ensuring that the province of all mankind was indeed explored and used exclusively for peaceful purposes. For those delegations weaponization of outer space was a potential hazard to the space activities of mankind and the peaceful use of outer space. In their view it would be too late to set about drafting a treaty on the prohibition of the weaponization of outer space once such weaponization became a fait accompli.

12. Many delegations expressed their regret that the mandate of the Committee remained the same, and that no substantive change had been added to its programme of work. Some delegations pointed out that the ad hoc Committee should as early as possible conduct substantive negotiations on the conclusion of a comprehensive legal instrument on the prevention of an arms race in outer space.

13. The Group of 21 considered that there was an urgent need to address this important agenda item so as to achieve progress. For this reason, the Group took a flexible position on the question of the mandate and the programme of work although it would have preferred the Committee to work under a negotiating mandate, which would help to concentrate the efforts of the Committee on concrete proposals.

14. In the view of several delegations the most promising directions of work of the Committee appeared to be in the area of CBMs: the development of a code of conduct/rules of the road, the establishment of "keep-out zones", the legal protection of satellites, an agreement on their immunity, the creation of an international trajectography centre, and of a satellite image processing agency.

15. One delegation of the Western Group addressing the subject of space debris indicated that various misconceptions about them had caused some to conclude that an international legal regime on space debris would be needed. In the view of this delegation for such a regime to be established, several legal issues, including the definition of space debris, jurisdiction and control over space debris, and the treatment of liability for damage from orbital debris would be only some of the many legal issues that would need to be resolved. Another delegation of the Western Group presented an expert who gave his own views on the legal background to some terminological issues. The expert referred to other international treaties and concluded that in his view, even though in some contexts "peaceful" meant "non-military", any ambiguity had been clarified by State practice which had not been contradicted in a forceful manner by any state formally protesting military utilisation of space. The expert believed that current military uses of space such as communications, navigation, photo reconnaissance, early warning and weather monitoring all appeared to be lawful.

16. Some delegations referred to the issue of the "Global Protection Against Limited Strikes" (GPALS). One delegation not belonging to any group indicated that although the world had undergone major changes, the research and development of space weapons had not come to an end. The new anti-ballistic missile system was not totally defensive in nature and also had an attacking capability. In its view the development of such a system would inevitably give rise to mutual suspicion among the states and contribute to more tensions in the world. It could also provoke countries with the ability to develop a ballistic missile system to speed up its development. In the opinion of that delegation the implementation of GPALS would surely violate the ABM Treaty, which would have to be either terminated or amended.

B. Existing agreements relevant to the prevention of an arms race in outer space

17. A majority of the members of the Committee pointed out that the legal regime applicable to outer space by itself did not guarantee the prevention of an arms race in outer space. There was a need to consolidate and reinforce that regime and enhance its effectiveness. Existing legal instruments were not satisfactory. Limited in scope, they were utterly inadequate in forestalling an arms race in outer space in that they contained no clear-out provisions on the prohibition of deployment of various types of space weapons,

except that of nuclear weapons and other weapons of mass-destruction. According to some delegations it was therefore necessary to conclude a legal instrument, acceptable to all states, on the de-weaponization of outer space, and on the prohibition of all types of space weaponry.

18. Some delegations of the Western Group maintained that the existing legal regime provided an equitable and balanced response to the need to promote peaceful uses and arms control in outer space.

19. One delegation of the Western Group stated that the legal regime governing outer space could be seen to be wide-ranging and logical. According to that delegation there were no contradictions in its framework, nor was the existing regime full of gaps and holes. It was effective, practical and, most of all, workable. It was not perfect, but its problems would be inherent in any legal regime for arms control in outer space. Any perceived gaps in the legal regime could be satisfied by particular attention to the principles now in existence. Other delegations of the same Group emphasized that what was really in question was compliance with the existing legal regime. They underlined that there were many nations that have not ratified or acceded to the existing international agreements pertaining to outer space and, for this reason, cooperative efforts could not be pursued on this subject in an effective manner.

20. Another delegation of the same group argued that the legal regime could be reinforced by improving state practice under existing conventions. For example, with respect to the Registration Convention, the United Nations Secretariat might devise some standard form of automatic despatch of notices to remind States of their obligations under the Convention. This would strengthen the role of the Secretary-General in the pursuit of greater transparency in outer space activities. The Conference on Disarmament might also recommend to the Security Council that it adopt a resolution both requesting the Secretary-General to send out automatic reminder notices, and setting up a committee of the Council to review periodically any failures of States to register their launches. The delegation suggested that more frequent use of Article IX of the Outer Space Treaty of 1967, might well serve as a consultative mechanism to expand the kind and amount of information to be provided under the Registration Convention. Article XI of the Outer Space Treaty could serve as a basis for requiring data beyond that which is currently routinely provided under the Registration Convention. It would also underline the more active role which the Secretary-General might play and indeed seemed already authorized to play in serving a data-collection function.

C. Existing proposals and future initiatives on the prevention of an arms race in outer space

21. The Group of 21 recalled its proposal for the ad-hoc Committee to have a negotiating mandate. The Group held the position that the Committee should focus on concrete proposals for measures with a view to conducting negotiations for the conclusion of an agreement or agreements, as appropriate, to prevent an arms race in outer space in all its aspects.

22. Some delegations reiterated that the Outer Space Treaty, in the first paragraph of Article IV, left a legal loophole exploited by some space powers to develop a new generation of weapons that could be placed in outer space. In this connection, one delegation recalled its proposal contained in document CD/851 to amend Article IV. It stressed that the proposal was aimed at filling in an important juridical vacuum in the Outer Space Treaty and to prevent the stationing in outer space of weapons other than nuclear and mass destruction weapons.

23. The question of the functioning of the Registration Convention and ways of strengthening the regime established by it, was again addressed by several delegations. Improvements could include the provision of more timely and specific information concerning the function of satellites, including whether the satellite was fulfilling a civilian or military mission.

24. In connection with the legal protection of satellites, some delegations indicated that both the questions of ASAT weapons and of immunity of space devices should be addressed in order to achieve an ASAT prohibition and to guarantee legal immunity for satellites performing definitive peaceful functions. One delegation of the Western Group recalled that it had not found any measure in the field of ASATs that would be verifiable or equitable. The inability to construct a suitable and effective verification system could prevent agreements from being finalized. On the subject of "keep-out zones", it had concluded that the physical characteristics of space and spacecraft motion, coupled with the sheer number of objects that would need to be tracked, would make it difficult, if not impossible, for most space nations to monitor compliance with "keep-out zones". In its view keep-out zones would not be practical for providing protection to satellites. Another delegation indicated that verification and monitoring of observance of such zones would be a delicate task and hence the usefulness of a trajectography tracking

centre. One delegation of the Western Group presented an expert's report on "Keep-Out Zones" as part of a Code of Conduct. "Keep-Out Zones" could play an essential role in a Protection regime which cared for the protection of a State's space activities through agreed and verifiable provisions. The concept of "Keep-Out Zones" in this understanding might be combined with declared or notified pre-launch information, thus contributing essentially to confidence-building measures.

25. A substantial part of the discussions was devoted to confidence-building measures and ensuring greater transparency in space activities. Many delegations were of the view that CBMs was one of the areas where some degree of certainty and convergence of views existed and could form part of a negotiating process with a view to reaching agreements. Several delegations favoured the approach centred on non-interference with non-agressive activities and CBMs which would support that objective.

26. One delegation emphasized that while the CBMs contributed to the positive development in international relations, the discussions on CBMs should not obstruct the creation of a substantive and legally binding treaty banning all space weapons. In its view some of the CBMs already on the table could be considered as verification measures for a future treaty, among them the establishment of an appropriate international supervisory body to inspect objects before they are launched into space.

* * *

27. The discussion of the Friend of the Chair for Terminological Issues centred on two non-papers prepared by him on the phrases "peaceful purposes" and "the militarisation of space". Some delegations of the Western Group thought that basic groundwork on terminology was essential if areas of consensus were to be found. The debate on "peaceful purposes" indicated that some delegations maintained that the concept meant "no military use of space", while other delegations believed it meant "non agressive use of space". One delegation of the Western Group considered that since no delegation questioned the illegality of any aggressive use of outer space, a common denominator existed on that notion. On "militarisation" there was agreement that further work was needed on the definition of a "space weapon". One delegation of the Western Group suggested that it would be useful to concentrate on what was

regarded as being "destabilizing" rather than on trying to define the "acceptable" uses of space.

28. The Friend of the Chair for verification of ASATs held open-ended consultations on the basis of the paper he had prepared (CD/OS/WP.50). In these consultations some delegations insisted that there was no legal instrument that governed activities of States with regard to this system and other delegations of the Western Group recalled that the existing legal regime placed a wide variety of legal restraints on the nature, deployment and use of ASATs. For those delegations the lack of a clear and broad enough definition of antisatellite weapons and their components was a serious obstacle to progress in the preparation of legal instruments. It was suggested that, in spite of their complexities, the problems of definition and verification could be dealt with by the Conference on Disarmament. The question of verification would eventually depend on the type of instrument that was being devised. It was also proposed to explore whether there existed or not, from a strategic or military point of view, any difficulties or any objections ad initio to the preparation of a legal instrument. Some delegations proposed to deal with the subject in a gradual progressive fashion and by confidence-building, transparency and trajectory control measures that would raise the financial and political costs of an aggressive use of Outer Space. One delegation of the Western Group also indicated that ASATs could not be dealt with without having as a legal basis or background an agreement on the concept of aggression. It was the view of the Friend of the Chair that the joint participation of several experts from interested delegations could help to facilitate a better understanding of the problems under consideration and identification of promising areas. One delegation presented a Non-Paper entitled "ASATs: Realities and Prospects".

29. The Friend of the Chair for confidence-building measures in space activities conducted consultations with the interested parties. As the outcome of those consultations, as well as on the basis of the statements and documents previously submitted to the Committee, he drafted an analytical non-paper where he identified five possible areas for the development of CBMs in outer space: a) Strengthening of the 1975 Convention on Registration of Objects Launched into Outer Space: b) Use of satellite monitoring in the interests of the international community; c) Drawing up of "rules of the

road"/a "code of conduct"; d) Inspections of space objects at launching sites; e) Establishment of an international trajectography centre. As a result of further consultations and at the recommendation of several delegations, these areas were grouped under three main headings: a) Measures to promote transparency, openness and predictability; b) Rules for the behaviour of space objects ("Rules of the road"/a "code of conduct" for outer space); c) "Institutional" measures (the establishment of various types of body for the implementation of confidence-building measures: world space organization, international satellite monitoring agency, satellite image processing agency, international space monitoring agency, inspectorate and trajectography centre). The Friend of the Chairman stated that there was wide agreement on the extension of the volume and nature of the information supplied by States on space objects and, perhaps, on a few of the simplest notification measures discussed in the context of "rules of conduct" in outer space. Hence, a study of those topics with the help of technical and scientific experts, would be a promising way of promoting broad consensus.

IV. CONCLUSIONS

30. There continued to be general recognition in the Ad Hoc Committee of the importance and urgency of preventing an arms race in outer space and readiness to contribute to that common objective. The work of the Committee since its establishment in 1985 has contributed to the accomplishment of this task. The debates and the presentations made by experts at this annual session contributed to further identifying and clarifying a number of issues relevant to the prevention of an arms race in outer space. The Committee has also advanced in its efforts to identify areas of convergence suitable for a more structured work. It was recognized once more that the legal régime applicable to outer space by itself did not guarantee the prevention of an arms race in outer space. There was again recognition of the significant role that the legal régime applicable to outer space played in the prevention of an arms race in that environment and of the need to consolidate and reinforce that régime and enhance its effectiveness and of the importance of strict compliance with existing agreements, both bilateral and multilateral. In the course of the deliberations, the common interest of mankind in the exploration and use of outer space for peaceful purposes was acknowledged. In this

context, there was also recognition of the importance of paragraph 80 of the Final Document of the first special session devoted to disarmament, which stated that "in order to prevent an arms race in outer space, further measures should be taken and appropriate international negotiations held in accordance with the spirit of the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and other Celestial Bodies". The Ad Hoc Committee continued its examination of existing and some new proposals aimed at preventing an arms race in outer space and ensuring that its exploration and use will be carried out exclusively for peaceful purposes in the common interest and for the benefit of all mankind.

31. In the context of their contribution to the discussions on all aspects of the mandate and work programme, the importance of the presentations in the Committee relating to confidence-building measures and to greater transparency and openness in space made in the course of the 1992 session was recognized by the Committee. Although cognizant of the various positions on these matters the Committee also recognized the relevance of that discussion to the work of the Committee.

32. The Committee noted the valuable and significant contribution to the discussions of the experts from several delegations and expressed its appreciation to those delegations that provided those contributions. The Committee equally voiced its appreciation of the preliminary work continued by the Friends of the Chairman and their organization of open-ended consultations on such important issues as those related to ASATs, CBMs and terminological aspects of the prevention of an arms race. It viewed the outcome of their efforts as an encouraging development in the process of building upon the areas of convergence. The Ad Hoc Committee recommended to continue such exercises in 1993.

33. It was agreed that substantive work on this agenda item should continue at the next session of the Conference. It was recommended that the Conference on Disarmament re-establish the Ad Hoc Committee on the Prevention of an Arms Race in Outer Space with an adequate mandate at the beginning of the 1993 session, taking into account all relevant factors, including the work of the Committee since 1985.

CONFERENCE ON DISARMAMENT

CD/1166
1 September 1992

ENGLISH
Original: RUSSIAN

LETTER DATED 11 AUGUST 1992 FROM THE REPRESENTATIVE OF THE RUSSIAN FEDERATION ADDRESSED TO THE PRESIDENT OF THE CONFERENCE ON DISARMAMENT TRANSMITTING DOCUMENTS RELATING TO ARMS CONTROL AND DISARMAMENT AGREED ON DURING THE SUMMIT MEETING BETWEEN THE PRESIDENT OF THE RUSSIAN FEDERATION, B.N. YELTSIN, AND THE PRESIDENT OF THE UNITED STATES OF AMERICA, G. BUSH, IN WASHINGTON IN JUNE 1992*

I have the honour to forward the following documents relating to arms control and disarmament agreed to during the summit meeting between the President of the Russian Federation, B.N. Yeltsin, and the President of the United States of America, G. Bush, in Washington in June 1992:

- A Charter for Russian-American Partnership and Friendship;
- A Framework Agreement;
- A Joint Statement on the Prohibition of Chemical Weapons;
- A Joint Russian-American Statement on the Non-Proliferation of Nuclear Weapons on the Korean Peninsula;
- A Joint Russian-American Statement on a Global Protection System;
- A Joint Russian-American Statement on Cooperation in the Field of Conversion;
- An agreement between the Russian Federation and the United States of America concerning the Safe and Secure Transportation, Storage and Destruction of Weapons and the Prevention of Weapons Proliferation;

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* The official English texts of the above-mentioned documents are to be found in CD/1162.

- An Agreement between the Ministry of Atomic Energy of the Russian Federation and the Department of Defense of the United States of America concerning the Safe and Secure Transportation and Storage of Nuclear Weapons through the Provision of Emergency Response Equipment and Related Training;

- An Agreement between the Ministry of Atomic Energy of the Russian Federation and the Department of Defense of the United States of America concerning the Safe and Secure Transportation and Storage of Nuclear Weapons through the Provision of Armoured Blankets;

- An Agreement between the Ministry of Atomic Energy of the Russian Federation and the Department of Defense of the United Staes of America concerning the Safe and Secure Transporation and Storage of Nuclear Weapon Material through the Provision of Fissile Material Containers.

Please take the appropriate steps to issue these documents as official documents of the Conference on Disarmament and distribute them to all delegations of member States of the Conference and those of non-member States of the Conference that participate in its work.

I undertand that Ambassador S. Ledogar, the head of the United States delegation at the Conference on Disarmament, has already forwarded the English-langauge version of these documents to the Conference on Disarmament.

(Signed) S. BATSANOV
Ambassador

CONFERENCE ON DISARMAMENT

CD/1167
14 August 1992

Original: ENGLISH

LETTER DATED 12 AUGUST 1992 FROM THE REPRESENTATIVE OF NORWAY ADDDRESSED TO THE SECRETARY-GENERAL OF THE CONFERENCE ON DISARMAMENT TRANSMITTING A REPORT OF THE EXPERT STUDY ON QUESTIONS RELATED TO A COMPREHENSIVE TEST BAN TREATY 1/

I have the honour to enclose herewith the full report of the Expert Study on questions related to a Comprehensive Test Ban Treaty, the final summary chapter of which was circulated as document CD/1151. The study, composed by internationally renowned experts in the field, was commissioned and published by the Norwegian Ministry of Foreign Affairs.

As you will recall State Secretary Helga Hernes introduced the Study in her statement before the CD on 11 June this year.

(Signed) Bjørn Skogmo
Ambassador
Chargé d'Affaires a.i.

1/ A limited distribution of this report in English only has been made available to members and non-members invited to participate in the work of the Conference on Disarmament. Additional copies are available from the Permanent Mission of Norway in Geneva.

GE.92-62628/5006H (E)

CONFERENCE ON DISARMAMENT

CD/1168
CD/CW/WP.428
13 August 1992

Original: ENGLISH

LETTER DATED 12 AUGUST 1992 FROM THE REPRESENTATIVE OF THE UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND ADDRESSED TO THE SECRETARY-GENERAL OF THE CONFERENCE ON DISARMAMENT TRANSMITTING A PAPER WHICH ADDRESSES THE REQUIREMENTS FOR SAFETY DURING THE ON-SITE INSPECTIONS PROVIDED FOR UNDER THE CHEMICAL WEAPONS CONVENTION

I have the honour to transmit a paper prepared by the United Kingdom, which addresses the requirements for safety during the on-site inspections provided for under the Chemical Weapons Convention.

I believe this topic is of relevance to the future work of the Preparatory Commission for the Organization for the Prohibition of Chemical Weapons and I should be grateful if you would arrange for the paper to be circulated as an official document of the Conference on Disarmament.

(Signed) Sir Michael Weston KCMG, CVO
Ambassador
Leader of the Delegation of the
United Kingdom of Great Britain
and Northern Ireland to the
Conference on Disarmament

UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND

The Chemical Weapons Convention: Safety Rules for Inspections

INTRODUCTION

1. Little consideration has been given so far to safety issues during the conduct of inspections to be undertaken under the Chemical Weapons Convention (CWC). But, with the early conclusion of the Convention now expected, it is important that some attention is devoted to this aspect of its implementation.

2. A principal task of the Preparatory Commission will be to carry out the necessary preparations for the effective operation of the Chemical Weapons Convention. The Commission will be tasked in particular to consider recruitment and training of technical personnel, standardization and purchase of equipment and to prepare guidelines for initial inspections. The United Kingdom believes that safety issues must be an essential element in these preparations. Much has been learned about safety issues during the various national practice challenge inspection programmes and during the United Nations Special Commission inspections of chemical weapon production and storage sites. This working paper addresses the safety question by producing an initial assessment of the safety issues derived from United Kingdom involvement in these experiences. It also offers a preliminary set of guidelines (Appendices 1-4) on safety issues for consideration by the Preparatory Commission.

General safety policy

3. One of the first tasks confronting the Technical Secretariat (TS) will be the need to identify minimum safety standards. If local safety standards are higher, the host State should provide either the necessary resources to achieve them or to waive them during the inspection and apply the agreed minimum standards. Thereafter the TS will need continually to assess the safety standards of all States parties and to update its own procedures in line with current good practice.

4. The responsibility for the safety of inspectors lies with the TS and with the Chief Inspector (CI) on site. The CI may be assisted and advised by a Safety Officer (SO) who should be responsible for all aspects of safety and ensuring that guidelines are properly interpreted in the light of prevailing conditions. Safety measures will be strongly site specific and the SO will need to be aware that an obstructive inspected State party might misuse safety restrictions to delay or hinder inspections.

5. In order to satisfactorily address safety issues during inspections the TS might require its own Safety Group (SG). Although this SG would need to be colocated, and work closely with, the TS it is important that it should have the freedom to act independently; it should be able to report directly to the Director-General. In the same way, individual safety officers provided by the SG to accompany large inspection teams must have the authority to report directly to the SG should there be a disagreement over an important

safety matter. (Small teams will probably not justify a full time SO and one of the other specialists will need to be briefed to fulfil this role.) This would apply especially during the planning phase of munition/agent/plant destruction inspections.

6. In practice the SO will assess the various hazards and the risks involved in carrying out the inspection in different ways and produce a balanced judgement on how the work should be done. He will make this judgement in consultation with the CI, and others whilst considering the operational implications. A fault frequently observed is a superb set of instructions laxly implemented. A major task for the SO will be to ensure that the safety rules are enforced.

Safety organization

7. The extent to which inspection teams will require a formal structure, consisting of specialized subgroups, will depend largely on the size of the teams. For large teams, consisting of ten or more inspectors, such a structure will be necessary in order to achieve the highest possible operational efficiency. But whether a formal organizational structure is required or not, safety must be a main principle of all operations.

8. An appropriate organization might be based on the formation of three sub-teams:

(a) a Control Group (CG).

(b) a Safety/Reconnaissance/Contamination Control Group (SRCCG), and

(c) a Reporting Group (RG) to carry out the actual inspection, to record and to collect samples.

This basic organization based upon UNSCOM experience is necessary where extremely hazardous conditions are likely to be encountered. However, at most sites reconnaissance and contamination control will not be required and the SO might report directly to the CG.

9. One of the main tasks of the SO is hazard and risk assessment. Some relevant information can be obtained from the host officials on arrival at the site, but it may vary in quantity and reliability and may possibly be misleading. The wise SO, therefore, will receive any such provided information pertaining to safety but not risk his inspectors until he has carried out a sufficiently detailed reconnaissance to satisfy himself that they will not be put at risk.

Conduct of the inspection

10. Initial inspections and Challenge Inspections at especially hazardous sites should be conducted according to strict guidelines. These might be:

(a) a general reconnaissance of the site by surface vehicle or helicopter to identify the main areas to be inspected and if possible, to identify more or less hazardous areas.

(b) a detailed reconnaissance of the site, or sections of the site, as necessary. This may be extremely dangerous and the SO will have to use whatever appropriate means of protection are available and suggest deploying inspectors in such a way so as to minimize the risk. In some cases the SO may decide that inspectors should not enter at all and that other means of inspection be utilized.

(c) carrying out the reporting part of the inspection. In hazardous situations the risk can be minimized, by limiting the number of inspectors, or eliminated entirely, by relying only on the reports of the reconnaissance team.

In most cases a sufficiently detailed reconnaissance can be done during the initial overview of the site, supported if necessary by a quick look at particular areas by the SO.

General safety

11. Experts intent on pursuing their specialization can be single-minded to the point of endangering personal safety. This can be very important during inspections in unfamiliar surroundings, when even common sense precautions such as personal protection from extreme climatic conditions can be neglected.

12. Inspectors need to recognize that they are responsible for their own safety. They should comply with advice from the SO at all times. At hazardous sites especially, inspectors must remain constantly aware of their personal environment and, in the absence of direct instructions from the SO, apply common sense precautions. Inspectors should also look out for the safety of other team members who may not notice a hazard while engrossed in their own job. An inspector that becomes a casualty through lack of common sense precautions, not only becomes incapable of doing his own job, but becomes a burden on the rest of the team.

13. Suitable clothing, including strong boots, should be worn during inspections together with any specialist protective equipment required. This will vary, depending on both the location and type of inspection site, and also local factors such as climate and the physical condition and nature of the infrastructure. Although a detailed knowledge of conditions at the site is unlikely to be available to inspectors before arrival (except for routine inspections) the general requirements may be predictable. Inspectors should therefore be provided, by the TS, with a recommended equipment list for the different situations likely to be encountered and select their requirements from this list as soon as they know where they are going.

14. Medical matters are very important and it will no doubt be necessary for the TS to have medical experts available to offer advice and, if necessary, to accompany inspection teams into the field. Although it is beyond the scope of the present paper to deal with medical aspects of CWC inspections, some general points for individual inspectors to note are as follows:

(a) obtaining any necessary vaccinations;

(b) obtaining any drugs required to treat endemic diseases;

(c) taking a first aid kit containing any personal medicines and syringes and sterile needles as well as the usual things needed to treat minor injuries and ailments, insect bites, etc.;

(d) as safe food and water supplies cannot be assumed in many areas of the world, inspectors will need to take sensible precautions to ensure that they do not become victims of disease.

Chemical hazards

15. It is important that inspectors with appropriate expertise should be available to cover sites with different types of chemical hazard. The guidelines in Appendix 1 have been produced with this fact in mind and have been divided into two parts to cover CW agent as well as general industrial chemical hazards.

16. Different individual protective ensembles (IPE) require different donning and removal procedures. Thought will need to be given to the TS using a standard system of IPE to allow for the proper training of inspectors in its use (but see para. 2.1).

17. Meteorology and downwind vapour hazard prediction form an essential part of safety planning at chemically hazardous sites. Basic wind speed and direction measuring equipment is crucial, together with some form of vapour hazard prediction model. This can be as simple as a set of tables but excellent computer (PC) based programmes are now available that perform all the necessary calculations and present the results in a clear pictorial format.

18. For work in hot weather conditions and tropical climates measurement of the web bulb globe temperature index will be required to enable safe working times in IPE to be calculated. This is crucial if impermeable clothing has to be worn. This measurement can easily be made using inexpensive and portable miniature equipment incorporating electronic computation and direct readout of the required index values.

Structural hazards

19. Some of the more important points to emerge from recent experience are included in Appendix 2 in the form of guidelines for inspectors. Many of these points deal specifically with bomb damaged structures but others are appropriate to general safety on any industrial site, particularly in areas where the maintenance and repair of broken or damaged structures and the removal of hazardous waste may be neglected. For convenience, hazards in bomb damaged structures have been listed separately from more general hazards.

Explosive ordnance hazards

20. It is most unlikely that CWC inspectors involved in Challenge Inspections will encounter unexploded ordnance but it is a possibility, and suitable guidelines are given in Appendix 3. It is much more likely that inspectors will come into contact with live munitions of various natures in storage or

explosives handling facilities. These types of facilities should have their own safety rules but these vary between nations and in any case are open to local interpretation.

21. It is likely that the TS will need to produce a set of agreed guidelines for use in explosives establishments. This will need to cover aspects such as protective clothing and equipment, especially electrical equipment. Since all electrical equipment (including cameras, torches and recorders) need to be certified as safe for use in the various categories of explosives hazard, the TS will need to arrange for certification acceptable to all States Parties.

Radiation hazards

22. Hazards from sources of both ionizing and non-ionizing radiation are unlikely to be encountered by inspectors except during inspections of nuclear sites. However, inspectors should be aware of this possibility and remain alert for sources of radiation.

23. Sources such as 60^{Co} are used routinely in medical equipment and in industrial X-ray and gamma ray imaging systems. Inspectors should be familiar with the appearance of this type of equipment and should be aware that it is often used by the military to examine munitions. Consequently, X-ray equipment could be encountered during challenge inspections of ammunition storage and handling facilities.

24. To avoid unexpected exposure to ionizing radiation thought needs to be given to a small portable Geiger counter being a part of standard equipment. Hazards from non-ionizing radiation are likely to be even less of a problem to inspectors but they should be aware of the potential for harm and take care with lasers and microwave sources, including radars.

Packaging and transport of CW-related substances

25. The safe packaging and transport of samples of CW-related substances can cause severe problems. These problems are usually more conceptual than real and safe packaging is quite straightforward. The main problem is perceived to lie with volatile toxic substances that, if not suitably contained, could create a vapour hazard. Non-volatile substances, such as toxins and even pathogens, pose much less of a risk and agreed packaging and transport regulations already exist.

26. The principle on which suitable packaging for volatile toxic substances could be based is to use multiple layers (say three) of containment with a series of robust containers packed in activated charcoal. A vast excess of charcoal would be used so that in the extremely unlikely event of total failure of the primary containers there will be sufficient capacity in the first layer alone to irreversibly absorb all the contents many times over. Furthermore, the outer container would be made of stainless steel with a sealed lid capable of resisting any conceivable impact or pressure change and any fire without distortion, at least until such time as the contents have been destroyed by the heat.

27. Appendix 4 cqntains details of the requirements for packaging that are currently being discussed in the United Kingdom between the Civil Aviation Authority and the Chemical and Biological Defence Establishment. It seems likely to be accepted as suitable.

Conclusion

28. Given the wide variety of sites that are likely to be encountered by the CWC inspectorate, many of which will be intrinsically hazardous, it will be important that the Technical Secretariat fully considers the safety aspects of inspections. While it would be undesirable to insist on enforcement of rigid rules irrespective of the conditions on site under investigation, a casual attitude to personal and collective safety is equally undesirable. The TS will therefore need to feature safety as a major part of its training programme and to ensure that safety is central to inspections. Safety aspects will depend on the nature of the site under investigation, but inspectors must possess a grounding in basic minimum procedures. It is hoped that the guidelines in this paper and its accompanying annexes will provide a useful starting-point for the Preparatory Commission's own work on inspector safety.

Appendix 1

CHEMICAL SAFETY GUIDANCE FOR CHEMICAL HAZARD AREAS: THESE MEASURES MAY APPLY DURING DESTRUCTION OF PRODUCTION FACILITIES, BULK AGENT AND MUNITIONS

1. General policy

- On matters of safety the advice of the SO should always be followed unless specifically overruled by the CI.

- No potentially chemically hazardous area will be entered by inspectors until a proper reconnaissance has been carried out by the SO.

- No hazardous work will be carried out in the absence of the proper authority (SO or CI) and supervision.

- A minimum of three persons should work together at any time to ensure that any casualty can be evacuated safely.

2. Guidance for inspecting industrial chemical plants

- In the United Kingdom, the Health and Safety Executive's Factory Inspectorate is charged with monitoring and enforcing health and safety legislation at United Kingdom chemical plants. Similar regulatory bodies operate in other OECD countries. Whilst there is no "safety manual" for United Kingdom HSE inspectors as such, which could be used to assist the TS in compiling composite guidelines for its inspectors, individual inspector's approaches to personal safety during factory visits are shaped by the same basic precautions identified in Appendix 2, paragraphs 2 to 8. The Preparatory Commission might none the less invite States Parties to submit any relevant information or any appropriate documentation derived from their own experiences.

3. Guidance for inspecting CW agent contaminated areas

- The respirator, gloves, personal decontamination kit and (if nerve agents are expected) atropine autoinjectors should be carried at all times. Higher levels of protection will be determined by the SO as appropriate.

- Respirators should be checked before entering a possible vapour hazard area.

Appendix 2

STRUCTURAL SAFETY GUIDANCE FOR USE IN UNSOUND BUILDINGS

GENERAL GUIDANCE FOR INSPECTING INDUSTRIAL SITES

1. DO NOT venture into any areas or buildings that have not been cleared by the SO. Never enter a structure alone. IF IN DOUBT, STAY OUT.

Before entering a structure

2. Always wear a hard hat, even if a respirator is being worn.

3. Use adequate lighting. Wait after entering a darkened building from bright sunlight until your eyes become accustomed to the gloom.

4. Keep one hand free and wear gloves, especially in a chemical plant.

5. Walk slowly and keep a lookout in all directions. Remember that vision is restricted when wearing a respirator. Wear safety glasses if available and appropriate.

6. Beware of loose or lightly fixed fittings, cladding sheets, brickwork or structural members such as roof or wall purlins. Do not trust your weight to fixtures, including guard rails, unless sure that they are firmly fixed. Be especially careful in high winds.

7. Beware of areas or buildings that have been damaged by fire; they may fail suddenly. In particular, be wary of concrete that has changed to a pink, white or buff colour which indicates an area of major structural weakness that may not otherwise be apparent; keep clear and inform the safety officer.

8. Watch your footing and wear good solid leather boots. In particular watch out for:

- jagged ends of metal protruding from concrete;
- loose structural elements that may move or fly up when stepped on;
- upward pointing nails in loose boards from packing cases;
- electrical cables, they may be live;
- pipes, especially in a chemical works;
- sloping surfaces;
- slippery and/or wet floors, the "wet" may not be water.

RULES FOR INSPECTING BOMB DAMAGED STRUCTURES

9. Do not congregate in damaged buildings, particularly on floors above ground.

10. Watch out for concrete slab and beam deflections of more than 12° and brickwork that has been displaced sideways by more than half the thickness of the masonry. Structures with these features are extremely unsafe. DO NOT go under them for any reason at all.

11. Buildings that have stood for several months after blast damage may still collapse with little or no warning. A slight gust of wind or the vibration of heavy machinery may be all that is needed to cause collapse. If areas creak or make other noises STAY CLEAR.

Appendix 3

GUIDANCE FOR AREAS WHERE THEY MAY BE UNEXPLODED ORDNANCE

These rules are for general guidance and are not a substitute for rules at ammunition storage or handling facilities. The TS will need to produce a set of such rules agreed by all States party to the CWC.

1. Never enter an area that may contain unexploded ordnance (UXO) without the express permission of the SO.

2. Use of any electrical device (CAM, camera, videocamera etc.) must be approved in advance by the SO or Explosives Ordnance Personnel (EOD). DO NOT carry spare batteries. Battery compartments of electrical devices should be taped to prevent inadvertent removal of batteries in an explosive hazard area. In a chemical plant or storage area the hazard of explosive atmospheres needs to be considered.

3. Watch your step. Walk on hard, cleared surfaces or in areas that you know have been cleared by EOD.

4. Don't touch anything. A UXO may not necessarily look like a munition.

5. Report any suspect UXO, mines, booby traps etc. IMMEDIATELY to the SO or EOD. Keep clear!

6. Report any leakage or vapour emission from a UXO IMMEDIATELY to the SO or EOD (this also applies to munitions in a storage or handling facility). Put on personal respirator and leave the area at once moving upwind but without running. Warn all personnel in the vicinity.

Appendix 4

CONTAINERS FOR TRANSPORTING SAMPLES

1. Primary container:

This will be the container in immediate contact with the sample. The samples will be of three types:

(i) Vapour samples. This container consists of a mild steel tube of approximate dimensions 6 mm (diameter) x 95 mm fitted with airtight end caps. In the tube is rigidly packed 50 mg of an inert absorbent material such as Tenax or Poropak Q. The vapour sample is absorbed on to the absorbent material, and usually requires heating to above 200°C to displace it. The quantity of toxic material in this primary container is of the order of 100 picograms (0.0000001 g);

(ii) Environmental samples. This could be a sample of ditchwater, soil, vegetation, blood, urine or material that is thought to have been contaminated by a toxic substance. These samples will be contained in a 10 ml glass vial that has a "crimp" fitted teflon cap which requires a special tool to remove it. There is no danger of the cap being shaken loose in transit. Typically, up to 10 mg (0.01 g) of toxic compound would be expected in this type of sample;

(iii) Bulk samples. This is the "worst case" sample. A bulk substance sample would be contained in a 2 ml vial sealed with a similar (though smaller) cap to that described above for environmental samples. A sample size of 100 mg (0.1 g) is anticipated for this sample type.

These three sample containments serve as primary containment. They will be labelled as follows:

(a) Sample number

(b) A statement that the contents are "Very toxic".

2. Secondary container:

The secondary container will consist of an aluminium can of dimensions 40 mm (diameter) x 125 mm. The lid will be screw cap fitted with a rubber seal.

Two primary containers will be packed into a secondary container. The primary containers will first be individually packed in a small polythene bag, then in "bubble material" to prevent mechanical damage, and finally, into a secondary container. The void in the secondary container would be filled with the absorbent material AST charcoal. This would render the package safe in the very unlikely event of leakage or seepage from a primary container. Approximately 25 g of charcoal will be used which is sufficient to absorb 2.5 g of material. Hence as the worst possible case only results

in 0.2 g of leaking material (resulting from total destruction of two type (iii) primary containers) there is more than a tenfold excess of absorbent material in the secondary container.

After inclusion of the two primary containers and the adsorbent material, the lid will be tightly fitted and sealed with a suitable thread sealant such as "Loctite". The precise contents of the samples will be unknown (the purpose of the exercise) is to analyse them! - but a worst case would be the compound Sarin, which would pose the greatest risk when volatility is taken into consideration as well as toxicity. Based on this premise, the secondary container would be labelled as in figure 1.

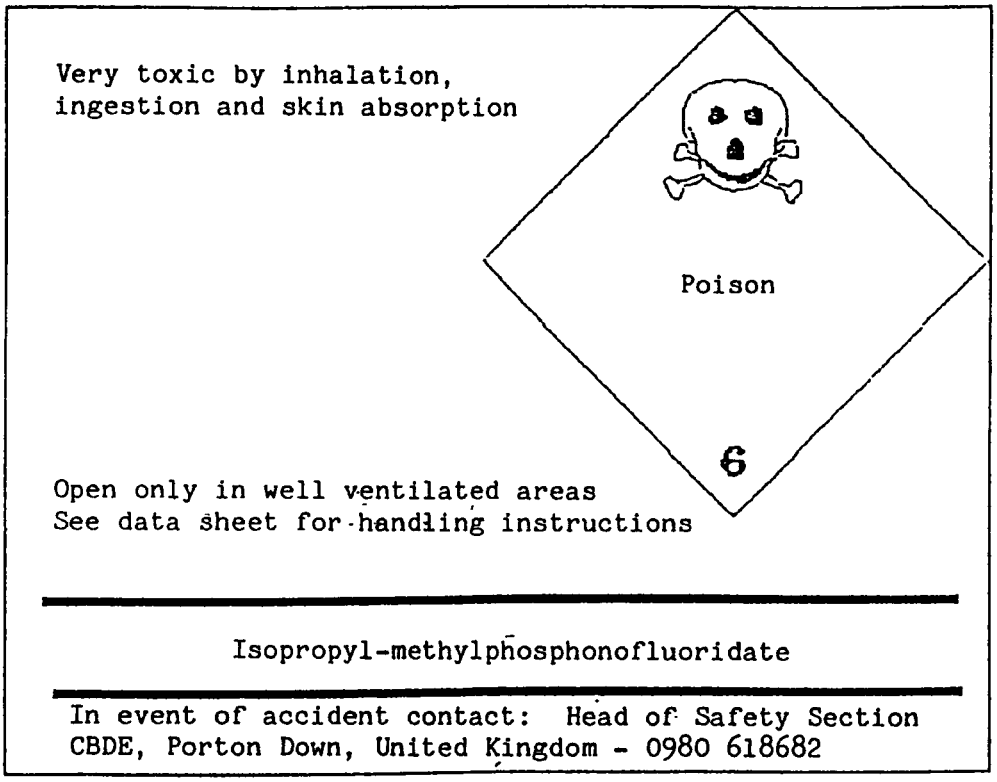

Figure 1

3. Tertiary container:

The proposed tertiary container is one that has been conceived at CBDE and should provide both sufficient protection against mechanical damage, sudden depressurization and fire. The container is a stainless steel bomb of dimensions 160 mm diameter (OD) and 160 mm height. The container will be 10 mm wall thickness and be sealed by a flanged 10 mm lid fitted with a viton "O" ring and secured with six 12 mm diameter bolts. The steel will be to BS 970 325531. A schematic of this container is shown below in figure 2.

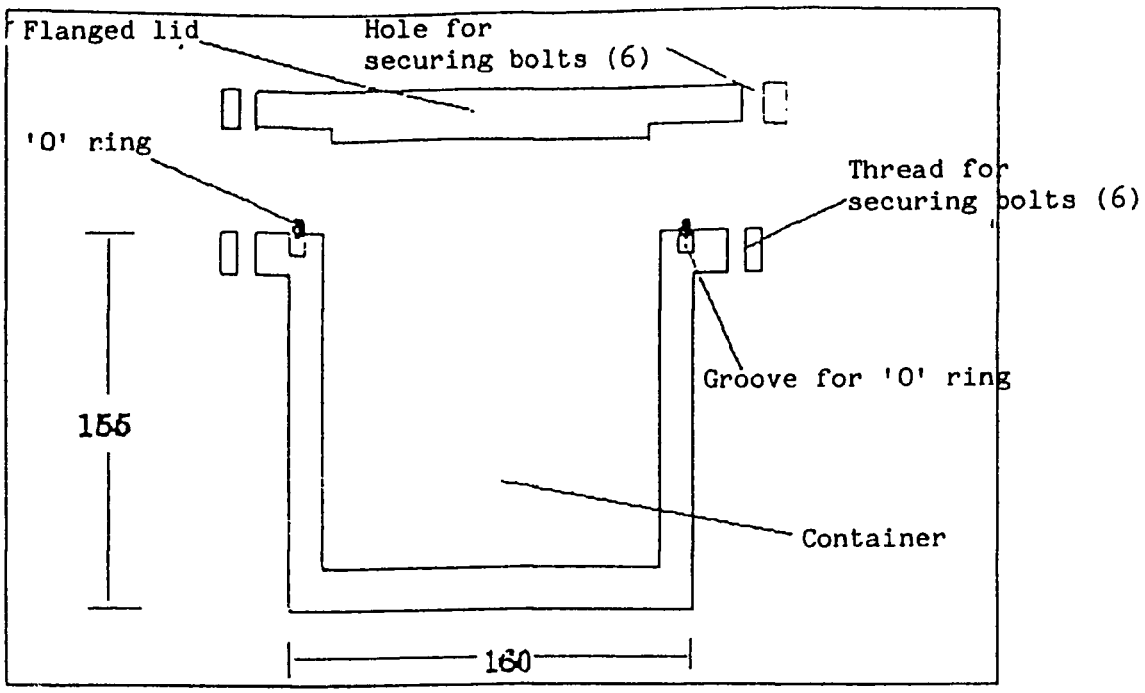

Figure 2: Schematic of tertiary container

The secondary container would then itself be contained in a tertiary container in the following manner. Four secondary containers would be contained in each tertiary container. The void around the secondary containers in this third container would be filled with about 100 g of charcoal. The tertiary container would constitute the container which would provide the samples with a high degree of mechanical and fire protection.

The tertiary container will be labelled as in figure 1 above and will also display two additional labels, viz:

(a) Handling label for package orientation

(b) Handling label Cargo Aircraft Only.

4. Transit case (containment 4):

The final containment would be primarily for ease of handling and is thus essentially a transit case. The transit case will hold two of the tertiary containers. The transit case will be made of aluminium sheet of approximately 4 mm thickness. The case will be of dimensions 430 mm x 250 mm x 200 mm, will hold two tertiary containers securely in an internal frame and will have a lid that is airtight and be lockable and sealable. Two handles will be attached to the outside to aid in carrying the case.

The case will carry the label shown in figure 3 below. In addition it will also display:

(a) Handling label for Cargo Aircraft Only

(b) Advice to Customs that they may seal the case and be present when it is opened at CBDE if they so wish it.

(c) Safety data sheets will be attached to this container.

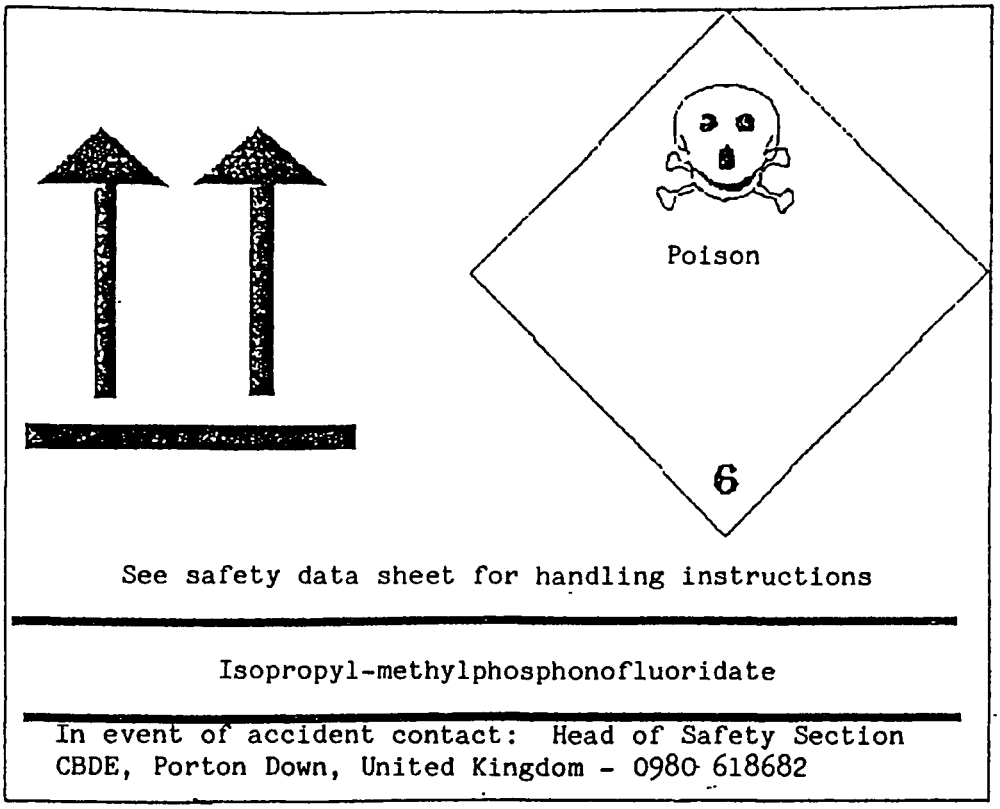

Figure 3: Label for transit case

5. Summary of packaging:

Based on a worst case scenario where bulk agent would be transported, each transit case would contain:

1. Sixteen primary samples of 0.1 g each - total weight 1.6 g.

2. These would be packed in eight secondary containers containing a total of 200 g of charcoal.

3. In turn, the secondary containers would be packed into two tertiary containers together with about 100 g of charcoal in each.

4. Two of these containers would be in each transit case.

5. The net weight of the transit case would be about 35 kg, of which 1.6 g would be sample and 400 g absorbent. Four hundred grams of charcoal is sufficient to safely absorb about 40 g of sample. Thus there is a 25-fold excess of absorbent present even in the worst case.

The contents of the transit case are also summarized below in figure 4.

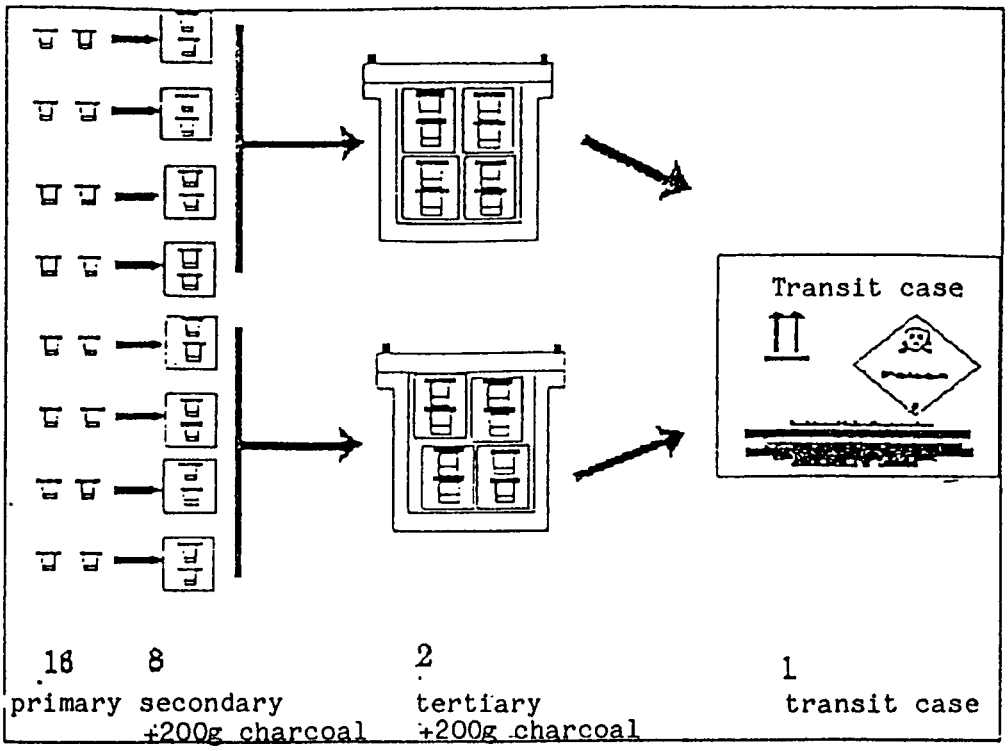

Figure 4: Summary of proposed packaging

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DOCUMENT IDENTIQUE A L'ORIGINAL

DOCUMENT IDENTICAL TO THE ORIGINAL