

”Non-lethal” chemicals for law enforcement?

by **Dr. Walter Krutzsch**

Editorial Note: From April 28 to May 9, 2003 the first ever Chemical Weapons Convention Review Conference will be held at The Hague. During the conference state parties to the Chemical Weapons Convention will review the progress made, since the convention, which bans chemical weapons, entered into force. They will review advances in science and technology, which impact the implementation of the treaty. And they will discuss a topic gaining more and more importance: The use of incapacitant agents and so called non-lethal-chemicals either in law enforcement or in warfare, and its implications on both the Convention and international humanitarian law. The latter is the topic of this research note.

1. Introduction

The Chemical Weapons Convention (CWC) was concluded to renounce forever all chemical weapons. Their prohibition must be strictly observed without interfering in the peaceful use of chemicals. This can lead into a dilemma when it comes to discriminate between the prohibited use of chemical weapons and the not prohibited use of certain chemicals by police forces against civil uproar. The provisions of the CWC, correctly interpreted, provide for discerning

prohibited activities from not prohibited ones.

Some months ago, information appeared about a U.S. research and development program on non-lethal chemical weapons that violates the CWC. The ‘Sunshine-Project’ reported on such activities regarding anaesthetics and psychoactive substances, development of long-range military delivery devices for these chemicals, including an 81mm chemical mortar round. Their intended use is against “potentially hostile civilians”, in anti-terrorism operations, counterinsurgency, and other military operations¹. The hostage drama in Moscow² was considered as one of the scenarios for which these new weapons could be needed. Speculations about the possible wartime use of those weapons stirred up discussions that raised doubts on the legal line of division between the use of chemical weapons on the one hand and law enforcement measures, including riot control purposes, on the other. The legal aspect of the issue is: Which chemical agents are ‘not prohibited’ under Article II, paragraph 9(d) of the Chemical Weapons Convention?

The statement of Ambassador von Wagner, former chairman of the Conference on Disarmament’s Ad Hoc Committee on Chemical Weapons, made when introducing the fi-

nal draft of the CWC ten years ago, gained new relevance:

“4. Particularly riot control agents constitute a real problem. These irritants, physically disabling agents are used around the world in law enforcement and riot control, by police and other organs responsible for maintaining law and order. The same agents, however, would constitute an immediate risk and danger if they were allowed to develop into a new generation of non-lethal but nonetheless effective agents of warfare, causing insurmountable problems in trying to distinguish in the ensuing grey area between ‘real’ and ‘non-lethal’ chemical weapons as well as between ‘real’ and ‘non-lethal’ warfare units.

5. Only in the last week of negotiations a point near consensus has been reached on this important issue touching upon the very scope of the Convention. It was possible because a common view has emerged among delegations that the preparation and application of any method of warfare dependent upon the toxic properties of chemicals should be banned under the Convention...”³

2. Warnings against a legalisation of ‘non-lethal’ chemicals

Since the start of negotiations, as early as 1974, documented evidence exists that participants pleaded to confine the use of chemicals for civil purposes to irritants.

A Canadian paper from 1974⁴ states in its paragraph 9 (page 3):

“In the case of harassing or irritating agents which are widely recognised as essential for civil riot control because of their quick reaction and short duration without injury, it is unlikely that governments would be prepared to ban their continued development, production and stockpiling. It might on the other hand be generally accepted that the development, production and stockpiling of incapacitating agents could be prohibited. This acceptance would stem from the unreliability and unpredictable effects of incapacitating agents, particularly the psychochemicals. It would seem unlikely that governments would wish to retain such agents for civil police use. In the event of there being a disposition to prohibit incapacitating agents

but to allow irritating agents for civil use, an expert review committee could determine into which category fell those chemicals above the agreed threshold of effectiveness”.

A paper submitted by the U.S. to the CWC negotiating body in 1977⁵ stated likewise: “In addition to chemicals that kill or permanently disable, chemicals which have temporary, incapacitating effects are potential chemical warfare agents. For this reason, it is appropriate to consider their inclusion in a future arms control measure. The draft Conventions presented by the Socialist countries (CCD/361), Japan (CCD/420), and the United Kingdom (CCD/512), all appear to place restrictions upon incapacitants as well as on other agents. In addition, the 10-nation memorandum on CW (CCD/400) would seem to advocate the prohibition of incapacitants. One final conclusion of the U.S. paper is: “At present incapacitating agents do not appear to have become a major component of CW stockpiles. Their role could increase, however, if they were not covered in a CW agreement.”

In addition to the states mentioned in the U.S. paper⁶, different political and regional groups supported this view.⁷ Towards the end of the negotiations, the negotiating committee of the CD warned against the serious dangers posed by non-lethal chemicals, if they were to develop into a new generation of effective agents of warfare.⁸ Until the conclusion of the Convention there has been no position demanding that chemicals whose toxic effects transgress the boundaries of the definition of riot control agents should be eligible for law enforcement. Presently, strict observance of these boundaries has become even more important.

A paper issued in November 2002 by the Federation of American Scientists⁹ characterises the present dangers posed by new non-lethal agents as follows:

“Biomedical sciences and the pharmaceutical industry are in the midst of a revolution in the science and technology of drug discovery that will significantly complicate the control of chemical and biological weapons (CBW). The Chemical Weapons Con-

vention (CWC), the Biological and Toxin Weapons Convention (BWC) and the Geneva Protocol are thus challenged by these technological developments. Scientists contributing to this revolution need to understand the implications of their work, and arms controllers must recognise that there are profound changes underway that will affect the technical landscape of CBW control...” (page1)

“In fact, a categorical distinction between lethal and non-lethal agents is not scientifically feasible. Not only are certain individuals more susceptible to some agents, but synergy between two different non-lethal agents may make their combination highly lethal to everyone. Rational strategies to discover such synergistic pairs will soon be available. Thus, the development of multiple non-lethal agents may provide a lethal CW capability, in clear violation of the Convention. Even without synergism, stockpiles of non-lethal weapons and munitions would defeat a fundamental goal of the Convention, to exclude completely the possibility of the use of chemical weapons by preventing states from entering a war with a stockpile of CW whose use is proscribed, but which might nevertheless be employed under pressure of military necessity.” (page 2)

3. Treaty provisions have to be interpreted correctly or will be negated

To prevent damage to the CWC, its legal authority must be strengthened in order to uphold the fundamental humanistic achievements of this legal instrument. Implementation of the CWC requires its interpretation. The rules of treaty interpretation serve to apply the agreed provisions. Correct interpretation is guided by the principle ‘Pacta sunt servanda’. The Vienna Convention on the Law of Treaties, concluded on 23rd of May 1969 (‘Vienna Convention’) codifies the norms of customary international law on treaties which is binding for states and international organisations. The general rule governing the interpretation of treaties is contained in Article 31 of the Vienna Convention. Neglecting that rule would mean negating the law. The following elements of this rule have a special bearing on the issues dealt with in this article:

Paragraph 1: A treaty shall be interpreted

- in good faith
- in accordance with the ordinary meaning to be given to the terms of the treaty
- in their context and
- in the light of its object and purpose.

Paragraph 3: There shall be taken into account, together with the context:...

(c) Any relevant rules of international law applicable in the relations between the parties.

4. The dividing line between activities prohibited under Article I and activities not prohibited

According to the concept on which Article II is based, any toxic chemical as defined in its paragraph 2 is a chemical weapon, “except where intended for purposes not prohibited under this Convention, as long as the types and quantities are consistent with such purposes...”

Paragraph 9 of Article II divides the exceptions into four categories of purposes ‘not prohibited under this Convention’. Each category stands by itself¹⁰.

Sub-paragraph 9 (d) exempts the use of toxic chemicals for the purpose of law enforcement including domestic riot control from regulation. Nevertheless, their use with the intent to cause harmful effects for humans moves them closer again to a prohibited CW employment. The interrelated provisions discussed in this chapter separate not prohibited action from prohibited use of chemical weapons.

- ‘Law enforcement including domestic riot control’ presupposes a specific factual situation in which domestic law and order are violated or endangered. Use of force by police or other organs must be allowed within the scope of a state’s jurisdiction to re-establish law and order¹¹.
- The consistency criterion of paragraph 1 of Article II stipulates, that types and quantities of chemicals have to be consistent with the legitimate purpose. Its im-

pact on sub-paragraph 9(d) is significantly upgraded by paragraph 7 of Article II. A priori, it excludes the types of agents named in one the CWC lists from being used for riot control. The chemicals qualified as riot-control agents are characterised by their toxic effects. Such effects are defined in much broader scope than those related to irritants. Beside sensory irritation they also include physical disablement. Effects must manifest themselves rapidly after exposure and disappear within a short time after termination of use. These are the only type of chemical agents which are eligible under sub-paragraph 9(d)¹². Further restrictions on these exemptions are: Use of riot-control agents in bombs, spray containers or artillery munitions, which would be inconsistent with the purpose. The same holds true for stored quantities in excess of the requirements for the allowed purpose. All those chemicals not in accordance with these purposes, together with their means of delivery, are prohibited chemical weapons. They have to be declared and destroyed.

- The third provision in this context is paragraph 5 of Article 1 of the Convention. It prohibits any use of riot control agents as a method of warfare. It does not cover other categories of toxic chemicals since, according to paragraph 7 of Article II, they are not eligible for purposes of sub-paragraph 9(d). Paragraph 5 of Article I also relates to internal armed conflicts, including local, relatively small-scale outbreaks of violence. Therefore, lawful use of riot control agents has to be counterchecked to confirm that it does not constitute a method of warfare. The expression ‘method of warfare’ has been coined by the Geneva Conventions¹³. The humanitarian character of those norms requires their broad interpretation.
- These provisions are further supported by Article III, obligating each State Party to declare chemicals it holds for riot control purposes.

5.Context

The provisions discussed under Chapter 4 are closely interrelated. The term ‘riot control’ in sub-paragraph 9 (d) is the same as that defined in paragraph 7 of Article II. This adds precision to the consistency criterion in Article II, para. 1 when applied to sub-paragraph 9 d). Since the same term ‘riot control’ is used in the 5th paragraph of Article I, any toxic chemical intended to be used for law enforcement including domestic riot control is prohibited as a method of warfare. Article III, paragraph 1 e) provides for the transparency required. This context gives conclusive proof, that sub-paragraph 9 d) cannot legitimise the use of any chemical agent except those defined in paragraph 7.

6.The ordinary meaning of terms

According to their ordinary meaning, ‘law enforcement’ is a term with a general connotation, ‘domestic riot control’, in contrast, with a special connotation. Consequently, when the question is raised which measures may be needed to enforce law and order and which measures would be adequate for domestic riot control, the answers will differ significantly:

A police officer on night patrol reprimanding individuals for disturbing sleep is a measure of ‘law enforcement’. The same applies for the dislocation and action of units of police and other security forces when riots are immanent. The difference lies in the character and degree of the enforcement measures – ten Euros fine on the one hand, water-cannons, police-sticks and tear-gas on the other. In contrast, the term domestic riot control is unambiguous and requires enforcement measures only of one special character, implying, among others, riot control agents.

The two terms are interrelated, the specific term (domestic riot control) being contained in the general one (law enforcement). This relationship is correctly expressed by the word ‘including’. Law enforcement and riot control are not alternatives but parts of *one* category of purposes. This understanding is

also supported by other official versions of the convention's text:

- French: *des fins de maintien de l'ordre public, y compris de lutte antiémeute sur les plan intérieur*
- Spanish: *mantenimiento orden, incluida la represión interna de disturbos*
- Russian: *pravoochaniel'nie celi, vključaja borbu s besporjakami v strane (law protection including fight against riots in the country).*

Furthermore it should be mentioned that the treaty text reflects the sense of wording regularly used during the negotiations. Between 1982 and 1992 'irritants for law enforcement' was used once¹⁴ and the wording 'irritants for law enforcement and riot control' used in 14 editions of the Rolling Text.^{15 16}

7. The context with the Geneva Protocol

The Preamble of the CWC refers to the Geneva Protocol in three paragraphs:

- Paragraph 3 recalls that the UNGA condemned all actions contrary to the principles and objectives of the Geneva Protocol;
- paragraph 4 recognizes that the CWC reaffirms principles and objectives of and obligations assumed under the Geneva Protocol;
- paragraph 6 states the resolve that the CWC, by excluding completely the possibility of the use of CW through implementing its provisions, complements the obligations assumed under the Geneva Protocol.

These statements are part and parcel of the object and purpose of the CWC as such: To confirm the principles and objectives of the Geneva Protocol and to complement the obligations assumed accordingly. For this mutual relationship between two treaties Article 30, paragraph 2 of the Vienna Convention provides: "When a treaty specifies that it is subject to, or that it is not to be considered as incompatible with, an earlier or later treaty, the provisions of that other treaty prevail."

As far as the scope of the prohibitions by the Geneva Protocol and customary international law are concerned, this paper can only refer to the legal literature commenting on the discussion of this subject, especially to volume III of the SIPRI study¹⁷. This study comes to the conclusion that the use of all toxic agents including non-lethal weapons, tear gas and other irritants in war and in other armed conflict shall fall within the scope of the prohibition of the Protocol as well as of the customary prohibition – according to the generally recognized rules of international law.¹⁸ Important evidence for this interpretation is United Nations General Assembly Resolution 2603 A (XXIV) which affirmed the comprehensive character of the prohibition.

The SIPRI study examined the history of the emergence of those rules in the period following World War I up to the end of the 1960's. New impulses, also in reaction to the use of irritants and herbicides in the Vietnam war, gave rise to a process that finally resulted in the conclusion of the Biological and Toxin Weapons Convention and the Chemical Weapons Convention. References in the Appendix prove that throughout the process there was constant awareness of the comprehensive scope of the CW prohibition:

- the Report of the UN Secretary-General containing the unanimous report of the group of consultant experts¹⁹;
- the WHO Report on Health Aspects of Chemical and Biological Weapons²⁰;
- the Statement of President Nixon of November 1969, reaffirming renunciation of the first use of lethal chemical weapons and extending this renunciation to the first use of incapacitating chemicals²¹;
- President Nixon's message of August 1970 initiating the ratification process of the Geneva Protocol.²²
- President Ford's Executive Order 11850, of 4 August 1975 concerning renunciation of certain uses in war of chemical herbicides and riot control agents²³.

Throughout the negotiations of the Chemical Weapons Convention, the achievement of a comprehensive CW ban with a comprehensive scope like the Geneva Protocol was the generally shared objective. From the reference documents contained in the Appendix to this research note it can be seen that the entire negotiation process of more than 20 years was a constant affirmation of this objective as reflected by state practice and *opinio juris*, in other words, by the belief that this practice is consistent with the existing law of this time. According to the *principle of estoppel*²⁴ such affirmative international commitments strengthen international law and protect it against opportunist interpretation. This process reached its climax in January 1989 at the Paris Conference where 149 representatives of the State Parties to the Geneva Protocol and other interested states (that means states not party to the Geneva Protocol) declared their determination “to prevent any recourse to CW by completely eliminating them”²⁵.

After closure of the CWC negotiations, the process of strengthening the Geneva Protocol continued through signature, ratification of and accession to the Convention. As stated in paragraph four of the Preamble, all States Parties (be they parties to the Geneva Protocol or not) are committed to abide by the principles and objectives of and obligations assumed under the Geneva Protocol. Therefore, those rules are applicable in the relations between the States Parties to the CWC as required in the Vienna Convention, Article 31, paragraph 3 (c).

From this follows: Any interpretation of Article II, paragraph 9 (d) of the Convention has to be in accordance with the comprehensive prohibition of use of chemical weapons stipulated by the Geneva Protocol. (Solely the use of irritants for civil purposes could be considered as not covered by the provisions of the Geneva Protocol.) This excludes interpretation of sub-paragraph 9 (d) that would exempt from prohibition any agent that is not a riot control agent as defined under Article II, paragraph 7.

8. Circumvention of the legal dividing line between prohibited and not prohibited activities

By false interpretation²⁶ non-lethal chemicals, while excluded by definition from use for law enforcement including riot control purposes, are made eligible for such purposes. ‘Law enforcement’ is considered to be a purpose in itself. The argument goes: Since agent X is not to be used for riot control purposes but for law enforcement purposes, it cannot be a riot control agent. Therefore, it does not fall under of Article II, paragraph 7. Consequently, the consistency criterion is not further specified and the relation with the undefined term ‘law enforcement’ deprives it of most of its relevance. Also the safeguard against misuse as a means of warfare in Article I, paragraph 5 is bypassed. As a surrogate for this provision, sub-paragraph 9 (c), despite having quite another function, is artificially constructed into a clause against use of chemical agents as means of warfare.

This false interpretation negates the rules of the Vienna Convention in toto: *Pacta sunt servanda*, good faith, object and purpose of the treaty, ordinary meaning of terms, context – here the interrelationship of sub-paragraph 9(d) with paragraph 7 and 1 (a) of Article II, paragraph 5 of Article I, and Article III,1 (e) as well as the relationship to the Geneva Protocol (Article 30, paragraph 2 and Article 31, paragraph 3 (c)).

9. Quintessence

The question whether a toxic chemical is ‘not prohibited’ under sub-paragraph 9 (d) will be answered by subsuming the intended purpose of its use, its chemical properties, types (including its weaponisation), and quantities under provisions of Article II:

- Is it a toxic chemical as defined in paragraph 2 ? – if the answer is yes:
- Is it intended to be used for purposes of law enforcement including domestic riot control as defined in sub-paragraph 9 (d) and is it *not* intended for use as a method of warfare? – if the answer is yes:

- Are the types and quantities of the chemical consistent with the intended purposes, and more importantly, is the chemical not included in the CWC list and is it a riot control agent as defined in paragraph 7 and not prohibited by the Geneva Protocol?

If the final answer is 'yes', the result will be: the chemical is not a chemical weapon. However, it is prohibited as a method of warfare according to Article I, paragraph 5, and subject to declaration according to Article III, paragraph 1(e). If the answer is 'no', it is to be declared and destroyed under Articles I, III and IV of the CWC.

10. Further action

Consideration and action by the States Parties, the policy-making organs of the OPCW, especially at the CWC Review Conference, as well as public discussion on this subject is required:

The Review Conference should

- reaffirm that the prohibitions of the CWC cover all chemicals regardless of their origin or method of production²⁷;
- recall, that die CWC complements the obligations not to use such weapons, assumed under the Geneva Protocol of 1925 and
- warn against any violation of these norms.

Endnotes

¹ See: Appendix, 57

² The opiate fentanyl, an anaesthetic, was used to free 700 hostages in a Moscow theatre; 128 hostages were killed and a great number injured by the gas.

³ See: Appendix, 51.

⁴ See Appendix, 14

⁵ See Appendix, 19.

⁶ See Appendix, 6, 11, 13, 18.

⁷ See Appendix, 8, 9, 10, 14, 16, 20, 21, 24, 25, 27, 28, 30, 31.

⁸ See Appendix, 51, 52, 53.

⁹ Federation of American Scientists Working Group

on Biological Weapons, Non-lethal biological and chemical weapons, Washington, November 2002 <http://www.fas.org/bwc/papers/nonlethalCBW.pdf>

¹⁰ This applies also for sub-paragraph 9 (c) that cannot influence the interpretation of sub-paragraph 9(d).

¹¹ Likewise, this wording is understood as implicitly tolerating a state's practice of using toxic chemicals for capital punishment. This was considered necessary to avoid creating an obstacle to enter into the CWC without compromising the object and purpose and, at the same time, to avoid infringing upon the world-wide endeavours to abolish capital punishment. This intention would be counteracted by using it as an argument for a misinterpretation of sub-paragraph 9 d) in order to justify the would-be legalisation of non-lethal chemical weapons.

¹² See Krutzsch, Trapp, *A Commentary to the Chemical Weapons Convention*, Martinus Nijhoff Publishers, Dordrecht/Boston/London, 1994, p.36.

¹³ The expression 'method of warfare' has been used, i.a. in the Protocol additional to the Geneva Conventions of 12 August 1949 relating to the protection of victims of international armed conflicts . (Protocol I) 12.12.77, Part III, Methods and Means of Warfare and Section I, Methods and Means of Warfare. With regard to the obligation to respect the rules of warfare, Article 35 – Basic Rules – stipulates: 'In any armed conflict, the right of the Parties to the conflict to choose methods and means of warfare is not unlimited.' The applicability for non-international conflicts results from Article 43 – Armed forces: 'The armed forces of a Party to the conflict consists of organised armed forces, groups and units which are under a command responsible to that Party for the conduct of its subordinates, even if that Party is represented by a government or an authority not recognised by an adverse Party.' See also: Krutzsch, Trapp, *ibid.* p.18-19.

¹⁴ Appendix 29

¹⁵ Appendix 32, 33, 34, 35, 36, 37 ,38, 40, 41, 42, 43, 44, 45, 46

¹⁶ Between 1982 and 1992, relevant text was used in at least 36 cases in the records of negotiation results ("Rolling Text") and official papers of participating delegations. In those cases the following terms were used synonymously, often two different versions in one paper in a number of cases:

law enforcement purposes (2), domestic law enforcement and riot-control purposes (2), law enforcement and riot-control purposes (15), domestic law enforcement and domestic riot-control purposes (14), domestic law enforcement or riot-control purposes, such as CS, CN and CR (1), law enforcement including domestic riot-control purposes (2)

¹⁷ A comprehensive overview is given in "The Problem of Chemical and Biological Warfare", Volume III, CBW and the Law of War; SIPRI, Stockholm International Peace Research Institute. 1973 Almqvist & Wiksell.

¹⁸ See also “The Problem of Chemical and Biological Warfare” *ibid.* p. 59 to 64.

¹⁹ See Appendix, 1.

²⁰ See Appendix, 2.

²¹ See Appendix, 3.

²² See Appendix, 3.

²³ See Appendix, 15. However, of the four exceptions from the prohibition specified in the Executive Order only that concerning the use of riot control agents in prisoner-of-war camps may be in compliance with paragraph 9 (d) of the CWC. The others have been overruled by the CWC since paragraph 5 of Article I prohibits the use of riot control agents as a method of warfare.

²⁴ See “The Problem of Chemical and Biological Warfare” *ibid.* p. 64.

²⁵ See Appendix, 39.

²⁶ See: „Law Enforcement and the CWC, the CBW Conventions Bulletin, Quarterly Journal of the Harvard Sussex Program on CBW Armament and Arms Limitation, issue No.58, December 2002.

²⁷ See Malcolm Dando, Scientific and technological change and the future of the CWC: the problem of non-lethal weapons. disarmament forum (four . 2002), p. 42. United Nations Institute for Disarmament Research.

Appendix

Documents Related to “Non-lethal Chemicals and Law Enforcement including riot control”

1. United Nations, 1969 Chemical and Bacteriological (Biological) Weapons and the Effects of their Possible Use

Report of the Secretary-General containing the unanimous report of the group of consultant experts. (Document A/7575 and S/9292), transmitted to UN GA on 1 July 1969).

The Secretary-General urged the Members of the UN to undertake the following measures:

- (1) “To renew the appeal to all States to accede to the Geneva Protocol of 1925:
- (2) To make a clear affirmation that the prohibition contained in the Geneva Protocol applies to the use in war of all chemical, bacteriological and biological agents (including tear gas and harassing agents) which now exist or which may be developed in the future;
- (3) To call upon all countries to reach agreement to halt the development, production and stockpiling of all chemical and bacteriological (biological) agents for purposes of war and to achieve their effective elimination from the arsenal of weapons”.

In their findings and conclusions the experts stated *inter alia*:

“The present inquiry has shown that the potential for developing an armoury of chemical and bacterio-

logical (biological) weapons has grown considerably in recent years, not only in terms of the number of agents but in their toxicity and in the diversity of their effects. At one extreme, chemical agents exist and are being developed for use in the control of civil disorders; and others have been developed in order to increase the productivity of agriculture. But even though these substances may be less toxic than most other chemical agents, their ill-considered civil use for military purposes could turn out to be highly dangerous...”

The General Assembly adopted on 16 December 1969, by 120 to 0, with one abstention, resolution 2603 B (XXIV). By this resolution the General Assembly, in paragraph 6, “Recommends the Report of the Secretary-General to the Eighteen-Nation Committee on Disarmament as a basis for its further consideration of the question of the elimination of chemical and bacteriological (biological) weapons”.

With regard to the second out of three recommendation by the Secretary-General (see above) the General Assembly adopted a declaratory resolution by an affirmative vote of 80 to 3 (Australia, Portugal and the United States) with 36 abstentions. In this resolution (2603 A (XXIV) of 16 December 1969, the General Assembly, *inter alia*:

Declares as contrary to the generally recognised rules of international law, as embodied in the Protocol for the Prohibition of the Use in War of Asphyxiating or other Gases, and of Bacteriological Methods of Warfare, signed at Geneva on 17 June 1925, the use in international armed conflict of

- (a) Any chemical agents of warfare – chemical substances whether gaseous, liquid or solid – which might be employed because of their direct toxic effects on man, animals or plants;
- (b) any biological agents of warfare – living organisms, whatever their nature, or infective material derived from them – which are intended to cause disease or death in man, animals or plants, and which depend for their effects on their ability to multiply in the person, animal or plant attacked.²⁷

2. World Health Organisation, 1970 Health Aspects of Chemical and Biological Weapons In Chapter 4. Working Definitions of Chemical and Biological Weapons for the Purposes of this Report, three groups of chemical and biological agents are discerned:

“A lethal agent is one intended to cause death when man is exposed to concentrations well within the capability of delivery for military purposes.

An incapacitating agent is one intended to cause temporary disease or to induce temporary mental or physical disability, the duration of which greatly exceeds the period of exposure. (Footnote 4)

A harassing agent (or short term incapacitator) is one capable of causing a rapid disablement that lasts for little longer than the period of exposure.”

Footnote 4 reads: “No sharp line of demarcation can be drawn between lethal and incapacitating agents used in chemical and biological warfare, because incapacitating agents can be lethal or perma-

nently disabling under certain circumstances (e.g., in the presence of malnutrition or pre-existing disease; in infants or the aged; or when there is exposure to unusually high doses, as in enclosed spaces or in close proximity to functioning chemical or biological weapons). For similar reasons, no sharp demarcation line can be drawn between harassing agents and other anti-personnel chemical agents; furthermore, harassing agents may be used in war in conjunction with high-explosive, fragmentation or other weapons to increase the lethal effectiveness of the latter – as distinct from their employment in riot control in order to reduce injuries and to save lives.” Consequently, in Annex 1, Chemical Agents, the Report lists three different tactical functions of chemical warfare agents:

- (1) “lethal agents”, used either to kill an enemy or to injure him so severely as to necessitate his evacuation and medical treatment;
- (2) “incapacitating agents”, used to put an enemy completely out of action for several hours or days, but with a disablement from which recovery is possible without medical aid; and
- (3) “harassing agents”, used to disable an enemy for as long as he remains exposed.

(The Report says with regard to lethal doses of incapacitating agents: “In this connection, it may be noted that estimates of lethal doses for man are likely to be more unreliable for the harassing agents than for any other CW agents”).

3. Statement of President Nixon

White House press release dated 25 November 1969

“Under the auspices of the National Security Council, the Departments of State and Defence, the Arms Control and Disarmament Agency, the Office of Science and Technology, the intelligence community, and other agencies worked closely together on this study for over 6 months. These government efforts were aided by contributions from the scientific community through the President’s Scientific Advisory Committee.

This study has now been completed and its findings carefully considered by the National Security Council. I am now reporting the decisions taken on the basis of this review.

Chemical Warfare Program

As to our chemical warfare program, the United States:

- Reaffirms its oft-repeated renunciation of the first use of lethal chemical weapons.
- Extends this renunciation to the first use of incapacitating chemicals.

Consonant with these decisions, the administration will submit to the Senate, for its advice and consent to ratification, the Geneva protocol of 1925, which prohibits the first use in war of ‘asphyxiating, poisonous or other gases and of bacteriological methods of warfare’. The United States has long supported the principles and objectives of this protocol. We take this step toward formal ratification to reinforce our continuing advocacy of international constraints on the use of these weapons.”

Biological Research Program

...

President Nixon’s message

White House press release dated 19 August 1970

“To the Senate of the United States:

With the view to receiving the advice and consent of the Senate to ratification, I transmit herewith the Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or Other Gases, and of Bacteriological Methods of Warfare, signed at Geneva June 17, 1925. I transmit also the report by the Secretary of State which sets forth the understandings and the proposed reservation of the United States with respect to the Protocol.

In submitting this Protocol for approval, I consider it desirable and appropriate to make the following statements:

- The United States has renounced the first-use of lethal and incapacitating chemical weapons.
 - The United States has renounced any use of biological and toxin weapons.”
- ...(biological and toxin research programs)
- “The United States will seek further agreement on effective arms control measures in the field of biological and chemical warfare.”²⁷

4. Sweden, 16 March 1971 (CCD/322)

Working Paper on a model for a comprehensive agreement concerning the prohibition of chemical and biological means of warfare.

“Scope of the prohibition..

6. The agents would be separated into two categories according to two technical criteria

- (a) Category (a) would comprise those agents, whether chemical, toxins or biological which have a practically exclusive use as potential means of warfare. They would, at the same time, be those agents which are super-toxic. ... (explained further as substances more toxic than 1mg per kg body weight).
- (b) Category (b) would comprise all remaining chemical agents, less toxic than indicated by the above mentioned formula and which can be used as means of warfare comprising such chemicals as hydrogen cyanide, phosgene, tear gases and defoliants...”

5. United States of America, 20 March 1972 (CCD/360)

Work Program regarding negotiations on prohibition of chemical weapons.

With regard to the scope of prohibition, the paper pleads for a combination of four general criteria: general toxicity standard, identification of specific agents, general structural formula, criterion based on purpose. The latter has been described as follows:

“The Biological Weapons Convention relies on a general formula which prohibits agents ‘of types and in quantities that have no justification for prophylactic, protective or other peaceful purposes’. This definition is both comprehensive and simple. Such a definition by itself, however, could be insufficiently precise for effective application to chemicals which are produced in extremely large quantities for peaceful purposes.”

6. Bulgaria, Czechoslovakia, Hungary, Mongolia, Poland, Romania, Union of Soviet Socialist Republics, 28 March 1972 (CCD/361)

Draft Convention on the prohibition of the development, production and stockpiling of chemical weapons and on their destruction.

The scope of prohibition envisaged in Paragraph I of the draft reads:

- (1) "Chemical agents of types and in quantities that have no justification for peaceful purposes;
- (2) Weapons, equipment or means of delivery designed to use such agents for hostile purposes or in armed conflict."

7. United States of America, 26 June 1972 (CCD/365)

Working Paper on definitions of controlled substances

The paper discusses the idea to use toxicity limits for defining chemical substances which are potential chemical warfare agents: "A criterion based on a toxicity limit would have the advantage of being directly related to the potential danger from a particular substance." The disadvantage of this method is mentioned too: "However, laboratory procedures for toxicity determination are not uniform from country to country – or even within a single country. Accurate, reproducible toxicity values can be obtained only if the testing procedure and form of presentation of results are very carefully specified in advance". A general criterion such as that in the Biological Weapons Convention "would provide the simplest and most comprehensive definition". (page 4)

8. Sweden, 28 June 1972 (CCD/372) ?

Working Paper on two groups of chemical agents of warfare

Chemicals to be prohibited are those as comprised by: the Geneva Protocol, the UN Report on Chemical and Bacteriological (Biological) Weapons and the Effects of their Possible Use, Report of the Secretary General, United Nations, New York, 1969 A/7575/Rev.1, and the report of the World Health Organisation, Health Aspects of Chemical and Biological Weapons. Report of a WHO Group of Consultants, Geneva 1970.

The concept already included in the Swedish paper CCD/322 to divide the chemicals to be prohibited into two groups is further upheld. The paper supports the idea to delimit supertoxic agents and other toxic agents. In the latter group CS is included with the remark "Police use".

9. Yugoslavia, 5 July 1972 (CCD/375)

Working Paper on some aspects of the definition, classification and prohibition of chemical agents.

The paper calls (on page 1) "attention to possible harmful uses of chemical compounds which are not classified as chemical warfare agents. For instance, a total herbicide used in standard concentrations has toxic effects on plants but it is not dangerous for men. However, if used in concentrations ten times higher, it may also have, beside its basic effects, direct and indirect toxic effects on people and animals."

As a suitable definition that would cover all chemical agents was proposed (on page 2): "All chemical compounds intentionally used in quantities which directly or indirectly, immediately or after some time, can produce physiological disturbances or cessation of physiological functions in men or animals, should be considered as chemical agents". Finally the paper stresses that "any agreement concerning the prohibition of chemical agents must be a comprehensive one" (page 4).

10. Canada, 24 August 1972 (CCD/387)

Working paper on toxicity of chemical substances, methods of estimation and applications to a chemical control agreement.

The comments in regard to the role of a toxicity criterion given in the paper "will not be applicable to the control of the less toxic chemical warfare substances, for example the irritants, incapacitants, or some of the older agents, such as mustard gases. We assuming herein, as the United States Paper suggests, that such chemicals would be defined by other criteria of the control agreement" (page 1).

11. Argentina, Brazil, Burma, Egypt, Ethiopia, Morocco, Nigeria, Sweden and Yugoslavia, 26 April 1973 (CCD/400)

Working paper on the prohibition of the development, production and stockpiling of chemical weapons and on their destruction.

"(II) SCOPE OF THE PROHIBITION

7. Discussions in the Committee show a basic agreement on the objective of the negotiations relating to chemical weapons, namely that they should aim, in accordance with the relevant United Nations resolutions, at reaching a comprehensive ban, covering the development, production and stockpiling of all Chemical Weapons, their equipment and means of delivery, as well as the destruction of existing stocks" (page 2).

12. Canada, 21 August 1973 (CCD/414)

The problem of defining chemical substances in a treaty prohibiting the development, production and stockpiling of chemical weapons.

The paper states "A widely expressed view in the CCD has been that a treaty could set out the scope affected by way of a general purpose criterion, while more detailed technical provisions could be elaborated in an annex to the treaty" (page 1). For such supplement the paper discusses several versions.

13. Japan, 30 April 1974 (CCD/420)

Draft Convention on the Prohibition of the Development, Production and Stockpiling of Chemical Weapons and on their Destruction.

The scope of the prohibition is defined in Article 1: "Each State Party to this Convention undertakes never in any circumstances to develop, produce, stockpile or otherwise acquire or retain:

- (a) Chemical agents of types and in quantities that have no justification for protective or other peaceful purposes;
- (b) Weapons, equipment or means of delivery designed to use such agents for hostile purposes or in armed conflict."

14. Canada, 16 July 1974 (CCD/433)

The problem of defining compounds having military significance as irritating and incapacitating agents.

“Non-lethal Agents

2. Attention is drawn to the meaning of some of the terms used in this paper:

harassing or irritating means having a physiological effect which will render individuals incapable of normal concerted physical effort during exposure and only for a very short period of time (minutes) after exposure ceases. These are generally known as riot control agents;

incapacitating means having physiological or mental effects which will render individuals incapable of normal concerted physical or mental effort or both for a significant period of time after exposure. Such agents resemble riot control in that the effects are temporary and without permanent damage but are different in that the effect may last for hours or in extreme cases for days” (page 1).

The paper then explains that the military utility of harassing and incapacitating is not related to their possible lethal effects, but to their harassing and incapacitating effect.

The paper then discusses the tolerance limits given in the Report of the Secretary-General for “non-lethal agents” and proposes instead a tolerance limit for the medium dosage.

With regard to the conclusions to be drawn from the for the scope of prohibition, the paper says in its paragraph 9 (page 3):

“In the case of harassing or irritating agents which are widely recognised as essential for civil riot control because of their quick reaction and short duration without injury, it is unlikely that governments would be prepared to ban their continued development, production and stockpiling. It might on the other hand be generally accepted that the development, production and stockpiling of incapacitating agents could be prohibited. This acceptance would stem from the unreliability and unpredictable effects of incapacitating agents, particularly the psychochemicals. It would seem unlikely that governments would wish to retain such agents for civil police use. In the event of there being a disposition to prohibit incapacitating agents but to allow irritating agents for civil use, an expert review committee could determine into which category fell those chemicals above the agreed threshold of effectiveness”.

15. United States of America, 4. August 1975 - President Ford,

Executive Order 11850 of 408-75 32 - National Defense Subchapter A – General Renunciation of certain uses in war of chemical herbicides and riot control agents

The United States renounces, as a matter of national policy, first use of herbicides in war except use, under regulations applicable to their domestic use, for control of vegetation within U.S. bases and installations or around their immediate defensive perimeters, and first use of riot control agents in war except in defensive military modes to save lives such as:

(a) Use of riot control agents in riot control situations in areas under direct and distinct U.S. military control, to include controlling rioting prisoners of war.

(b) Use of riot control agents in situations in which civilians are used to mask or screen attacks and civilian casualties can be reduced or avoided.

(c) Use of riot control agents in rescue missions in remotely isolated areas, of downed aircrews and passengers, and escaping prisoners.

(d) Use of riot control agents in rear echelon areas outside the zone of immediate combat to protect convoys from civil disturbances, terrorists and paramilitary organizations.

I have determined that the provisions and procedures prescribed by this Order are necessary to ensure proper implementation and observance of such national policy.

NOW, THEREFORE, by virtue of the authority vested in me as President of the United States of America by the Constitution and laws of the United States and as Commander-in-Chief of the Armed Forces of the United States, it is hereby ordered as follows:

Section 1. The Secretary of Defense shall take all necessary measures to ensure that the use by the Armed Forces of the United States of any riot control agents and chemical herbicides in war is prohibited unless such use has Presidential approval, in advance.

Section 2. The Secretary of Defense shall prescribe the rules and regulations he deems necessary to ensure that the national policy herein announced shall be observed by the Armed Forces of the United States.

The provisions of Executive Order 11850 of April 8, 1975, appear at 40 FR 16187, 3 CFR, 1971 - 1975 Comp., p. 980, unless otherwise noted.

16. Canada, 25 August 1975 (CCD/473)

Working paper on use of measurements of lethality for definition of agents of chemical warfare.

The paper starts with the proposition: “To arrive at a Treaty limiting or prohibiting chemical weapons it may be necessary to define what chemical agents shall fall within the terms of the Treaty in which case it will also be necessary to agree to a measure of lethality. The specific problems associated with determination of lethality of chemical warfare agents are discussed and the general concept of the LD₅₀ as a measure of lethality is explained”.

Under “limitations of the proposal”(page 9) the paper refers to the shortcomings of this concept: “The most important limitation on the above proposal, or on others which adopt a sole criterion of lethality, is that they would not include materials which are less lethal, but which could still have military utility against forces or civilians poorly protected. (For this reason, it may be necessary to allow a category of chemical agents of lesser lethality the use of which as agents of weapons of war would be prohibited, but whose manufacture for legitimate civil uses would be permitted).

This shortcoming could be avoided if the treaty also prohibited materials which caused disability lasting more than a few days. However, the means of verifying this property of chemicals would be much more difficult than simple lethality, and at the present time non-lethal but permanently disabling chemical weapons are only a possibility.

The treatment of chemical weapons which cause temporary disability (incapacitating agents and irritant agents) is outside the scope of this paper; however, similar principles might be applicable in defining levels of incapacitating potency as have been proposed above for defining lethality, i. e., use of known incapacitating or irritant compounds as standards of comparison for tests with experimental animals or human subjects.”

17. United States of America, 29 June 1976 (CCD/499)

Review of proposals for defining chemical warfare agents in a CW Agreement

In the summary the paper sees a broad support, perhaps consensus, for a general purpose criterion. In addition, one or more specific technical criteria, or the use of toxicity as an additional criteria toxicity thresholds were proposed for a definition. However, the decision on values to be adopted and testing procedures to be used was proposed to postpone to a later stage.

18. United Kingdom, 6 August 1976 (CCD/512)

Draft convention on the prohibition of the development, production and stockpiling of chemical weapons and on their destruction.

“ARTICLE I

Each State Party to this Convention undertakes never, in any circumstances, to develop, produce, or otherwise acquire or use:

- a. lethal chemical agents and other toxic chemical agents (of a nature and intended primarily to cause long-term physiological harm to human beings), of types and in quantities that have no justification for protective or other peaceful purposes;
- b. munitions, equipment or systems designed to deliver such agents for hostile purposes or in armed conflict.”

19. United States of America, 28 March 1977 (CCD/531)

Working paper concerning incapacitating chemical warfare agents (full text)

“Introduction

In addition to chemicals that kill or permanently disable, chemicals which have temporary, incapacitating effects are potential chemical warfare agents. For this reason, it is appropriate to consider their inclusion in a future CW arms control measure. The draft Conventions presented by the Socialist countries (CCD/361), Japan (CCD/420), and the United Kingdom (CCD/512), all appear to place restrictions upon incapacitants, as well as on other agents. In addition, the 10-nation memorandum on CW (CCD/400) would seem to advocate prohibition of incapacitants.

While the view that incapacitating agents should be subject to constraints appears to be widely held, little information has been presented at the CCD on this category of agent. The only working paper dealing explicitly with incapacitating agents was presented by Canada in 1974 (CDD/433). That paper examined the problem of defining compounds having significance as irritating or incapacitating agents.

The purpose of this paper is to present additional background material.

What are incapacitating agents?

As pointed out in Canadian working paper CCD/433, ‘incapacitating means having physiological or mental effects which will render individuals incapable of normal concerted physical or mental effort or both for a significant period of time after exposure’. The effects are intended to be temporary, resulting in no permanent damage. Such effects may last for hours (or for days in extreme situations) after removal from exposure.

In order to be effective militarily, incapacitating agents must fill the basic requirements common to all chemical agents: reasonable cost of manufacture from readily available materials; a high degree of stability in storage as well as during and after dissemination; capability of being disseminated efficiently and a relatively short time interval between exposure to the agent and the onset of desired effects. In addition, the difference between the effective and lethal doses of an agent must be wide enough to permit the spontaneous recovery of most victims with no permanent after effects.

The most important types of incapacitating agents are found in the following categories:

(1) Psychochemicals. These compounds (usually indole, tryptamine, or piperidine derivatives) may be described as psychotropic, psychogenic, psychotomimetic, or hallucinogenic. The effects produced may include visual and aural hallucinations; a sense of unreality; and changes in mood, behaviour, performance, memory; attitude, concentration, perception, and thought processes. Representative agents of this group are 3-Quinuclidinil Benzilate and Lysergic Acid Diethylamide.

(2) Paralysants. Agents that interrupt nerve impulse transmission at the skeletal neuromuscular junction (for example, curare) and those that block transmission in autonomic ganglia (for example, hexamethonium) are found in this group.

(3) Pain producers. Physical irritants which have a persistent effect can be considered incapacitating agents. Representative of this group are urushiole (one of the active principles of poison ivy) and bufotenine (a compound which is secreted by the common toad and causes intensive itching).

Effective dose and other definitional criteria

Toxicity thresholds based on median lethal dose are generally agreed to be a useful supplement to the general purpose criterion for defining which chemicals are potential lethal CW agents. In the Canadian paper CCD/414 this general approach was extended to potential incapacitating CW agents. It was suggested that: “A chemical compound or element can be considered as a potential agent of war if it has a median incapacitating or irritating dosage of less than 500 mg. min/M³”.

While determination of medium lethal dosage is relatively straightforward, measurement of median effective dosage is much more complex. The experimental procedure used will depend on the type of effect expected. Separate methods would be needed to determine effective dosage for each class of agents. One method for measuring human mental performance, called the Number Facility Test (NF), employs

a series of addition problems, each consisting of three randomly selected 1- or 2-digit numbers. The score is the number correctly added within a 3-minute period. Other tests have been developed to measure eye-hand co-ordination and dexterity. The types of tests used for animal testing are often based on conditioned reflex responses, physical endurance and visual discrimination.

Criteria based on chemical structure or physical properties, analogous to those suggested for lethal agents, would appear to have little utility. Potential incapacitating agents are so diverse that it does not appear possible to find any simple definitional formula. In view of the lack of suitable technical criteria, consideration might be given to relying solely on the general purpose criterion.

Verification considerations

Generally speaking, the findings reached on verification of restrictions on lethal agents will also apply to incapacitating agents. In other words, the ability to verify restrictions on development, production or stockpiling will be no better or worse for incapacitating agents than for lethal agents.

Military role of incapacitating agents

While the potential military role for incapacitating agents has been discussed for decades, such agents do not appear to have become a major component of CW stockpiles. A key factor has undoubtedly been the unsuitability of currently known agents for military purposes. If incapacitating agents were not eventually covered in a CW agreement, however, increased effort might well be devoted to overcoming these shortcomings.

Conclusions

1. The view that limitations should be placed on incapacitating agents, as well as on lethal agents is widely shared.
2. In view of the lack of suitable technical criteria for defining potential incapacitating agents, consideration might be given to relying solely on the general purpose criterion.
3. Limitations on incapacitating agents do not appear to pose any novel verification problems.
4. At present incapacitating agents do not appear to have become a major component of CW stockpiles. Their role could increase, however, if they were not covered in a CW agreement."

20. USSR-United States, 7 August 1979 (CD/48)

Joint USSR-United States Report on Progress in the Bilateral Negotiations on the Prohibition of Chemical Weapons.

1. "The two sides believe that the scope of the prohibition should be determined on the basis of a general purpose criterion. Parties to the convention should assume the obligation never in any circumstances to develop, produce, stockpile, otherwise acquire or possess or retain super-toxic lethal chemicals, other lethal or highly toxic chemicals or their precursors, with the exception of chemicals intended for permitted purposes of such types and in such quantities as are appropriate to these purposes, as well as chemical munitions or other means of chemical warfare. Negotiations are continuing on several issues relating to the scope of prohibition.

2. Permitted purposes are understood to mean non-hostile purposes (industrial, research, medical, or other peaceful purposes, law-enforcement purposes, and purposes of development and testing of means of protection against chemical weapons), as well as military purposes not related to chemical warfare.
3. In order to facilitate verification, it would be appropriate to use, in addition to the general purpose criterion, toxicity criteria and certain other provisions."

21. The Netherlands, 8 August 1979 (CD/49)

Chemical weapons / answers to questionnaire contained in CD/41

Question 2 refers to the subjects to be covered by a comprehensive CW-ban. Question 2c raises the problem whether a ban "only cover lethal agents or also incapacitants? Tear gas? Herbicides and defoliants?"

Answer: "Incapacitating agents should be prohibited. Tear gas and herbicides can be considered as dual purpose agents. Production for chemical warfare purposes should be prohibited. (this does not exclude some specific military uses which cannot be considered as chemical warfare (such as riot control, e.g. in prisoner of war camps or clearing excessive vegetation around bases))."

22. France, Italy and the Netherlands, 13 August 1979 (CD/52)

Chemical Weapons / Evaluation of the discussion in the Committee on Disarmament in 1979 with respect to the prohibition of chemical weapons.

While admitting, that no consensus could be reached at this stage, items were listed that "could be tentatively distilled from the discussion"

((a) objective of general, complete and verifiable prohibition. (b) Scope of prohibition posed on the general purpose criterion)

- (c) "Activities would be permitted for non-hostile purposes (industrial, research, medical or other peaceful purposes, law-enforcement purposes and for the protection against chemical attack), as well as for military purposes not related to chemical warfare."

23. China, 19 June 1980 (CD/102)

Chinese Delegation's Proposals on the Main Contents of a Convention on the Prohibition of Chemical Weapons.

The first paragraph of the Chinese basic position reads:

"1. The convention on the prohibition of chemical weapons should be comprehensive. The scope of prohibited activities in connection with chemical weapons should include their development, production, stockpiling, acquisition, transfer and use; the scope of prohibited chemical weapons should include all chemicals determined by a general purpose criterion, i.e. whose types and quantities fail to justify the claim that they are intended for peaceful purposes, and weapons systems using these chemicals."

24. Canada, 10 July 1980 (CD/117)
Definitions and Scope in a Chemical Weapons Convention

Attempt for a definition (page 2): “A chemical weapon is a weapon which incorporates a chemical mixture and is designed to achieve military objectives in warfare through its toxicological action on biological systems. This would include effects on plant and animal systems as well as man himself. Toxicology in this context is taken in the broad sense of any toxicological response of which lethality is but one example. Thus both physical and mental incapacitation, irritancy and detrimental effects on plants would be included as well as other effects which may become threats in the future such as genetic alteration, human pheromones, or even the use of chemicals for torture, truth serums and mind control.”

25. China, 27 March 1981 (CD/168)
Prohibition of Chemical Weapons: on the Definition of Chemical Warfare Agents

Page 2: “We propose the following definition for chemical warfare agents:

All chemical substances which are developed, produced, stockpiled and used for hostile purposes, and whose toxic effects are used to interfere with or destroy the normal functions of man, animal and plant in such a way as to lead to death, temporary incapacitation or permanent injury, regardless of whether these poisonous effects occur immediately or in delayed fashion, and regardless of the origin and method of manufacture of these substances, should all be considered chemical warfare agents.

In accordance with above formulation of the definition, chemical warfare agents specifically include:

- (1) Single-purpose chemical warfare agents: including lethal agents, incapacitating agents and blister agents.
- (2) Dual-purpose chemical warfare agents: i.e. dual-purpose chemical substances which have already been developed into weapons (such as those which have filled munitions and whose quantity stockpiled no longer indicates use for peaceful purposes.) Examples: phosgene, hydrogen cyanide, etc., irritant agents and anti-plant agents.”

26. Yugoslavia, 14 July 1981 (CD/195)

Incapacitating Agents

(Some aspects of definition, classification and toxicological characteristics)

In the paper reference is made to the Joint Report of USSR and USA, CD/112, in which those agents are classified as non-lethal or other harmful chemicals.

For the purpose of the future convention on the prohibition of chemical weapons preference is given to classify incapacitating agents according to the duration of toxic effects into the main categories short-term incapacitants and long-term incapacitants.

“SHORT-TERM INCAPACITANTS

Short-term incapacitants may be defined as chemical compounds that are capable of rapidly causing a temporary disablement that lasts a little longer than the period of exposure. They have also been called ‘harassing agents’, ‘riot agents’, etc. They are unlikely to kill or produce long lasting injury, except when used in doses (concentrations) much higher than those necessary to produce disablement. Short-term

incapacitants have been extensively employed in wars and by police forces (about 15 sensory irritants have been used at various times in different parts of the world). They are peripheral sensory irritant materials which interact, at the site of action (contamination), with sensory receptors in the skin and mucosae, causing local uncomfortable sensation with related reflex effects. The uncomfortable sensation and reflex effects hinder the performance of coordinated activities and this forms the basis for the short-term incapacitating or harassing properties of these chemical substances. We would like to underline that what is characteristic of these substances is the prompt onset of effect upon exposure and the rapid disappearance of signs and symptoms after the period of exposure.”

...
 “LONG-TERM INCAPACITANTS

Long-term incapacitants may be defined as chemical compounds whose application causes temporary illness or induces temporary mental or physical disability, the effect of which may be delayed in onset and whose duration greatly exceeds the exposure period. These incapacitating agents could be classified as physical incapacitants or mental incapacitants, according to whether they act predominantly on the physical or mental activities of the subject.”

(The effects of physical incapacitants and mental incapacitants are further described in extenso)

The paper closes with the following conclusions: If the toxicity criterion is to be one of the foundations for the prohibition of highly toxic or lethal chemical warfare agents, then incapacitating agents and among them riot control agents only, should be the subject of further consideration and agreement. The other incapacitating agents should be encompassed by the Convention in order to be banned. In our opinion, a quantitative limitation of production and a limitation of the types of incapacitating agents and types of devices for their use should be set in order to distinguish them as much as possible from those agents which can be used as chemical weapons. If new short-term incapacitating compounds are discovered in the future the criterion for their possible use should be based on the safety threshold for humans and should in any case be of a similar or lesser toxicity than the existing ones.

27. China, 13 August 1981 (CD/212)
Some Viewpoints on the Prohibition of Chemical Weapons

(page 2, paragraph 2) “The definition of a chemical warfare agent must be both comprehensive and accurate. Its comprehensiveness is designed to ensure that all chemical warfare agents which should be prohibited are brought within the scope of the prohibition. It should include not only supertoxic lethal agents but also incapacitating agents and irritant agents; it should include not only single-purpose chemical warfare agents but also dual-purpose chemical warfare agents and precursors which can turn into chemical warfare agents during the process of their use.”

28. USSR, 21 July 1982 (CD/294)

Basic provisions of a convention on the prohibition of the development, production and stockpiling of chemical weapons and on their destruction.

“Definition of chemical weapons

for the purpose of the Convention ‘chemical weapons’ means:

- a) super-toxic lethal chemicals, other lethal and harmful chemicals as well as their precursors except those among them which are intended for non-hostile purposes or military purposes not involving the use of chemical weapons and of types and in quantities which are consistent with such purposes;”

...

“Other definitions

For the purposes of the Convention:

1. Definition of the terms ‘a super-toxic lethal chemical’, ‘other lethal chemical’, ‘a harmful chemical’ will be made on the basis of specific criteria of toxicity (lethality and/or harmfulness) for each of these categories of chemicals (will be set in the Convention on the basis of the levels agreed upon in the Committee on Disarmament).
2. ‘Permitted purposes’ mean non-hostile purposes and military purposes which are not connected with the use of chemical weapons.
3. ‘Non-hostile purposes’ mean industrial, agricultural, research, medical or other peaceful purposes, law enforcement purposes or purposes directly related to protection against chemical weapons.
4. Subject to definition in the Convention are also such terms as ‘a chemical’, ‘an incapacitant’, ‘an irritant’, ‘a precursor’, ‘capacity’, ‘a facility’.”

29. Committee on Disarmament, 14 September 1982 (CD/333)

Views of the Chairman of the Ad Hoc Working Group on Chemical Weapons on possible compromise wordings of the elements of a future convention

(Page 2):

“Element II General Definition of Chemical Weapons

1. ‘Chemical Weapons’, as referred to in Element I, are defined as the aggregate of the means of chemical warfare comprising:
 - (a) Super-toxic lethal chemicals and their precursors of special significance for the formation of such chemicals, including binary or multicomponent munitions or similar devices, other lethal and other harmful chemicals, except those intended for permitted purposes in types and quantities consistent with such purposes;”

(b) (c)...

Element III: Other Definitions

(Page 3):

“7. ‘Permitted purposes’ means non-hostile purposes and military purposes not connected with the use of chemicals weapons.

8. ‘Non-hostile purposes’ means industrial, agricultural, research, medical, or other peaceful purposes, law-enforcement purposes or purposes directly connected with protection against chemical weapons.”

11. An ‘incapacitant’ */

12. An ‘irritant’ */

*/to be elaborated

(Page 10)

Element X: Declarations

7. Each State Party to this Convention undertakes to submit annual declarations concerning the following substances produced, diverted from stocks, acquired or used:

- (a) (i); (ii);
 - (iii) other lethal and harmful chemicals for industrial, agricultural, research, medical or other peaceful purposes and irritants for purposes of law enforcement;”

30. United States of America, 10 February 1983 (CD/343)

United States detailed views on the contents of a chemical weapons ban

(Page 1)

Terminology

“Key terms used in the Convention should be carefully defined to ensure that the Convention’s provisions are clear and precise. Important terms that need to be defined, and the United States understanding of them, are given below:

The term ‘chemical weapons’ should be used to mean:

- (a) super-toxic lethal, other lethal, and other harmful chemicals and their precursor chemicals, regardless of the method of production, except for those intended for permitted purposes as long as the types and quantities involved are consistent with such purposes;”

(b) (c)...

(Page 2)

“The term ‘non-hostile purposes’ should cover industrial, agricultural, research, medical or other peaceful purposes, law-enforcement purposes, or protective purposes;

31. United States of America, 18 April 1984 (CD/500)

Draft Convention on the Prohibition of Chemical Weapons

(page 2)

“Article II, Definitions

For the purpose of this Convention:

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

(b) (c) ...

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

32. Conference on Disarmament, 28 August 1984
(CD/539)

Report of the Ad Hoc Committee on Chemical Weapons to the Conference on Disarmament

Annex I

(page 5)

II. DEFINITIONS AND CRITERIA

“For the purposes of this Convention:

1.***/ The term ‘chemical weapons’ shall apply to the following, together or separately:

- (i) toxic chemicals and their precursors, [including components of binary or multi-component chemical weapons] except those intended for permitted purposes as long as the types and quantities involved are consistent with such purposes.

***/The definitions of chemical weapons are presented on the understanding that problems related to irritants used for law enforcement and riot control, and also to chemicals intended to enhance the effect of the use of chemical weapons if their inclusion in the Convention is agreed could be handled outside the definition of chemical weapons if this will result in a more clear and understandable definition. Preliminary suggestions made to solve these problems are given below and consultations on them will be continued.”

(page 6)

- “[The term ‘chemical weapons’ shall not apply to those chemicals which are not super-toxic lethal, or other lethal chemicals and which are used by a Party for domestic law-enforcement and domestic riot-control purposes.] “... (page 7)

4. “Permitted purposes means:

- [(a) industrial, agricultural, research, medical, law enforcement or other peaceful purposes]”

33. Conference on Disarmament, 23 August 1985
(CD/636)

Report of the Ad Hoc Committee on Chemical Weapons to the Conference on Disarmament

Appendix I

(page 5)

“II. Definitions and Criteria

For the purposes of this Convention:

1.*/ The term ‘chemical weapons’ shall apply to the following, together or separately:

- (i) toxic chemicals, including super-toxic lethal chemicals, other lethal chemicals, other harmful chemicals and their precursors, including key precursors [and key components of binary and /or multicomponent chemical systems for chemical weapons], except such chemicals intended for permitted purposes as long as the types and quantities involved are consistent with such purposes;

*/The definitions of chemical weapons are presented on the understanding that problems related to irritants used for law enforcement and riot control, and also to chemicals intended to enhance the effect of the use of chemical weapons if their inclusion in the Convention is agreed could be handled outside the definitions, of chemical weapons if this will result in a more clear an

understandable definition. Preliminary suggestions to solve these problems are given below and consultations on them will be continued.”

- “[the term ‘chemical weapons’ shall not apply to those chemicals which are not super-toxic lethal, or other lethal chemicals and which are approved by the Consultative Committee for use by a Party for domestic law enforcement and domestic riot control purposes].”

(page 7)

“3. [Permitted purposes] [Purposes not prohibited by the Convention] [Non-hostile purposes] means:

- (a) industrial, agricultural, research, medical or other peaceful purposes, domestic law enforcement purposes; and military purposes not connected with the use of chemical weapons;
- (b) protective purposes, namely those purposes directly related to protection against chemical weapons;”

34. Conference on Disarmament, 21 August 1986
(CD/727)

Report of the Ad Hoc Committee on Chemical Weapons to the Conference on Disarmament

(identical with 33)

35. Conference on Disarmament, 29 January 1987
(CD/734)

Report of the Ad Hoc Committee on Chemical Weapons to the Conference on Disarmament

(identical with 33)

36. Conference on Disarmament, 26 August 1987
(CD/782)

Report of the Ad Hoc Committee on Chemical Weapons to the Conference on Disarmament

Appendix I (page 5)

“II. Definitions and Criteria

For the purposes of this Convention:

1.1/ The term ‘chemical weapons’ shall apply to the following, together or separately:

- (i) toxic chemicals, including super-toxic lethal chemicals, other lethal chemicals, other harmful chemicals and their precursors, including key precursors [and key components of binary and/or multicomponent chemical systems for chemical weapons], except such chemicals intended for purposes not prohibited by the Convention as long as the types and quantities involved are consistent with such purposes;

1./The definitions of chemical weapons are presented on the understanding that problems related to irritants used for law enforcement and riot control, and also to chemicals intended to enhance the effect of the use of chemical weapons if their inclusion in the Convention is agreed could be handled outside the definitions of chemical weapons if this will result in a more clear an understandable definition. Preliminary suggestions to solve these problems are given below and consultations on them will be continued.”

(page 6)

- “[the term ‘chemical weapons’ shall not apply to those chemicals which are not super-toxic lethal, or other lethal chemicals and which are approved by the Consultative Committee for use by a Party for domestic law enforcement and domestic riot control purposes.]”

(page 7)

“3. ‘Purposes not prohibited by the Convention’ means:

- (a) industrial, agricultural, research, medical or other peaceful purposes, domestic law enforcement purposes; and military purposes not connected with the use of chemical weapons;
- (b) protective purposes, namely those purposes directly related to protection against chemical weapons;”

37. Conference on Disarmament, 29 January 1988 (CD/795)

Report of the Ad Hoc Committee on Chemical Weapons to the Conference on Disarmament

Appendix I

(page 7)

“II. Definitions and Criteria

(identical with 36)

38. Conference on Disarmament, 12 September 1988 (CD/874)

Report of the Ad Hoc Committee on Chemical Weapons to the Conference on Disarmament

Appendix I

(page 18)

(identical with 36)

39. Paris Conference of States Parties to the 1925 Geneva Protocol and Other Interested States, 11 January 1989 (CD/880)

The Conference was held on the invitation of the government of the French Republic. Governments of 149 States were represented at the Conference.

Final Declaration

“The representatives of States participating in the Conference on the Prohibition of Chemical Weapons, bringing together States Parties to the Geneva Protocol of 1925 and other interested States in Paris from 7 to 11 January 1989, solemnly declare the following:

1. The participating States are determined to promote international peace and security throughout the world in accordance with the Charter of the United Nations and to pursue effective disarmament measures. In this context, they are determined to prevent any recourse to chemical weapons by completely eliminating them. They solemnly affirm their commitments not to use chemical weapons and condemn such use. They recall their serious concern at recent violations as established and condemned by the competent organs of the United Nations. They support the humanitarian assistance given to the victims affected by chemical weapons.
2. The participating States recognise the importance and continuing validity of the Protocol for the prohibition of the use in war of asphyxiating, poisonous and other gases and bacteriological methods of warfare, signed on 17 June 1925 in Geneva. The States Parties to the Pro-

ocol solemnly reaffirm the prohibition as established in it. They call upon all States which have not yet done so to accede to the Protocol” ...

40. Conference on Disarmament, 3 February 1989 (CD/881)

Report of the Ad Hoc Committee on Chemical Weapons to the Conference on Disarmament

Appendix I

(page 12)

“II. Definitions and Criteria

For the purposes of this Convention:

(identical with 36)

(page 13)

- “[The term ‘chemical weapons’ shall not apply to those chemicals which are not super-toxic lethal, or other lethal chemicals and which are approved by the Conference of the States Parties for use by a Party for domestic law enforcement and domestic riot control purposes]”

(page 14)

(identical with 36)

41. Conference on Disarmament, 18 August 1989 (CD/952)

Report of the Ad Hoc Committee on Chemical Weapons to the Conference on Disarmament

Appendix I

(page 21)

(identical with 40)

42. Conference on Disarmament, 1 February 1990 (CD/961)

Report of the Ad Hoc Committee on Chemical Weapons to the Conference on Disarmament

Appendix I

(identical with 40)

43. Conference on Disarmament, 10 August 1990 (CD/1033)

Report of the Ad Hoc Committee on Chemical Weapons to the Conference on Disarmament

Appendix I

(page 23)

“II. Definitions and Criteria

For the purposes of this Convention:

1.1/ The term ‘Chemical Weapons’ shall apply to the following, together or separately:

- (i) toxic chemicals, [including super-toxic lethal chemicals, other lethal chemicals and harmful chemicals], and their precursors, [(including key precursors and key components of binary and /or multicomponent chemical systems for chemical weapons)], [as well as other chemicals intended to enhance the effect of the use of those weapons], except such chemicals intended for Purposes Not Prohibited Under the Convention, as long as the types and quantities involved are consistent with such purposes;

1./The definitions of chemical weapons are presented on the understanding that problems related to irritants used for law enforcement and riot control, and also to chemicals intended to enhance the effect of the use of chemical weapons if their inclu-

sion in the Convention is agreed could be handled outside the definitions of chemical weapons if this will result in a more clear and understandable definition. Preliminary suggestions to solve these problems are given below and consultations on them will be continued.”

- “[the term ‘Chemical Weapons’ shall not apply to those chemicals which are not super-toxic lethal, or other lethal chemicals and which are approved by the Conference of the States Parties for use by a Party for domestic law enforcement and domestic riot control purposes.]”

5. ‘Purposes Not Prohibited Under the Convention’ means:

- (a) industrial, agricultural, research, medical, pharmaceutical or other peaceful purposes, domestic law enforcement and riot control purposes; and military purposes not connected with the use of chemical weapons;
- (b) protective purposes, namely those purposes directly related to protection against chemical weapons.

44. Conference on Disarmament, 18 January 1991 (CD/1046)

Report of the Ad Hoc Committee on Chemical Weapons to the Conference on Disarmament
Appendix I
(page 15)
(identical with 43)

45. Conference on Disarmament, 27 August 1991 (CD/1108)

Report of the Ad Hoc Committee on Chemical Weapons to the Conference on Disarmament
Appendix I
(page 20)
“II. Definitions and Criteria
(identical with 43)

46. Conference on Disarmament, 20 January 1992 (CD/1116)

Report of the Ad Hoc Committee on Chemical Weapons to the Conference on Disarmament
Appendix I
(page 14)
“II. Definitions and Criteria
(identical with 43)

47. Australia, 12 March 1992 (CD/1143)
Proposed Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on their Destruction
(page 4)

“I. Definitions and Criteria

For the purposes of this Convention:

1. The term ‘Chemical Weapons’ shall apply to the following, together or separately:
 - (a) Toxic chemicals and their precursors, except where intended for purposes not prohibited under the Convention, as long as the types and quantities involved are consistent with such purposes;”

“2. “The term ‘Chemical Weapons’ shall not apply to the following:

- (a) ...
- (b) Chemicals that are not lethal chemicals and are used by a State Party for domestic law enforcement or riot control purposes, such as agents CS (O-chlorobenzylidene malononitrile), CN (2-chloroacetophenone) and CR (dibenz (b,f) (1,4) oxacepine);”

(page 6)

“7. ‘Purposes not prohibited by this Convention’ means:

- (a) Industrial, agricultural, research, medical, pharmaceutical or any other peaceful purposes, domestic law enforcement or riot control purposes; or military purposes not connected with the use of chemical weapons;”

48. Chairman of the Ad Hoc Committee on chemical Weapons, 18 May 1992 (CD/CW/WP.400)
WORKING PAPER FOR THE FINAL PHASE OF THE NEGOTIATIONS ON THE CHEMICAL WEAPONS CONVENTION

(page 9)

“Article II, Definitions and Criteria

For the purposes of this Convention:

1. ‘Chemical Weapons’ means the following, together or separately:
 - (a) Toxic chemicals and their precursors, except where intended for purposes not prohibited under this Convention, as long as the types and quantities involved are consistent with such purposes;”

(page 10)

“5. ‘Purposes not prohibited under this Convention’ means:

- (a) Industrial, agricultural, research, medical, pharmaceutical or other peaceful purposes;
- (b) Protective purposes, namely those related to protection against toxic chemicals;
- (c) Military purposes not dependent upon the toxic properties of chemicals as a means of warfare;
- (d) Domestic law enforcement and domestic riot control”.

Article III, Declarations

(page 13)

“4. With respect to domestic riot control and domestic law enforcement:

- (a) Specify the name, structural formula and Chemical Abstract Service registry number of chemicals it intends to use; and
- (b) Specify the types of munitions and devices that it intends to deploy to disperse the chemicals referred to in subparagraph (a) above.”

49. ALGERIA, CHINA, EGYPT, INDIA, ISLAMIC REPUBLIC OF IRAN, KENYA, MEXICO, MYANMAR, PAKISTAN, SRI LANKA AND ZAIRE, 4 June 1992 (CD/CW/WP.403)

(page 2)

“ARTICLE 1. GENERAL PROVISIONS ON SCOPE

5. Each State Party undertakes not to use herbicides, law enforcement and riot control agents as a method of warfare; such a prohibition should not preclude any other use for purposes not prohibited under this Convention.*

*/ All other references to riot control agents in CD/CW/WP.400 will be deleted consequent to this provision.”

50. ALGERIA, CHINA, EGYPT, INDIA, ISLAMIC REPUBLIC OF IRAN, KENYA, MEXICO, MYANMAR, PAKISTAN, SRI LANKA AND ZAIRE, 4 June 1992 (CD/CW/WP.404)

ARTICLE II; DEFINITIONS AND CRITERIA

“For the purpose of this convention:

1. ‘Chemical Weapons’ means the following, together or separately:
- (a) Toxic chemicals, their precursors and key components of binary or multicomponent chemical systems, except where intended for purposes not prohibited under this Convention, as long as the types and quantities involved are consistent with such purposes;”

“6. ‘Purposes not prohibited under this Convention’ means:

- (a) industrial, agricultural, research, medical, pharmaceutical or other peaceful purposes; domestic law enforcement and riot control purposes; and military purposes not connected with the use of chemical weapons;
- (b) protective purposes, namely those directly related to protection against chemical weapons;”

51. Chairman of the Ad Hoc Committee on Chemical Weapons, 22 June 1992 (CD/CW/WP.400/Rev.1*)

DRAFT CONVENTION ON THE PROHIBITION OF THE DEVELOPMENT, PRODUCTION, STOCKPILING AND USE OF CHEMICAL WEAPONS AND ON THEIR DESTRUCTION

(page 8)

”Article I, General Obligations

5. Each State Party undertakes not to use riot control agents as a method of warfare”

(page 9)

”Article II, Definitions and Criteria

1. ‘Chemical Weapons’ means the following, together or separately:
- (a) Toxic chemicals and their precursors, except where intended for purposes not prohibited under this Convention, as long as the types and quantities are consistent with such purposes;”
2. ‘Toxic Chemical’ means: Any chemical which through its chemical action on life processes can cause death, temporary incapacitation or permanent harm to humans or animals. This includes all such chemicals, regardless of their origin or of their method of production, and regardless of whether

they are produced in facilities, in munitions or elsewhere. (page 11)

”9. ‘Purposes Not Prohibited Under this Convention’ means:

- (a) Industrial, agricultural, research, medical, pharmaceutical or other peaceful purposes;
- (b) Protective purposes, namely those purposes directly related to protection against toxic chemicals and to protection against chemical weapons;
- (c) Military purposes not connected with the use of chemical weapons and not dependent on the use of the toxic properties of chemicals as a method of warfare;
- (d) Law enforcement including domestic riot control purposes”.

Article III, Declarations (page 14)

”(e) With respect to riot control agents:

- (a) (i) Specify the name, structural formula and Chemical Abstract Service (CAS) registry number, if assigned, of each chemical it holds for riot control purposes; and
- (ii) Update its declaration not later than 30 days after any change becomes effective.”

52. Conference on Disarmament, 26 June 1992 (CD/CW/WP.414)

Ad Hoc Committee on Chemical Weapons - Chairman of the Ad Hoc Committee.

EXPLANATORY NOTE

on the draft Chemical Weapons Convention contained in Document CD/CW/WP.400/Rev.1 (pages 8 and 9)

3. “In the final stages of the negotiations, also two seemingly less important issues rose to fresh controversy and, finally, compromise: in many years of negotiations, positions had remained contentious on whether and how the possible war-time use of so-called ‘herbicides’ and ‘riot control agents’ should be dealt with in the Convention, as witnessed by footnotes and bracketed text which stayed untouched until recently.
5. Particularly riot control agents constitute a real problem. These irritants, physically disabling agents are used around the world in law enforcement and riot control, by police and other organs responsible for maintaining law and order. The same agents, however, would constitute an immediate risk and danger if they were allowed to develop into a new generation of non-lethal but nonetheless effective chemical agents of warfare, causing insurmountable problems in trying to distinguish in the ensuing grey area between ‘real’ and ‘non-lethal’ chemical weapons as well as between ‘real’ and ‘non-lethal’ chemical warfare units.
6. Only in the last week of negotiations a point near consensus has been reached on this important issue touching upon the very scope of the Convention. It was possible because a common view has emerged among delegations that the preparation and application of any method of warfare dependent upon toxic properties of chemicals should be banned under the Convention.

7. The compromise package consists of a new seventh paragraph in the Preamble, reiterating the already existing prohibition of the use of herbicides as a method of warfare, and a new paragraph 5 in Article I banning the use of riot control agents as a method of warfare. This solution drew largely on document CD/CW/WP.403 of 4 June 1992, presented by twelve delegations. Since all important terms used in Article I are defined in Article II, the term 'riot control agent' required to be defined as well. Consensus on that definition could finally be reached, but some resistance remained against the obligation to declare riot control agents under Article III.
8. The suggested solution to this question in Article III strikes a balance between the latter position and those who argued for much more detailed declarations, including toxicity data on the chemicals and types of munitions and devices deployed for riot control purposes. This compromise should contribute to avoiding verification problems as well as to confidence-building and transparency."
- 53. ALGERIA, CHINA, CUBA; EGYPT, ETHIOPIA; INDIA, INDONESIA; ISLAMIC REPUBLIC OF IRAN, KENYA, MEXICO, MYANMAR, PAKISTAN, SRI LANKA AND ZAIRE, 24 July 1992 (CD/CW/WP.417)**
Proposed joint amendments to CD/CW/WP.400/Rev.1*
- I. ARTICLE I; PAGE 8 PARA 5
5. Each State Party undertakes not to use herbicides or riot control agents as a method of warfare.
- II. ARTICLE II; PAGE 10 PARA 7
7. "Riot Control Agent" means:
Any chemical not listed in a Schedule, which can produce rapidly in humans sensory irritation or disabling physical effects which disappear within a short time following termination of exposure and is used for domestic law enforcement and riot control purposes.
PAGE 11, PARA 9 (d)
(d) domestic law enforcement ~~including~~ and domestic riot control purposes
- III. ARTICLE III, PAGE 14 PARAS 1 (e) AND 2 (The paper proposes deletion)
- 54. Chairman of the Ad Hoc Committee on Chemical Weapons, 7 August 1992 (CD/CW/WP.427)**
AMENDMENTS TO CD/CW/WP. 400/REV.1
Cluster 1: Herbicides and riot control agents
ARTICLE X
WP. 400/Rev.1, page 41
WP 417, page 7
7. Each State Party has the right...if it considers that
- Chemical weapons have been used against it;
 - Riot control agents have been used against it as a method of warfare; or
 - It is threatened by actions or activities of any State that are prohibited for States Parties by Article I.
- VERIFICATION ANNEX; PART XI
WP. 400/Rev.1, page 166
WP.417, page 19

1. Investigations of alleged use of chemical weapons, or of alleged use of riot control agents as a method of warfare, initiated pursuant to Articles IX or X, shall be conducted in accordance with this Annex and detailed procedures to be established by the Director-General.

55. Chairman of the Ad Hoc Committee on Chemical Weapons, 10 August 1992 (CD/CW/WP.400/Rev.2)

DRAFT CONVENTION ON THE PROHIBITION OF THE DEVELOPMENT, PRODUCTION, STOCKPILING AND USE OF CHEMICAL WEAPONS AND ON THEIR DESTRUCTION

(page 8)

"Article I, General Obligations

5. Each State Party undertakes not to use riot control agents as a method of warfare"

(page 9)

"Article II, Definitions and Criteria

2. 'Chemical Weapons' means the following, together or separately:

(b) Toxic chemicals and their precursors, except where intended for purposes not prohibited under this Convention, as long as the types and quantities are consistent with such purposes;"

(page 11)

"9. 'Purposes Not Prohibited Under this Convention' means:

(a) Industrial, agricultural, research, medical, pharmaceutical or other peaceful purposes;

(b) Protective purposes, namely those purposes directly related to protection against toxic chemicals and to protection against chemical weapons;

(c) Military purposes not connected with the use of chemical weapons and not dependent on the use of the toxic properties of chemicals as a method of warfare;

(d) Law enforcement including domestic riot control purposes".

(page 14)

Article III, Declarations.

Paragraph 1

"(e) With respect to riot control agents:

Specify the name, structural formula and Chemical Abstracts Service (CAS) registry number, if assigned, of each chemical it holds for riot control purposes. This declaration shall be updated not later than 30 days after any change becomes effective."

56. Conference on Disarmament, 3 September 1992 (CD/PV.635)

Final Record of the six hundred and thirty-fifth Plenary Meeting on the Report of the negotiations on the Draft Convention on the Prohibition of Chemical Weapons.

Amb. von Wagner, Chairman of the Ad Hoc Committee:

"Article II, which defines all important terms used in the articles of the convention, is particularly important for the purpose of delineating precisely the scope of the basic obligations as contained in article I." (p.9)

57. Sunshine Project (Austin/Hamburg 24.9.2002)

The Sunshine Project today accuses the US military of conducting a chemical weapons research and development program in violation of international arms control law.

The charges follow an 18 month investigation of the Department of Defense's Joint Non-Lethal Weapons Directorate (JNLWD). The investigation made extensive use of the US Freedom of Information Act to obtain Pentagon records that form the primary basis of the allegations. An array of documents, many of which have been posted on the Sunshine Project website, demonstrate beyond a reasonable doubt that JNLWD is operating an illegal and classified chemical weapons program.

Specifically, the Sunshine Project accuses the JNLWD of:

Conducting a research and development program on toxic chemical agents for use as weapons, including anesthetics and psychoactive substances, in violation of the Chemical Weapons Convention;

Developing long-range military delivery devices for these chemicals, including an 81mm chemical mortar round, that violate the Chemical Weapons Convention.

Pursuing a chemical weapons program while fully cognizant that it violates the Chemical Weapons Convention and US Department of Defense regulations;

Attempting to cover up the illicit program by classifying as secret even its own legal interpretations of the Chemical Weapons Convention and attempting to block access to documents requested under US information freedom law.

These charges are detailed in the attached Annex to this news release, in the accompanying map and fact sheet, and the Sunshine Project's JNLWD documents web page, which has full text of more than two dozen documents. Specific citations are in footnotes below.

The Weapons: JNLWD's secret program is not focusing on highly lethal agents such as VX or sarin. Rather, the emphasis is on "non-lethal" chemical weapons that incapacitate. JNLWD's science advisors define "non-lethal" as resulting in death or permanent injury in 1 in 100 victims. (1) JNLWD's Research Director told a US military magazine "We need something besides tear gas, like calmatives, anesthetic agents, that would put people to sleep or in a good mood." (2) These weapons are intended for use against "potentially hostile civilians", in anti-terrorism operations, counterinsurgency, and other military operations. The major focus of JNLWD's operation is on the use of drugs as weapons, particularly so-called "calmatives", a military term for mind-altering or sleep inducing chemical weapons. Other agents mentioned as militarily useful in the documents are convulsants, which are dangerous cramp-inducing drugs, and pharmaceuticals that failed development trials due to harmful side-effects. (3) This interest in so-called "calmatives" has been discussed in previous Project publications. (4) New documents prove the existence of an advanced development program for long range delivery devices for the chemicals, in particular a "non-lethal" 81mm mortar round with a range of 2.5 kilometers and which is designed to work in standard issue US mili-

tary weapons (the M252 mortar) (5). Photos of testing of this round and a gas generating payload canister are posted on the Sunshine Project's website.

(6) JNLWD has recently asked the company building the gas canister, General Dynamics, to develop methodologies to characterize the aerosols it generates, and to calculate the ground area coverage of gas clouds created by an airburst at different altitudes. (7) A chemical mortar round with a 2.5 kilometer range has solely military applications, and cannot possibly be justified for a US military domestic riot control purpose.

The Solutions:

UN Inspectors into the US: The Sunshine Project, while urging the United States to immediately halt this chemical weapons program, also announces its intention to take its allegations and evidence to the 7th Session of the Conference of the States Parties of the Chemical Weapons Convention, scheduled to start in The Hague on October 7th. There, the Sunshine Project will present its case to governments and request the Organization for the Prohibition of Chemical Weapons send a UN weapons inspection team to the US to investigate.

US Oversight: The Sunshine Project calls upon the US Congress to investigate JNLWD's arms control violations, to conduct public hearings, to hold JNLWD and its superiors responsible for their actions, to freeze all JNLWD funding, and to immediately declassify all JNLWD documents. Says Edward Hammond, director of the Sunshine Project US, "We can present hard evidence for an illicit and shameful chemical weapons program in the US. If the US invades Iraq and uses these weapons, we may witness the depravity of the US waging chemical warfare against Iraq to prevent it from developing chemical weapons." Jan van Aken, Director of the Sunshine Project in Germany says "The US administration 'names names' of alleged violators at arms control meetings. We have written documentation that the British government told JNLWD that its program violates the CWC in private talks. (8) However, Europe must publicly denounce American chemical weapons violations in The Hague. Those who remain silent will bear part of the guilt."

Escalation danger: JNLWD's chemical weapons program not only violates international law, it presents an escalation threat. Any use of chemical weapons in a military situation - even if the agents are purported to be "non-lethal" - carries the inherent danger of escalation into an all out chemical war and heightened violence. If attacked with a chemical of unknown nature with a fast incapacitating effect, victims may assume that lethal chemicals, leading to heightened violence or even retaliation in kind. This rapid escalation danger is one of the key reasons why the Chemical Weapons Convention prohibits the use of even tear gas or pepper spray as a method of warfare.

The Road to a Chemical Arms Race: In addition, JNLWD's program might easily be used to disguise lethal chemical weapons development. Deadly chemicals are the former specialty of JNLWD's partner in the program, the US Army's Aberdeen Proving Ground. Long range delivery devices may easily be converted to use biological agents or other chemicals, including lethal nerve gas. Design and de-

velopment of new delivery devices, production facilities or delivery experiments - all key parts of a lethal chemical weapons program - might easily be performed by the US or other countries if the buzzword "non-lethal" is used as a cover. If non-lethal chemical warfare programs are not banned, the basic principles of the CWC could fall apart, resulting in new full blown chemical arms race even before Cold War stocks are destroyed.

ANNEX TO SUNSHINE PROJECT NEWS RELEASE

"US Military Operating a Secret Chemical Weapons Program" (24 September 2002)

An Outline of the Case Against the Joint Non-Lethal Weapons Directorate The charges made by the Sunshine Project are supported by thousands of pages of US government documents, many obtained under the US Freedom of Information Act, and many of which are available on our website. This news release and annex are accompanied by a map and fact sheet on JNLWD's program. This is available for download from our website. The charges against JNLWD will be further detailed in a briefing for the Organization for the Prohibition of Chemical Weapons and diplomats attending the October meeting of the Chemical Weapons Convention. A brief outline is provided here:

JNLWD is conducting a research and development program on toxic chemical agents for use as weapons in violation of the Chemical Weapons Convention. JNLWD's desire for chemical weapons is intense and widely documented. JNLWD has explicitly stated that it is operating a program to develop "calmative" chemical weapons (9). In May 1999, its Research Director told Navy News and Undersea Technology "We need something besides tear gas, like calmatives, anesthetic agents, that would put people to sleep or in a good mood." In 2000, JNLWD's Commanding Officer told New Scientist "I would like a magic dust that would put everyone in a building to sleep, combatants and non-combatants." (10) The Marine Corps Research University (MCRU), a major JNLWD contractor, produced an October 2000 study that concluded "the development and use of calmatives is achievable and desirable" and urged "immediate consideration" of drugs like diazepam (Valium). (11) The unit that produced the study is headed by JNLWD's former commander.

JNLWD currently has a secretive technology investment program for incapacitating chemical weapons that is being conducted in cooperation with the US Army's Aberdeen Proving Ground. (12) It is urging academic and private institutions to bring it new proposals for chemical agents (13) and has repeatedly emphasized the need for the US military to develop a calmative capability. In addition, it recently concluded a new request for proposals that includes a call for "advanced riot control agents", (14) a military synonym for drug weapons. In October 2001, it offered to equip US commercial aircraft with calmative-dispensing weapons. (15) 2. JNLWD is developing long-range military delivery devices for these chemicals that violate the Chemical Weapons Convention and have no law enforcement application. JNLWD has been funding the development of

chemical weapons delivery devices since the late 1990s. 1999 and 2000 photos of outdoor tests of chemical aerosol equipment and wind tunnel tests at the US Army Soldier Chemical Biological Command are included on the obverse side of the accompanying map. JNLWD has funded a multi-year program to microencapsulate chemical agents, specifically, anesthetics and anesthetics mixed with corrosive chemicals to penetrate thick clothing. (16) In 2001, JNLWD accelerated this effort, developing a specification for an 81mm "non-lethal" mortar round with a 2.5 kilometer range. (17) The round can use chemical payloads and is required to work in standard issue military M252 mortars. (18) Under this program, in September 2001, JNLWD inked a deal with General Dynamics that calls for building a "dispersion gas generator" for this mortar round and to "identify analytical tools that can be used in follow-on design/performance modeling of droplet formation and dynamics" and to perform "preliminary parametric estimates of ground area coverage versus payload volume and height of burst." (19) The JNLWD team which developed chemical microencapsulation methods and the Aberdeen Proving Ground team which is participating in the chemical agents technology investment program are both collaborating with JNLWD in the mortar round design. (20)

JNLWD is pursuing this program despite being fully cognizant that it violates the Chemical Weapons Convention and US Department of Defense regulations.

The JNLWD program runs afoul of the Chemical Weapons Convention (CWC), the global ban on the development and use of all chemical weapons. And JNLWD is well aware of this fact. JNLWD presentations in 2001 list the Chemical Weapons Convention as a major "challenge" to its calmatives program. (21) In 2000, JNLWD held a series of war games with British military officials. JNLWD's report of the war games concludes "In all three game scenarios, players espoused calmatives as potentially the most useful anti-personnel non-lethal weapons" but that "the principle concern was about the legality of the weapon and possible arms control violations" Despite this, it continues "The end result is that calmatives are considered the single most effective anti-personnel option in the non-lethal toolkit" (22) At the end of the wargames series, JNLWD held a final, high-level meeting with UK officials. It included the participation of five active duty US Marine Corps and Army generals. British officials objected to the US calmatives program, saying that it is illegal. JNLWD replied by saying but that it would proceed anyway (quoting from the report): "a research and development program with respect to chemically based calmatives. [will] be continued as long as it is cost-productive to do so." In the same report, JNLWD acknowledges that its research and development program violates Department of Defense regulations, declaring its intent to evade the law: "DOD is prohibited from pursuing [calmative] technology. If there are promising technologies that DOD is prohibited from pursuing, set up MOA with DOJ or DOE." (DOD is the US Department of Defense. DOJ is the US Department of Justice.

DOE is the US Department of Energy. MOA is a Memorandum of Agreement.) (23)

4. JNLWD is seeking to cover up this illicit program by cloaking it behind US secrecy law. JNLWD has made a systematic effort to hide its program from public view and to impede the Sunshine Project's investigation. JNLWD asked the US Navy Judge Advocate General (JAG) to perform a legal review of its "non-lethal" chemical weapons; but then classified the JAG opinion, preventing its release. (24) JNLWD has placed export control restrictions on its 81mm "non-lethal" mortar specification. (25) In 2002, JNLWD officials trained US Marine Corps officers in its anti-personnel chemical weapons capabilities. It classified the training "secret". (26) Interviewed by news media, JNLWD officials deny developing chemical weapons; but have informed the Sunshine Project in multiple telephone conversations that they will deny release of documents requested under FOIA because of "classified weapons development". With 18 months elapsed since the Sunshine Project's first Freedom of Information Act requests to JNLWD, almost two thirds of the documents requested have not been released. JNLWD has ordered the US National Academies of Science to halt release of documents it deposited in the public record at that institution, (27) despite the fact that the National Academies states that there are no security markings on the documents requested, (28) and in apparent violation of US law
TO DOWNLOAD THE MAP AND ILLUSTRATIVE TEXT THAT ACCOMPANY THIS RELEASE, VISIT: <http://www.sunshine-project.org/publications/pr240902map.html>

NOTES

- 1) Kenny, J. The Human Effects of Non-Lethal Weapons, presentation of the JNLWD Human Effects Advisory Panel to the US National Academy of Sciences Naval Studies Board, 30 April 2001
- 2) Susan LeVine, JNLWD Research Director, quoted in Non-Lethal Programs Will Enhance Navy And Marine Warfighting in Navy News and Undersea Technology, v. 16, n.19, 10 May 1999.
- 3) Lakoski J, Murray, W.B., Kenny J. The Advantages and Limitations of Calmatives for Use as a Non-Lethal Technique, Applied Research Laboratory / College of Medicine, Pennsylvania State University, 3 October 2000, URL: <http://www.sunshine-project.org/publications/jnlwdpdf/psucalm.pdf>
- 4) See the Sunshine Project news release Pentagon Program Promotes Psychological Warfare (1 July 2002), the information brief The MCRU Calmatives Study and JNLWD: A Summary of (Public) Facts (19 September 2002), and Sunshine Project Backgrounder #8, Non-Lethal Weapons Research in the US: Calmatives & Malodorants (July 2001). All available at the Sunshine Project website.
- 5) See, for example, 81mm Frangible Case Cartridge, Contract DAAE-30-01-C-1077 (June 2001), US Army TACOM and M2 Technologies, online at: <http://www.sunshine-project.org/publications/jnlwdpdf/m281mm.zip>
- 6) See side two of the accompanying map and information sheet, URL: <http://www.sunshine-project.org/publications/pr240902map.html>

- 7) Liquid Payload Dispensing Concept Studies Techniques for the 81mm Non-Lethal Mortar Cartridge, Contract DAAE-30-01-M-1444 (Sept. 2001), US Army TACOM and General Dynamics, URL: <http://www.sunshine-project.org/publications/jnlwdpdf/gd81mm.zip>
- 8) Assessment Report: US/UK Non-Lethal Weapons (NLW)/Urban Operations Executive Seminar, JNLWD, November 2000, URL: <http://www.sunshine-project.org/publications/jnlwdpdf/usukassess.pdf>
- 9) *ibid* (and other documents)
- 10) Colonel George Fenton, USMC, JNLWD Commanding Officer, quoted in War without tears, New Scientist, 16 December 2000.
- 11) Lakoski J, Murray, W.B., Kenny J. The Advantages and Limitations of Calmatives for Use as a Non-Lethal Technique (URL above).
- 12) The US Department of Defense Joint Non-Lethal Weapons Program, Program Overview, April 2001, URL: <http://www.sunshine-project.org/publications/jnlwdpdf/jnlwdpo01.pdf>
- 13) See Fenton, G. To The Future: Non-Lethal Capabilities Technologies in the 21st Century, presentation to the University of New Hampshire's Non-lethal Technology and Academic Research III symposium, November 2001, URL: <http://www.sunshine-project.org/publications/jnlwdpdf/jnlwdntar.pdf>
- 14) Nonkinetic/limited effects/non-lethal weapons for crowd control, US Department of the Navy solicitation M67854-02-R-6064, 18 July 2002, URL: <http://www.sunshine-project.org/publications/jnlwdpdf/crowdcontrolbaa.pdf>
- 15) See Non-Lethal Weapons Suggested to Incapacitate Terrorists in Airliners, Air Safety Week, v. 15 n. 39, 15 October 2001.
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22) US/UK Non-Lethal Weapons (NLW) / Urban Operations War Game Two Assessment, JNLWD, June 2000. The wargame was held 13-16 June 2000 at the US Army War College, Carlisle Barracks, PA.

23) Assessment Report: US/UK Non-Lethal Weapons (NLW)/Urban Operations Executive Seminar, JNLWD, November 2000, URL above.

24) Response letter (3 September 2002) from US Department of the Navy, Office of the Judge Advocate General, International and Operational Law Division to Sunshine Project Freedom of Information Request of 21 August 2002.

25) Several JNLWD-funded contracts indicate this. See, for example, 81mm Frangible Case Cartridge, Contract DAAE-30-01-C-1077 (June 2001), US Army TACOM and M2 Technologies, URL above.

26) Non-Lethal Weapons: Acquisitions, Capabilities, Doctrine, & Strategy: A Course of Instruction, contract M67004-99-D-0037, purchase order M9545002RCR2BA7, between the US Marine Corps University (Pennsylvania State University Applied Research Laboratory) and JNLWD, December 2001. URL:

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27) Letter from Col. George Fenton to the National Academies of Science (NAS), 17 May 2002, text provided in an e-mail from Mr. Kevin Hale, Director of the NAS National Security Office to William Colglazier, Executive Officer, 17 May 2002.

28) Letter from Kevin Hale (NAS) to Col. George Fenton (JNLWD), 17 May 2002. This letter and the e-mail of note #27 were provided by the NAS Public Affairs office.

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