REPORT TO THE NATIONAL SECURITY COUNCIL

US POLICY ON CHEMICAL AND BIOLOGICAL WARFARE AND AGENTS

Submitted by the Interdepartmental Political-Military Group in response to NSSM 59

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US POLICIES ON CHEMICAL AND BIOLOGICAL WARFARE AND AGENTS

Introduction

In response to NSSM 59, this report by the Interdepartmental Political-Military Group (IPMG) examines US policies, programs, operational concepts and alternatives thereto with regard to both chemical and biological warfare* and agents. Part I contains background information on US policies and programs essential to an understanding of the policy issues. Part II addresses the important policy issues and options, and the relevant pros and cons.

While chemical and biological weapons are often referred to as a single group or category, there are important distinctions between them. For purposes of policy, international law, military application and public discussion, it is essential that these distinctions be kept clearly in mind. For the purposes of this report, CW and BW are considered separately. There are also significant differentiations within the broad chemical and biological categories that require separate consideration.

Biological agents require a period of incubation before they can take effect, and are generally not considered useful where rapid results may be required in tactical or battlefield situations. There are two other notable characteristics of biological weapons:

First, a small amount of an agent (in terms of weight and bulk) has the potential to infect a large target area measured in hundreds of square miles.

* Department of Defense prefers the terms "biological agents" or "biological research agents."
Second, it is difficult to confine their effects to a given target area. With some agents, the disease could spread beyond those originally infected with it.

Various living organisms (e.g., rickettsiae, viruses and fungi), as well as bacteria, can be used as weapons and, in the context of warfare, are generally recognized as biological warfare agents.

Most chemical agents take effect rapidly. Consequently, they are more suitable for battlefield situations. However, considerably larger quantities of chemical agents must be delivered on target to produce desired effects.

For purposes of this report chemical and biological agents are categorized as follows:

**Lethal Agents** - Chemical and biological, are those which are intended to cause death. (We have included mustard gas in this category.)

**Incapacitating Agents** - Chemical and biological, are those which are intended to cause temporary disability without residual injurious effect.

**Riot Control Agents** - A few chemical agents such as tear gases, have been used by governments in civil disturbances, and in warfare for a variety of other missions. These latter are referred to in this report as riot control agents (RCA).

**Chemical herbicides** are used as defoliants and as anti-crop agents. **Biological anti-crop agents** are intended for use only against crops.

**Smoke, flame and incendiary agents** are not categorized as either CW or BW and are not dealt with in this report.
As far as is known, biological agents of warfare have never been employed in modern times. On the other hand, lethal chemical agents have been employed: (1) by both sides during WW I; (2) by Italy during the Abyssinian conflict (1935-6); (3) by Japan in China in 1939-1942; and, (4) by the UAR against Yemeni royalists in 1962-1967.

Riot control agents (tear gas) and herbicides have been used by the US and its allies in Vietnam. Small quantities of tear gas have been used by the other side.
Part I: Background

A. Statement of the Problem

Since World War I the US has maintained a chemical warfare (CW) program, and since World War II a biological warfare (BW) program. Yet during these years the United States has not had a fully developed national policy in either the CW or BW fields.

Recent developments have generated considerable controversy over US policies and programs. These include:

1. A series of incidents relating to testing, transportation, disposal and overseas storage.


3. The introduction of new arms control initiatives in the international arena, both at the CCD at Geneva and the UNGA, and in the Secretary General’s report.

4. Congressional reviews and proposed restrictions.

B. The Nature of the Threat to the US and Its Allies

1. Soviet Chemical Warfare

Information about the USSR's CW program is rather extensive yet incomplete in some important details. One such detail concerns the size of the Soviet toxic agents stockpile. The evidence relating to this question has recently been reexamined in an attempt to determine the validity of the estimate of 275,000 tons now carried in the national intelligence estimates. This reexamination
revealed that the available evidence is not sufficient to ascribe high confidence to estimates of the size of the Soviet stockpile of toxic CW agents; it is however, good enough to reach the conclusion that this stockpile is large* and militarily significant.

The Soviets class CW weapons with nuclear weapons as "weapons of mass destruction." We conclude that the use of chemical weapons by the USSR is subject to the same type of political control at the highest level as are atomic weapons. We believe it virtually certain that they would use CW in the event of general nuclear war if they considered it to their advantage to do so. We believe, however, that they would not initiate their use in a conventional conflict against an opponent capable of retaliation in kind. They would not hesitate to retaliate with CW if chemical weapons were used against them in a conventional war.

Soviet documents indicate that the USSR expects NATO to employ BW as well as CW in the event of war and is preparing against both. It is worth noting that the Soviets have maintained an active defense program over the years in an attempt to reduce the vulnerability of their population to chemical, biological, and radiological effects.

The Soviets appear to appreciate both the capabilities and limitations of chemical weapons. Soviet doctrine on tactical use of chemical weapons appears to be based on the concept of utilizing the best attributes of these weapons in relation to HE and nuclear weapons. Thus,

* The Department of State view is that given the paucity of available evidence, as is reflected in the above, it is not possible to characterize the size of the stockpile. DIA believes it is possible to characterize the size of the stockpile.
chemical weapons may be used instead of nuclear weapons where physical destruction of a target is not desirable. In small sectors, large-scale use of chemical warfare might be used to produce large casualties as well as to demoralize enemy troops and to facilitate movement of ground forces. From the Soviet point of view, chemical weapons are especially advantageous for use in mountainous terrain, where precision artillery or aircraft bombardment is difficult, and in other areas where natural or constructed physical features protect personnel from the effects of nuclear and/or high explosive detonations. We have good indications that current Soviet plans for general nuclear war call for about one-third of all warheads available for Soviet ground-launched tactical missiles and rockets to be chemical.

There is better information regarding research and development that may relate to CW and on doctrine for tactical use than on the production of chemical agents. It is known that the Soviet Union has considerable interest in CW and that the Soviet arsenal includes CW agents of the WW I type as well as the more recently developed nerve agents. Soman, which appears to be a major component of the Soviet nerve agent stockpile, is of special concern to the West because it is resistant to the usual nerve agent antidotes and therapy. Another important Soviet nerve agent, designated VR-55 by them, appears to be a V-agent type material. Its toxicity is believed to exceed somewhat that of VX standardized by the West. A point of particular relevance to this study is that the Soviets appear to be emphasizing lethal agents in their CW activities and, while we have evidence of their R&D interest in them, there is no evidence that they are stockpiling incapacitating agents of any type.

The USSR possesses considerable production capacity and storage facilities which would be suitable for lethal agents. Although the US has never been able to identify production facilities precisely nor to pin
down the scale of the Soviet production effort, the Soviet chemical technology should be able to support the production of any of the known CW agents in quantity. The absence of information on production facilities for CW agent manufacture constitutes a weak link in any verification arrangements in the event of an agreement with the USSR to ban CW agent production. We could at this point do no better than provide a lengthy list of facilities in which such manufacture could be accommodated.

Just how ready Soviet forces are for offensive CW and how far forward stocks of chemical munitions are maintained are matters on which there is still uncertainty, but there is good reason to believe that weapons capable of delivering chemical munitions are available at division, army, and "Front" level. There are increasing indications that at least some quantities of CW agents are stored under Soviet control in non-Soviet Warsaw Pact (NSWP) countries. We believe that the Bloc countries are not producing CW agents nor are they allowed to accumulate stocks of them free of Soviet control. The Warsaw Pact's current capability to wage CW in Europe undoubtedly surpasses that of NATO.

Defensive CW equipment includes protection, detection, and decontamination equipment effective against all known lethal chemical agents; Soviet Bloc attention to defensive CW training and protection against chemical attack exceeds that of the US as well as of its NATO allies. Most new construction Soviet ships are provided in varying degrees with washdown systems, filtered ventilation systems and decontamination stations that would enable the ships to carry out their assigned missions in a CB environment. Extensive training is provided for the maintenance of a permanent, high level of CW and BW readiness for the various naval units.
2. Soviet Biological Warfare

Our intelligence on Soviet BW capabilities is much less firm than on CW activities. Soviet interest in various potential biological warfare agents has been documented and the intelligence community agrees that the Soviets have all the necessary means for developing an offensive capability in this field. But useful intelligence on actual production, weaponization, and stockpiling is nonexistent.

In Soviet writings, BW is linked with nuclear and chemical warfare in terms that indicate a high degree of political control and restraint. We believe that Soviet vulnerabilities would weigh heavily against Soviet initiation of BW.

Recently, a high-level Czech defector reported the existence of contingency plans in the Warsaw Pact military alliance to deliver BW from the USSR to East European Front Commanders in the event of a decision to use them to stop or slow an invasion. Additionally, Warsaw Pact military organizational plans have depicted components responsible for deploying BW weapons.

There are frequent Soviet references to BW weapons as a "means of mass destruction" that would be used in future conflicts. We believe it unlikely that the Soviets would employ BW as a primary means of initial strategic attack, although it might subsequently be used in the course of a general war. Soviet and NSWP military forces, including naval units, are equipped with personnel and collective protective devices which could enable them to operate in a biological warfare environment. The Soviets probably believe that biological warfare weapons can be effective in some tactical situations, though ineffective in many, and are especially suitable for clandestine delivery.
3. CBW Capabilities of Other Countries

There is evidence of Chinese Communist interest in the CBW weapons field, but Communist China at present has at most an extremely limited offensive capability in chemical agents only.

A limited chemical and biological warfare capability, at least in terms of crude weapons, can be acquired by States with even a limited modern industrial base. Important aspects of CBW technology are widely known and easily obtainable through open sources. Some existing chemical and pharmaceutical facilities can be adapted for the development and production of CBW agents. As delivery can be accomplished by several kinds of relatively unsophisticated weapons, the acquisition of a limited offensive capability in BW and CW need not be expensive.

It should be noted that there is evidence of interest on the part of some nations (e.g., France, UAR, Israel) in acquiring or enhancing CBW capabilities and of limited use of chemical weapons by the UAR in Yemen. Considerable related and high-quality research is even carried on by countries that indicate no intention of developing offensive capabilities of their own (e.g., Sweden).

C. Current US Policy

There is no document that sets forth National Policy in this field comprehensively or definitively. Discernible elements of a National Policy have been suggested in statements by US officials, and in Government documents. However, the extent to which these define policy is unclear. The lack of clarity concerns what the US policy is, where that policy is to be found, the reach of that policy, and whether that policy purports to be based upon rules of international law.
The only public statement of policy by a President was Roosevelt's 1943 statement which emphasized two points: (a) no first-use of poisonous or noxious gases and (b) "retaliation in kind." The terms "poisonous or noxious gases" have never been officially defined by a US spokesman.

Presidential policy guidance was incorporated in the Basic National Security Policy (BNSP), which was issued on August 5, 1959 and rescinded in January 1963. It stated: "The United States will be prepared to use chemical and biological weapons to the extent that such use will enhance the military effectiveness of the armed forces. The decision as to their use will be made by the President. If time permits and an attack on the United States or US forces is not involved, the United States should consult appropriate allies before any decision to use nuclear, chemical and biological weapons is made by the President."

On November 17, 1966, in a letter to the Secretary of State, the Secretary of Defense proposed DOD responsibilities for CW and BW in the following terms:

"It is in the national interests of the United States to be prepared to employ CB weapons and to maintain a balanced offensive and defensive capability for CB operations. The possession of a credible capability to employ them could deter their use by an enemy. Accordingly, US forces shall be prepared to defend against CW weapons by an enemy, to conduct operations in a toxic environment, and to use these weapons when directed to do so. The President does not now expect to authorize US forces to use lethal anti-personnel CB weapons prior to their use by another nation. In certain situations of national urgency, the President may authorize the use of CB incapacitating weapons."
There is no extant policy directive from a President that requires Presidential authority prior to employment of these weapons. However, DOD policy specifies that the President must approve the employment of CW and BW other than riot control agents and herbicides. President Johnson reaffirmed the authority of the JCS to authorize use of RCA's in Vietnam.

D. US Chemical Capabilities, Stockpile, R&D and Costs

1. Current Lethal Chemical Capabilities

A review of the current US chemical posture indicates the following: The US inventory of chemical agents, mustard and nerve agents GB and VX, is approximately 30,000 tons. Of this amount, 13,000 tons are WW I mustard agent. The immediately usable portion of the US stockpile amounts to about 18,400 agent tons consisting of the agents in filled munitions plus bulk stocks for munitions to be filled in the field.

Stocks in Europe would provide about 97 tons of ground munitions each for the five US divisions now committed to NATO or about five tons of ground munitions per US and NATO division if chemical operations begin after D+60, versus estimated requirements of about 8 tons per day. Stocks now in the Pacific (currently on Okinawa but to be removed) total about 1,600 tons for the entire theater. Total US inventories of 155 mm and 8-inch GB and VX munitions and aircraft spray tanks are grossly inadequate to engage in large-scale chemical operations in either Europe or the Pacific.

2. Incapacitating Chemical Agent Capabilities

The one standard chemical incapacitating agent, BZ (stockpile 49 tons) is unlikely to be employed due to its wide range of variability of effects, long onset time, and inefficiency of existing munitions. Agents in R&D, which may have greater military potential, are not currently standardized.
3. Riot Control Agent (RCA) Capabilities

RCA's are being procured commercially to support both Southeast Asia operations and civil disturbance missions. Stockpiles are located in CONUS and overseas.

4. Herbicide Capabilities

Defoliants have been and are used on a considerable scale in Vietnam, and have proven effective in clearing the sides of roads, canals and rivers and around encampments. The US has also conducted chemical anti-crop missions in Vietnam and Laos.

5. Chemical Defense Capabilities

Over-all, the present US chemical defensive posture is marginal or poor, allied defensive capabilities are even worse. US chemical defensive posture provides protective masks, some manual detection and combat vehicle collective protection. There are no plans or capabilities for protection of the US civilian population. However, a mask for the use of the civilian population has been developed and tested.

6. Chemical Production Capabilities

Decisions on new or future procurement of lethal chemical warfare agents and related delivery systems are deferred pending the outcome of this NSSM. No operational chemical warfare agents are being produced. No delivery systems are being procured. No additional agent production is programmed until binary agents become available.

The United States has no production facilities for bulk mustard. Riot control agents, herbicides, and the chemical incapacitant BZ are procured commercially.
Production facilities for the nerve agents GB and VX are in lay-away status. Under emergency conditions, GB production could be resumed in 12 months, with maximum production by 15 months, and VX in nine months, with maximum by 12 months. Neither on-hand stocks in CONUS, nor pre-positioned stocks overseas, nor the sum of these, is capable of sustaining large-scale chemical operations until production could be resumed.

7. Binary Munitions

The US is developing a shell or bomb in which two non-toxic chemicals are filled in separate compartments. The chemicals are mixed after firing and form a lethal chemical agent, which is disseminated when the munition arrives on target. The development of such weapons is expected by 1974 at the earliest.

Binary munitions are safer during storage and handling than previous chemical munitions and may alleviate many problems - both technical and political - that present agents raise. During storage and transportation, the two components could be separated so that if an accident occurred there would be no formulation, much less release, of toxic materials. Binaries could be dispersed as are conventional munitions instead of having to be stored in special ammunition storage sites.

For binaries, there would probably be no need to construct and operate large, costly government-owned toxic production facilities. The components, being relatively non-toxic, could easily be manufactured by the US chemical industry and procured by DOD on competitive contract purchase.
8. **Current Costs of Chemical Programs**

The proposed FY 70 funding for chemical warfare is shown below:

<table>
<thead>
<tr>
<th></th>
<th>($ in millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Procurement</strong></td>
<td></td>
</tr>
<tr>
<td>Lethal Chemicals</td>
<td>0</td>
</tr>
<tr>
<td>Incapacitating Chemicals</td>
<td>0</td>
</tr>
<tr>
<td>Riot Control Agents &amp; Weapons</td>
<td>57</td>
</tr>
<tr>
<td>Herbicides</td>
<td>10</td>
</tr>
<tr>
<td>Defensive Equipment &amp; Misc.</td>
<td>28</td>
</tr>
<tr>
<td><strong>Sub Total</strong></td>
<td>95</td>
</tr>
<tr>
<td><strong>RDT&amp;E</strong></td>
<td></td>
</tr>
<tr>
<td>General Investigations</td>
<td>8</td>
</tr>
<tr>
<td>Offensive R&amp;D</td>
<td>20</td>
</tr>
<tr>
<td>Defensive R&amp;D</td>
<td>19</td>
</tr>
<tr>
<td>Test &amp; Evaluation</td>
<td>11</td>
</tr>
<tr>
<td><strong>Sub Total</strong></td>
<td>58</td>
</tr>
<tr>
<td><strong>Operational</strong></td>
<td></td>
</tr>
<tr>
<td>Maintenance of Depots, Transportation</td>
<td>15</td>
</tr>
<tr>
<td>Military Construction</td>
<td></td>
</tr>
<tr>
<td><strong>Sub Total</strong></td>
<td>19</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>172</td>
</tr>
</tbody>
</table>

*The report of the House-Senate conference on 4 November 1969 indicated a reduction of $10.5 million in RDT&E on chemical and biological warfare agents and delivery systems, a reduction of about 11 percent from the President's budget figures shown in this table and the table on page 16.*
E. US Biological Capabilities, Stockpile, R&D and Costs

1. Current Operational Capabilities

Approximately 8,350 gallons of incapacitating biological agents -- 3,950 gallons of FX (Venequelan Equine Encephalomyelitis) and 4,400 gallons of MN ("Q" fever) -- were produced two years ago and remain stockpiled in support of unified command contingency plans, along with about 200 associated delivery systems (spray tanks and aerosol disseminators). This incapacitating capability represents the sole US incapacitating capability for support of contingency plans requiring incapacitation or attack of areas where casualty limitation is needed. There are no plans now to replace existing material as it decays, pending the review of this study.

Forty tons of TX (Wheat Rust) and 0.9 tons of LX (Rice Blast) are on hand.

No large inventory of dry (powdered) anti-personnel lethal or incapacitating biological agents is maintained and only eight aircraft spray disseminators are in the inventory.

No missile delivery capabilities are currently maintained for delivery of biological agents, although a bomblet-containing warhead for the SERGEANT missile has been standardized, but not produced in quantity.

Small quantities of both lethal and incapacitating biological agents are maintained in special warfare devices.

2. Current Research and Development Program

a. Funds - RDT&E funds for the biological research program reached a high point of $39 million in FY 64 and since have been reduced by DOD action to $30 million.
b. **Defensive Problems** - Timely detection of an attack and the identification of the agent used are the major defensive problems. No biological detection system is presently deployed or in prospect. There is no effective prophylaxis for large-scale or multi-agent biological attacks. No nation is known to have solved these problems.

3. **Costs of Biological Programs**

The total biological program has a relatively low dollar cost as the table below indicates. Replenishment of the current existing biological stockpiles has been stopped since August 1969, pending a decision of this NSSM.

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost (Millions of Dollars)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total RDT&amp;E</strong> (including basic cost)</td>
<td>$29.4</td>
</tr>
<tr>
<td>Replenishing existing Stockpiles</td>
<td>1.5</td>
</tr>
<tr>
<td>Operation and Maintenance of existing Pilot Plant Production Facility</td>
<td>5.5</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$36.4</strong></td>
</tr>
</tbody>
</table>

F. **Military Considerations and Doctrine**

Doctrine, as well as US military policy, governing the use of CW and BW weapons, may be found in the plans developed by the Joint Chiefs of Staff, in studies prepared for them on concepts of operational use, and in the various service field manuals that provide direction on CW and BW employment and defense.

* See footnote on page 14.
US military doctrine views CW weapons as having a wide variety of possible military uses both in defensive and in offensive (retaliation as well as first use) warfare throughout the entire spectrum of conflict ranging from counterinsurgency operations to general war.

**Defense.** Given adequate warning devices and proper troop training, equipment such as gas masks, protective clothing, airproof structures with filtered ventilation, and decontamination equipment, a reasonably successful defense against either lethal or non-lethal chemical agents can be made. The requirement of preparing for chemical operations impose certain disadvantages, principally by restricting maneuverability through logistically encumbering defensive equipment. Battlefield defenses against chemicals would be largely effective against biological agents.

**Delivery Systems.** The various chemical and biological agents can be delivered by a wide variety of weapons. Artillery shells with chemical-agent projectiles have a limited-area coverage capability. This can be enlarged by rockets whose warheads, if massed, can attack targets on the order of several square kilometers. For even larger attack areas, rockets and missiles with self-dispersing bomblets can be used. Conventional minefields can be reinforced by mines containing persistent chemical nerve agents.

Chemical agents can also be delivered by aircraft by means of bombs, spray tanks, cluster-bombs and dispensers of self-dispersing bomblets. Dissemination by helicopter in a variety of situations is also feasible. The major delivery means for biological agents in the present military inventory is aircraft spray tanks.
All of these weapons are to some degree sensitive to variations in the environment in which they are to be used. In some cases, there is considerable uncertainty as to the effects of different terrain and weather conditions on particular agents. The effects of chemical and biological agents depend to varying degrees upon agent and proposed use and on specific conditions of wind, temperature, humidity, and terrain.

G. Arms Control Initiatives in the International Arena

At the July 10, 1969 session of the ENDC, the United Kingdom presented a draft convention, and an accompanying draft Security Council Resolution (ENDC/255), which would ban research aimed at producing biological agents for hostile purposes, and production, possession and use in any circumstances of biological methods of warfare.* The draft treaty does not provide for on-site verification, but it does contain complaint procedures for investigation of treaty violations under UN auspices. No consensus has emerged on the UK draft, but many delegations in Geneva opposed the attempt to give separate treatment to biological weapons. The US, in informal sessions of the ENDC and in meetings with the British, commented on the UK drafts without in any way preempting decisions likely to follow the current NSSM exercise. As a result of these informal sessions, the UK submitted a revised draft convention on August 26, 1969.

Also in early July, the Report of the UN Secretary-General on CBW was distributed at Geneva and the UN, and widely publicized. The Group of Consultant Experts, who prepared the report, including a representative from the US, cited the danger of proliferation of these weapons and concluded that the momentum of the arms race would clearly decrease if their production were effectively banned.

* The UK stated at the July 2 NAC discussion of their convention that parties would be free to produce biological agents for use in vaccines, etc. The convention does not attempt to establish exactly what level of production or testing is consistent with a passive defense capability.
The Secretary-General urged in a forward to the Report that UN Members undertake the following measures:

1. To renew the appeal to all States to accede to the Geneva Protocol of 1925;

2. To make a clear affirmation that the prohibition contained in the Geneva Protocol applies to the use in war of all chemical, bacteriological and biological agents (including tear gas and other harassing agents), which now exist or which may be developed in the future;

3. To call upon all countries to reach agreement to halt the development, production and stockpiling of all chemical and bacteriological (biological) agents for purposes of war and to achieve their effective elimination from the arsenal of weapons.

Sweden, on August 26, 1969, introduced a UNGA draft resolution which condemns and declares as contrary to international law the use of any C and B agents in international armed conflicts. The draft resolution states that an existing customary rule of international law prohibits the use in international armed conflicts of all biological and chemical methods of warfare.

Canada, also has submitted a draft resolution to the UN General Assembly. It reiterates, inter alia, a previous UNGA invitation to all States to accede to the 1925 Protocol, recommends that the UNSYG’s report be used as a basis for the CCD’s further consideration of the elimination of C and B weapons, and urges the CCD to complete work on the UK draft convention at an early date.

The USSR, as well as most members of the CCD, have insisted on: (1) the need for universal adherence to the 1925 Geneva Protocol as a condition precedent to the consideration of more comprehensive measures; and (2) the undesirability of according separate treatment to C and B weapons.
At the UN General Assembly, on September 19, 1969, Foreign Minister Gromyko announced that the USSR, all other Warsaw Pact countries (except East Germany), and Mongolia were submitting to the 24th UNGA an item on conclusion of a convention on the Prohibition of Development, Production and Stockpiling of Chemical and Biological Weapons and on their Destruction. The Soviet draft convention would ban development, production, stockpiling or acquisition of both chemical and biological weapons. It relies on self-policing rather than on any plan of international control by inspection. The Soviet initiative has been allocated to Committee One of the UNGA for debate this fall along with the Report of the CCD (CBW related sections) and the Secretary-General's Report on CBW.

H. Cooperative Program with Allies

The United States has a cooperative research agreement with Great Britain, Canada and Australia for the exchange of chemical and biological warfare information. We have less extensive CBW information exchange agreements with other countries, including Germany. Under the agreement with Germany, the US has provided over the years small, sample quantities of agents for use in RDT&E of defensive equipment. The extent to which this practice will be continued will be reviewed in the light of the decisions made by the NSC on the fundamental issues raised in this study.

I. The USE of Tear Gas (CS) in South Vietnam

1. CS has been used in South Vietnam since 1965. CS provides the possibility of a nonlethal solution to military operational problems and their military utility in the following circumstances:

   a. Increases the possibilities of the capture of PW's from mixed military/civilian population without civilian casualties.
b. In urban areas, decreases the destruction of housing and public facilities. Any destruction of housing or public facilities provides the VC with tangible propaganda and is used against the United States.

c. Provides the commander with a nonlethal option to the use of massive HE in overcoming a dug-in enemy. (CS forces enemy into the open where he has the option of surrendering. The alternative to CS use is massive use of HE, killing or trapping the enemy in destroyed fortifications, or exposing American soldiers by attacking individual fortifications by gun and bayonet. Friendly casualties in this method of attack are extremely high, while use of CS allows great reduction in friendly casualties and gives the enemy the option of surrendering if he so desires.)

d. If used for area restriction, it limits the use of terrain and prevents reuse of field fortifications. Denial of areas with CS has in many cases altered enemy infiltration routes and thus required him to develop new routes. It can also be used to canalize an enemy assault and increase enemy vulnerability.

e. In reconnaissance-by-fire employing CS rather than HE shells, it is particularly effective for checking heavily wooded areas and is much more effective for detection of occupied fortifications than is HE.

2. CS, when used in offensive operations,

a. Assists in the assault of point targets such as bunkers and automatic weapons emplacements. Within a few seconds any occupants lacking protection against CS will be rendered unable to defend themselves effectively.
b. Aids in the assault of area targets.

c. Is effective in flushing bunkers and caves.

d. Is very useful in the suppression of small-arms fire around helicopter LZ's.

3. CS when used in defensive operations:

   a. Assists in perimeter defense by impeding approaches to and passages through the perimeter.

4. CS has been found to be increasingly effective by military commanders in South Vietnam. Procurement of bulk CS, primarily to support SVN, has amounted to 3.5 million pounds in FY 1968 and 4.0 million pounds in FY 1969. Sixteen hundred tons have been expended in the past 18 months.

J. Public Attitudes in the International Arena

Public attitudes toward chemical and biological weapons have generally been largely formed by: (a) continued Communist propaganda charges citing US failure to ratify the 1925 Geneva Protocol; (b) US use of riot control agents in Vietnam since 1965; (c) The Communist campaign of the early 1950's charging the US with germ warfare in Korea. A series of accidents since early 1968, and the US domestic controversy over transport and storage of chemical agents, has sharpened public criticism here and overseas.
Part II: CW and BW Policy Issues

Introduction

Before the nature, scope and direction of a coherent US policy for CW and BW can be decided upon, several underlying issues should be addressed and resolved. These issues fall into three categories.

The first two categories deal with CW and BW programs respectively, for policy will indeed be concerned with the objectives, scope and nature of future programs. The third category deals with a set of issues concerning the public and international posture of the US on CW and BW issues. This involves legal issues, arms control policy, and US positions in international conferences and negotiations.

Before examining the various policy issues, over which there is disagreement, a few areas of agreement deserve mention.

First, there is need for a continuing US RDT&E program to improve defenses and guard against technological surprise. Indeed, there is a consensus that, regardless of decisions on the following issues, there should be more emphasis upon defensive measures and programs.

Second, the US should continue to work on, develop and improve controls and safety measures in all chemical and biological programs.

Third, a requirement exists for more definitive intelligence on other nations' CBW capabilities.

Fourth, Declaratory policy with respect to lethal chemicals and lethal biological agents is and should continue to be "no first use."
Fifth, no agents except RCA's and/or herbicides can be used except with Presidential approval.

Finally, to try to keep public opinion problems manageable, public affairs policy should be planned and implemented on an inter-agency basis in close integration with substantive policy.

I. BW Policy Issues*

A. Should the US maintain a lethal biological capability?

Pros:

1. Maintenance of such a capability could contribute to deterring the use of such agents by others.

2. Without any production capability and delivery means for lethal agents, the United States would not be able to reconstitute such a capability within likely warning times.

3. Retains an option for the United States at very little additional cost as a hedge against possible technological surprise or as a strategic option.

Cons:

1. Control of the area of effect of known BW agents is uncertain.

* Relevant legal arguments are discussed in Section III E.

** Although BW agents do require large safety zones, their controllability under other than a strategic attack is possible, based on results of testing to date.
2. A lethal BW capability does not appear necessary to deter strategic use of lethal BW.

3. Limits our flexibility in supporting arms control arrangements.

B. Should the US maintain a capability for use of incapacitating biologicals? (We now have two biological incapacitants in stock.)

Pros:

1. From a military standpoint, incapacitating biologicals might be an effective method of preparing for an amphibious invasion, disrupting rear-echelon military operations, or of neutralizing pockets of enemy forces.

2. Biological incapacitants could provide in some circumstances a method of capturing particular targets or areas which might be more humane than conventional weapons.

3. Without a production facility in being at the present state of readiness, it would take approximately 2-3 years, starting from scratch, to produce biological agents in militarily significant quantities.

4. Maintains the only existing US incapacitant capability for those situations where incapacitation over a period of several days is desirable.

Cons:

1. Biological incapacitants have a questionable deterrent or retaliatory value.

2. First-use of incapacitating biologicals would be construed by most nations, including most US Allies, to be contrary to international law and the Geneva Protocol.
3. An enemy may perceive no clear-cut distinction between incapacitating and lethal agents under wartime conditions.

C. Should the US maintain only an RDT&E program:

There are really two sub-issues here: (1) should the U.S. restrict its program to RDT&E for defensive purposes only or (2) should the U.S. conduct both offensive and defensive RDT&E? While it is agreed that even RDT&E for defensive purposes only would require some offensive R&D, it is also agreed that there is a distinction between the two issues. A defensive purposes only R&D program would emphasize basic and exploratory research on all aspects of BW, warning devices, medical treatment and prophylaxis. RDT&E for offensive purposes would emphasize work on mass production and weaponization and would include standardization of new weapons and agents. If a decision were made to continue an RDT&E program for defensive purposes only, it would be necessary to review the necessity for retaining existing production facilities.

(1) - in the offensive and defensive areas?

Pros:

1. Minimizes risks of technological surprise.
2. Provides knowledge and capability for physical and medical defensive measures.
3. Retains a relatively short lead time for response to new threats (depending on level of RDT&E effort).

Cons:

1. Could be construed as preparation to use biological agents in war.
2. Would degrade US capability for response in kind.
(2) - in the defensive area only? (Maintenance of a defensive RDT&E program inherently requires some offensive RDT&D effort.)

Pros:
1. Would provide some knowledge, although less than with the preceding option.
2. Would result in a more economical program.
3. Could not be construed as preparation for use in war.

Cons:
1. Would, as compared with (1) above, further degrade US capability to employ biological agents.
2. Could require disposal of certain material and facilities and loss of expertise.
3. Would increase the hazard of technological surprise.

D. Should the US support the UK Draft Convention for the Prohibition of Biological Methods of Warfare? (For brief discussion, see page 18.)

Pros:
1. If the US decides not to maintain a lethal biological capability, it would be in our interest to obtain an undertaking by others not to do so.
2. The UK Convention contains provisions for investigations of allegations of violations, and an escape clause, both of which may provide some measure of security to the parties to the agreement.
3. If the US limits its BW program to RDT&E, the security of the US would be no more endangered under the UK agreement than it would be in the absence of an agreement, and the inhibitory aspects of the convention could be important.

4. The British interpret their Convention to permit the development of a passive defensive capability against BW, e.g., development of vaccines and the production of protective and warning devices.

Cons:

1. The Convention does not provide assurance of compliance because there is no provision for on-site verification and violations could not be detected by unilateral means alone. Acceptance of an unverifiable treaty provision would weaken our ability to resist similar obligations in other arms control contexts.

2. Would require the US to renounce all existing offensive biological capabilities and thus would deprive the US of options it might wish to exercise in the future.
II. CW Policy Issues*

A. Should the US maintain a capability to retaliate with lethal chemical agents? (There is no consensus on what constitutes adequate retaliatory capability.)

Pros:

1. The principal argument in favor of the development and stockpiling of lethal chemical agents is that such a capability is needed to deter possible use against US or allied forces by others in war.

2. Reliance on nuclear weapons as the sole deterrent against CW would deny to the decision-maker the lethal chemical option in retaliation, in the event US or allied forces were subject to a CW attack. Depending on the military capabilities of the enemy, an expanded conventional response could be inadequate and a nuclear response could prove too escalatory.

3. A response in kind would force an enemy to operate under the same cumbersome operational constraints (protective clothing, movement limitation and limited logistics) which would be imposed on our forces.

4. If the US were unilaterally to eliminate its lethal CW capability, this would remove a major bargaining lever for obtaining sound and effective arms control measures.

Cons:

1. The principal argument against the development and stockpiling of a lethal chemical capability is that other military means, including a whole range of nuclear weapons, are sufficient to deter the use of lethal chemicals.

2. The deterrent threat of retaliation with nuclear weapons against a CW attack could be more credible if the US were to eliminate its CW capability.

*Relevant legal arguments are discussed in Section III E.
B. Should the US destroy or detoxify its stockpiles of mustard? (All stocks of phosgene have been disposed of.)

Pros:

1. Mustard is an obsolete World War I type gas which has considerably less military utility than modern nerve agents.

2. An announcement that we planned to dispose of these stocks would help to demonstrate US interest in controlling lethal chemical munitions and thus might have some political value.

Cons:

Would remove about 40% of existing lethal chemical artillery capability which although not as desirable as nerve agents do have a proven casualty producing capability. For these reasons, destruction is not appropriate until binary agents are available.

C. Should the US continue to maintain stockpiles of Chemical munitions overseas (1) in Europe, and (2) in the Pacific? (European stockpile is only in Germany)

Pros:

1. Stockpiles in close proximity to where they may be used are necessary for deterrence and for a timely and adequate response. Current stocks in Europe represent only 8-10 days of combat usage and in Asia about 15 days.

2. Not to continue to maintain chemical munitions overseas would impose a delay of at least 14 days for initial response and up to 75-90 days for sustained operations.
3. If stockpiles are not established during peacetime, it might be provocative to attempt to reinforce chemical stocks quickly in a crisis.

Cons:

1. Present stocks do not provide a significant operational capability; the expansion of overseas stocks necessary to create such a capability could involve increased political problems for the US.

2. Even maintaining present stockpiles of lethal chemical agents on foreign territory could become a source of political friction with the host country.

D. Should the US consult with the FRG concerning the US CW stockpile in Germany?

Pro:

Early discussion would help to remove a possible irritant in relations before it developed into a major issue.

Con:

If the US decides to retain these stocks, raising the issue could unnecessarily jeopardize this objective and place the FRG in an awkward position.

E. Should the US preserve a first-use option for incapacitating chemicals?*

Pros:

1. Successful development of an effective incapacitating agent could provide a capability to gain a military advantage, but with fewer casualties than is possible through the use of conventional, lethal chemical, or nuclear weapons.

*The US currently does not have an effective operational incapacitating chemical capability.
2. Because they are non-lethal it may be possible to make these agents acceptable in world public opinion as being more humane than conventional or nuclear weapons.

3. Eliminating a first-use option without compensating political or military gains may unnecessarily deprive the US of a means of engaging in armed conflicts with resultant fewer casualties than in conventional war.

Cons:

1. First-use of incapacitating chemicals would probably be construed by most nations, including some US allies, to contravene international law and the Geneva Protocol and to be contrary to past expressions of US policy.*

2. First-use could lead to escalation to lethal chemical or biological warfare (if the enemy force had the capability) since the enemy might well not acknowledge any distinction between incapacitating and lethal agents.

3. First-use of incapacitating chemicals could lead to a loosening of international constraints on CW and BW, make effective arms control measures more difficult and probably bring the US considerable international and domestic criticism.

F. Should the US maintain an option for unrestricted use of RCA's in warfare, and continue practicing this option in Vietnam? (The discussion below excludes peacetime use by US forces for crowd control and base security which is not prohibited by the Geneva Protocol or international law generally.)

Pros:

1. In many military situations, use of RCA can contribute to military effectiveness; reduce US, civilian and enemy casualties and fatalities; decrease the destruction

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*DOD does not believe such would contravene international law.
of civilian housing and public facilities; increase the possibilities of the capture of PWs; and impede enemy avenues of approach.

Cons:

1. The use of tear gases in combat situations could blur the "no first-use" doctrine and ultimately contribute to a lowering of barriers against use and proliferation of CW capabilities in general.

2. Use of tear gases in Vietnam as an adjunct to lethal weapons may be construed by some to be contrary to past US official statements on use of tear gases in Vietnam.

3. The use of tear gases in war (even if limited to humanitarian purposes) has been considered by many nations to be contrary to customary international law and by most to be prohibited by the Geneva Protocol.

G. If the US maintains an option for the use of tear gas in war, should it be limited to "humanitarian purposes"?

Pros:

1. Would permit the US to ratify the Geneva Protocol with a public interpretation that would create a minimum of international opposition.

*"Humanitarian purposes" has never been clearly defined. By way of illustration, however, the use of tear gas in Vietnam would be authorized where civilians and enemy forces were thought to be intermingled and the purpose of using tear gas was to save civilian lives. Tear gas would not be authorized where the primary purpose was to deny enemy troops cover or concealment and make conventional weapons such as artillery or airstrikes more effective. OSD/JCS believe that no "humanitarian purpose" doctrine on the use of weapons exists.
2. Wartime use would be allowed in much the same way as riot control agents are used in time of peace, allowing for broader use than most restrictive interpretations of the Geneva Protocol would permit.

3. Maintaining this option would help us to explain our use of tear gas in Vietnam as consistent with our interpretation of the Geneva Protocol.

Cons:

1. If accepted, the military might well have to be restricted to use of tear gas in wartime to crowd control and base security which would deprive the military commander of the most useful military applications of tear gas.

2. Implementation of this principle would cast doubt on the legality of our present use of tear gas in Vietnam.

3. "Humanitarian purposes" is a term difficult to define conclusively and field commanders and others would be constantly beset by doubts about particular proposals to use tear gas, especially if its use would save the lives of their own troops, perhaps at the possible expense of the lives of the enemy. *

H. Should the US retain a policy permitting first-use of chemical herbicides? (There is agreement that use of herbicides as a defoliant is not contrary to international law and is less likely to have international repercussions than use against crops. Thus the main issue centers on anticrop use. Some believe that further research is required at least on possible long-term ecological effects of herbicides, and on such effects on human embryos as has led to the recent reaffirmation and extension of the policy banning the use of Agent 2, 4, 5 T in populated areas of CONUS and in Vietnam.)

*ACDA believes that workable rules of engagement could be issued which, at a minimum, prohibited use of RCA's in conjunction with conventional weapons such as artillery or air strikes to facilitate killing of enemy troops. OSD/JCS disagrees.
Pros:

1. Herbicides have been used effectively in Vietnam to clear the sides of roads, canals and rivers and around encampments, thereby reducing the possibility of enemy ambush and concealment, and providing more protection to US and SVN forces.

2. Herbicides have been used effectively in Vietnam to destroy crops, thereby making it more difficult for the enemy to secure food supplies.

Cons:

1. The use of herbicides in an anti-crop role blurs a "no first-use" doctrine.

2. If the US continues to take the position that these agents are excluded from a "no first-use" policy, it could make international control of CW more difficult.

3. It is difficult to determine that crops are solely for the consumption of the armed forces which is the sole target sanctioned by international law.

I. Should the use in war of all chemical and biological agents, including tear gas (riot control agents) and/or herbicides, require Presidential authorization?

Pro:

The political implications of the unrestricted use of tear gas and/or herbicides in war could be of such magnitude that it would be unwise to have them introduced without Presidential authority.

Cons:

1. These non-lethal weapons should not be singled out of the US arsenal for special authorization.

2. This type decision should be predelegated in order for adequate planning and logistics support, if RCA is to be used.
III. The Geneva Protocol of 1925


The position which the US Government takes with respect to the Protocol will depend upon:

1. The decisions reached on the policy issues described above, and in particular the decision with respect to tear gas; and

2. Legal interpretations of the scope and status of the Protocol which are considered at the end of this section.

B. Background

1. At present, 84 States are Parties to the Geneva Protocol, including the USSR and Communist China. All major States are Parties except the United States and Japan.* The United States signed the Protocol in 1925 but never ratified it. In operative part, the Protocol reads as follows:

"Whereas the use in war of asphyxiating, poisonous or other gases, and of all analogous liquids, materials or devices, has been justly condemned by the general opinion of the civilized world;

"Whereas the prohibition of such use has been declared in Treaties to which the majority of Powers of the world are Parties; and

"To the end that this prohibition shall be universally accepted as a part of International Law, binding alike the conscience and the practice of nations;

*Since 1965, 20 States have become Parties to the Protocol and Japan has recently indicated its willingness to consider ratification.
"Declare:

"That the High Contracting Parties, so far as they are not already Parties to Treaties prohibiting such use, accept this prohibition, agree to extend this prohibition of the use of bacteriological methods of warfare and agree to be bound as between themselves according to the terms of this declaration."

2. Thirty-nine States accompanied their ratifications with reservations or declarations which declare the prohibitions of the Protocol, as to the reserving State, to be inapplicable as to non-Signing States or toward Signing States which have first violated its provision (i.e., "no first-use"). Some reservations also include "Allies of Signing States" in this exception.

3. Since many States (including the United Kingdom, France and the USSR) have ratified with reservations, the United States may wish to add a "standard reservation" similar to the operative portions of prior reservations relating to "no first use" and "allies". Although there is no consensus as to the scope and exact language of a proposed U.S. reservation, all agree that ratification by the U.S. should be accompanied by a reservation which limits the undertaking to a "no first use", but would permit retaliation in the event of use by another state or its allies.

4. If the United States ratifies the Protocol, it will probably be desirable to include with ratification (and any reservation which it might wish to make) an interpretive statement. Such a statement would set forth the United States position and interpretation as to the Geneva Protocol's effect on the use of C agents such as herbicides, defoliants, the use in warfare of RCA's, and any other points which require interpretation. Interpretive statements which differ from generally accepted interpretations of the Protocol may be considered by Parties as reservations subject to acceptance or rejection.
5. Ratification would not prohibit, restrict, or regulate any research and development, production, deployment, and stockpiling of chemical and biological weapons deemed necessary by the United States.

C. Should the US ratify the Geneva Protocol of 1925 "Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or Other Gases, and of Bacteriological Methods of Warfare", with -- (four options)*

1. A reservation or interpretive statement permitting the United States to use chemical and biological incapacitating agents (Presumably such a reservation/interpretation also would include tear gas and other non-lethal RCA's for which pros and cons are in #2 below.)

Pro:

It would make clear our intent to preserve the option, wherever necessary and appropriate, to employ incapacitating agents to reduce overall casualties.

Cons:

(a) Ratification under such conditions would run contrary to the expressed views of nearly all other members of the international community and adherents to the Protocol, and is likely to be rejected by many Parties to the Protocol, thus raising serious questions whether ratification would advance US interests.

(b) First use of chemical or biological incapacitants would be viewed by many countries as contrary to customary international law and any attempt to reserve an option for such use as legally ineffective.

(c) It could be construed as inconsistent with past US statements of policy.**

* Legal issues underlying the pros and cons are discussed in Section E, below.
** DOD does not believe that past US official statements of no-first-use of lethal agents apply equally to non-lethal agents.
2. A reservation or interpretive statement permitting the United States to use tear gas and other non-lethal RCA's in wartime without restrictions?

Pros:

(a) It would accomplish the positive step of ratifying the Protocol while at the same time preserving for the United States the wide latitude for the military use in wartime of tear gas and other non-lethal RCA's, ensuring that whenever necessary and appropriate, we would have the option to employ some non-lethal agents instead of other more lethal means of warfare.

(b) Ratification would signal US interest in reinforcing the barriers against CBW, and could enhance the US position as regards the possible initiation or negotiation of any further arms control measures in the CBW area.

(c) A reservation or interpretive statement or both is desirable to clearly state that we do not regard our use of RCA's and herbicides in Vietnam as contrary to the Protocol.

(d) Such a reservation or interpretive statement would coincide with the practice in Vietnam of the US and certain of its allies (Republic of Vietnam, Republic of Korea, Thailand and Australia, the last two of which are parties to the Protocol.)

Cons:

(a) Ratification under such conditions would be contrary to the view of many members of the international community and Parties to the Protocol that unrestricted military use of tear gas and other non-lethal RCA's in wartime is prohibited by the Protocol. Ratification under such a statement of interpretation might be regarded by Parties to the Protocol as an attempt to change the actual nature of the existing obligations.
(b) Ratification under such restrictions would limit "first-use" options for CW and BW incapacitating agents, which have some military value.

(c) It could be construed as inconsistent with past US official statements.*

3. An interpretive statement or reservation setting forth the United States view that the Protocol does not prohibit the use of tear gas and riot control agents in wartime for "humanitarian purposes."?

Pros:

(a) It would preserve some latitude for the use of tear gas and other non-lethal RCA's in wartime for genuine humanitarian purposes.

(b) Ratification would: (i) strengthen the legal forces of the Protocol and international restraints on the use and proliferation of CW and BW agents; (ii) be interpreted as a positive, welcome step by the international community; (iii) reinforce past US official statements on the "no first-use doctrine"; (iv) reaffirm past US votes in favor of resolutions calling for strict adherence to the principles and objectives of the Protocol; (v) and could enhance the US position as regards the possible initiation or negotiation of any further arms control measures in the CBW area.

Cons:

(a) Ratification under these conditions, because of the difficulties of actually determining "humanitarian purposes", would, of necessity, tightly restrict the military use of tear gas and other non-lethal RCA's in wartime effectively limiting their use to crowd control and base security. In some cases where non-lethal agents might otherwise be used, lethal conventional weapons would have to be employed instead.

* DOD does not believe that past US official statements of no-first-use of lethal agents apply equally to non-lethal agents.
(b) Ratification under such restraints would restrict "first-sue" options for non-lethal RCA's and CW and BW incapacitating agents which we might wish to retain.

(c) A ratification without an interpretive statement regarding RCA's and herbicides (i) could lead to doubts on the legality of our present use of tear gas in Vietnam and (ii) preclude future use of this weapon with the consequent loss of its military value.

4. "Without any attempt to expressly reserve the right to use RCA's in war?"

Pros:

(a) Ratification without additional reservation or interpretation would accord with the view of many States that the widest latitude ought to be given to the prohibitions of the Protocol.

(b) Ratification would: (i) strengthen the legal force of the Protocol and international restraints on the use and proliferation of CW and BW agents; (ii) be interpreted as a positive, welcome step by the international community; (iii) reinforce past US official statements on the "non first-use doctrine"; and (iv) reaffirm past US votes in favor of resolutions calling for strict adherence to the principles and objectives of the Protocol.

(c) Ratification would signal US interest in reinforcing the barriers against CBW, and could enhance the US position as regards the possible initiation or negotiation of any further arms control measures in the CBW area.

Cons:

(a) A ratification without an interpretive statement regarding RCA's and herbicides (i) could cause grave doubts on the legality of our present use of tear gas in
Vietnam* and (ii) preclude future use of this weapon with the consequent loss of its military value.

(b) In the view of many members of the international community and Parties to the Protocol, it would restrict certain "first-use" options for tear gas, other non-lethal RCA's in wartime, and CW and BW incapacitating agents which we might wish to retain, ruling out the use of these agents even for "humanitarian purposes".

D. Should the United States decide not to ratify the Geneva Protocol, choosing perhaps to make official pronouncements reaffirming United States CBW policy?

Pros:

1. It would avoid taking any firmer official position on the Protocol, particularly before the Senate during the ratification process, which might result in a restrictive interpretation of the Protocol and deny useful military options. (State and Defense differ over the scope of the prohibitions in the Protocol. See legal views at the end of this section.)

2. Ratification is not strictly necessary to establish US support for the principles and objectives of the Protocol in view of past official statements supporting and announcing adherence to those principles and objectives.

* This disadvantage could be overcome if the decision were accompanied by a statement indicating this was a unilateral policy change not required by international law. (ACDA)

This disadvantage may, in part, be justified by an official pronouncement declaring that the United States has made a unilateral policy change toward the legal content of the Geneva Protocol. On the other hand, such an official pronouncement would not overcome the propaganda effects which unfriendly States would enjoy. As such, an official statement of this kind would be harmful rather than beneficial (DOD)
3. It would avoid the disadvantages of ratifying the Protocol with a reservation that might not have international acceptance.

Cons:

1. Non-ratification would be regarded by many nations who are aware of our current policy review as representing a negative outcome to this review, and would leave us vulnerable to propaganda exploitation by the Soviet Union.

2. Non-ratification would be seen as a blow to progress in disarmament and arms control measures in the CBW field.

3. Non-ratification would represent loss of an opportunity to: (a) strengthen the legal force of the Protocol and international restraints on the use and proliferation of CW and BW agents; (b) take a positive step, which would be welcomed by the international community; (c) reinforce past US official statements on the "no first-use doctrine"; and (d) reaffirm past US votes in favor of resolutions calling for strict adherence to the principles and objectives of the Protocol.
E. Legal Issues

1. The Department of State

(a) While the interpretation of the Geneva Protocol, as qualified by standard reservations, is not free from ambiguities, the most persuasive interpretation is that it prohibits the first-use in warfare among parties of (i) all biological weapons and agents and (ii) all chemical agents and weapons except (i) herbicides and (ii) those riot-control agents widely used for domestic law enforcement purposes when they are used for "humanitarian purposes." Most States, including the US in official statements at the UNGA in December 1968 and at the CCD, maintain that the term "bacteriological" in the Protocol includes all "biological" agents and weapons.

(b) While use of "asphyxiating" and "poisonous" gases is clearly prohibited by the 1925 Protocol, the term "other gases" is ambiguous. Some have suggested that a distinction may be drawn between lethal and non-lethal chemical agents. However, there is no basis in the negotiating history of the Geneva Protocol for making this distinction. In addition, there is no objective way to differentiate lethal from supposedly non-lethal chemical weapons. Many States, and the Secretary-General of the United Nations, interpret the words "other gases" in the Protocol as prohibiting the use in warfare of any C weapon or agent, including herbicides and tear gas, under all circumstances. The United States, speaking through the US Ambassador to the United Nations, has taken the position that the Protocol does not prohibit the use in warfare, for humanitarian purposes, of anti-personnel C gases which are widely used by governments to control riots by their own people. Today, this would permit the use of tear gas for humanitarian purposes, since it is the only riot-control agent presently widely used by governments domestically.

(c) The central purpose of the Protocol is humanitarian—to prevent the use of a class or classes of agents in warfare that cause unnecessary suffering. Wide domestic use of tear gases for riot control purposes and the absence of permanent or long-term damaging effects provide
grounds for arguing that use of these agents in warfare is not inconsistent with the purpose of the Geneva Protocol. The primary rationale for an interpretation amounting to a total ban on chemical agents—that there is no reliable and non-controversial distinction between legal and illegal agents on the basis of their harmless nature—may be overcome if legal agents are limited to those widely used by governments for domestic law enforcement purposes. Moreover, the humanitarian purposes of the Protocol are not offended, but rather furthered when these agents are used in combat in a manner calculated to reduce enemy and civilian casualties. It cannot, however, be argued that use of these agents in conjunction with other weapons to facilitate the killing or wounding of the enemy furthers the humanitarian purposes of the Protocol. Any attempt to distinguish between the use of poisonous gas itself to create casualties, and the use of non-poisonous gas in conjunction with other deadly weapons to create casualties, is not persuasive in the context of the purposes of the Protocol, and would almost certainly be widely condemned.

(d) The Department of State has also taken the position that the principles of the Protocol have become part of customary international law. Thus, in Congressional correspondence in 1967, it was stated that "We consider that the basic rule set forth in this document [the Protocol] has been so widely accepted over a long period of time that it is now considered to form a part of customary international law." While the establishment of these principles as customary international law is not free from doubt, this conclusion is based on the practice and statements of States, including the United States, and the nature and purpose of the Protocol. Most recently, over 90 States, including the United States, have voted for UN resolutions (in 1966 and 1968) that demand strict and unconditional compliance with the "principles and objectives" of the Protocol. The establishment of the principle of the Protocol as customary international law renders inoperative reservations of some States which seek to apply the Protocol only to other Contracting States. All States, whether or not Parties to the Protocol, are bound to observe rules of customary international law.
(e) Some have argued that there is no "humanitarian purposes" limitation either in the Protocol or under customary international law on the ways in which RCAs can be used in warfare. The United States has sought to establish a broader exception that would permit the use of such agents in connection with conventional fire to kill enemy troops. Most states which have expressed views and the Secretary-General take the position that the Protocol prohibits any use of tear gases in warfare. Accordingly, if the United States determines to ratify the Protocol and wishes to maintain the option to use tear gas "for humanitarian purposes," an express interpretation to this effect should accompany ratifications.*

(f) If the United States were to determine to maintain the option for unrestricted use of tear gas and other incapacitants, it would be necessary not only to include (with the advice and consent of two-thirds of the Senate) an express interpretation or reservation to this effect in ratifying the Protocol, but also to take the position that the United States does not recognize any customary international law restriction on such uses and to oppose UN resolutions evidencing such a customary law limitations.

2. The Department of Defense

The Department of Defense does not agree with the Department of State position that the Geneva Protocol now states principles of customary international law and that its prohibitions extend to the type of agents now being employed by the United States in Vietnam.

First, the Protocol language, itself, only purports to bind the Parties "as between themselves," and the many reservations limiting its application further deprive it of any general law declaring effect and convert

*It is State's view that if this position is adopted, any public statements on the extent of the United States obligations under customary international law could and should be avoided.
it into a confusing array of contractual relationships. That there is, at the least, major disagreement on the Protocol’s legal effect is reflected in the UK study tabled at the ENDC in Geneva in August 1968:

"(ii) Jurists are not agreed whether the Protocol represents customary international law or whether it is of a purely contractual nature."

The reason for this disagreement is obvious. The reservations to the Protocol create the following congeries of differing contractual relationships, depending upon the substance of the reservation, and upon whether other ratifying States have accepted or objected to the reservations.

(a) States which have ratified the Protocol without reservations have an unqualified commitment with all other such States, in which no use of the prohibited weapons is legal, except, the limited right of reprisal.

(b) All States taking reservations concerning non-party States have qualified their obligations to permit use against a State which is not a party.

(c) Reserving States have qualified their legal obligation so that a use of the prohibited weapon is legal if another State or its allies have first used it against them. The language of the reservations regarding this "second use" however, is not clear, i.e., whether any and all CW or BW agents may be employed as a second use or whether the second use is limited to the specific CW or BW agent used by the first using State.

(d) All States which have objected to the State or States making reservations, have either prevented the Protocol from coming into force between them, or have established a contractual relationship modified in terms of the reservation and objection.
These varying contractual relationships, which confuse the interpretation and application of the Geneva Protocol, clearly show that the States which have ratified it did not intend to declare rules of customary international law. Further, they deprive the Protocol from being an adequate "source" of customary international law. This conclusion is buttressed by a recent study conducted for ACDA by the noted publicists Ann and A. J. Thomas, of Southern Methodist University School of Law. After surveying the confusion, they concluded:

"The best that can be said, therefore, of the Geneva Protocol is that it does not constitute a completely legal obligation even between its signatories. It establishes a whole host of legal regimes which seem to be impossible to untangle." (At page 102)

Second, while it is true that the practice of States since the 1925 Protocol has generally shown compliance coinciding with its provision, there is no evidence to show that such compliance was based on legal restraints rather than policy reasons, facts which must be shown to deduce a rule of law from State practice. Nor is there evidence to show that compliance was necessarily linked to the Geneva Protocol. Indeed, the United States representative recently stated categorically in the United Nations that the United States considered that non-use of C&B agents during WW II was based upon the fear of retaliation rather than on the Protocol's legal restraint. (Ambassador Fisher, November 27, 1967.)

Finally, recent discussions of Western disarmament expects in NATO (US Mission NATO 4454) demonstrates no consensus on the subject of whether or not the Geneva Protocol now states customary international law. Only the Netherlands was willing to come out affirmatively
on this point. The UK opinion was that there was "some evidence" of a customary rule, while Italy and Belgium expressed doubt. Denmark stated categorically that no such customary rule existed.

Third, with regard to the type of agents which are prohibited by the Protocol, the DOD agrees with the DOS that the Protocol language is ambiguous. The DOD is of the further view that the Protocol does not prohibit the use of incapacitants, RCA, herbicides or defoliants.

There is, in fact, considerable disagreement among States on the Protocol's coverage, i.e., whether all gases, or whether only those which are lethal in nature are prohibited. This is a matter which is not resolved by the Protocol. A UK study tabled at the ENDC in August 1968, stated, in this regard:

"(IV) There is no consensus on the meaning of the term "gases" in the phrase "asphyxiating, poisonous or devices." The French version of the Protocol renders "or other" as "ou similaries" and the discrepancy between "other" and "similaries" has led to disagreement on whether non-lethal gases are covered by the Protocol."

The Department of Defense view is supported not only by the Practices which have been sanctioned by the United States Government for the use of RCA in Vietnam, but also by many statements of policy by United States' officials on these practices. These statements demonstrate, contrary to the DOS position, that taken as a whole, US justification of its use of RCA's in Vietnam is that these agents are not banned by the Protocol or by international law—not on the narrow ground that a "humanitarian purpose" exception exists. Further, there is no evidence that this distinction proposed by the Department of State—that riot
control or incapacitants may be used in warfare only for "humanitarian purposes"--has been accepted by all or even a majority of States. The negotiating history of the Protocol does not show that this doctrine of "humanitarian purpose" was even considered by its draftsmen. In the DOD view, use of RCA's or incapacitants is either prohibited by the Protocol or it is not. There is no basis for the argument that their use is permitted for "humanitarian" purposes and prohibited for all others.

The Department of Defense view is that there are no rules of customary international law which prohibit, per se, the use of any chemical agent reasonably employed to secure a military objective, other than the generally accepted principle that weapons shall not be used against non-combatants or to cause unnecessary suffering, and those rules which state that a soldier who is hors de combat is not a lawful target under the laws of war. Whether or not the enemy is hors de combat, however, is a factual and not a legal question. There is no rule which says that gases and conventional weapons cannot be used together. There is, instead, the above-mentioned test to be applied on a case-by-case basis to the facts. This position is in accord with that developed by Thomas and Thomas for ACDA (pp 171-173), referred to above. There is no support for the DOS argument that CW or BW agents--or any other weapon--shall be used "only for humanitarian purposes" i.e., only to save lives or reduce casualties.

With respect to biological agents the Department of Defense takes the view that the term "bacteriological" is vague and ambiguous and was not intended to encompass organisms which are not "bacterial" in nature. Other biological organisms such as rikettsiae, viruses and fungi under this view do not fall under the Protocol's prohibition.

This view is supported by the "draft convention on biological warfare" tabled by the United Kingdom at the ENDC in June 1969, the purpose of which is to...
overcome the ambiguous provision in the Geneva Protocol concerning "bacteriological" warfare. The United Kingdom considers this term "not sufficiently comprehensive to include the whole range of microbiological agents."

Additionally, since the Protocol prohibition of "bacteriological methods of warfare" is only an extension to such agents of the basic Protocol prohibition, the same rationale as set forth above with respect to chemical agents would apply to incapacitating bacteriological agents. Hence, such agents are considered to be beyond the reach of the Protocol.

Finally, it should be noted that if DOS views on the status of the Geneva Protocol as customary international law and on its scope are adopted by the US Government, and if public pronouncement of such adoption is made, the effect would be for our Government to brand itself and its allies as lawbreakers, and to publicly announce that our own actions in Vietnam and those of our allies, were and are contrary to established principles of international law. Further, if the option is taken to ratify the Protocol with an interpretation that RCA's are prohibited per se by the Protocol, as some States contend, we would be in the anomalous position of saying it is a crime to use RCA's against enemy soldiers but legal to use the same agents against our own civilians in peace time.