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A PROPER PERSPECTIVE TOWARDS TOXIC CHEMICAL OPERATIONS

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Within the past century, numerous attempts have been made to place international restraints on the use of toxic chemicals in warfare. Agreements have been formulated but complete, effective ratification and acceptance of restraints has not been achieved. It is the purpose of this essay to formulate a proper perspective towards toxic chemical operations. A review of the attempts at international restraint has indicated that no high degree of assurance exists that states wil not employ toxic chemicals when it is to their advantage to do so. It is illogical to assume that any nation possessing a toxic chemical capability will refrain from using such a capability in order to preserve its identity as a nation. It is illogical to assign an 'inhumane' label to toxic chemical operations and to continue to accept the modern nuclear and the modern 'conventional' methods of warfare. Toxic chemicals, either lethal or nonlethal, when properly employed, can be more humane in their effects on the target complex than the accepted conventional modes of combat. A proper perspective is one which accepts the existence of toxic chemicals, prepares to defend against their use, the prepares to use them in conjunction with other weapons, or separately, as appropriate. (author)

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USAWC RESEARCH ELEMENT
(Essay)

A Proper Perspective Towards Toxic Chemical Operations

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SUMMARY

Within the past century, numerous attempts have been made to place international restraints on the use of toxic chemicals in warfare. Agreements have been formulated but complete, effective ratification and acceptance of restraints has not been achieved. The tag of "inhumanness" has been assigned to the use of toxics during hostilities. It is the purpose of this essay to formulate a proper perspective towards toxic chemical operations.

A review of the attempts at international restraint has indicated that no high degree of assurance exists that states will not employ toxic chemicals when it is to their advantage to do so. It is illogical to assume that any nation possessing a toxic chemical capability will refrain from using such a capability in order to preserve its identity as a nation.

It is illogical to assign an "inhumane" label to toxic chemical operations and to continue to accept the modern nuclear and the modern "conventional" methods of warfare. Toxic chemicals, either lethal or nonlethal, when properly employed, can be more humane in their effects on the target complex than the accepted conventional modes of combat.

A proper perspective is one which accepts the existence of toxic chemicals, prepares to defend against their use, and prepares to use them in conjunction with other weapons, or separately, as appropriate.

BACKGROUND

When the Germans unleashed their attack of choking chlorine gas against the Allies at Ypres, Belgium in April 1915, most of the world thought that a new era in warfare methodology was beginning. Nothing could have been further from the truth. History is replete with examples of the use of natural, derived poisons and other natural phenomena to contaminate the environment of man in order to achieve casualties or to seize and hold a tactical advantage.

Around 200 B.C., a scheming Carthaginian general ordered his forces to retreat in feigned panic leaving behind in the encampment quantities of wine poisoned with Mandragora, a sleep-inducing substance. The enemy rushed into the position, gleefully consumed the wine and soon fell into a drugged sleep. The Carthaginians returned and slew many of the sleeping foe. Throughout the years, the use of poisoned arrows, darts, smokes, flames, etc., has been employed by knowledgeable and creative military commanders. During the War between the States, a Union officer suggested the use of artillery shells filled with chlorine to attack the well dug-in Confederate forces. This procedure was not adopted. The use of toxic agents on a large scale during World War I is now a matter of history. Certain aspects of this use will be discussed later.

NATURE OF CHEMICAL OPERATIONS

The question might well be asked, "Just what is meant by the term chemical operations? Chemical operations are carried out

through the use of toxics, smokes, flames, incendiaries and riot control agents in order to produce casualties and to assist in the successful accomplishment of assigned missions. The riot control agents include the tear and vomiting gases and are differentiated from the toxic agents. Toxic agents are broken down into two groups--lethal agents with a primary role of causing death to the target personnel, and nonlethal agents with a primary role of incapacitating target personnel leaving no permanent aftereffects. The other agents employed during chemical operations, i.e., the smokes, flames and incendiaries are "accepted" techniques of warfare and will not be considered during the balance of this discussion.

TOXICS AND WORLD WAR II

Toxic agents were not used during World War II, although both the Allies and the Axis Powers were prepared to launch and to defend against such operations. Many reasons are advanced for the nonuse of these agents; some are fact and some are fancy. It is a fact that Germany possessed toxic agents far superior to the relatively obsolete agents available to the Allies. It is a fact that the Allied policy was one of retaliation only. Allied public and official opinion were against the use of toxics. These opinions were strongly influenced by the late President Roosevelt's aversion to chemical weapons. Early in the war he had stated that ". . . we shall under no circumstances resort to the use of such weapons unless they are first used by our enemies." Even prior to World War II he

had voiced his strong disapproval which was graphically manifested when he vetoed a bill to designate the Chemical Warfare Service as the Chemical Corps. It was stated by him that to dignify this Service by calling it the Chemical Corps would be contrary to a sound public policy. As a matter of interest the Chemical Corps was designated as such in 1946.

The major factor that would probably emerge when considering the German nonuse of toxics is that it was not to their advantage to do so in the early stages of the war. Germany had enjoyed a high degree of success with their blitzkrieg and it was believed that the use of toxics was not necessary for furthering these successes. The use of toxics could very well have slowed the German advances because of the necessity for masking and the possible contamination of terrain which they had to traverse. In addition, this terrain would shortly become the rear areas of the rapidly advancing German hordes.

Later in the war, after air superiority passed to the Allies, it was not to Germany's advantage to use toxics since swift and immediate reprisals against the vulnerable homeland cities could have been readily carried out by Allied airpower.

Toxics were not employed in the Pacific Theater during World War II since it was against the stated American policy. One can conjecture as to whether these agents might have been employed had not the atomic bomb been developed and used to hasten the successful conclusion of conflict in that theater. By V-E day, the American public was certainly becoming appalled at the mounting

totals of casualties which were incurred in the European and African theaters and which were still occurring in the Pacific campaigns. With the planned assault on the Japanese homeland, the numbers of casualties could be expected to go higher and higher as the war continued. The untimely death of President Roosevelt perhaps removed the single biggest obstacle to the US initiation of toxic chemical operations. It is not illogical to believe that had not the atomic bomb been developed, the United States would probably have used toxic agents to soften the hardened Japanese defenses in order to minimize casualties bound to occur within the offensive forces.

TOXICS AND INTERNATIONAL ATTITUDE

Restraints

In order to fully appreciate the international attitude toward the use of toxics, it is first necessary to consider the history of international restraint on the use of these agents.

In 1874 an international declaration against the use of poisons and poisoned weapons was adopted at Brussels. A more inclusive restraint was proposed and adopted during the Peace Convention of 1899 at The Hague. The contract agreed to was as follows:

> The Contracting Powers agree to abstain from the use of projectiles the sole object of which is the diffusion of asphyxiating or deleterious gases.
>
> The present declaration is binding only on the Contracting Powers in the case of a war between two or more of them.

> It shall cease to be binding from the time when, in a war between the Contracting Powers, one of the belligerents shall be joined by a non-Contracting Power.[1]

One of the US delegates, Admiral Andrew T. Mahan, then Captain, USN, pointed out that the effects and capabilities of such shells had not been demonstrated and hence it was not possible to consider such restraints intelligently. As a result, the United States did not become one of the Contracting Powers. It is also interesting to note the following comment by Admiral Mahan:

> The reproach of cruelty and perfidy addressed against these supposed shells was equally uttered formerly against fire-arms and torpedoes, although each are now employed without scruple.
>
> That it was illogical and not demonstrably humane, to be tender about asphyxiating men with gas, when all were prepared to admit that it was allowable to blow the bottom out of an ironclad at midnight, throwing four or five hundred men into the sea to be choked by water, with scarcely the remotest chance of escape.[2]

There was no doubt that the Convention surveyed the known and the developing techniques of war and sought to establish other restraints in order to lower the intensity of future conflicts. For example, the future of aerial warfare was recognized when it was proposed and adopted that, "The Contracting Powers agree, for a term of five years, to forbid the throwing of projectiles and explosives from balloons or by other new methods of a similar nature."[3]

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[1]James Brown Scott, The Hague Peace Conference of 1899 and 1907, p. 170.
[2]Frederick W. Hollis, The Peace Conference at The Hague, p. 119.
[3]James Brown Scott, op. cit., p. 169.

One might conjecture as to why these and other conventions were proposed. Were these attempts to further the "humane" aspects of warfare, or were these attempts by nations to degrade an advantage possessed by a more technologically advanced potential enemy? For example, an unsuccessful attempt was made to limit the caliber and range of artillery weapons to the level possessed by the least capable state, with that state prescribing the limitations.

During the 1907 Convention at The Hague, the agreements to refrain from using chemical agents and to forbid using aerial platforms to launch explosives were reaffirmed by the same Contracting Powers. It is well known that World War I witnessed the birth of aerial warfare. World War I also witnessed the first large scale employments of toxic chemical agents.

World War I ended and faced with the newly experienced effects of gas warfare, the authors of the Versailles Treaty of 1919 included a prohibition against Germany, forbidding the manufacture and importation of toxic agents.

During the Washington Conference of 1921-22, the United States, France, Italy, Great Britain and Japan signed a treaty which was intended to make the prohibition of the use of toxic agents a matter of international law. This treaty also represented the first time that the United States was in favor of becoming a party to an international agreement prohibiting the use of toxics in war.

The Senate gave its advice and consent and the President ratified it. However, the terms of the treaty were such that, to become effective, unanimous ratification by the signatory powers was necessary. The treaty was not ratified by France, and it passed into limbo to be forgotten. The treaty action was regarded as establishing an important precedent in condemning the use of toxic chemical agents as an expression of the general opinion of the nations of the world at that time.

Attempts at international restraint continued despite the setback of the Washington Conference. The most significant attempt was the Geneva Protocol of 1925 which invited nations to accept the prohibition of toxic chemical warfare as a matter of international law to which they could bind themselves. Over 40 nations had either ratified this protocol or had indicated their accession to it, some with reservations. The United States is not among these nations. By 1925 the influences which overwhelmingly prevailed on the Senate to give its consent to the 1922 treaty were on the wane.

The opponents of the Geneval Protocol summed up their position by maintaining that it was difficult to understand why toxic chemical agents should be singled out for abolishment when World War I showed that it was the least cruel of all weapon systems employed in that conflict. As a result, the Senate did not approve the treaty. It might also be pointed out that the general opinion of the executive branch of the US Government was unchanged from that of 1899, i.e., the United States should not deny itself the right to

use toxic chemicals in its defense, a use which could be highly advantageous in the light of current technology.

A Logical Attitude

It is not illogical to believe that no single nation would seriously consider, in the final analysis, that it would not use toxic chemical agents. This is assuming, of course, that the nation has the know-how and the industrial base necessary to support the required programs. It would appear that the capable nations will prepare for chemical operations and govern their decision to employ toxics by the situations as they develop. It is logical for serious thinking individuals to accept the philosophy that the possible use of toxic chemicals is with us today, and will continue to stay with us. It cannot be hidden or ignored. It cannot be eliminated by international opinions or agreements. Until war itself is effectively outlawed, it is only natural and instinctive for any nation to use whatever means they have or can achieve to preserve their security and their integrity.

Post World War I Attitudes

Why were toxics employed during World War I? According to some writers, the use of toxics escalated from the employment of tear gases by both sides, initially by the French. Thus, the Germans rationalized by crying "retaliation." It does seem that the tactical situation through late 1914 and early 1915 was such that to break the stalemate of trench warfare, some new means of

attack was necessary. Artillery fire could not dislodge the entrenched defenders. Attackers were denied footholds by the devastating machinegun fires. Considering that Germany had, for years, been the world leader in chemical research and practically controlled the international chemical industry, it should not be too surprising that a new weapons concept would be sought within this vast pool of technical know-how.

A great deal of the extreme feeling against chemical operations was generated by sensationalistic reporting of the gas attacks during World War I. Eye-witness reports would dwell on the horrors of men choking to death, gasping for breath with yellowish-green froth bubbling from their mouths. Would it not be equally as horrible to see men lying on the battlefield with mortal stomach wounds from bayonet thrusts, or from the devastating machinegun fire, and gasping out their last breaths with a reddish froth emerging from their lips?

One must not overlook the fact that the Allies, to compensate for being caught unprepared by the German initiation of toxic warfare, unleashed a tremendous propaganda barrage decrying the horrors of such warfare. The juggernaut of public opinion formed by this onslaught was not and is still not easy to halt.

Contributing to the forming and maintaining of these erroneous opinions were the exploitations of this different form of warfare by contemporary science fiction writers. Pictures of entire cities gasping their last as a result of lethal chemical agent attacks by the denizens from outer space or by the invaders from "Coalition X"

were vividly impressed upon the reading public. Such impressions were readily made and retained by a public who had, by this time, come to accept the other horrors of war as more or less routine.

Italy Uses Gas

During the Italian-Ethiopian War in 1936, the Italians used toxic agents against the Ethiopians. The agent used most frequently was mustard, a blister agent. The Ethiopian soldiers usually went barefoot and wore little clothing and consequently were highly susceptible to the effects of this agent. Because of the strict censorship imposed by both sides, little factual, impartial information is available on the results of the use of toxics. Some experts maintain that toxics turned the tide of battle in favor of the Italians. Others disagree. There is no question, however, that toxic warfare did hasten what was probably the inevitable end of the conflict.

Both nations were signatories to the Geneva Protocol of 1925, Italy ratifying in 1928 and Ethiopia in 1935. The Italian forces justified their use of toxics as a reprisal action against the enemy for reported atrocities against captured Italian soldiers.

The author raised the question of Italy's action to a panel of experts at an International Law seminar held at the US Naval War College in 1962. The concensus of the panel was that the act of aggression committed by Italy was so grave that the use of the forbidden chemical agents was submerged in the overall crime against Ethiopia.

USSR Attitude

The USSR had acceded to the Geneva Protocol but did so with reservations which stipulated that it would not be binding upon them in a war against an enemy which did not ratify or accede to the agreement or against an enemy whose allies did not ratify or accede to it. The US has not formally ratified or acceded to this protocol. Since the US is an ally of most of the signatories who might be involved in a military confrontation with the USSR, it is readily apparent that the Geneva Protocol of 1925 has but a minor significance, if any, as an international legal restraint on the Soviet use of toxic chemicals.

A PROPER PERSPECTIVE

Customary International Principles of Warfare

Following the various treaty attempts, discussions, conferences, etc., during the post World War I period, the major arguments against the use of toxics were summed up by insisting that such use violated two principles of warfare which had been accepted for over one hundred years. These principles were, "Unnecessary suffering should be avoided," and "Innocent non-combatants should not be destroyed."[4]

It must be conceded that the above statements are justified when considering the relatively crude agents of World War I such

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[4]Joseph Burns Kelly, Gas Warfare in International Law, p. 64.

as the choking gas, chlorine, and the blister agent, mustard. The same concession might be made regarding the better but still obsolete agents of World War II, phosgene and the cyanide blood poisons. However, if the proponents of these arguments understood the basic effects of modern nerve agents and the various nonlethal agents, and considered such with an open and unbiased mind, it would soon become apparent to them that the use of the modern agents actually support the above principles to a greater degree than do the modern "conventional" modes of combat.

The modern nerve agents produce no unnecessary suffering or experienced pain in the target individual. The modern nonlethal or incapacitating agents produce only temporary effects. In both applications there is no extraordinary suffering, no extraordinary destruction. No limbs are lost. No blisters remain. No damaged lung tissues result to plague the victim for the balance of his life.

Wars of Today and the Future

Considering the wars that exist today and those which may occur in the near future, it becomes more and more apparent that it will be increasingly difficult to delineate specific battle areas as in previous wars. Noncombatants are frequently mixed in with the combat population in an area.

The foregoing is especially true in the current Vietnam conflict. One can readily visualize a patrol, company, or even a battalion with a mission of clearing an area which is honey-combed with caves and underground passages. Noncombatants, in the face

of armed conflict, naturally seek cover. The attacking commander is faced with the problem of clearing the caves. Tried and true means include the use of flames, high explosives, burning gasoline, etc., which can readily accomplish the mission through means acceptable to the world but which would be contrary to accepted principles of warfare through the threat posed to the noncombatants. Yet, what is the commander to do? He can order his men to enter the cave to flush out the occupants. If they are noncombatants, nothing is lost. If they are combatants, his men may be lost.

In Vietnam, such a problem is being faced by the successful use of riot control agents to force the occupants to evacuate. Riot control agents such as the tear gases and the vomiting gases present a very uncomfortable environment from which individuals will flee--often in panic. This discomfort, although temporary in effect, can be avoided and the minor problems associated with the panic-stricken occupants exposed to the riot control agents could be minimized or eliminated if nonlethal toxics were used for such missions. The attackers, with little danger to themselves, could enter the cave and more or less leisurely sort out the occupants. These occupants would not have been harmed, and in fact, would hardly realize until later that they had been subjected to a toxic chemical attack. It is difficult to visualize a more humane method of clearing or securing a suspect area within which are possible noncombatant elements.

THE USSR THREAT

Industrial Capability

First and foremost, it must be recognized that at the close of World War II, the Soviets "liberated" several German nerve agent plants with their associated scientific personnel and transported them lock, stock and barrel behind the Iron Curtain. Prior to World War II, the Soviets did not have the chemical industrial base necessary to provide a serious chemical threat. The converse is now true. Considering the potential lead time in research and development effort obtained by the above mentioned confiscation, and considering the tremendous scientific and technological capability and production capacity now available to the USSR, one must readily grant to the Soviets a large scale chemical agent capability.

It must also be recognized that the modern chemical agents are readily manufactured by synthesizing techniques often common to other chemical processes. For example, derivatives or final products useful for insecticides are but one or two steps away from being converted into lethal toxics. It is relatively easy to develop the necessary industrial base for a large scale toxic agent production capability without necessarily denying to a nation the assets of this industrial base for peaceful uses.

Possible Intentions

The statements made by Soviet leaders, both political and military, on the role of chemicals in future wars must not be overlooked.

Admiral Gorshkov, in a speech on Army-Navy Day, February 1956, pointed out that future wars would be distinguished from all previous wars through the use of various means of mass destruction such as thermonuclear weapons and chemical weapons.

Marshal Zhukov, in an address to the 20th CPSU Congress, February 1956, stated that future wars will be characterized by mass destruction weapons such as thermonuclear and chemical weapons among others.

Marshal R. Y. Malinovsky, then Soviet Defense Minister, declared, in November 1957, that Soviet officers receive training in the defense against and in the employment of chemical weapons.

These are but a sampling of stated Soviet attitudes towards chemical operations. There is an old saying, "Where there is smoke, there must be a fire." Therefore, if the prime danger confronting the United States is the Communist threat, and if they have a capability for launching a chemical attack, and if they say they are preparing for the use of and the defense against chemical attacks, it is not only illogical but criminal to ignore the potentials of chemical operations or to hide such ignorance in the ostrich hole of public attitude and the international legal functional restraints against the use of toxic chemical agents.

A PROPER PERSPECTIVE REVISITED

One can paraphrase Admiral Mahan's previously quoted statement as follows:

> It is illogical and not demonstrably humane to be tender about the use of chemical agents when many nations strive for the capability to employ massive air attacks or intercontinental missiles to deliver nuclear weapons in the megaton yield range.

The public accepts air-delivered high explosives as a means of warfare. The public accepts the possibility of long range delivered nuclear weapons as a means of warfare. The public accepts the use of flame and rapid-fire weapons on the battlefield. The public accepts submarine attacks on the open seas and other aspects of modern "humane" systems of warfare. Why then refrain from accepting the possibilities of the humane characteristics of properly employed toxic chemicals?

The taking of human life by any means is a crime, but if one must render unto Caeser what is Caeser's then the taking of life is often a necessary action. Major General Marshall Stubbs, former Chief Chemical Officer, has said that the objective of war was to impose a nation's will upon an enemy and not to destroy or to kill for the sake of destruction or killing. In the past the instruments for imposing this will consisted of lethal and ofttimes highly destructive weapons.

Toxic agents and employment techniques exist which can allow a commander to tailor the effects necessary to accomplish assigned missions in the most humane manner possible. Property damage can be minimized. Unnecessary suffering and life-taking can be avoided. Certainly when one considers that the accepted and "humane" methodology employed during World War II accounted for nearly 40,000,000

casualties and astronomical levels of property damage in the six year period 1939-1945, it must be conceded that toxic chemical operations cannot logically be considered as cruel and inhuman.

A proper perspective must be formulated and, still more important, be accepted. This perspective would include the acceptance of the existence of toxic chemical operations, the preparation of a defense against their use, and the preparation to use them in conjunction with other weapons, or separately as appropriate. A realistic attitude is necessary, one which would not be intimidated by the fictional cry of "horror," the cry of "inhumanness," the cry of those who would prohibit a mode of operation which can truly be more humane than any known to date.

The rallying cry of the informed should rather be: "'Chemophobiacs' awaken, you have nothing to lose but your irrational attitude and can gain additional capabilities to preserve the freedom of the United States and the Free World."

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