STRATEGY RESEARCH PROJECT

THE CHEMICAL WEAPONS CONVENTION STRATEGIC IMPLICATIONS FOR THE UNITED STATES

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ABSTRACT

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On January 13, 1993, in Paris, 130 countries signed the Chemical Weapons Convention (CWC), to ban the entire class of Chemical Weapons. Debate continues on the strategic implications of the Convention, as drafted, and whether it is in the U.S. national security interest. This paper explores the historical, moral, and legal aspects of chemical warfare, and the strategic implications of the Convention, including operational, policy, constitutional, and industry impact for the U.S. This paper concludes that, although 'imperfect,' the Convention represents a significant contribution to U.S. security objectives, and serves the national interest.

THE CHEMICAL WEAPONS CONVENTION: STRATEGIC IMPLICATIONS FOR THE UNITED STATES

I. INTRODUCTION

On January 13, 1993, in Paris, 130 countries signed the Chemical Weapons Convention (CWC), a landmark treaty which will ban the development, production, acquisition, stockpiling, retention and direct or indirect transfer of Chemical Weapons.[1] On November 23, 1993, President Clinton submitted the treaty to the Senate for its advice and consent, with a call for the Senate to move expeditiously to ratify the Convention early in the next session.[2]

However, in over two years since submission of the Convention and despite intensive Administration action to achieve the requisite advice and consent, the treaty has languished in committee under two separate sessions of Congress. The CWC, for which the U.S. has been one of the principal proponents, has been the subject of some considerable controversy. The debate continues on the strategic implications of the Chemical Weapons Convention, as drafted, and whether it is in the national security interest. It is the conclusion of this paper that, although imperfect, the CWC represents a significant contribution to U.S. security objectives, and therefore it is in the national interest to proceed with ratification and implementation. However, there are tangible costs and strategic implications for the U.S. which must be addressed.

II. HISTORICAL BACKGROUND

A 1960 Army Chemical Corps handbook on chemical weapons (CW) states that "the annals of history show that down through the ages man has sought to enlist the aid of chemistry and disease in his conduct of warfare, but it was not until the 20th century that science made it possible."[3] A deeper analysis would prove this statement to be not so. Toxic fumes were used in warfare during India as early as 2000 B.C. and during the Sung Dynasty in China. Thucydides recounts the use of poisonous fumes from burning pitch and sulfur in the Peloponnesian War, during the seiges of Plataea in 429

B.C. and of Delium in 424 B.C. Chemicals were also used in warfare during the Middle Ages, as in the seige of Belgrade which was saved from the Turks by the burning of noxious chemicals. At the end of the 19th century, the English used artillery shells laced with picric acid against the Boers, but this proved fairly ineffective.[4] The revolutionary scientific advancements of the twentieth century brought chemical warfare to its highest, and current, state of art.

The use of poison gas in warfare in its most invidious form dates from its initial use in World War I at the battle of Ypres, April 22, 1915.[5] Despite major international agreements prohibiting the use of poisonous gases in warfare, by war's end, some 1.3 million casualties, including 91,000 fatalities, were attributed to the total of 124,200 tons of phosgene, chlorine, and mustard gas used by all belligerents.[6] Subsequently, chemical weapons were used aggressively by Italy in Ethiopia in 1935-36. Mustard gas bombs and aerial spraying caused most of the 15,000 reported chemical casualties, including an indeterminate number of civilians who were intentionally targetted.[7] The Japanese Army used mustard gas, phosgene, lewisite and other agents indiscriminately in China from 1937 to 1945, against both unprotected military forces and civilians, in over 900 reported incidents.[8] Although chemicals were not otherwise deliberately used by the major belligerents in World War II, poisonous gases were used extensively by Germany in the concentration camps where millions perished.

Egypt was later reported to have employed CW in the Yemeni civil war (1963-67), during which phosgene and mustard aerial bombs killed at least 1,400 people. Libya has also been accused for years of having waged CW warfare in Chad. The most egregious CW use of recent times, however, occured during the Iran-Iraq War (1983-88) and in the Iraqi suppresion of its Kurdish minority (1987-88). Although both Iran and Iraq used CW aggressively against one another, Iraq used CW most effectively in breaking up Irani mass assaults, and in targetting Irani border villages. In its suppression of Iraqi Kurdistan, Iraq unwittingly provided the single most compelling impetus to the CWC negotiations. On March 17, 1988, Iraq attacked the Kurdish village of Halabja with suspected

nerve agents, killing hundreds of civilian refugees.[9] News reports of the attack, with graphic pictures of the victims, caused universal revulsion and generated a worldwide demand for elimination of chemical warfare.

The U.S. has also been accused in some quarters of having waged chemical warfare in Southeast Asia, 1961-72, where riot control agents and chemical defoliants and herbicides were used extensively. The morality, legality, and medical pathology of the U.S. use of chemicals remains a matter of continuing debate.[10] Also unresolved are controversial allegations of the use of chemical agents ("yellow rain") by communist governments in Southeast Asia against opposition forces and civilians, and by the Soviet Union in Afghanistan. These allegations have not been confirmed, and subsequent investigation and physical evidence have proved inconclusive on the "yellow rain" hypothesis.[11]

III. Chemical Weapons: Morality and Legality

A. Morality

The quest for abolition of chemical weapons has been driven in general by an almost universal revulsion of this entire class of weapons, and a perception, at least in the Western democracies, that their use is somehow 'immoral' in comparison with other classes of weapons. Is this in fact the case?

Just war theorists argue that among the seven conditions for a just war, is the principle that "the particular means employed to wage the war must be themselves moral." [12] Since the state has the responsibility and authority to protect its citizens and territory from unprovoked aggression, some theorists argue that even immoral or illegitimate means may be employed if the aggressor uses them first.[13] The question remains, however, whether chemical weapons are less humane than conventional weapons, and hence proscribed on moral grounds. Again, some just war theorists argue that chemical weapons, such as nerve agents, kill quickly and prevent superfluous suffering,[14] and as such are not an

immoral class of weapons. This is held in contrast to conventional and nuclear weapons which can and have caused horrendous suffering among combatants and, collaterally, within noncombatant civilian populations. Thus the debate continues, and the question of the morality of CW remains unresolved. This is not the case for the legal implications of CW, for which there is a lengthy historical record.

B. LEGALITY

In general, the rights of states to employ any weapon in warfare fall under two broad categories, specific international agreements and international custom. Article 38 of the Statute of the International Court of Justice notes that, in addition to the general principles of law which pertain to all civilized nations, there are two overriding principles of international law: international convention, whether general or specific, establishing rules expressly recognized by the contesting states; and international custom, as evidence of a general practice accepted as law.[15]

Although the use of chemicals in warfare can be traced to the earliest records, as noted earlier, concerted efforts to legally constrain such use began only relatively recently. The Brussels Declaration of 1874 and the Hague Conventions of 1899 and 1907, among others, banned the use of poison gas and poisoned bullets. The Hague Gas Declaration of 1891 banned the use of "projectiles the sole object of which is the diffusion of asphyxiating or deleterious gases."[16] Following the horrors of CW use in World War I, the Washington Arms Conference Treaty was signed on February 6, 1922, prohibiting "the use of asphyxiating, poisonous or other gases and all analogous liquids, materials or devices..." France, however, objected to other provisions of the treaty and it never went into effect.[17] The 1925 Geneva Protocol also prohibited the use of poison gas and bacteriological methods of warfare. Although this Protocol had been adopted at the urging of the U.S., obstacles were raised at that time by the American chemical industry, Army chemical officers, and some veterans groups.[18]

The Protocol languished in the U.S. Senate until 1975 when it was finally ratified, with the reservation permitting retaliation to an adversary's first use.[19] However, the U.S. continued to pursue a policy of renunciation of CW, and at the Geneva Disarmament Conference of 1932, President Hoover urged the abolition of all chemical warfare.[20]

In 1937, prior to the onset of World War II, President Franklin D. Roosevelt stated:

"It has been and is the policy of this Government to do everything in its power to outlaw the use of chemicals in warfare. Such use is inhumane and contrary to what modern civilization should stand for. I am doing everything in my power to discourage the use of gases and other chemicals in any war between nations."[21]

In 1943, in the middle of World War II, President Roosevelt further stated,

"... I have been loath to believe that any nation, even our present enemies, would or would be willing to loose upon mankind such terrible and inhumane weapons... Use of such weapons has been outlawed by the general opinion of civilized mankind. This country has not used them. I state categorically that we shall under no circumstances resort to the use of such weapons unless they are first used by our enemies."[22]

Roosevelt's reservation on 'first use' reflects U.S. policy as it has been interpreted since World War II, and as enshrined in the U.S. reservation to the 1925 Geneva Protocol. It would appear then that under the International Court of Justice definition a case could be made that the use of CW is prohibited by both international convention and custom. This recognizes, of course, that both international convention and custom are perhaps more often observed in the breach than in practice. For the U.S., at least, the questions of morality and legality are blurred. There remains a visceral

abhorence in the U.S. government and its population for CW, as there appears to be in the Western and developed world in general. This may reflect merely a cultural bias, as other cultures, non-Western, non-Judeo-Christian, ex-colonial peoples of Asia and Africa, may take issue with the Western imposition of its own morality.[23] However, the U.S. and others continue to codify in law their right to employ this class of weapons in retaliation against an enemy's first use.

IV. U.S. National Policy on Chemical Weapons

In May 1991, President Bush committed the U.S. to destroy all CW and to renounce the right to CW retaliation, the U.S. long-standing reservation to the Geneva Protocol, once the CWC enters into force.[24] Earlier, in 1989, the U.S. had declared a moratorium on further production of CW, and Congress has since passed legislation requiring the destruction of the entire U.S. CW stockpile by December 31, 2004.[25] The U.S. is thus effectively committed to elimination of any CW capability, either for deterrence or retaliation. The U.S. declared policy is to support the Chemical Weapons Convention as a means to achieve a global ban on this class of weapons and to halt their proliferation.[26]

In parallel with the negotiation of the CWC, the U.S. has pursued bilateral agreements with the former Soviet Union and the Russian Federation. These discussions culminated in the signature of two interrelated agreements aimed at eliminating the CW stockpiles of both parties.[27] The first agreement, the U.S.-Russian Wyoming Memorandum of Understanding (MOU) on Chemical Weapons, signed at Jackson Hole, Wyoming on September 23, 1989, provides for a bilateral verification experiment and data exchange. The purpose of the Wyoming MOU was, and remains, to facilitate the negotiation, ratification and implementation of the CWC.[28]

The second agreement, the Bilateral Destruction Agreement, dated June 1, 1990, calls for the destruction and nonproduction of CW and measures to facilitate the conclusion of the CWC as a

global ban on the entire class of weapons. The second agreement has not been finalized and ratified, pending agreement on the conversion of former CW production facilities in Russia. There are also serious concerns over the technical and financial capability of the Russian Federation to actually carry out a comprehensive destruction program.[29]

In March 1994, the U.S. declared a stockpile of 31,000 agent tons of CW stored in nine locations, while Russia has declared a stockpile of 40,000 metric tons, stored in seven locations. There are serious reservations about the accuracy of the Russian declaration, with independent estimates of the true size of its stockpile as much as 80,000 metric tons or more.[30]

Both the U.S. and Russia have expressed serious concerns over whether Russia can safely destroy its CW stockpile, and a massive infusion of money and technology will be necessary to do so. In January 1994, the two countries agreed to hire a U.S. contractor to develop a comprehensive plan for the Russian destruction program. Also, in March 1994, the U.S. Department of Defense expessed its willingness to provide $300 million or more to help build a pilot destruction plant in Russia, contingent upon Russian commitment to destroy its most modern CW bombs there.[31]

The U.S. continues to work closely with the Russian Federation on the CW destruction program and on implementation of the 1989 and 1990 agreements. However, the U.S. General Accounting Office has concluded that while some progress has been made, significant technical, political, and financial obstacles remain in implementation of the agreements.[32]

The U.S. has also pursued policy options to achieve important counterproliferation objectives. These call for measures to deny the means of producing chemical weapons through export controls; deter CW production and storage by international convention (i.e., the CWC); deny the utility of CW by employing active and passive defense measures; and deter CW use by threat of retaliation, including sanctions against offending states.[33]

Perhaps the most effective counterproliferation mechanism developed to date is the Australia Group. This is an informal forum of states, chaired by Australia, whose goal is to discourage and impede CW proliferation by harmonizing national export controls of CW precursor chemicals, sharing information on target countries, and seeking other ways to curb the use of CW. The group was formed in 1984 in reaction to CW use in the Iran-Iraq War. The 28 members of the Group, including the U.S., control a list of 54 chemical precursors and related production equipment.[34]

By policy and practice, and independently of the Chemical Weapons Convention, the U.S. has in effect already foresworn a CW capability. The U.S., through unilateral, bilateral, and multilateral efforts, has focused over the past decade on minimizing the CW threat from potential adversaries, reducing the proliferation of CW, and seeking an effective, verifiable and truly global ban on CW. If all the world community agrees on the nobility of that objective, why then is it so difficult to achieve?

V. 'Putting the Genie Back into the Bottle:' A First Try

The horrors of poison gas, or chemical weapons, in the first world war were etched into the memories of the very governments which had actively employed them, and the populations which had suffered most from them. This prompted the international community to negotiate the Geneva Protocol of 1925, which outlawed the use of chemical weapons in warfare. However, the Geneva Protocol was inherently flawed in that it banned only first use of chemical weapons. Furthermore, many signatories including the United States, retained the reservation to retaliate in kind in response to an adversary's own first use. The Protocol also contained no provisions for either enforcement or verification, and relied primarily on the good faith of the signatories to deter chemical weapons use.[35] This good faith was ill-placed, and chemical weapons use has been widely reported in regional conflicts worldwide ever since, in contravention, if not in defiance of the Geneva Protocol.[36]

VI. 'PUTTING THE GENIE BACK INTO THE BOTTLE:' A SECOND TRY

In recognition of the inadequacies of the Geneva Protocol, on April 18, 1984, then-Vice President Bush tabled a draft treaty on the comprehensive ban on all chemical weapons, at the Geneva-based Conference on Disarmament (CD). Although such a treaty had been under discussion in the CD for many years, the U.S. proposal was the first to call for a total ban on the entire class of chemical weapons.[37] This was a major foreign and defense policy initiative at the time, and it was re-emphasized by Bush as part of his political platform during the 1988 Presidential campaign. After almost another full decade of very difficult and highly technical negotiations, on January 13, 1993 in Paris, 130 countries including the United States signed the Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on Their Destruction (the "Chemical Weapons Convention" or CWC).[38]

Despite the active support for such a ban from all U.S. presidents since Richard Nixon and the entreaty by President Clinton for expeditious Senate action[39], the treaty has languished in the Congress. In the first two years after the treaty opened for signature in January 1993, the Senate failed to take action on it, despite expressions of support and same political party control in both the Senate and the White House. Although the treaty has raised serious concerns among a number of key Senators and their staffs, it has also suffered from Congressional preoccupation with domestic affairs and a general failure of both the public leadership and private community to focus on such a technical and esoteric issue.[40]

VII. WHY THE RESISTANCE?

President Clinton has said, "This treaty is one of the most ambitious in the history of arms control, banning an entire class of weapons of mass destruction. It is a central element of my Administration's non-proliferation policy. The treaty will significantly enhance our national security and contribute to greater global security."[41] In addition, the CWC furthers the universal goal of

preventing proliferation of chemical weapons, and ultimately eliminating them entirely.[42] Who could possibly argue against that?

Perhaps the CWC goes too far, or not far enough. The CWC goes beyond merely banning the use, including retaliatory use, or threat of use of chemical weapons, but also prohibits the development, production, acquisition, stockpiling, retention, and direct or indirect transfer to anyone of chemical weapons; the engagement in military preparations to use chemical weapons; and any assistance to any non-party in activities prohibited to States Parties.[43] The CWC also requires the total destruction of all existing chemical weapons stocks, chemical weapons production facilities, and abandoned chemical weapons stocks in third countries.[44] The Convention further provides for the most comprehensive verification and enforcement regime in arms control history.[45] It is on these two points that the contention has arisen: the comprehensive nature of the Convention and the question of verification and enforcement.[46]

Critics have argued that the treaty cannot 'go far enough,' and will leave the U.S. vulnerable to rogue states which either will not accede to the Convention or will clandestinely violate it. The Convention could thereby subject U.S. forces and allies to chemical weapons attack, without a capability to respond in kind. Lacking a chemical weapons capability itself, they argue, the U.S. will be unable to either deter their use or retaliate proportionately. Furthermore, its critics argue, the Convention cannot be verified or effectively enforced.[47]

Supporters, however, respond that "although no treaty is 100 percent verifiable, the CWC's extensive verification measures will significantly increase the chances that a violation will be detected, raising the political cost of illicit chemical weapons activities and thus helping to deter them."[48] Its rigorous enforcement provisions will also significantly increase the difficulty of acquiring chemical weapons and thus impede the proliferation of chemical weapons by isolating the rogue states which might refuse to accede to the treaty or violate its terms.[49] All of this, supporters say, acts to provide

the protection to U.S. forces and allies which treaty critics have found lacking. Furthermore, the Convention has won the endorsement of senior military leaders, including General John Shalikashvili, Chairman of the Joint Chiefs of Staff, who testified to the Congress that the CWC is "clearly in the national interest." General Shalakashvili stated that the CWC would render 'U.S. troops less likely to face CW threats in future wars,' and that the 'U.S. did not need the option of retaliating in kind to CW.'[50]

In fact, during the Persian Gulf War, the U.S. response to the Iraqi capability to employ chemical weapons was, on the one hand, to disavow any chemical weapons use, but, on the other, to threaten 'disproportionate response' to any Iraqi use. This was reportedly interpreted by Saddam Hussein as a threat to retaliate with nuclear weapons.[51] The deterrent effect of U.S. capability to employ either massive conventional weapons or to threaten nuclear retaliation (even though unstated U.S. policy had been to rule out this option entirely) appeared sufficient to dissuade Saddam Hussein from chemical weapons use. While the U.S. has elected to forego a chemical weapons capability, treaty supporters argue, its capability to respond 'disproportionately' as in Iraq would seem sufficient to deter future chemical weapons use as well.[52]

VIII. Congress and U.S. Foreign & Defense Policy

According to H. Martin Lancaster, Special Advisor (through December 1995) to the President and the Director of the U.S. Arms Control and Disarmament Agency on the Chemical Weapons Convention, the CWC has only about a '50-50' chance of ratification by the end of the current session of the Congress. The problem is that the Congress is presently 'disproportionately' preoccupied with domestic issues and has neither the time nor the energy to focus on the CWC. In addition, Lancaster stated that there are critics in the Senate who are 'adamantly opposed' to the treaty and 'committed to killing it.'

Lancaster stated that other political considerations also have the potential to impede ratification of the CWC. He emphasized that it would require some strong presidential intervention to energize the Senate to focus on the treaty, but that this is unlikely while the President is embroiled in other, more pressing political battles. In 1996, both Congress and the White House will become even further distracted by the presidential elections. It would be a high political risk at that time for either the President or any member of the Senate to expose him/herself on the issue of chemical weapons, and this alone could inhibit further debate on the treaty. In addition, Lancaster opined that there is very little public interest in the issue, thus little motivation for elected officials to tackle it. Lancaster concluded that, ultimately, if the treaty is not ratified in this session of Congress, then the 'window of opportunity' to do so may have closed for good. By the time the 1996 elections will have sorted themselves out, it will be too late in the chemical weapons destruction schedule for the U.S. to comply. Without the U.S. as a signatory to the CWC, Lancaster predicted that the treaty will fail and become nothing more than a futile effort in a lost cause.[53]

IX. 'CASSANDRA-LIKE, PROGNOSTICATING WOE'

And so now what happens, if the U.S. Senate fails to ratify the CWC? The author posed this question to Lancaster, and asked if this would signal a return to the 'bad old days' of unbridled proliferation and chemical weapons use. Lancaster responded that such activity is a distinct possibility. He added that while the CWC could survive the absence of Russia, it could not survive without the accession of the U.S. Without active U.S. participation, the most fundamental premise of the CWC, which is universality, is lost and the treaty becomes untenable. Other states, in particular current and intending chemical weapons possessors, can be expected to revert to form and resume chemical weapons-related activities. Proliferation will thus become more prevalent, and chemical weapons use, including use against the U.S. and its allies, will become inevitable. The treaty and its

international organization may survive for a time, but its collapse will become inevitable and unavoidable.[54]

X. COUNTERPOINT - IS THE CWC AN ADEQUATE INSTRUMENT?

The Senate Foreign Relations Committee (SFRC) has made its own studied assessment of the CWC as drafted, and remains concerned on a number of significant points. On December 18, 1995, the author interviewed Mr. Marshall Billingsley, senior staff for arms control on the SFRC, for the Committee's views on the CWC.

The Committee's primary concerns are that the CWC in its present form would in the first instance remove a flexible deterrence option for the U.S. in the event of hostile CW use against the U.S. or its allies, and would eliminate any future capability for retaliation in kind. Secondly, the CWC could prompt a reduction in spending on defensive measures. Thirdly, and very importantly, Russia, the world's preeminent CW power, has failed to initiate a comprehensive schedule of CW destruction in the spirit of the Bilateral Destruction Agreement.[55]

Specifically on flexible deterrence, the SFRC takes note that in the absence of any CW capability for either deterrence or retaliation, the U.S. will have no option to respond to an adversary's CW use other than nuclear weapons employment. But there is a limit to our nuclear capability. The U.S. is committed to arms control measures governing nuclear weapons stockpiles, with the final end-state numbers of U.S. nuclear warheads set at the absolute minimum to satisfy U.S. national security requirements with regard to nuclear deterrent strategy. In the event of a future requirement to divert nuclear weapons to CW deterrence or retaliation, there may not be a sufficient nuclear capability remaining for the U.S. to respond to a nuclear threat.[56]

Additionly, the Committee questions whether the threat of nuclear retaliation would truly deter an adversary from CW use. Those states or idealogical entities which pose the greatest CW threat,

such as North Korea, Iran, or terrorist organizations, might not be swayed by a nuclear threat to their own or other innocent populations, nor might they find a U.S. threat of nuclear retaliation credible. Despite U.S. experience in the Gulf War, in which Saddam Hussein appeared to have been deterred from CW use by threat of nuclear retaliation, such success in deterrence might not be replicated in the future, and there are those of hostile intent toward the U.S., waiting in the wings, who may very well call the U.S. bluff the next time.[57]

On the question of spending on CW defensive measures, the SFRC takes note of the general reduction in defense spending among those countries now committed to the CWC. It appears that these reductions will carry over into CW defensive measures as well. The perception among the most hopeful signatories is that the CWC will eliminate the CW threat, and therefore further spending on CW defensive equipment, measures, and training will no longer be necessary. The CWC thus has the potential to lull signatories into a 'false sense of security,' and leave those actually complying with the treaty more rather than less vulnerable to CW threat or attack. The U.S. presently retains an adequate CW protective capability, but that capability could itself be eroded should too much faith be placed in the good will of all CW-capable states. In addition, as our allies reduce their own CW defensive spending, they could come to rely more on the U.S. to provide protection, thus imposing an increased burden on the U.S.[58]

The SFRC is also concerned that Russia, the world CW superpower, is not complying with its commitments to destroy its CW stocks. In accordance with the Bilateral Destruction Agreement (not yet in force), the U.S. and the former Soviet Union agreed to a schedule of CW destruction which would totally eliminate the declared CW stockpiles of both states. Although the Government of the Russian Federation originally stated its commitment to the principles of that Agreement, Moscow has informed the U.S. that it does not have the money, technology, or level of expertise necessary to undertake the destruction of its declared stocks. There remains doubt and debate over the actual size

of the Russian stockpile, but some experts believe it to be far greater than that which has been declared. Furthermore, there are reports considered credible by the SFRC that the Russian military has continued research, development, production, and illicit diversion of chemical weapons, in violation of the spirit of the bilateral agreements and the CWC.[59]

The Committee also believes that although the U.S. Chemical Manufacturing Association (CMA) has voiced its support for the CWC, there are a number of significant cost and technical factors for both the chemical industry and the U.S. Government which need to be studied. The verification regime itself, which provides for routine and challenge inspections of chemical production facilities, could become very costly. The CWC establishes an Organization for the Prohibition of Chemical Weapons (OPCW) which shall be funded in accordance with the UN scale of assessments (CWC Article III, Para A.1.). However, the CWC further provides for "contributions to the voluntary fund for assistance" to be administered by the Technical Secretariat of the OPCW (CWC Art X, para 7.(a)). The SFRC understands that the OPCW expects the U.S., Russia, and perhaps one other yet to be identified state to provide the bulk of such contributions related to destruction.[60]

The Committee is concerned that the verification regime will be expensive for the chemical industry and will also pose a threat to proprietary information. The CWC provides for managed access to chemical facilities, which will allow some measure of protection for the industry. However, it remains technically feasible for an inspector on a formal OPCW routine or challenge inspection to divert chemical samples for unauthorized analysis. Such action could expose the U.S. chemical industry to loss of proprietary information, thus allowing an advantage to international competitors. Furthermore, the SFRC estimates that costs of the technical inspections themselves will range from US $50,000 to 70,000 per inspection.[61] By contrast, the U.S. Arms Control and Disarmament Agency (ACDA) conducted a trial inspection of a commercial facility producing schedule 3 chemicals in 1992,

at a cost of approximately $5,000. ACDA estimates the cost to industry of $4 million in the first year of the CWC and less so in subsequent years.[62]

The Committee further understands that many of the CWC signatories expect conclusion of this treaty to help bring down trade barriers, and ease controls on dual-use chemicals. Inadvertently, the U.S. may find itself contributing to hostile CW programs through facilitation of trafficking in commercial chemicals.[63]

In general, the SFRC believes that the present state of the art for verification is not adequate for the purposes of the CWC. U.S. agencies have stated publicly that the U.S. cannot verify, with confidence, the most stringent provisions of the CWC, even with the most advanced national technical means. The Committee is concerned that while no treaty is one hundred percent verifiable, the CWC is weakest in this area. In this context, a false perception of security, i.e., an effective worldwide ban on CW, could be more dangerous that a continuation of the perilous status quo.[64]

Is the CWC then hopelessly flawed? Should the U.S. refuse to ratify? Mr. Billingsley said that, in fact, the CWC is not a lost cause. The House passed a 'Sense of the Congress' resolution on June 15 and the Senate passed a 'Sense of the Senate' resolution on September 5 both urging prompt ratification and implementation of the treaty. This action could remove further consideration of the CWC from the SFRC itself, and move the treaty directly to the Senate floor for debate. Such action could occur by as early as April 1996, with ratification occurring shortly thereafter. However, the SFRC remains concerned that technical adjustments must be made to the language of the treaty, to strengthen it and to provide greater protection for U.S. interests, both government and industry. Mr. Billingsley stated that the most likely scenario would involve recommendations by the SFRC on specific adjustments to the language of the treaty, as condition for U.S. ratification. He recognized that this would require renegotiation of the CWC in the Conference on Disarmament, but he felt that this would be necessary to satisfy the Committee's and U.S.' concerns.[65]

XI. But Do We Really Need Chemical Weapons?

While the debate on the deterrent and retaliatory capability of CW is certainly valid, perhaps the most fundamental question is the combat effectiveness of this class of weapons. Specifically, what is the advantage to the U.S. of employing CW, and what is the hostile threat that an enemy use them? As stated earlier, during World War I, more than a million combatants were wounded by poisonous gas and some 90,000 died as a result. These statistics, however, are misleading. U.S. forces suffered 34,249 immediate deaths on the battlefield, of whom an estimated 200 were caused by gas, with a further 1,221 dying in hospital wards. The total number of wounded and evacuated was 224,089, of whom 70,552 suffered from gas and other wounds.[66]

The American casualty rate from CW appears to have arisen from a lack of defensive preparedness. By the time of the U.S. entry into the war, the British, French, and Germans had developed fairly sophisticated training, doctrine, and equipment to operate in a chemical environment. Consequently, their casualty rates were far lower. By way of comparison, the Russians had devoted few resources to CW preparedness and suffered severely as a result. For example, in one attack in June 1915, two Russian regiments suffered some 90 percent gas casualties. In September and October 1916, almost 5,000 gas casualties were reported in two separate incidents, and a later incident in 1917 caused over 9,000 gas casualties.[67]

The difference appears to be in preparedness. After the war, British analysts reported that fewer gas victims died of their injuries than from other weapons, thus allowing many to return to full combat duty following convalescence. The analysts also determined that gas caused a proportionately greater number of casualties than high explosives, among unprepared troops, and was more effective in demoralizing an enemy and reducing the battle efficiency among such troops.[68]

General John J. Pershing, in his Final Report on the American experience in World War I, wrote that "Whether or not gas will be employed in future wars is a matter of conjecture, but the

effect is so deadly *to the unprepared* (emphasis added) that we can never afford to neglect the question." He concurred with the British analysts who stated that while CW was a significant factor on the battlefield, it was not a major cause of battle deaths.[69] Preparedness is thus the key to survival in a CW environment. The consensus among analysts appears to be that while CW use can be a serious impediment to combat operations, it will not cause extensive casualties among properly trained and equipped troops.

CW can equally impede the combat operations of the belligerent employing them. During World War II, all participating nations had developed CW capabilities, but the Germans were technologically far ahead of their adversaries. However, the Germans elected not to employ CW, even though they reeled from attacks on all quarters. After the war, a senior German CW officer, Lieutenant-General Hermann Ochsner, told his Allied interrogators that CW had not been considered an efficient weapon to support the doctrine of rapid movement of armies. Although it could be effective against unprepared troops, it restricted movement of one's own forces. As a result, CW was not integrated into German military doctrine, training, or planning. Furthermore, LtGen Ochsner stated that the Wehrmacht was under strict unders not to move CW stocks outside of German territory for fear of accidental use or capture.[70] Aversion to CW use during World War II arose partially from fear of retaliation and also from the constraints of the much flawed 1925 Geneva Protocol: "Treaty prohibitions, though imperfect, reinforced both public and military dislike and fear of chemical warfare ..." (Major R.J. Brown, Chemical Warfare: A Study in Restraints).[71]

CW, even for the prepared, is a potentially lethal nuisance. This axiom applies for both the attacker and the defender, where both or either have the proper training, equipment, and discipline. Where then is the advantage of possessing or employing CW? Is deterrence a factor, when U.S. forces are already prepared to operate effectively in a CW environment? Is retaliation a factor, when

potential adversary is equally prepared, or does not care if his forces or population are subject to CW attack?

For the U.S., it would appear that CW is not a particularly effective option for combat operations. At present, the U.S. has already committed to destruction of its entire CW stockpile and has foresworn CW use upon entry into force of the CWC. No CW stocks are forward deployed, nor effectively available for combatant commanders in the event of hostile threat.[72] Even in the absence of the CWC, the U.S. has no operational capability nor a credible deterrent or retaliatory capability for chemical weapons.

XII. The Nuclear Threshold

A compelling argument often cited for retaining chemical weapons is to provide flexible response to an adversary's first use. The main point of this position is that in the absence of CW, the U.S. will have no option short of nuclear weapons to retaliate to hostile CW attack against U.S. or allied forces. In the annual Global Wargame conducted at the Naval War College in July 1995, such a scenario was developed and participants recommended a nuclear response to CW employment. During the exercise, the notional national command authority ultimately declined this option, but concern remained that conventional response would have been inadequate.[73]

The counterpoint to the flexible response argument is that not everyone among our allies agrees on either the CW or nuclear option. With respect to CW, for example, within NATO at least 13 governments have imposed stringent conditions on the shipment of U.S. CW stocks to their territory in a crisis, and six have insisted that they will never permit such shipments under any circumstances. Others have asserted their right of veto.[74] Germany, the only country in which U.S. CW was previously forward deployed, required the U.S. to remove these stocks in 1990.[75] It is reasonable to

presume that other allies, in the Middle East and the Pacific most prominently, would hold similar ambivalence toward U.S. CW capabilities in their regions.

The conclusion is that a U.S. CW response, even if the U.S. were capable of such, is not necessarily a viable option. Moreover, the U.S. does not now possess such a capability nor will it in the foreseeable future. This situation prevails, whether the U.S. likes it or not. The U.S. by policy has foresworn a CW capability, and must rely on its massive conventional capability or nuclear response to deter or retaliate against aggression. Consequently, should the U.S. unilaterally disarm its CW capability, or should the U.S. ratify the Chemical Weapons Convention?

XIII. The U.S. Constitution and The Role of Congress

The Congress, within its constitutional authority, can exert a decisive influence over the implementation of the foreign and defense policy of the United States. The U.S. Constitution states that, "all Treaties made ... under the authority of the United States" to be the "the supreme Law of the Land," binding on both the Federal Government and the various states.[76] The Constitution further requires that all international agreements be subject to the advice and consent of the Senate, two-thirds of whom are present and voting.[77] Congress has also indicated its desire and intent to be involved in the approval of any serious arms control agreements. Article 33 of the Arms Control and Disarmament Act of 1961 provides:

> "That no action shall be taken under this or any other law that will obligate the United States to disarm or to reduce or to limit the Armed Forces or armaments of the United States, except pursuant to the treaty-making power of the President under the Constitution or unless authorized by further affirmative legislation by the Congress of the United States."

If full implementation of a treaty imposes a burden or requirement on a private person, then Congress and the President must also enact 'implementing legislation.'[78] In the case of the CWC, private U.S. citizens and chemical manufacturers will be constrained from producing chemicals for 'prohibited purposes,' and in quantities beyond that 'consistent with the intended purpose.'[79] Reporting requirements will be imposed on the manufacture of chemicals in general. In addition, broad access to the private sector for both routine and challenge inspection will be required. As such, the Congress will be required to enact implementing legislation to provide the Treaty full effect under U.S. law.[80]

It is clear then that the Congress will have a definitive and central role not only in the ratification of the CWC, and U.S. accession to it, but also in the formulation of domestic legislation to implement it in the U.S. It will be the responsibility of the Congress to ensure that U.S. implementation of the CWC conforms to the Constitution and the law of the land.
The American Law Institute, in a 1987 Restatement of Foreign Relations Law, provided the following analysis:

> "A rule of international law or a provision of an international agreement of the United States will not be given effect as law in the United States if it is inconsistent with the United States Constitution. ... No provision of an agreement may contravene any of the prohibitions or limitations of the Constitution applicable to the exercise of authority by the United States."[81]

However, even if a treaty entered into by the U.S. is in violation of the Constitution, that does not relieve the U.S. of its obligations under international law.[82] This apparent dichotomy emerges on the issue of routine and challenge inspections and the Constitution's Fourth Amendment restrictions on

searches. The question is how to reconcile U.S. domestic law with its obligations under a Chemical Weapons Convention.

In the first instance, the Bill of Rights was created to protect the people from actions of the federal government, and by extension, of the state governments as well. Secondly, the Fourth Amendment protects "the people," not the U.S. Government itself, and only 'unreasonable' searches and seizures are prohibited.[83] Thus, any facility of the U.S. Government could be inspected under the CWC without further authority. Also, official inspections by regulatory agencies of business premises licensed by the inspecting agency are already authorized, and business owners can be compelled to permit entry, without a search warrant, as a condition for licensing.[84] This would appear to cover the chemical industry for both routine and challenge inspection.

Challenge inspection for a facility or for private property not specifically licensed for the purposes stated in the paragraph above presents a more complex Constitutional question. Such a search could require a finding of "probable cause" and issuance of a search warrant.[85] This process could be extremely difficult and time-consuming, and would probably negate the purpose and intent of a short-notice inspection. However, "the fundamental purpose of the Fourth Amendment is to prevent abuses of power by the United States Government."[86] A challenge inspection conducted by the OPCW on *behalf of a foreign government* (emphasis added) does not appear to violate the Fourth Amendment.[87] U.S. ratification of the CWC would not of itself imply an act of the U.S. government. In fact, the U.S. Government regularly and routinely cooperates with foreign governments in carrying out international treaty obligations, in acts which might violate the Constitution if carried out by the U.S. Government on its own behalf (extradition treaties, prisoner exchange treaties, for example).[88]

The above discussion is by no means intended as the definitive analysis of the Constitutional issues posed by the CWC. In the final analysis, however, it would appear that the CWC can be implemented domestically in the U.S., without violation of Fourth Amendment rights under the

Constitution. The onus will be on the Congress to draft implementing legislation in conformance with both the CWC and the Constitution.

XIV. Verification: A Central Concern

Can the CWC verification regime provide absolute certainty of compliance by all member states? The simple answer is no. In fact, the U.S. intelligence community has indicated that it cannot verify with complete confidence the declarations of states party to the CWC, nor their compliance with its provisions. Also, the SFRC is concerned that clandestine production or stockpiling could go undetected and thus expose U.S. troops to CW threat or attack.[89]

However, without undertaking an exhaustive analysis of the technical considerations involved in this issue, it is accurate to say that the CWC has the most stringent verification regime ever attempted in an international agreement.[90] Furthermore, an analysis of the CWC verification regime conducted in December 1991 by the Center for National Securities Studies, Los Alamos National Laboratory, concluded that the proposed regime should be considered:

> "as part of a larger security framework that includes (1) national intelligence means, which provide additional detection capabilities to those of the multinational system; (2) defensive and protective measures that can mitigate to some degree the risks of treaty violation, whether detected or undetected; (3) political, diplomatic, and military measures to deter violations; and (4) confidence- and security-building measures (e.g., notification and observation of European military activities pursuant to the 1986 Stockholm Document)."[91]

No arms control regime can ever be absolutely verifiable, but CWC supporters believe that it provides an acceptable measure of risk. John D. Holum, Director of the U.S. Arms Control and

Disarmament Agency (ACDA), has stated that "the Convention increases our odds of detecting clandestine activity," and, "by putting into place a global legal norm outlawing possession as well as use, it will increase the financial and political costs of acquiring or retaining chemical weapons."[92] In addition, the CWC contains both incentives and disincentives, to reward countries who comply and punish those who do not.[93]

In sum, while verification remains a justifiable concern, the associated risks appear to fall within acceptable limits. Rigorous enforcement of the verification regime will be required throughout the life of the Convention, to ensure compliance by all states party. 'Trust, but verify' was never a more appropriate truism.

XV. The Chemical Industry - What Does It Think?

A principal concern among CWC opponents is that it would be prohibitively expensive and possibly threatening to the interests of the U.S. chemical industry. It has been argued that treaty costs of the CWC would be borne primarily by U.S. companies, which would also incur excessive reporting requirements and work stoppages due to inspections. Operational costs of the Convention's Organization for the Prohibition of Chemical Weapons (OPCW) would also impose additional costs on the U.S. taxpayer.[94]

Proponents of the CWC make the counter argument that excessive cost may not necessarily be the case. They point out that the U.S. Chemical Manufacturers Association (CMA) has been "an early and consistent supporter" of the CWC, and was in fact awarded the fourth W. Averell Harriman Award in May 1995, for its work in support of the Convention. The CMA was instrumental in mobilizing international support for the CWC, including the support of the chemical industries of Western Europe, Canada, Australia and Japan.[95] Representatives of the CMA and the U.S. chemical industry were also major participants in the Australia Government-Industry Conference on Chemical

Weapons, held in September 1989 in Canberra. Over the course of the negotiations, the CMA and U.S. negotiators consulted regularly on the draft text, and the CMA and foreign trade associations contributed specifically to the verification regime of the Convention.

The two areas of greatest concern to the chemical industry have been the costs of compliance and the possibility of loss of confidential business information. Given the industry's significant role in drafting the treaty, the compliance costs are expected to be 'manageable,' and can be integrated into the normal cost of doing business.[96]

With respect to protection of proprietary information, measures have been incorporated into the verification regime, which will provide a balance between the intrusiveness necessary to verify compliance and the protection of legitimate trade secrets. The 'Managed Access' provisions of the treaty are a direct result of CMA contributions to its drafting.[97]

Ultimately, the CMA, as the trade association representing those in the private sector most affected by the CWC, has the final say on whether or not the U.S. chemical industry supports the treaty. CMA President Fred Webber has written, "Accepting new regulations and opening up plants to inspectors isn't something we agreed to lightly. But we've come to the conclusion that *the Convention is a sound investment* (emphasis added). It will yield solid returns *at a cost we can and will bear* (emphasis added)."[98] Webber has further written that, "Honest businesses have nothing to fear. Anyone with other motives will run the risk of getting caught in the act. The treaty is the best means available to prevent legitimate chemicals from falling into the wrong hands."[99]

Treaty proponents further point out that many wealthy states with large chemical industries, such as Japan, Germany, Switzerland, and the Netherlands, have already ratified the treaty.[100] These countries, with their own chemical industries, are presumably no less aware than the U.S. of the risks and costs of the CWC. That they have chosen to commit their governments, industries, and peoples to the international obligations of the CWC implies a decision that, on balance, treaty benefits outweigh

costs and risks. Having made the same considerations, the U.S. CMA reached an identical conclusion and publicly stated its own support for the CWC.

XVI. Analysis: The CWC - Should the U.S. Ratify

In the final analysis, yes. Although treaty opponents present a strong case against, particularly on verification, enforcement, and industry concerns, on balance the treaty is in the U.S. national interest. Can the CWC be verified with absolute confidence, and if violated, enforced effectively? No, it cannot be verified with one hundred percent confidence, any more than any other treaty to which the U.S. is a party. However, it does provide a rigorous, highly intrusive, and comprehensive verification regime. This verification regime will make it extremely difficult for any state or transnational entity to produce, stockpile, weaponize, or employ chemical weapons, to the extent that U.S. forces would be subject to significant threat or would be significantly constrained from executing an operational mission. This does not preclude a terrorist attack, such as the 1995 Tokyo subway attack. It also does rule out entirely isolated incidents of tactical employment of CW. However, the CWC verification regime will make such incidents prohibitively difficult, and compel prospective violaters to channel their aberrant energies and resources to courses of action other than CW.

Can the treaty be enforced? Again, the enforcement regime cannot guarantee absolute compliance, but it is extremely rigorous, making provision for sanctions and other trade measures against violators. In the inextricably interconnected and interdependent global marketplace, the threat of trade sanctions alone can be a particularly effective disincentive to the clandestine production of chemical weapons or their use.

What about the impact on the chemical industry? Yes, the CWC will impose additional reporting requirements and inspection burdens on the industry, and this will entail additional costs. But the U.S. chemical industry, and its major trading partners, have expressed their support for the

CWC and have explicitly stated their ability and willingness to accept the burden and operate effectively under it. There are also concerns about the protection of proprietary information. Again, the U.S. Chemical Manufacturers Association has indicated that the 'Managed Access' and other provisions of the treaty verification regime provide sufficient confidence to industry that confidential business information will remain precisely 'confidential.'

The destruction of existing CW stockpiles remains a technological challenge, not only for the U.S. but for Russia and for any other state on whose territory such stockpiles exist. The issue then is whether such stocks represent a threat to the integrity of the Convention. However, all such stockpiles must be declared, and remain subject to monitoring throughout the destruction schedule. Even if that schedule is delayed or extended for technological or financial reasons, the CW stocks would be effectively denied to a potential violator. The possibility of clandestine CW stockpiles not otherwise declared is addressed in part by the treaty challenge inspection provisions. Furthermore, significant tactical employment of clandestine stocks would be severly constrained by the requirement that they remain 'clandestine.' While the verification regime cannot guarantee discovery of clandestine stocks, the unique requirements for safe CW production, containment, weaponization, deployment, employment, and ultimately decontamination by a potential treaty violator, would be particularly susceptible to a host of national technical and other means of detection.

Will the CWC lower the 'nuclear threshold,' in the absence of a CW retaliatory capability? Even in Global Wargame 1995, where nuclear retaliation was recommended in response to CW attack, the notional national command authorities withheld approval. In the real world, the U.S. and its allies disavowed any chemical or nuclear option in the Gulf War. Given demonstrated U.S. and Western abhorence for chemical weapons, it is very unlikely that CW retaliation would be an option in the future, even if a CW capability existed. Does this imply that the only other recourse is nuclear? It did not in the Gulf War, where the U.S. declared from the outset that any such use would be met by

'disproportionate response.' The U.S. conventional capability, particularly in precision guided munitions and related technology, remains unequalled, and has been demonstrated to provide the U.S. a massive, effective, and flexible deterrent and retaliatory option. Nuclear retaliation to CW use does not appear to be the only viable option.

Ultimately, perhaps the strongest argument in favor of the CWC is that the U.S. has already abrogated any possible CW capability, retaliatory or otherwise. All moral or legal considerations aside, the U.S. has unilaterally committed by law to the complete destruction of its own CW stockpile. Further, the U.S. has disavowed a CW retaliatory option, once the CWC enters into force, but this is a moot point given practical constraints on U.S. CW production and deployment. The U.S. has undertaken these commitments on its own, without a treaty in place. On balance, the U.S. can only gain by imposing the same constraints, burdens, and responsibilities on the rest of the international community.

The final conclusion then must be that it is in the U.S. national strategic interest to ratify the CWC. The Senate should be encouraged to provide its advice and consent at the earliest possible date.

XVII. Analysis: The Strategic Implications for the U.S.

The U.S. must recognize that the CWC does not imply an end to the CW threat. If anything, the CWC requires a greater commitment to defensive measures, including detection, training, equipment, decontamination, and research. This will have the dual result of both protecting U.S. personnel and rendering obsolete or ineffective CW use by an adversary. U.S. conventional capabilities must likewise be enhanced to provide that 'disproportionate response' which will act as both deterrence and retaliation to hostile CW employment. Defense budgets must reflect an undiminished commitment to a strong and viable CW defensive and conventional deterrent capability.

On the political level, the U.S. and its allies must continue to coordinate their activities within the organization of the CWC and within the Australia Group, to monitor and/or control the flow of precursor chemicals in world commerce. International pressures must be brought to bear on non-signatories to accede to the treaty, and on signatories to comply. Potential violators must be made aware of the transparency of their actions and of the consequences of violation. In the event of armed conflict, potential adversaries must have no doubt that chemical weapons use or threat of use will invite the most massive and focused response against the person, personnel and resources of the perpetrator.

Finally, perhaps the most important 'strategic implication' for the U.S. is that it must become totally committed to the CWC and take a major leadership role in its implementation. This will require a significant commitment to the OPCW, in terms of finances, resources and personnel. Only by its active and aggressive participation, can the U.S. ensure that the verification and enforcement regimes of the treaty are fully implemented, and that controls and protective measures for industry are adequately applied. Imperfect though it may be, the CWC represents a major step forward in arms control, but the utility of it resides with the world community. The ultimate proof will be in the unreserved commitment of signatories and non-signatories equally and alike to the international standards of behavior embodied by the Convention.

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