

CHAPTER 10

Nuclear, Chemical, and Biological Weapons

10.1 INTRODUCTION

Nuclear, chemical, and biological weapons present special law of armed conflict problems due to their potential for indiscriminate effect. This chapter addresses legal considerations pertaining to the development, possession, deployment and employment of these weapons.

10.2 NUCLEAR WEAPONS

10.2.1 General. There are no rules of customary or conventional international law prohibiting nations from employing nuclear weapons in armed conflict.¹ In

1. Singh & McWhinney, *Nuclear Weapons and Contemporary International Law* (1988). In 1994, the United Nations General Assembly passed U.N.G.A. Res. 49/75K (15 Dec. 1994) requesting an advisory opinion of the I.C.J. on the question:

Is the threat or use of nuclear weapons in any circumstance permitted under international law?

Rejecting the argument of some States, including the United States, that the I.C.J. should, in the exercise of its discretion, decline to issue an opinion "on what is in many respects a political matter," the Court responded to the General Assembly request with an advisory opinion stating that:

- A. There is in neither customary nor conventional international law any specific authorization of the threat or use of nuclear weapons (unanimous vote);
- B. There is in neither customary nor conventional international law any comprehensive and universal prohibition on the threat or use of nuclear weapons as such (11 to 3 vote);
- C. A threat or use of force by means of nuclear weapons that is contrary to Article 2, paragraph 4 of the United Nations Charter and that fails to meet all the requirements of Article 51, is unlawful (unanimous vote);
- D. A threat or use of nuclear weapons should also be compatible with requirements of the international law applicable in armed conflicts, particularly those of the principles and rules of international humanitarian law, as well as with specific obligations under treaties and other undertakings which expressly deal with nuclear weapons (unanimous vote);
- E. It follows from the above-mentioned requirements that the threat or use of nuclear weapons would generally be contrary to the rules of international law applicable in armed conflict, and in particular the principles and rules of humanitarian law;

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the absence of such an express prohibition, the use of nuclear weapons against enemy combatants and other military objectives is not unlawful. Employment of nuclear weapons is, however, subject to the following principles: the right of the parties to the conflict to adopt means of injuring the enemy is not unlimited; it is prohibited to launch attacks against the civilian population as such; and distinction must be made at all times between combatants and noncombatants to the effect that the latter be spared as much as possible.² Given their destructive

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However, in view of the current state of international law, and of the elements of fact at its disposal, the Court cannot conclude definitively whether the threat or use of nuclear weapons would be lawful or unlawful in an extreme circumstance of self-defense, in which the very survival of a State would be at stake (7 to 7 vote with the President's vote breaking the tie);

F. There exists an obligation to pursue in good faith and bring to a conclusion negotiations leading to nuclear disarmament in all its aspects under strict and effective international control (unanimous vote).

I.C.J. *Advisory Opinion on the Legality of the Threat or Use of Nuclear Weapons*, July 8, 1996, reprinted in 35 Int'l Leg. Mat'ls 809 (1996). For commentary on the Court's non-binding advisory opinion see Matheson, *The Opinions of the International Court of Justice and the Use of Nuclear Weapons*, 91 Am. J. Int'l L. 417 (1997); Schmitt, *The International Court of Justice and the Use of Nuclear Weapons*, 7 U.S.A.F.A. J. Leg. Studies 57 (1997), revised and scheduled for reprint in *Nav. War Coll. Rev.*, Spring 1998 at 91-116; McNeill, *The International Court of Justice Advisory Opinion in the Nuclear Weapons Cases—a First Appraisal*, 316 I.C.R.C. Rev. 103 (1997); Bekker, *International Decisions, Legality of the Threat or Use of Nuclear Weapons, Advisory Opinion*, 91 Am. J. Int'l L. 126 (1997).

2. In its advisory opinion of the legality of the threat or use of nuclear weapons (see note 1), the International Court of Justice held (Finding D) that the law of armed conflict governs use of nuclear weapons. This was a position advocated by, *inter alia*, the United States. See generally *Written Statement of the Government of the United States of America*, June 20, 1995 (Legality of the Threat or Use of Nuclear Weapons). *Acord Green, Nuclear Weapons and the Law of Armed Conflict*, 17 *Denver J. Int'l L. & Policy* 1 (1988); Oeter, *Methods and Means of Warfare*, in Fleck, at 141-42. For additional background, see NWIP 10-2, para. 613 & n.8; FM 27-10, para. 35; AFP 110-31, para. 6-5; AFP 110-34, para. 6-4; ICRC, *Commentary (GP I) 593-96*. Cf. Reisman, *Nuclear Weapons in International Law*, 4 *N.Y.L. Sch. J. Int'l & Comp. L.* 339, 340 (1983) (pointing out the significant difference between what the law now is and what one believes the law should be, and recognizing that the effective decisionmakers in the Cold War environment, the United States and the U.S.S.R., did not act as if they believed the use of nuclear weapons was *per se* illegal). Cold War era constraints on nuclear weapons are described in Bunn, *U.S. Law of Nuclear Weapons*, *Nav. War Coll. Rev.*, July-Aug. 1984, at 46-62.

The rules relevant to the use of weapons established by GP I apply to conventional weapons only and were not intended to have any effect on and do not regulate or prohibit the use of nuclear or other weapons of mass destruction, including chemical and biological weapons. Those questions have been the subject of arms control and disarmament negotiations and agreement. Statements on ratification by Belgium, Italy, and the Netherlands, and by the United Kingdom and the United States on signature to GP I; Roach, *Certain Conventional Weapons Convention: Arms Control or Humanitarian Law?* 105 *Mil. L. Rev.* 1, 31-34 n.83 (1984); ICRC, *Commentary (GP I) 593-94*. See paragraph 5.4.2, note 34 (p. 303) regarding the U.S. decision not to seek ratification of GP I.

potential, the decision to authorize employment of nuclear weapons should emanate from the highest level of government. For the United States, that authority resides solely in the President.³

10.2.2 Treaty Obligations. Nuclear weapons are regulated by a number of arms control agreements restricting their development, possession, deployment, and use. Some of these agreements (e.g., the 1963 Nuclear Test Ban Treaty) may not apply during time of war.⁴

10.2.2.1 Seabed Arms Control Treaty. This multilateral convention prohibits emplacement of nuclear weapons on the seabed and the ocean floor beyond 12 nautical miles from the baseline from which the territorial sea is measured.⁵ The prohibition extends to structures, launching installations, and other facilities specifically designed for storing, testing, or using nuclear weapons. This treaty prohibits emplacement of nuclear mines on the seabed and ocean floor or in the subsoil thereof. It does not, however, prohibit the use of nuclear weapons in the water column, provided they are not affixed to the seabed (e.g., nuclear armed depth charges and torpedoes).

10.2.2.2 Outer Space Treaty. This multilateral convention prohibits the placement in earth orbit, installation on the moon and other celestial bodies, and stationing in outer space in any other manner, of nuclear and other weapons of mass destruction. Suborbital missile systems are not included in this prohibition.⁶

3. Joint Pub. 3-12, Subj: Doctrine for Joint Nuclear Operations, at para. 1a. For a discussion of the U.S. view that nuclear weapons remain important for deterrence, see Slocombe, Remarks, in National Sec. L. Rept., Vol. 19, No. 2, May 1997.

4. Such treaties permit withdrawal if the supreme interests of a nation are at stake; these treaties include the Seabed Arms Control Treaty (art. VIII) (see paragraph 10.2.2.1 and note 5), Outer Space Treaty (art. XIV) (see paragraph 10.2.2.2 and note 6), Treaty of Tlatelolco (art. 30.1) and its two Protocols (see paragraph 10.2.2.4 and note 8 (p. 462)), Nuclear Test Ban Treaty (art. IV) (see paragraph 10.2.2.5 and note 9 (p. 463)), Non-Proliferation Treaty (art. X.1) (see paragraph 10.2.2.6 and note 10 (p. 464)), and, of the bilateral nuclear arms control agreements, the ABM Treaty (art. XV.2), the Threshold Test Ban Treaty (art. V.2), and SALT I (art. VIII.3) (see paragraph 10.2.2.7 and notes 14, 15 and 17, respectively (p. 465)).

5. Treaty on the Prohibition of the Emplacement of Nuclear Weapons and Other Weapons of Mass Destruction on the Seabed and the Ocean Floor and in the Subsoil Thereof, Washington, London & Moscow, 11 February 1971, 23 U.S.T. 701, T.I.A.S. 7337, reprinted in AFP 110-20, at 4-26 [hereinafter Seabed Arms Control Treaty]. There were 93 parties to the Seabed Arms Control Treaty as of 24 June 1997. Weapons of mass destruction, other than nuclear weapons, are not defined in this or any other arms control treaty. Baselines are described in paragraph 1.3 (p. 3).

6. Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies, Washington, London & Moscow, 27 January 1967, 18 U.S.T. 2410, T.I.A.S. 6347, reprinted in AFP 110-20, at 6-30 [hereinafter Outer Space Treaty]. There were 98 parties to the Outer Space Treaty as of 24 June 1997. This (continued...)

10.2.2.3 Antarctic Treaty. The Antarctic Treaty is a multilateral convention designed to ensure that Antarctica, defined to include the area south of 60° South Latitude, is used for peaceful purposes only. The treaty prohibits in Antarctica “any measures of a military nature, such as the establishment of military bases and fortifications, the carrying out of military maneuvers, as well as the testing of any type of weapons.” Nuclear explosions are specifically prohibited. Ships and aircraft at points of discharging or embarking personnel or cargoes in Antarctica are subject to international inspection. Ships operating on and under, and aircraft operating over the high seas within the treaty area are not subject to these prohibitions.⁷

10.2.2.4 Treaty of Tlatelolco. This treaty is an agreement among the Latin American countries not to introduce nuclear weapons into Latin America. The treaty does not, however, prohibit Latin American nations from authorizing nuclear-armed ships and aircraft of non-member nations to visit their ports and airfields or to transit through their territorial sea or airspace.⁸ The treaty is not applicable to the means of propulsion of any vessel.

Protocol I to the treaty is an agreement among non-Latin American nations that exercise international responsibility over territory within the treaty area to abide by the denuclearization provisions of the treaty. France, the Netherlands, the U.K., and the U.S. are parties to Protocol I. For purposes of this treaty, U.S. controlled territory in Latin America includes Guantanamo Bay in Cuba, the Virgin Islands, and Puerto Rico. Consequently the U.S. cannot maintain nuclear weapons in those areas. Protocol I nations retain, however, competence to authorize transits and port visits by ships and aircraft of their own or other armed forces in their Protocol I territories, irrespective of armament, cargo, or means of propulsion.

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treaty also limits the use of the moon and other celestial bodies exclusively to peaceful purposes and expressly prohibits their use for establishing military bases, installations, or fortifications, testing weapons of any kind, or conducting military maneuvers. *See also* paragraphs 2.9.1 and 2.9.2 (p. 149).

7. Antarctic Treaty, Washington, 1 December 1959, 12 U.S.T. 794, T.I.A.S. 4780, 402 U.N.T.S. 71, *reprinted in* AFP 110-20, at 4-21. There were 43 parties to the Antarctic Treaty on 16 July 1997 of which 26 are consultative members under article IX of the treaty. *See* paragraph 2.4.5.2 (p. 135) for information on peacetime operations in the Antarctic region.

8. Treaty for the Prohibition of Nuclear Weapons in Latin America (Treaty of Tlatelolco), Mexico City, 14 February 1967, 634 U.N.T.S. 281, 22 U.S.T. 762, T.I.A.S. 7137, *reprinted in* AFP 110-20, at 4-9. The *travaux préparatoires* and navigational implications of this treaty and its two protocols are fully discussed in paragraph 2.4.6, notes 80 and 81 (p. 136). The United States is also a signatory of, but not yet a party to, Protocols I, II and III of the 1985 South Pacific Nuclear Free Zone Treaty, and Protocols I and II of the 1996 African Nuclear-Weapon-Free Zone Treaty. *See* paragraph 2.4.6, note 82 (p. 137).

Protocol II is an agreement among nuclear-armed nations (China, France, Russia, the U.K., and the U.S.) to respect the denuclearization aims of the treaty, to not use nuclear weapons against Latin American nations party to the treaty, and to refrain from contributing to a violation of the treaty by Latin American nations.

10.2.2.5 Nuclear Test Ban Treaty. This multilateral treaty prohibits the testing of nuclear weapons in the atmosphere, in outer space, and underwater.⁹ Over 100 nations are party to the treaty, including Russia, the

9. Treaty Banning Nuclear Weapon Tests in the Atmosphere, in Outer Space, and Under Water, Moscow, 5 August 1963, 14 U.S.T. 1313, T.I.A.S. 5433, 480 U.N.T.S. 43, *reprinted in* AFP 110-20, at 4-3 [hereinafter Nuclear Test Ban Treaty]. There were 116 parties as of 24 June 1997.

The treaty also prohibits “any other nuclear explosion” in the specified areas:

The phrase “any other nuclear explosion” includes explosions for peaceful purposes. Such explosions are prohibited by the treaty because of the difficulty of differentiating between weapon test explosions and peaceful explosions without additional controls.

Statement of State Department Legal Adviser to Senate Foreign Relations Comm., *reprinted in* 11 Whiteman 793-96.

All bodies of water, including inland waters, are included within the term “under water” (*id.* at 790). The treaty also prohibits nuclear explosions in any other environment if the explosion would cause radioactive debris to be present outside the borders of the nation conducting the explosion. Underground tests which do not cause radioactive debris to be present outside the territorial limits of the nation in which the test is conducted are not prohibited (*id.* at 791).

The treaty does not impose any limitation on the use of nuclear weapons by the parties in armed conflict (*id.* at 793-98).

On 12 December 1995, the U.N. General Assembly resumed its call for a comprehensive nuclear test ban treaty that would embrace all nuclear explosive testing, including underground testing. U.N.G.A. Res. 50/65, Dec. 1995. On 17 September 1996, the U.N. General Assembly adopted U.N.G.A. Res. 50/245, Sep. 1997 and the text of the Comprehensive Nuclear Test Ban Treaty. U.N. Doc. M/50/1027, *reprinted in* 35 Int'l Leg. Mat'ls 1439 (1996). The basic obligation of States in the Comprehensive Nuclear Test Ban Treaty is contained in art. I:

1. Each State Party undertakes not to carry out any nuclear test explosion or any other nuclear explosion, and to prohibit and prevent any such nuclear explosion at any place under its jurisdiction or control.
2. Each State Party undertakes, furthermore, to refrain from causing, encouraging, or in any way participating in the carrying out of any nuclear weapon test explosion or any other nuclear explosion.

The Treaty also establishes an international organization to ensure compliance with its terms, particularly the comprehensive verification procedures which it mandates. The United States and 146 other nations are signatories to the Treaty which is not yet in force. Among the nations that are not signatories are India, Iraq, North Korea and Pakistan. On 22 September 1997, President Clinton submitted the Comprehensive Nuclear Test Ban Treaty to the Senate for its advice and consent to ratification.

U.K., and the U.S. (France and China are not parties.) Underground testing of nuclear weapons is not included within the ban.

10.2.2.6 Non-Proliferation Treaty. This multilateral treaty obligates nuclear-weapons-nations to refrain from transferring nuclear weapons or nuclear weapons technology to non-nuclear-weapons-nations, and obligates non-nuclear-weapons-nations to refrain from accepting such weapons from nuclear-weapons-nations or from manufacturing nuclear weapons themselves. The treaty does not apply in time of war.¹⁰

10.2.2.7 Bilateral Nuclear Arms Control Agreements. The United States and Russia (as the successor state to the U.S.S.R.) are parties to a number of bilateral agreements designed to either restrain the growth or reduce the number of nuclear warheads and launchers and to reduce the risk of miscalculation that could trigger a nuclear exchange. Among these agreements are the Hotline

10. Treaty on the Nonproliferation of Nuclear Weapons, Washington, London & Moscow 1 July 1968, 21 U.S.T. 483, T.I.A.S. 6839, 729 U.N.T.S. 161, *reprinted in* AFP 110-20, at 4-5. This treaty is designed to prevent the spread of nuclear weapons; to provide assurances, through international safeguards that the peaceful nuclear activities of nations which have not already developed nuclear weapons will not be diverted to making such weapons; to promote, to the maximum extent consistent with the other purposes of the treaty, the peaceful use of nuclear energy through full cooperation, with the potential benefits of any peaceful application of nuclear explosive technology being made available to non-nuclear parties under appropriate international observation; and to express the determination of the parties that the treaty should lead to further progress in comprehensive arms control and nuclear disarmament measures.

There were 187 nations party to this treaty as of 27 June 1997, including the nuclear-weapons-nations of China, France, Russia, the U.K. and the U.S. Only Brazil, Cuba, Israel, India and Pakistan are non-parties; the latter three of whom either have nuclear weapons or the technology to manufacture them. *N.Y. Times*, 4 May 1987, at A24. On 3 December 1993, North Korea became the first and only nation to withdraw from the Treaty. *Arms Control Reporter*, June 1997, at 602.A.11.

By its terms, the Nuclear Non-Proliferation Treaty was to remain in force at least until its 25th anniversary, at which time "a conference shall be convened to decide whether the Treaty shall continue in force indefinitely, or shall be extended for an additional fixed period or periods." Art. X2. That conference, entitled the 1995 Nuclear Non-Proliferation Treaty Review and Extension Conference, convened in New York and on 11 May 1995 formally extended the Treaty "indefinitely". The 1995 Conference also agreed to a set of "Principles and Objectives for Nuclear Nonproliferation and Disarmament." *Arms Control Reporter*, 1996 Annual Report, at chap. VI A. For a discussion of the Treaty and calls for its indefinite extension *see* Epstein & Szasz, *Extension of the Nuclear Non-Proliferation Treaty: A Means of Strengthening the Treaty*, 33 *Va. J. Int'l L.* 735 (1993). For a discussion of forceful counter-proliferation should non-proliferation prove ineffective, *see* Gibson, *The International Legal Ramifications of United States Counter-Proliferation Strategy: Problems and Prospects*, Newport Paper No. 11, U.S. Nav. War Coll. (1997).

Agreements of 1963 and 1971,¹¹ the Accidents Measures Agreement of 1971,¹² the 1973 Agreement on Prevention of Nuclear War,¹³ the Anti-Ballistic Missile Treaty of 1972 and its Protocol of 1974,¹⁴ the Threshold Test Ban Treaty of 1974,¹⁵ the 1976 Treaty on Peaceful Nuclear Explosions,¹⁶ the SALT Agreements of 1972 and 1977 (SALT I—Interim Agreement has expired; SALT II was never ratified),¹⁷ the INF Treaty of 1988,¹⁸ and the START treaties of

11. Memorandum of Understanding between the United States of America and the Union of Soviet Socialist Republics Regarding the Establishment of a Direct Communications Link, with Annex, Geneva, 20 June 1963, 14 U.S.T. 825, T.I.A.S. 5362, 472 U.N.T.S. 163; Agreement Between the United States of America and the Union of Soviet Socialist Republics on Measures to Improve the USA-USSR Direct Communications Link, with Annex, Washington, 30 September 1971, 22 U.S.T. 1598, T.I.A.S. 7187, 806 U.N.T.S. 402; *id.* as amended 20 March and 29 April 1975, 26 U.S.T. 564, T.I.A.S. 8059. (In a note dated 13 January 1992, the Russian Federation informed the United States that it “. . . continues to perform the rights and fulfill the obligations following from the international agreements signed by the Union of the Soviet Socialist Republics . . .” T.I.F., 1 Jan. 1994, at 258.)

12. Agreement on Measures to Reduce the Risk of Outbreak of Nuclear War Between the United States of America and the Union of Soviet Socialist Republics, Washington, 30 September 1971, 22 U.S.T. 1590, T.I.A.S. 7186, 807 U.N.T.S. 57. On 15 September 1987, the Agreement Between the United States of America and the Union of Soviet Socialist Republics on the Establishment of Nuclear Risk Reduction Centers, and its two Protocols, were signed in Washington and entered into force. Dep’t St. Bull., Nov. 1987, at 34; *reprinted in* 27 Int’l Leg. Mat’ls 76 (1988).

13. Agreement Between the United States of America and the Union of Soviet Socialist Republics on the Prevention of Nuclear War, Washington, 22 June 1973, 24 U.S.T. 1478, T.I.A.S. 7654.

14. Treaty Between the United States of America and the Union of Soviet Socialist Republics on the Limitation of Anti-Ballistic Missile Systems, Moscow, 26 May 1972, 12 U.S.T. 2435, T.I.A.S. 7503 [hereinafter ABM Treaty]; Protocol to the Treaty Between the United States of America and the Union of Soviet Socialist Republics on the Limitation of Anti-Ballistic Missile Systems, Moscow, 3 July 1974, entered into force 24 May 1976, 27 U.S.T. 1645, T.I.A.S. 8276. *See also* paragraph 2.9.3.1, note 131 (p. 153).

15. Treaty Between the United States of America and the Union of Soviet Socialist Republics on the Limitation of Underground Nuclear Weapon Tests, Moscow, 3 July 1974. The Treaty, and the 1990 Protocol thereto, entered into force on 11 December 1990.

16. Treaty Between the United States of America and the Union of Soviet Socialist Republics on Underground Nuclear Explosions for Peaceful Purposes, Washington, 28 May 1976, Sen. Ex. N, 94th Cong., 2d Sess.; Sen. Ex. Rep. 100-1. The Treaty, and the 1990 Protocol thereto, entered into force on 11 December 1990.

17. SALT I includes the ABM Treaty (*see* note 14 (p. 465)) and the Interim Agreement Between the United States of America and the Union of Soviet Socialist Republics on Certain Measures with respect to the Limitation of Strategic Offensive Arms with associated Protocol, entered into force 3 October 1972, 23 U.S.T. 3462, T.I.A.S. 7504, AFP 110-20 at 4-35. The Interim Agreement expired on 3 October 1977. However, both the United States and the Soviet Union issued parallel statements announcing that they would continue to observe the limitations on strategic buildups which were contained in the agreement. 77 Dep’t St. Bull. 642 (1977).

SALT II is formally known as the Treaty Between the United States of America and the Union of Soviet Socialist Republics on the Limitation of Strategic Offensive Arms, signed 18 June 1979, submitted to the Senate for its advice and consent 22 June 1979, and withdrawn from the Senate’s

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1991 (START I) and 1993 (START II). The START treaties have initiated the process of physical destruction of strategic nuclear warheads and launchers by the U.S., Russia, Ukraine, Belarus and Kazakhstan (the latter four being recognized as successor states to the U.S.S.R. for this purpose).¹⁹

10.3 CHEMICAL WEAPONS

International law prohibits the use of chemical weapons in armed conflict.²⁰

10.3.1 Treaty Obligations. The 1925 Geneva Gas Protocol for the Prohibition of the use in War of Asphyxiating, Poisonous or Other Gases, and of Bacteriological

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calendar in January 1980 at the request of President Carter. In 1977, the Presidents of both countries stated they would do nothing to jeopardize the treaty so long as each abided by it. 77 Dep't St. Bull. 642 (1977).

In 1982, the United States announced that it would not undercut the expired SALT I Interim Agreement and the unratified SALT II Agreement as long as the Soviet Union exercised equal restraint. 1 Public Papers of President Reagan 709 (31 May 1982); ACDA, Documents on Disarmament, 1982, at 332. However, the United States announced in May 1986 that it would henceforth base decisions regarding its strategic force structure on the nature and magnitude of the threat posed by Soviet strategic forces, and not on the standards contained in the expired SALT I Interim Agreement and the unratified SALT II Treaty. Dep't St. Bull., Aug. 1986, at 36-43. Consistent with this policy, the United States ceased technical observance of the SALT II Treaty on 28 November 1986.

18. The Treaty Between the United States of America and the Union of Soviet Socialist Republics on the Elimination of Their Intermediate-Range and Shorter-Range Missiles (INF Treaty), and associated documents, Washington, 8 December 1987, *reprinted in* 27 Int'l Leg. Mat'l's 84 (1988), entered into force 1 June 1988.

19. *See* Treaty Between the United States of America and the Union of Soviet Socialist Republics on the Reduction and Limitation of Strategic Offensive Arms, 31 July 1991 (START I), and accompanying Protocol between the United States and the Republic of Belarus, the Republic of Kazakhstan, the Russian Federation, and Ukraine, 23 May 1992, S. Treaty Doc. 20, 102d Cong., 1st Sess. (1991); *reprinted in* Dept. of State DISPATCH, Oct. 1991, Vol. 2, Supp. No. 5. The Treaty Between the United States of America and the Russian Federation on Further Reduction and Limitation of Strategic Offensive Arms, 3 January 1993 (START II), to which the Senate provided its advice and consent on 26 January 1996. However, the Russian Duma has not. Accordingly, START II is not in force. For a discussion of START I and START II *see* Bunn & Rhinelander, *The Arms Control Obligations of the Former Soviet Union*, 33 Va. J. Int'l L. 323 (1993).

In November 1991 Congress authorized establishment of the Cooperative Threat Reduction Program, 22 U.S.C. 5952. Sometimes referred to as the Nunn-Lugar Program, this legislation is design to assist the newly independent states of the former Soviet Union in the safety, security and dismantlement of nuclear, chemical and other weapons (to include strategic nuclear delivery vehicles). Through FY 1996, approximately \$1.5 billion was authorized by Congress to fund this effort. *See* Arms Control Rept., 1996 Annual Report at chap. 6.

20. Oeter, *Methods and Means of Combat*, in Fleck at 147-50; Levie, *Nuclear, Chemical and Biological Weapons*, in Robertson at 334-41.

Methods of Warfare (“the 1925 Gas Protocol”)²¹ is the principal international agreement in force relating to the regulation of chemical weapons in armed conflict. The far more comprehensive 1993 Convention on the Prohibition of Development, Production, Stockpiling and Use of Chemical Weapons and on their Destruction (the “1993 Chemical Weapons Convention”)²² will enter into force for those nations party to it in the near future.²³

10.3.1.1 The 1925 Gas Protocol. The United States is a party to the 1925 Gas Protocol, as are all other NATO nations and all former Warsaw Pact nations. The United States, the U.S.S.R., and most other NATO and Warsaw Pact nations conditioned their adherence to the 1925 Gas Protocol on the understanding that the prohibition against use of chemical weapons²⁴ ceases to be binding with respect to nations whose armed forces, or the armed forces of their allies, fail to respect that prohibition. This, in effect, restricted the prohibition to the “first use” of such munitions, with parties to the Protocol reserving the right to employ chemical weapons for retaliatory purposes.²⁵

21. Geneva, 17 June 1925, 26 U.S.T. 571, T.I.A.S. 8061, L.N.T.S. 65, *reprinted in* AFP 110-20, at 4-68 and *in* 14 Int'l Leg. Mat'ls 49 (1975), entered into force for the United States on 10 April 1975. There were 145 parties to the 1925 Gas Protocol as of 1 September 1997. The Protocol is discussed at paragraph 10.3.1.1 (p. 467).

22. Paris, 13 January 1993, *reproduced in* 32 Int'l Leg. Mat'ls 800 (1993). The 1993 Chemical Weapons Convention is discussed in paragraph 10.3.1.2 (p. 472).

23. The 1993 Chemical Weapons Convention actually came into force on 29 April 1997. As of 29 October 1997, 102 nations had ratified or acceded to the Convention.

24. The operative provisions of the Protocol obligate the contracting nations not to use in war “asphyxiating, poisonous or other gases, and . . . all analogous liquids, materials or devices.” See the Final Declaration of the Paris Conference on the Prohibition of Chemical Weapons, 11 January 1989, U.N. Doc. A/44/88, 20 Jan. 1989, Annex, *reprinted in* 28 Int'l Leg. Mat'ls 1020 and *in* Arms Control Rep. 704.B.338.2 (1989) and discussed *in* Recent Developments: Arms Control; Declaration of the Paris Chemical Weapons Conference, 30 Harv. Int'l L. J. 495 (1989). For a discussion of the 1925 Gas Protocol see Levie, paragraph 10.3, note 20 (p. 466); Oeter, *id.* at 147-50.

25. Forty-nine nations adhering to the Protocol have done so subject to reservations. For all practical purposes the reservations, although sometimes differently worded, may all be assimilated to the following:

- (1) The Protocol is binding only as regard nations which are parties to the Protocol itself (this reservation is somewhat superfluous, as it reiterates something which is already stated in the Protocol's text).
- (2) The Protocol ceases to be binding as regards nations whose armed forces, or the armed forces of whose allies, fail to respect the prohibition laid down in the Protocol.

This formulation of the reservation, which restricts the prohibition to first use of chemical weapons, was entered by the following NATO/Warsaw Pact nations: Belgium, Canada, France, the Netherlands, Portugal, Spain, United Kingdom, United States, Bulgaria, Czechoslovakia, Romania and U.S.S.R., and was not objected to by any nation.

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The 1925 Gas Protocol does not prohibit the development, production, testing, or stockpiling of chemical weapons, nor does it prevent equipping and training military forces for chemical warfare.²⁶ The United States considers the Protocol to be applicable to lethal and incapacitating agents but not to riot control agents (see paragraph 10.3.2) or herbicidal agents (see paragraph 10.3.3).

The United States considers the prohibition against first use of lethal and incapacitating chemical weapons to be part of customary international law and, therefore, binding on all nations whether or not they are parties to the 1925 Gas Protocol.²⁷ Lethal chemical agents are those asphyxiating, poisonous, or other

25.(...continued)

The United States ratified the 1925 Gas Protocol subject to the reservation that it would cease to be binding with respect to the use in war of asphyxiating, poisonous or other gases, and of all analogous liquids, materials, or devices, in regard to an enemy nation if such nation or any of its allies fails to respect the prohibitions in the agreement.

26. The Federal Republic of Germany was the only nation which, upon ratification of the Protocol, unilaterally obligated itself not to produce chemical weapons on its territory.

The United States has long been committed (e.g., by Art. IX of the 1972 Biological Weapons Convention) to the objective of the complete, effective and verifiable prohibition of all chemical weapons.

In 1980, discussions on the multilateral elaboration of a chemical weapons convention were begun in the 40-nation Committee on Disarmament (CD) in Geneva, Switzerland. On 18 April 1984, the United States tabled a comprehensive draft treaty banning entirely the possession, production, acquisition, retention or transfer of chemical weapons. Dep't St. Bull., June 1984, 40-43. The CD Draft Convention text of 27 April 1987 may be found in Arms Control Reporter 1987, at 704.D.105-118. That draft became the basis of negotiations which produced the 1993 Chemical Weapons Convention.

27. Statement by the President, Use of Poison Gas, 8 June 1943, 8 Dep't St. Bull. 507 (1943) (use of chemical weapons has been "outlawed by the general opinion of civilized mankind"); Letter from Ass't Sec'y State Macomber to Cong. Rosenthal, 22 Dec. 1967, *quoted in* Bunn, Banning Poison Gas and Germ Warfare: Should the United States Agree? 1969 Wis. L. Rev. 375, 384-85 (the rule set forth in the 1925 Gas Protocol "is now considered to form a part of customary international law"); DA Pam. 27-161-2, at 44 (1962). *Accord* McDougal & Feliciano 634 and sources cited therein at n.360; Parks, Classification of Chemical-Biological Warfare, 13 U. Toledo L. Rev. 1165, 1167 (1982); Smith, International Regulation of Chemical and Biological Weapons: "Yellow Rain" and Arms Control, 1984 U. Ill. L. Rev. 1011, 1048-56; Green 37-38, 129-31.

There are different views as to the extent to which the prohibition of use of chemical weapons has become part of customary international law. At least four positions may be advanced on this question:

- (1) The 1925 Gas Protocol is not customary international law, and use of chemical weapons is not contrary, *per se*, to internationally accepted customary rules. The Protocol is a no-first-use agreement between the contracting parties.
- (2) The prohibition of first use of chemical weapons as embodied in the 1925 Gas Protocol and relevant reservations thereto has become part of the customary international law and is, therefore, binding on all nations towards all the others, whether parties to it or not. This is the position of the United States.

(continued...)

27.(...continued)

- (3) Use of chemical weapons is contrary to customary international law. It is permitted only as a belligerent reprisal.
- (4) Use of chemical weapons is contrary to customary international law in all circumstances.

Since all NATO and Warsaw Pact nations became parties to the 1925 Gas Protocol, there could have been no legitimate first-use of chemical weapons in a NATO-Warsaw Pact confrontation.

The doctrine of reciprocity has also been advanced as a possible basis for the *legitimate* use of chemical weapons. Under art. 60 of the Vienna Convention on the Law of Treaties, Vienna, 23 May 1969, 1155 U.N.T.S. 331, *reprinted in* 8 Int'l Leg. Mat'ls 679 (1969), and *in* AFP 110-20, at 7-2, and the customary international law of reciprocity, a breach of a multilateral treaty, that is a violation of a provision essential to the accomplishment of the object of the treaty, can be invoked by the affected parties as a ground for suspending the operation of the treaty in their relations with the violating nation or nations. Therefore, all NATO nations, whether they ratified the Geneva Protocol with reservations or not, could arguably have invoked the customary rule stated in the Vienna Convention, as well as the application of the general principle of reciprocity, to justify a response with chemical weapons if attacked with such weapons by a Warsaw Pact country. It could be argued, however, that art. 60 of the Vienna Convention does not apply to the 1925 Gas Protocol because, as a treaty of humanitarian character, the Protocol is not amenable to reservation (*see* art. 60, para. 5).

As for the limits to this chemical response, a nation which ratified the 1925 Gas Protocol with retaliatory use reservation could take the position that, in case of violation of the treaty, it would feel free from any obligation under the terms of the Protocol. It is important to note that, according to the letter of the first use reservation:

- The violation may be committed either against the reserving nation or against one of its allies. The reservation affirms the right of the reserving nation to retaliate on behalf of its allies.
- All members of the enemy alliance are equally legitimate objects of retaliation whichever the violating nation.
- Since the violation of the Treaty causes, for the reserving nation, the "suspension" of the prohibition altogether, the retaliatory use of chemical weapons does not need to be proportionate or comparable to the violation to which it replies.

The same position could be taken also by a nation which ratified the 1925 Gas Protocol without reservations. In fact, if the violation is committed by a nation which has, or whose allies have, a retaliatory-use reservation, the nation attacked could invoke the principle of reciprocity. Under the principle of reciprocity, a reservation entered by a nation which modifies the provisions of a treaty in its relations with other parties, modifies those provisions to the same extent for the other parties in their relations with the reserving nation (*see* Vienna Convention on the Law of Treaties, art. 21).

On the other hand, if the view on the consolidation of the prohibition of chemical weapons into a rule of customary international law is accepted, then this right of retaliation is no longer applicable without limitations. According to this interpretation, since the prohibition of chemical weapons no longer stems from the Protocol, but has become a rule of customary international law, the use of such weapons by an enemy does not confer on a nation the right to "suspend" the prohibition altogether, but only gives the nation the right to act in reprisal against the violating nation, in accordance with international law. As a reprisal, such response must be proportionate to the initial violation.

As a consequence, and regardless of whether they ratified the 1925 Gas Protocol with reservations or not, nations which consider the general prohibition of chemical weapons as being part of
(continued...)

gases; analogous liquids; or materials that cause immediate death. Incapacitating agents are those producing symptoms that persist for appreciable periods of time after exposure to the agent has terminated.²⁸ Consistent with its first-use

27.(...continued)

customary international law, may take the position that they are only allowed to act in reprisal, including in-kind reprisal where necessary, if attacked with chemical weapons. It is to be noted that the right to use chemical weapons in reprisal does not stem from reservations to the 1925 Gas Protocol, but from the law of reprisal itself. For a discussion of reprisal *see* paragraph 6.2.3 (p. 335).

28. Lethal and incapacitating agents are chemical agents intended for use in military operations to kill, seriously injure, or incapacitate personnel through their physiological effects. This definition excludes riot control agents (RCAs), chemical herbicides, and smoke and flame materials. Chemical agents are classified according to physical state, use, persistence and physiological effects, with the latter two being the most common in military usage.

Lethal agents are capable of producing incapacitation, serious injury, or death when used in field concentrations. *Incapacitating agents*, on the other hand, produce non-permanent physiological or mental effects, or both, rendering individuals incapable of concerted efforts in the performance of their assigned duties while normally allowing complete recovery.

Nerve agents are lethal agents which cause paralysis by interfering with the transmission of nerve impulses. They are organophosphorus compounds similar to many commonly used insecticides. However, they are several orders of magnitude more toxic, minute quantities of which can kill. Basically, the nerve agents work at the nerve/muscle interface by blocking the enzyme which allows the muscles to relax. Consequently, the victim loses muscular control and dies of suffocation due to inability to breathe. Death can occur within a few minutes if the dose is large enough. Nerve agents are liquids which vaporize into the air or can be disseminated in the form of an aerosol. In addition to working through inhalation or ingestion, the liquid and (to a minor extent) the vapors can be absorbed through the skin. The eyes are particularly sensitive to nerve agents and very small liquid or vapor exposures can cause pinpointing of the pupils (miosis) making it impossible to perform tasks requiring good visual acuity. A mask, protective garment, and gloves are required for protection, but the garment may be removed as the possibility of liquid contamination declines, permitting greater operational efficiency.

Blood agents are chemical compounds, including the cyanide group, that affect bodily functions by preventing the transfer of oxygen from the blood to the body cells causing rapid death. Blood agents are highly volatile which enhances their ability to spread rapidly over a target, but requires large concentrations of agent and greatly limits their duration of effectiveness. Some of the compounds deteriorate rapidly in storage. They are also called *cyanogen agents*.

Choking agents work by breaking down the interior surface of the lungs causing them to fill up with fluids. Death can result from what has been called "dry land drowning." The most commonly known choking agent is phosgene, which was used in World War I. Under its chemical name (carbonyl chloride) phosgene is an industrial chemical used in the manufacture of plastics, some drug products, and urethane foam. This class of agents, effective in trench warfare, would be of only very limited utility in modern military operations and is generally considered to be obsolete.

Blister agents or *vesicants* are chemical agents which injure the eyes and lungs, and burn or blister the skin. Both the liquid and the vapors can have this effect, making whole body protection mandatory in a blister agent environment. The most commonly known blister agent is mustard, which was widely used in World War I. Blister agents can be lethal if inhaled; however, the more common result is incapacitation due to blistering of the skin. Mustard has a delayed effect; it does not cause immediate pain, the first symptoms appear in 4-6 hours. Also, it freezes at approximately 58°F.

(continued...)

reservation to the 1925 Gas Protocol, the United States maintained a lethal and incapacitating chemical weapons capability for deterrence and possible retaliatory purposes only. National Command Authorities (NCA) approval was required for retaliatory use of lethal or incapacitating chemical weapons by U.S. Forces. Retaliatory use of lethal or incapacitating chemical agents was to be terminated as soon as the enemy use of such agents that prompted the retaliation had ceased and any tactical advantage gained by the enemy through unlawful first use had been redressed. Upon coming into force of the 1993 Chemical Weapons Convention, any use of chemical weapons by a party to that convention, whether or not in retaliation against unlawful first use by another nation, will be prohibited. (See paragraph 10.3.1.2).

28.(...continued)

However, mixing mustard with lewisite results in an agent with a lower freezing point which produces immediate stinging of the skin.

Chemical munitions may be classified as unitary or binary. *Unitary* munitions are filled with the premixed complete agent. These can be very simple in design and all consist of a container which opens or bursts on or over the target releasing the agent. *Binary* munitions contain two non-lethal substances which mix in route to the target to produce a lethal or incapacitating agent. While they offer safety, surety, and logistical advantages over unitary munitions, binary weapons are more complex.

Joint Pub. 1-02 *passim*; 50 U.S.C. sec. 1521(j); Joint Pub. 3-11, Subj: Joint Doctrine for Nuclear, Biological, and Chemical Defense; OPNAVINST P-86-1-95, Subj: Chemical, Biological, and Radiological Defenses Handbook; FM 3-6, Subj: Field Behaviors of Nuclear, Biological, and Chemical Agents.

For additional background on chemical warfare see St. Aubin & Williams, *Soviet Chemical Warfare Agents: Another Type of Threat, All Hands*, April 1982, at 38-43; Moore, *Ratification of the Geneva Protocol on Gas and Bacteriological Warfare: A Legal and Political Analysis*, 58 Va. L. Rev. 419 (1972); CBW, *Chemical and Biological Warfare* (Rose ed. 1968); Thomas & Thomas, *Legal Limits on the Use of Chemical and Biological Weapons* (1970); Carnegie Endowment for International Peace, *The Control of Chemical and Biological Weapons* (1971); Geneva Gas Protocol of 1925, Hearings Before Sen. Comm. on Foreign Relations on Sen. Ex. J, 92d Cong., 1st Sess. (1972); 10 Whiteman 454-79; 6 Hackworth 269-71. More recent developments on the use of chemical weapons are described in Report of Group of Experts on the Alleged Use of Chemical Weapons, U.N. Doc. A/37/259, 1 Dec. 1982 (Iran-Iraq war); *Chemical Warfare in Southeast Asia and Afghanistan*, Report to the Congress by Secretary of State Haig, March 22, 1982, Dep't of State Special Report No. 98; *Chemical Warfare in Southeast Asia and Afghanistan: An Update*, Report from Secretary of State Shultz, November 1982, Dep't of State Special Report No. 104, *reprinted in* Dep't St. Bull., Dec. 1982, at 44-53; Reports of the Missions Dispatched by the Secretary General to Investigate Allegations of the Use of Chemical Weapons in the Conflict between the Islamic Republic of Iran and Iraq, U.N. Docs. S/16433, 26 Mar. 1984; S/17911, 12 Mar. 1986; S/18852, 13 May 1987; S/19823, 25 Apr. 1988; S/20060, 20 July 1988; S/20063, 25 July 1988 (generally confirming the use by Iraq of mustard gas in the Iran-Iraq war); Cordesman, *Creating Weapons of Mass Destruction*, Armed Forces J. Int'l, Feb. 1989, at 54 (recounting development and use of chemical weapons by Iran and Iraq); Spiers, *Chemical and Biological Weapons, A Study of Proliferation* (1994).

10.3.1.2 The 1993 Chemical Weapons Convention.²⁹ This comprehensive Convention will, upon entry into force,³⁰ prohibit the development, production, stockpiling and use of chemical weapons, and mandate the destruction of chemical weapons and chemical weapons production facilities for all nations that are party to it.³¹ The Convention specifically prohibits the use of

29. See paragraph 10.3.1, note 22 (p. 467).

30. The 1993 Chemical Weapons Convention came into force on 29 April 1997.

31. Art. I of the Convention, entitled "General Obligations," provides that:

1. Each State Party to this Convention undertakes never under any circumstances:
 - (a) To develop, produce, otherwise acquire, stockpile or retain chemical weapons, or transfer, directly or indirectly, chemical weapons to anyone;
 - (b) To use chemical weapons;
 - (c) To engage in any military preparations to use chemical weapons;
 - (d) To assist, encourage or induce, in any way, anyone to engage in any activity prohibited to a State Party under this Convention.
2. Each State Party undertakes to destroy chemical weapons it owns or possesses, or that are located in any place under its jurisdiction or control, in accordance with the provisions of this Convention.
3. Each State Party undertakes to destroy all chemical weapons it abandoned on the territory of another State Party, in accordance with the provisions of this Convention.
4. Each State Party undertakes to destroy any chemical weapons production facilities it owns or possesses, or that are located in any place under its jurisdiction or control, in accordance with the provisions of this Convention.
5. Each State Party undertakes not to use riot control agents as a method of warfare.

The Convention's Annex on Implementation and Verification (referred to in the Convention as the "Verification Annex") establishes detailed verification procedures providing for on-site inspection and monitoring with on-site instruments of all locations at which chemical weapons are stored or destroyed and of all chemical weapons production facilities.

Destruction of chemical weapons, except for "old chemical weapons" and "abandoned chemical weapons," must begin within two years after the Convention enters into force for the party that possesses them and must be completed not later than ten years after the Convention comes into force (Art. IV, para. 6). If a party to the Convention is unable to destroy its chemical weapons within that ten year period, the deadline may be extended, but in no circumstances beyond fifteen years after the Convention enters into force (Verification Annex, Part IV (A), para. 26). "Old chemical weapons" are defined as those produced before 1925, or those produced between 1925 and 1946 that have deteriorated to the extent that they can no longer be used as chemical weapons (Art. II, para. 5). "Abandoned chemical weapons" are chemical weapons, including "old chemical weapons," abandoned by one nation after 1924 on the territory of another nation without the consent of the latter (Art. II, para. 5). "Old chemical weapons" are to be disposed of or destroyed as "toxic waste" (Verification Annex, Part IV (B), para. 7). Under the regime for destruction of "abandoned chemical weapons," the abandoning nation, upon conclusion of a mutually agreeable program with the nation in whose territory the weapons are located, is responsible for the destruction (Verification Annex, Part IV (B), paras. 8-18).

(continued...)

riot control agents as a “method of warfare.”³² It does not, however, modify existing international law with respect to herbicidal agents.³³

The United States signed the 1993 Chemical Weapons Convention on 13 January 1993. The President transmitted the Convention to the Senate on 23 November 1993 for its advice and consent to ratification.³⁴

10.3.2 Riot Control Agents. Riot control agents are those gases, liquids and analogous substances that are widely used by governments for civil law enforcement purposes. Riot control agents, in all but the most unusual circumstances, cause merely transient effects that disappear within minutes after exposure to the agent has terminated. Tear gas and Mace are examples of riot control agents in widespread use by law enforcement officials.

10.3.2.1 Riot Control Agents in Armed Conflict.

10.3.2.1.1 Under the 1925 Gas Protocol. The United States considers that use of riot control agents in armed conflict was not prohibited by the 1925 Gas Protocol. However, the United States formally renounced first use of riot control agents in armed conflict except in defensive military modes to save lives. Uses of riot control agents in time of armed conflict which the United States considers not to be violative of the 1925 Gas Protocol include:

1. Riot control situations in areas under effective U.S. military control, to include control of rioting prisoners of war.
2. Situations in which civilians are used to mask or screen attacks and civilian casualties can be reduced or avoided.
3. Rescue missions involving downed aircrews or escaping prisoners of war.

31.(...continued)

Destruction of a party's chemical weapons production facilities must begin within one year after the Convention enters into force for that nation and must be completed within ten years after the Convention enters into force (Art. V, para. 8), *e.g.*, 29 April 2007.

For a comprehensive commentary on the Convention *see* Krutzsch & Trapp, *A Commentary on the Chemical Weapons Convention* (1994). *See also* the article-by-article analysis of the Convention in the State Department Letter of Submittal attached to the President's Letter of Transmittal to the Senate of 23 November 1993 (*see* note 34 (p. 473)).

32. *See* paragraph 10.3.2 (p. 473).

33. *See* paragraph 10.3.3 (p. 476).

34. Chemical Weapons Convention, Letter of Transmittal, Senate Treaty Doc. 103-21; *reprinted in* Dept. of State DISPATCH, Dec. 1993, Vol. 4, No. 49. On 24 April 1997, the Senate adopted its Resolution of Ratification, subject to 28 “conditions.” The complete text of the Senate Resolution is *reprinted in* Nash, *Contemporary Practice of the United States Relating to International Law, Chemical Weapons Convention*, 91 Am. J. Int'l L. 499 (1997).

4. Protection of military supply depots, military convoys, and other military activities in rear echelon areas from civil disturbances, terrorist activities, or paramilitary operations.

Such employment of riot control agents by U.S. forces in armed conflict requires NCA approval.³⁵

10.3.2.1.2 Under the 1993 Chemical Weapons Convention. Use of riot control agents as a “method of warfare” is prohibited by the 1993 Chemical Weapons Convention.³⁶ However, that term is not defined by the Convention. The United States considers that this prohibition applies in international as well as internal armed conflict³⁷ but that it does not apply in normal peacekeeping operations, law enforcement operations, humanitarian and disaster relief operations, counter-terrorist and hostage rescue operations, and noncombatant rescue operations conducted outside of such conflicts.³⁸

35. Exec. Order No. 11,850, 40 Fed. Reg. 16187, 3A C.F.R. 149-50 (1975); FM 27-10, para. 38; *reprinted in* AFP 110-20, at 4-69. Presidential memorandum to the Secretary of Defense, 10 January 1976, Subj: Use of Riot Control Agents to Protect or Recover Nuclear Weapons, adds to this list security operations regarding the protection or recovery of nuclear weapons.

36. Art. I, para. 5 of the 1993 Chemical Weapons Convention provides that:

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

Art. II, para. 7 defines “Riot Control Agents” as:

Any chemical not listed in a Schedule [of toxic and precursor chemicals] which can produce rapidly in humans sensory irritation or disabling physical effects which disappear within a short time following termination of exposure.

Art. II, para. 2 defines “Toxic Chemicals” as:

Any chemical which through its chemical action on life processes can cause death, temporary incapacitation or permanent harm to humans or animals

37. The meaning of the term “international armed conflict” is well-established in international law. It encompasses armed conflict between sovereign States, including the armed occupation of one State of the territory of another. The scope of “internal armed conflict” is less well-established. Such a conflict generally involves significant fighting between the established government and dissident armed groups. An internal armed conflict is generally not considered to include internal disturbances and tensions that do not involve relatively protracted and sustained hostilities. Riots and isolated and sporadic acts of violence do not constitute internal armed conflict as that term is understood in international law. *See* paragraph 5.1, note 4 (p. 290).

38. President Clinton’s message to the Senate of the United States of 23 June 1994. White House Press Release, Jun. 23, 1994. That message also states that “according to the current international understanding” the use of riot control agents against enemy combatants, or mixed groups of enemy combatants and noncombatants, is prohibited even for humanitarian purposes, such as the rescue of downed aircrews or in situations where the enemy utilizes noncombatants to mask or screen attacks. *But see* note 39 which sets forth Condition 26 of the Senate’s Resolution of (continued...)

The United States also considers that it is permissible to use riot control agents against other than combatants in areas under direct U.S. military control, including to control rioting prisoners of war and to protect convoys from civil disturbances, terrorists and paramilitary organizations in rear areas outside the zone of immediate combat.³⁹

38.(...continued)

Ratification of the Convention. This Condition requires that the President take no action which would alter or eliminate Executive Order 11,850. *See* note 35 (p. 474). *See also* CJCSI 3100.07A, Subj: Nuclear, Biological, and Chemical Defense; Riot Control Agents [RCAs]; and Herbicides, which provides in Enclosure B, para. 2b that:

The United States has renounced first use of RCAs in war except in defensive military modes to save lives, such as:

- (1) Use of riot control agents in riot control situations in areas under direct and distinct United States military control, to include controlling rioting prisoners of war.
- (2) Use of riot control agents in a situation in which civilians are used to mask or screen attacks and civilian casualties can be reduced or avoided.
- (3) Use of RCAs in rescue missions in remotely isolated areas, of downed aircrews and passengers, and escaping prisoners.
- (4) 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.
- (5) Security operations regarding the protection or recovery of nuclear weapons.

Para. 4.a.(1) of Enclosure B provides that only the President may authorize the "Use of RCAs in war, including defensive military modes. However, advance authority to use RCAs in wartime for protection or recovery of nuclear weapons has been delegated to the Secretary of Defense."

39. *See* note 38. *See also* Senate Resolution of Ratification (paragraph 10.3.1.2, note 34 (p. 473)), which provides in Condition 26:

(26) Riot Control Agents.—

(A) Permitted Uses.—Prior to the deposit of the United States instrument of ratification, the President shall certify to Congress that the United States is not restricted by the Convention in its use of riot control agents, including the use against combatants who are parties to a conflict, in any of the following cases:

- (i) United States Not a Party.—The conduct of peacetime military operations within an area of ongoing armed conflict when the United States is not a party to the conflict (such as recent use of the United States Armed Forces in Somalia, Bosnia, and Rwanda).
- (ii) Consensual Peacekeeping.—Consensual peacekeeping operations when the use of force is authorized by the receiving State, including operations pursuant to Chapter VII of the United Nations Charter.
- (iii) Chapter VII Peacekeeping.—Peacekeeping operations when force is authorized by the Security Council under Chapter VII of the United Nations Charter.

(continued...)

10.3.2.2 Riot Control Agents in Time of Peace. Employment of riot control agents in peacetime is not proscribed by either the 1925 Gas Protocol or the 1993 Chemical Weapons Convention and may be authorized by the Secretary of Defense, or in limited circumstances, by the commanders of the combatant commands. Circumstances in which riot control agents may be authorized for employment in peacetime include:

1. Civil disturbances in the United States, its territories and possessions.⁴⁰
2. Protection and security on U.S. bases, posts, embassy grounds, and installations overseas, including for riot control purposes.⁴¹
3. Law enforcement
 - a. On-base and off-base in the United States, its territories and possessions;
 - b. On-base overseas;
 - c. Off-base overseas when specifically authorized by the host government.⁴²
4. Noncombatant evacuation operations involving U.S. or foreign nationals.⁴³

10.3.3 Herbicidal Agents. Herbicidal agents are gases, liquids, and analogous substances that are designed to defoliate trees, bushes, or shrubs, or to kill long

39.(...continued)

(B) Implementation.—The President shall take no measure, and prescribe no rule or regulation, which would alter or eliminate Executive Order 11,850 of April 8, 1975. [See paragraph 10.3.2.1.1, note 35 (p. 473).]

(C) Definition.—In this paragraph, the term “riot control agent” has the meaning given the term in Article II(7) of the Convention. [See note 36 (p. 474).]

But see Krutzsch & Trapp, paragraph 10.3.1.2, note 31 (p. 472) at 36 & 42–43. On 25 April 1997, President Clinton certified to the Congress acceptance of the 28 Conditions, including Condition 26 on riot control agents. Cong. Rec. 105th Cong., 1st Sess., 28 Apr 1997, at H 1895.

40. Department of Defense Civil Disturbance Plan, GARDEN PLOT, 15 February 1991; DOD Directive 3025.12, Subj: Military Assistance for Civil Disturbances; DOD Directive 3025.15, Subj: Military Assistance to Civil Authorities; DOD Directive 5525.5, Subj: DOD Cooperation with Civilian Law Enforcement Officials; SECNAVINST 5820.7B, Subj: Cooperation with Civilian Law Enforcement Officials.

41. The U.S.-controlled portions of foreign installations are considered U.S. installations. JSCP Annex F.

42. DEPSECDEF memo for Service Secretaries and Chairman, Joint Chiefs of Staff, Subj: Use of Chemical Irritants in Military Law Enforcement, 19 June 1978.

43. Authority for use of riot control agents in peacetime situations not covered by the above (e.g., to save lives in counterterrorist operations) should be submitted through the chain of command for approval pursuant to CJCSI 3100.07A (paragraph 10.3.2.1.2, note 38 (p. 474)).

grasses and other vegetation that could shield the movement of enemy forces. The United States considers that use of herbicidal agents in wartime is not prohibited by either the 1925 Gas Protocol⁴⁴ or the 1993 Chemical Weapons Convention⁴⁵ but has formally renounced the first use of herbicides in time of armed conflict except for control of vegetation within U.S. bases and installations or around their immediate defensive perimeters. Use of herbicidal agents during armed conflict requires NCA approval.⁴⁶ Use of herbicidal agents in peacetime may be authorized by the Secretary of Defense or, in limited circumstances, by commanders of the combatant commands.⁴⁷

10.4 BIOLOGICAL WEAPONS

International law prohibits all biological weapons or methods of warfare whether directed against persons, animals, or plant life.⁴⁸ Biological weapons include microbial or other biological agents or toxins whatever their origin (i.e., natural or artificial) or methods of production.⁴⁹

44. See paragraph 10.3.1.1 (p. 467).

45. See paragraph 10.3.1.2 (p. 472). The Preamble to the 1993 Chemical Weapons Convention provides:

The States Parties to this Convention,

....

7. Recognizing the prohibition, embodied in the pertinent agreements and relevant principles of international law, of the use of herbicides as a method of warfare.

....

Have agreed as follows:

See also Krutzsch & Trapp, paragraph 10.3.1.2, note 31 (p. 472) at 8-9. However, Art. II, para. 2 defines "Toxic Chemicals" prohibited by the Convention in terms of their adverse impact on "humans or animals" (see note 36 (p. 474)). In their commentary on Art. II, para. 2, Krutzsch & Trapp, *id.*, at 30, observe that:

The definition excludes, on the other hand, toxicity against plants. Herbicides will not be regarded as chemical weapons if used with an intent to destroy plants. That would even apply if the (secondary) effect of such use were the killing or harming of people, for example by toxic side effects or by denial of food supplies. On the other hand, herbicides would be covered if they were used in order to *directly* kill or harm people through their toxicity.

46. Executive Order No. 11,850 permits such use under regulations applicable to their domestic use. See paragraph 10.3.2.1.1, note 35 (p. 474). See also CJCSI 3100.07A (note 38 (p. 474)) at Encl. B.

47. JSCP Annex F.

48. Green 47-48; Oeter, *Methods and Means of Combat*, in Fleck, at 151-52. Compare Levie, paragraph 10.3, note 20 (p. 466) at 342-45.

49. *Biological weapons* are items or materiel which project, disperse, or disseminate biological agents, including arthropod vectors. They are inherently indiscriminate and uncontrollable and are

(continued...)

10.4.1 Treaty Obligations. The 1925 Gas Protocol prohibits the use in armed conflict of biological weapons.⁵⁰ The 1972 Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction (the "1972 Biological Weapons Convention") prohibits the production, testing, and stockpiling of biological weapons.⁵¹ The Convention obligates nations that are a party thereto not to develop, produce, stockpile, or acquire biological agents or toxins "of types and in quantities that have no justification for prophylactic, protective, or other peaceful purposes," as well as "weapons, equipment or means of delivery designed to use such agents or toxins for hostile purposes or in armed conflict." All such materials were to be destroyed by 26 December 1975. The United States, Russia, and most other NATO and former Warsaw Pact nations are parties to both the 1925 Gas Protocol and the 1972 Biological Weapons Convention.

10.4.2 United States Policy Regarding Biological Weapons. The United States considers the prohibition against the use of biological weapons during armed conflict to be part of customary international law and thereby binding on all nations whether or not they are parties to the 1925 Gas Protocol or the 1972

49.(...continued)

universally condemned. *Biological warfare/biological operations* is the employment of biological agents to produce casualties in man or animals and to damage plants or materiel. *Biological operations* also include defense against such employment.

Any microorganism able to cause disease in man, animals, or plants, or cause the deterioration of materiel, is capable of being used as a *biological agent*. However, due to difficulty in production, storage and dissemination, and to limited effectiveness, a large number of diseases would have little or no military utility. Even those capable of producing significant results would have a delayed effect due to the incubation period, and the results would be dependent on a variety of factors including weather, target characteristics, and countermeasures. Due to their delayed effectiveness, biological agents do not lend themselves to tactical, but rather to strategic employment to achieve a long-term decrease in an enemy's warmaking capability. Biological agents also lend themselves to clandestine delivery.

Biological toxins are the toxic chemical by-products of biological organisms. They can be synthesized chemically and share many of the characteristics of chemical agents; however, they are considered to be biologicals under the 1972 Biological Weapons Convention. Toxins have advantages over organisms in storage, delivery, and onset of effects. Some toxins are much more toxic than the most powerful nerve agents.

Joint Pub. 1-02 *passim*. See also Rose, The Coming Explosion of Silent Weapons, Nav. War Coll. Rev., Summer 1989, at 6-29.

50. The United States has accepted this obligation without reservation. Compare the U.S. first use reservation on chemical weapons under the 1925 Gas Protocol, paragraph 10.3.1.1, note 24 (p. 467).

51. Washington, London & Moscow, 10 April 1972, 26 U.S.T. 583; T.I.A.S. 8062; 1015 U.N.T.S. 163; reprinted in AFP 110-20, at 4-71. There were 139 parties to the 1972 Biological Weapons Convention as of 1 January 1997. Arms Control Reporter January 1997, at 701.A.4.

Biological Weapons Convention.⁵² The United States has, therefore, formally renounced the use of biological weapons under any circumstance.⁵³ Pursuant to its treaty obligations, the United States has destroyed all its biological and toxin weapons and restricts its research activities to development of defensive capabilities.⁵⁴

52. AFP 110-31, para. 6-4b, at 6-4 and sources cited at paragraph 10.3.1.1, note 27 (p. 468).

53. 5 Weekly Comp. Pres. Doc. 1659-61 (25 Nov. 1969); Dep't St. Bull. 226-27 (1970).

54. 11 Weekly Comp. Pres. Doc. 73-74 (White House Press Release, Jan. 22, 1975); 1976 Digest of U.S. Practice in International Law 732-36. U.S. research activities are devoted primarily to the development of vaccines.