CONVENTION ON CHEMICAL WEAPONS
(TREATY DOC. 103-21)

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BEFORE THE
COMMITTEE ON FOREIGN RELATIONS
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MARCH 13, 21, and 28, 1996

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CONVENTION ON CHEMICAL WEAPONS
(TREATY DOC. 103-21)

WEDNESDAY, MARCH 13, 1996

The committee met, pursuant to notice, at 2:16 p.m. in room SD-419, Dirksen Senate Office Building, Hon. Jesse Helms (chairman of the committee) presiding.

Present: Senators Helms, Lugar, Pell, and Robb.

The CHAIRMAN. The committee will come to order.

The committee is in a series of votes on the Senate floor. I have already voted on the first vote. Senator Pell will vote on this vote and cast his vote on the second one and come over here and relieve me, and we will do the best we can. We thank you very much for being here.

This hearing marks the first in this committee's final round of hearings on the Chemical Weapons Convention [CWC]. Parenthetically, a lot of people, when we say convention, they have another definition of the word. But what we are talking about, I will say to some of the young people in the audience, is the Chemical Weapons Treaty.

Today's witnesses include four distinguished citizens who are very knowledgeable on this issue. Amorett Hoeber is president of AMH Consulting and she served as Deputy Under Secretary of the Army during the Reagan administration; and Mr. Baker Spring, who is a senior policy analyst at Ed Feulner's shop, the Heritage Foundation. Mr. Spring has written extensively on the Chemical Weapons Convention.

The Honorable Michael Moodie, who is Assistant Director for Multilateral Affairs at the Arms Control and Disarmament Agency during the Bush administration and who is currently president of the Chemical and Biological Arms Control Institute; and last and certainly not least, Dr. J.D. Crouch, representing the Southwest Missouri State Department for Defense and Strategic Studies. It is interesting. Dr. Crouch served as Deputy Assistant Secretary of Defense for International Security Policy during the administration of George Bush.

It goes without saying that we are so grateful to you for appearing here today as the committee begins consideration of the Chemical Weapons Convention. At the outset, I guess it is safe to conclude that there is pretty general agreement that a verifiable treaty accomplishing real reductions in those abhorrent weapons will
clearly be in the interest of the United States and the American people.

However, in all candor, I must observe that this particular arms control agreement is not, in my judgment, verifiable. Nor do I believe it stands a chance of accomplishing reductions in the arsenals of countries hostile to the United States.

So, the purpose of this afternoon's hearing is to examine the national security implications of the CWC and I feel obliged to lay out just a few issues I hope our witnesses will touch upon in their respective testimonies.

First of all, just as one Senator, I am troubled that some who came before this committee in the past and who vowed that the CWC will indeed create a global ban on chemical weapons and/or that it will create an international norm against their possession or use.

Now, it seems to me precisely the opposite is true; 6 of the 14 countries that are suspected by the United States of possessing chemical weaponry have not even signed the CWC, let alone ratified it. Among those are the rogue regimes most hostile to the United States, Libya, Syria, Iraq, and North Korea. Moreover, to my knowledge, not one country outside of Europe that has ever had an offensive chemical weapons program has ratified this Convention. Not one.

So much for this dangerous nonsense, as I consider it to be, circulated by some and the major news media. They are famous for saying that this is the end all, be all. The fact is that it is not a comprehensive ban. In fact, Russia, the country that possesses the largest and most sophisticated chemical weaponry arsenal in the world, has signaled that it has no intention of abiding by its commitments to eliminate its chemical weaponry stockpile, despite our bilateral agreement with Russia to get rid of these weapons.

There has not been one iota of progress in persuading the Russians to implement their agreement. To the contrary. Russia has consistently refused to come clean about the true size of its chemical weapons stockpile. And Russia simply has not informed anybody about the status of its binary chemical weapons program.

This, it seems to me, is an ominous sign of things to come in terms of being in the slightest show of good faith regarding Russia's willingness to eliminate its chemical weapons capability.

Now then, equally troubling to me is the fact that this chemical weapons treaty is unverifiable. I have already made that clear. This proposed treaty will not enable anyone to determine when a country is cheating on it.

The then-Director of Central Intelligence, James Woolsey, declared in testimony before this committee June 23, 1994, "The chemical weapons problem is so difficult from an intelligence perspective that I cannot state that we have high confidence in our ability to detect noncompliance especially on a small scale." And that was the then-Director of the CIA speaking.

I was just as much astounded recently that the intelligence community has concluded that the vast majority of countries now possessing chemical weapons, even if they were to ratify the CWC, would be highly unlikely to abide by it and get rid of their chemical weaponry.
Well, I guess I am talking about the tip of the iceberg. There is a whole array of other problems associated with this treaty which I hope you gentlemen and lady will discuss today. I also hope that the news reports will temper and tone down a little bit their tendency to lead the American people into false security on this problem by convincing the American people that somehow their lives will be made more safe if this treaty is ratified.

The truth is, that it borders on being a fraudulent suggestion that this Chemical Weapons Convention is somehow a panacea for the problem of chemical weapons. Indeed, it ranks somewhere between snake oil and miracle powders.

It will be both interesting and helpful in hearing the judgment from our panel of experts regarding the CWC's scope and verifiability, the need for chemical weapons defenses, the wisdom of foregoing our offensive deterrent, and their assessment of the overall potential impact of the CWC on our national security.

Having said all that, ladies first. We will hear from you, Ms. Hoeber.

STATEMENT OF MS. AMORETTA HOEBER, FORMER DEPUTY UNDER SECRETARY OF THE ARMY, ARLINGTON, VA

Ms. HOEBER. Thank you, Mr. Chairman, for inviting me to testify here today.

I feel like you have already, however, given most of my testimony. You will find me in a great deal of agreement with your remarks.

I am pleased to have the opportunity to help frame this upcoming debate with you on the ratification of the Chemical Warfare Convention. I have a full statement to submit for the record, and with your permission, I will summarize it here.

The CHAIRMAN. Very well.

Ms. HOEBER. I take a strong position against the ratification of the Chemical Weapons Convention. I take this position because I do not believe the treaty to be in the national security interest of this country. As was indicated earlier, I was Deputy Under Secretary of the Army and prior to that, I was Principal Deputy Assistant Secretary for Research, Development and Acquisition during the Reagan administration.

In both those roles, I spearheaded the Army's efforts in all chemical warfare matters between 1981 and 1986. That included revitalizing our defenses. It included redressing the deficiencies in our retaliatory posture with the binaries. It also included orchestrating the beginnings of the Army's chemical demilitarization program, the program that at that point we had put in place to demilitarize our obsolete unitary stockpile.

I believe that the Reagan administration had exactly the right approach in chemical warfare matters: deterrence of the possibility of chemical warfare through preparedness concurrently with eliminating those portions of our stockpile which were obsolete and no longer contributed.

I recognize that the Chemical Weapons Convention that you have before you today was tabled in a fashion by the administration that I served. There have, however, been a number of changes in what is now in front of you as compared to what there was put forth
then and I do also have to say that I believe that was an inconsist-
ency of policy in the Reagan administration itself. I argued inter-
nally against the tabling at the time and I continue to argue
against the Convention publicly today.

There are a number of reasons why I believe that the treaty
should not be ratified. First, as you noted, it should be clearly un-
derstood that it will not rid the world of chemical weapons, as
many of the proponents seem to argue. In fact, in my view, it will
not even increase by very much our ability to know that it has not
rid the world of chemical weapons.

This is true for several reasons. First off, as you noted, it clearly
will not be global. I note that Libya, according to recent CIA re-
ports, is about to start its big, new chemical weapons facility, and
we will not even know, again as you noted, whether a country
abides by it. Today, we know relatively little about the existing
chemical stockpiles around the world even where they have been
declared. Take, for example, how little we know about Iraq, even
with the intelligence focus on that country and 4 years' worth of
very intrusive inspection.

Also, if the treaty were universally signed and even if the origi-
nal declarations were accurate, there is no assurance that a coun-
try would continue to abide by the terms of the treaty and the vio-
lations could be of militarily significant magnitude.

You will hear other testimony regarding verification so I will not
dwell very much on it. I just would like to emphasize that you all
should not be swayed merely by the fact that, if followed, the treaty
reporting requirements on acquisitions and use of particular chemi-
cals will generate data. The mere fact that we get information is
not the same thing as verification. Information can be misleading.
It can be obfuscating, and as time and technology changes, it can
be irrelevant.

I strongly believe that this treaty will have little effect on the
issue of whether we have to assume that chemical weapons remain
a threat.

Second, the Chemical Weapons Convention is likely to have little
impact on the elimination of chemical weapons anywhere in the
world except in the United States. In the case of the United States,
our program to demilitarize is already underway and we are fully
committed to complete it, at least for the unitary weapons.

That was decided a long time ago. In the absence of any arms
control issues it was decided because of national security, because
those weapons no longer contributed to national security, and that
part of the program will clearly continue.

There are, however, two negative impacts that the treaty will
have relating to the chem demil program, and one impact of the
 treaty is that it would add to the list of weapons to be demili-
tarized, the modern, binary retaliatory weapons which while we
have relatively few of them, in fact, form the core of our deterrent
capability today.

The second thing that it would do to the demil program is that
it would put a date when the program had to be completed and
that will both increase the expenses of this very expensive pro-
gram—they are now talking about $13 billion and it is still going
up—but it will also eliminate the possibility of examining alter-
native technologies which in the future might be able to do the job better, cheaper, and faster.

In the case of Russia, as you noted, not only have they indicated no intent to accomplish the demilitarization under the terms of the treaty, but they really do not have the capability to implement it, in any event. Today, we are the only people that are helping Russia. We are providing them almost a billion dollars to support their chemical demilitarization program including, incidentally, providing them with a very modern laboratory at the facility that is still being suspected of producing new chemical agents.

But if one grants that we are providing them the assistance today that they need, what are they going to be able to do in the future, and do we have every intent of funding their program as well as our own? And we are talking about a program that would cost at least as much as ours.

Third, and to my mind the most important reason not to ratify this treaty, is that by purporting to rid the world of chemical weapons, ratification of the treaty would virtually guarantee the usual American idealistic response of complacency, of assuming that the treaty solved all of our chemical weapons problems.

This will have an inevitable effect of reducing the support, both in the Congress and in the Department of Defense, for the entire range of programs, equipment, training, and intelligence that are necessary to maintain our troops' capability to defend against chemical weapons.

This will increase not only the attractiveness of accumulation of such weapons by our adversaries, but also the impact on our troops should they ever be used against us. It will also reduce our effectiveness to counter terrorism using chemical material and likely, therefore, increases the attractiveness of this type of terrorism to those who wish to horrify us.

History has shown that in every case the ratification of a treaty by the United States has been perceived as reducing the threat to the United States whether or not such a reduction actually occurs. As a result, expenditures on research, development, acquisition, intelligence, and so forth, have been cut drastically in every case.

I cite as my first example the Biological Weapons Convention which resulted in a more than 50-percent cut in research and development of protection against biological agents within a year after its ratification. And as you will note, we are just now in the position of having to get back into funding that defense again.

Another key example is that of the START treaties in the early 1970's. The ratification of these treaties made rapid and severe cuts in research and development in both U.S. ballistic missile penetration measures and in defense of the U.S. population against third country ballistic missiles and terrorist ballistic missiles.

A so-called Safeguards program was put into effect when that treaty was ratified; however, after 1 or 2 years, the funding for that fell off drastically until the Reagan administration regenerated it, and now some very important people in the Congress are again attempting to get us a ballistic missile defense capability.

Let us talk about what is happening today relative to chemical defense for the Armed Forces. There is already an impact of this treaty even prior to your serious consideration of ratification. You
will recall that in Congress last year, you all found it necessary to increase the funding the Pentagon had allocated for chemical defense matters.

Next, Fort McClellan is about to be closed. Fort McClellan is the only live agent training facility in the Western world. It is used today for military training and some civilian antiterrorist training. It is the only place where you can go and work with real, live agents, and I have been through that training course. I am, I believe, the only civilian female that the Army has allowed to go through that course, and I found it an absolute necessity to understanding how to really handle defense against chemical weapons.

Losing Fort McClellan is a serious blow to our capabilities to defend and I believe that to be a direct result of this treaty being put forth for your consideration for ratification.

A few months ago there was also a move in upper circles in the Pentagon to cut $1 billion from the 5 year chemical defense budget. That was 36 percent of the projected defense expenditures for chemical defense. This maneuver failed but only because the proponents were not yet thoroughly prepared. I believe that it may win next year when they have the treaty to rest themselves on, even more if, unfortunately, it were to get ratified.

I also note that there is a very fragile industrial base to support chemical defense in this country. Most of the companies that work with the military forces in providing defensive measures are small. They do not build things that are expensive and widely noted, like aircraft carriers or airplanes. They are very much on the edge in terms of funding and the threatened cutbacks are close to putting some of these companies out of business, in my view. Should these companies actually be put out of business, we will have no recourse for regenerating this defense when we will need it again.

The fourth and final point I wish to make is that even those who support arms control treaties because it is a "good thing to do," should be leery about this treaty. It makes a mockery of arms control objectives themselves.

To see what this treaty does to the concepts of arms control, it is necessary to understand why some consider this treaty essential. It is only because another treaty, the Geneva Protocol, has failed. You might ask why has the Geneva Protocol failed, and the reason is, there is no impact of international norms. I have met International Norm and he is not who you think he is.

International norms have not had any impact in this arena so far, and yet it is precisely because those international norms have failed that some argue that we need an additional treaty.

The logic of this escapes me. If international norms were not strong enough in the case of the Iran-Iraq conflict or in the case of the use of chemicals against the Kurds, where people were actually being killed, what makes people think that international norms would be strong enough to prevent or punish a violator of a new treaty? The so-called solution to one treaty's failure through ratifying another treaty is an exercise in fantasy. It cheapens the currency of arms control, as well as avoiding the real problem.

The only solution is to develop and maintain a coherent capability to defend against the threats. In the absence of willingness to take the steps necessary to maintain our own national security pos-
ture, I believe this treaty is worse than meaningless. It is a pre-
tense and a fantasy.

Thank you.

[The prepared statement of Ms. Hoeber follows:]

PREPARED STATEMENT OF MS. HOEBER

Thank you, Mr. Chairman, for inviting me to testify before you today. I am
pleased to have the opportunity to help frame the upcoming debate on the ratifica-
tion of the Chemical Weapons Convention.

I am here to take a strong position against ratification of the Chemical Weapons
Convention. I take this position because I do not believe that the treaty is in the
national security interests of the United States.

As was indicated in my introduction, during the Reagan Administration I was the
Deputy Under Secretary of the U.S. Army and, prior to that position, the Principal
Deputy Assistant Secretary of the U.S. Army for Research, Development and Acqui-
sition. In both these roles I spearheaded the Army's efforts in chemical warfare mat-
ners between 1981 and 1986. The chemical matters that I oversaw included the
Reagan Administration's programs to revitalize our chemical defenses and to re-
dress the deficiencies in our deterrence posture through initiating the production of
the binary chemical stockpile. My responsibilities also included orchestrating the be-
ginnings of the Army's chemical demilitarization program—the program to destroy
our unitary chemical stockpile.

I believe that the Reagan Administration had exactly the right approach in chemi-
cal warfare matters—deterrence of the awful possibility of chemical warfare through
preparedness concurrently with eliminating those items of our military stockpile
that no longer contributed to that preparedness.

I recognize that the Chemical Weapons Convention you now have before you was
tabled by the Administration I served. That was an inconsistency of policy that I
argued against at the time, internally within the Administration. I continue to
argue against this policy publicly today, because I do not believe it to contribute to
stability in the new international order.

There are a number of reasons why I believe that the treaty should not be rati-
fied. Given the limited time available for my testimony, I will summarize a few of
my gravest concerns and perhaps I can address other aspects of the issue in answer
to any questions you all might wish to pose.

First, it should be clearly understood by the Committee and by the Senate as a
whole that, contrary to statements by the proponents of the Chemical Weapons Con-
vention, this treaty won't "rid the world of chemical weapons." It won't even increase
by very much our ability to know that it has not "rid the world of chemical weapons."

This is true for several reasons:

• The treaty will clearly not be global and, in fact, several countries of foreign
  policy concern to the United States—for example Libya and North Korea—have
  already indicated that they will not sign the Convention and that they will not
  be bound by it. Libya in particular, according to public reports of the CIA, is
  seriously pursuing a significant chemical program and is about to put on line
  its big new chemical agent plant.

• We won't know, even in the case of signatories to the treaty, whether a country
  really has chemical weapons or not. Declarations under the treaty by countries
  who wish to sign for political purposes and yet conceal or send up smoke
  screens about their capabilities are meaningless and our intelligence capabili-
  ties to challenge a country on its declaration are limited. Today we know rel-
  atively little about chemical stockpiles around the world, even where they have
  been declared. Take, for example, how little we knew about the chemical pro-
  grams in Iraq, even given the heavy intelligence focus on that country and the
  four years worth of extremely intrusive inspections since Desert Storm. Even
  if one were to believe that all future information generated as a result of the
  treaty would be accurate and informative, there is no way we can count on the
  information about the past and present being so.

• Even if the treaty were universally signed, and the original declarations were
  accurate, there is no assurance that it would be abided by and little confidence
  that violations of military significance will be detectable. Hence we won't really
  be assured that we know whether a country is making chemical weapons or has
  obtained chemical weapons. On this latter point, we should be extremely con-
  cerned about the potential for loss of control of the Russian stockpile. It could
  be a source of chemical weapons for countries who don't want to go to the trou-
  ble to make them.
You will hear other testimony regarding the details of the lack of efficacy of the verification regime, therefore I will not dwell on that issue very much. But I do want to emphasize that you should not be swayed merely by the fact that, if followed, the treaty reporting requirements on the acquisition and use of particular chemicals will generate “data.” The mere fact that we may get additional “information” from signatories complying with the reporting requirements of the treaty does not constitute verification. Information is not intelligence. It can be misleading; it can be obfuscating; and, as time and technology relative to chemical weapons change, it can be irrelevant. Neither the information gathered from those complying with the reporting requirements nor the information from inspections would be usable, in my view, to draw truly meaningful conclusions.

Hence I strongly believe that this treaty has little effect on the issue of whether we have to assume that chemical weapons remain a threat.

Second, the Chemical Weapons Convention is likely to have little impact on the elimination of chemical weapons anywhere in the world. 

- In the case of the United States, our program to demilitarize our chemical munitions is already underway and we are fully committed to complete it. I don’t want to get too sidetracked here, but it is essential that you all understand that the issue of whether the United States should eliminate the vast majority of its own chemical weapons stockpile was decided a long time ago—with my support—during my tenure in the Pentagon. I note for the record that the demilitarization program was initiated in the absence of any treaty requirements. The decision was made on the perfectly rational national security basis that the unitary chemical munitions long stored by the U.S. Army had been obsolete for some time and that their continued storage was not appropriate. Since it was decided on a unilateral basis for valid reasons, this U.S. chemical demilitarization program will continue, whether or not the Chemical Weapons Convention is ratified, because it makes sense.

- There are, however, two negative impacts that the treaty will have relating to the chemical demil program. One impact of the treaty would be to add the modern, binary chemical retaliatory weapons, of which there are relatively few, to the list of munitions to be destroyed. I don’t think that this addition makes sense. I believe that even though this Administration has forsaken, as did the Bush Administration, the use of the binaries in retaliation to a chemical attack on our forces, thus rendering them impotent as a deterrent, this was a policy that could have been overturned under some circumstances. The mere existence of the binaries, per se, cannot have done other than created some uncertainty relative to what we might have done had chemicals been used against us during Desert Storm.

Another impact of the treaty relative to the elimination of the U.S. chemical stockpile would likely be an increase in the controversy if not the already burdensome expense of that program (currently estimated to cost about $13 billion and still increasing). The treaty would do this by creating a time pressure for completion that would virtually eliminate the consideration of new technology in the demil process. As I noted above, the demil program is well under way for reasons completely independent of the treaty. The Army’s Johnston Atoll facility has been operational for several years; the Tooele, Utah, facility is about to go on line this fall; the contract for the third facility, in Anniston, Alabama, has just been decided. Further facilities are planned. There is, however, some public dismay about the technology being used to destroy these munitions—incineration. As I noted in my introductory remarks, I have been involved in this program since its inception, and I know that the reverse assembly/incineration process is thoroughly safe. However, because it depends on incineration, the program still raises public concerns. In response to these concerns, the Army has underway a measured program to evaluate alternative technologies to be used for some of the remainder of the stockpile. Given the deadlines of the treaty, however, there may well be insufficient time available to give such alternatives a fair and complete examination.

- In the case of Russia, which has declared the largest stockpile of obsolete chemical weapons in the world, the problems in accomplishing demilitarization in the time frame of the treaty are truly insurmountable. Russia has neither the technical nor the financial resources to even begin actual demilitarization of their stockpile. Today we are planning to provide almost a billion dollars to support the Russian chemical demilitarization program. There are some questions about whether the entire program makes sense, in the context of concerns about continuing Russian pursuits of advanced chemical agent capabilities. For example, we are providing them with a modern, sophisticated chemical laboratory at precisely the facility that has been and remains under suspicion for having a
role in continued Russian chemical weapons research. We are also planning to provide them with the technical and financial resources to build a pilot plant for demilitarization, a plant which could easily be converted to more nefarious uses should the world order change again. But leaving the issue of whether this sort of technology transfer makes sense aside, if one grants that our assistance is needed to allow them to accomplish demilitarization, is our country prepared to fund not only our own $13 billion program but also a Russian one of at least equivalent cost over the next decade? If not, there is no question in my mind that the elimination of the declared Russian stockpile will not occur, whether the treaty obligates them to implement such an elimination program or not.

Third, and to my mind, most important by purporting to “rid the world of chemical weapons,” ratification of the treaty would virtually guarantee the usual American idealistic response of complacency, of assuming that the treaty solved all chemical warfare related problems. This will have an inevitable effect of reducing the support both in the Congress and in the Department of Defense for the entire range of programs—equipment, training, intelligence—to prepare our troops to defend against chemical weapons. This will increase not only the attractiveness of the accumulation of such weapons by our adversaries but also the impact on our troops should they ever be used against us. It will also reduce our effectiveness to counter terrorism using chemical material and likely, therefore, increase the attractiveness of this type of terrorism to those who wish to horrify or harm our populations.

- History has shown that in every case the ratification of a treaty by the United States has been perceived as reducing the threat to the U.S. military, whether or not such a reduction actually occurs. As a result, expenditures on research, development and acquisition of vital materiel, on intelligence collection, and on training and equipping forces to defend against that threat are cut drastically. Such expenditures are seen as unnecessary or wasteful because, according to the often popular American view, the “treaty solved the problem.”

I cite as one example the Biological Weapons Convention, which resulted in more than a 50% cut in research and development of protection against biological agents within a year after its ratification. There was also a reduction in our intelligence focus on biological warfare activities at the same time, although the dollar amount of that reduction is harder to determine. We were thus unable to determine the actual facts of the Soviet biological warfare activities at, for example, Sverdlovsk, until relatively recently when certain information became available to us because of some increased openness between ourselves and Russia. And we are just now beginning to recognize that we had better spend more time, money and attention on the biological weapons threat.

Another key example is that of the SALT treaties of the early 1970s. The ratification of those treaties resulted in rapid and severe cuts in research and development on both U.S. ballistic missile penetration measures (because SALT was to have reduced Soviet ballistic missile defense) and defense of the U.S. population against third country and possibly terrorist ballistic missiles (because it was threatening to the treaty to implement even what active defenses the treaty itself allowed). A so-called “Safeguards” program to maintain research and development on ballistic missile defense technology was supported by the Congress concurrently with the ABM Treaty part of SALT. However, after one or two years of funding, even this program rapidly fell out of the visual scope of the country and became almost moribund until the Reagan Administration revived it. We are now, nationally, again in the midst of a debate relative to the ABM treaty and the propriety of developing and perhaps even deploying a light area ballistic missile defense. Will we ever learn? Treaties don’t solve problems by themselves. Treaties at their best are indications of already solved problems—treaties at their worst are fantasies. This one comes far closer to the latter than the former.

- Let’s talk about what is happening today relative to the chemical defense posture of our armed forces. As the sometimes-called “mother of the Chemical Corps,” I view with considerable dismay the current impact of the treaty on the thinking of much of our defense establishment. I view with even more about the impact that the treaty would have if it were ratified. The attitude of assuming that the treaty has solved everything in the chemical world has already taken hold. Let me give you some facts:

—You in Congress will recall that last year you found it necessary to increase the funding the Pentagon had requested for chemical defense materiel.

—The Pentagon put forth Ft. McClellan for the third time this past Base Closure Commission cycle, and the Commission finally included it on their list. Fort McClellan is the only live agent training facility in the Western world. Today it is used for military training and some civilian training (and could
be used for more civilian training to counter the potential terrorist threat). This live agent training capability cannot, in reality, be duplicated anywhere else in this country. Losing Fort McClellan and its capabilities is a serious blow to the chemical defense and counter-terrorism preparedness of the United States.

A few months ago, during the development of the long-term budget plans, there was a move in the upper circles in the uniformed military in the Pentagon to cut approximately $1 billion from the five-year chemical defense budgets (38%), coincidentally an amount that is almost exactly what we are planning to provide to the Russians during this same time frame for their demilitarization program. This maneuver failed, but only because the proponents were not yet thoroughly prepared. It may win next year.

The industrial base that provides the chemical defense materiel for our troops is composed primarily of small companies, manufacturing relatively minor items of equipment in relatively small numbers. This is a fragile industrial base, not high on the lobbying scope in this town because it is "small potatoes." It's not tanks or airplanes or carriers. But this base is on the edge because of the pending and threatened cutbacks, and many of these companies are seriously considering getting out of the business. Should they do so, we won't have the option to build back up again when we again come to our senses.

- It is far more difficult to provide for chemical defenses than it is for an adversary to manufacture chemical offensive materiel—even given the constraints of having to do it clandestinely, were the treaty to go into effect. People, including those in Congress, have supported the efforts to provide American troops with quality chemical protective gear over the years. The value of this support was demonstrated in Desert Storm. However I am truly concerned about maintaining sufficient support will remain should this treaty be approved. These programs had a relatively low priority and it was hard to keep them funded when there was a clear and defined threat from the major adversary of the Cold War; one can only imagine how low the priority will be when those who have different priorities can lean upon the Chemical Weapons Convention to rest their case.

The fourth and final point I wish to make is that even those who support arms control treaties because it's a "good thing to do," should be leery about this treaty, because it makes a mockery of arms control objectives themselves.

- To see what this treaty does to the concepts of arms control and international law, it is necessary to understand why it is that some consider this treaty essential. And that reason is because another treaty, the Geneva Protocol, which bans the first use of chemical weapons, has failed. It has been violated time and again since its ratification. You might ask, though, why it has failed? The reason is that it has failed because there is no impact of "international norms." And yet the argument is made by proponents of the Chemical Warfare Convention that it is precisely those "international norms" that are being depended upon for preventing the Chemical Warfare Convention from failing.

Let me give an example of the impotence of "international norms"—when chemicals were used in the Iran/Iraq conflict and when chemicals were used against the Kurd noncombatants, the international community was horrified. The "international norms" against that use were as strong as they have ever been. Yet the international community was still not able to figure out what to do about it. No sanctions were ever imposed; no resolutions were ever passed condemning that use; nothing was ever done about that treaty violation except that there was some increased pressure by arms control proponents to conclude the negotiations of the treaty you are considering today—the Chemical Weapons Convention.

The logic of this escapes me. If "international norms" were not strong enough to effectively isolate or punish a country whose violations resulted in deaths, what makes some people think that the "international norms" would be strong enough to prevent or punish a violator of a new treaty which involved only possession of a prohibited weapon?

This so-called solution to one treaty's failure through ratifying another treaty is an exercise in fantasy. It cheapens the currency of arms control as well as avoids the real problem.

The real problem is that there are, in fact, threats that need to be dealt with. History has shown us that adversaries—and there will always be unexpected adversaries—will take advantage of weaknesses. We can't just wish them away. Therefore the only solution is to develop and maintain a coherent capability to defend against the threats. In the absence of willingness to take the steps necessary to maintain
our own national security posture, this treaty is worse than meaningless. It's a pre-
tense. And I ask that the Senate not impose this pretense upon the American peo-
ple.

Thank you for your attention.

The CHAIRMAN. Thank you very much. Obviously we are singing, indeed, from the same hymnbook.

Ms. HOEBER. Yes.

The CHAIRMAN. I am going to take my leave, and Senator Pell, the distinguished ranking member of the committee, will preside in my absence. I have to go vote, and you have already voted.

Let me say, while Senator Pell and I are both here, that in my judgment, this subject is so important that I want to ask unanimous consent of the committee to have the proceedings printed so that we can give the widest possible distribution. Because the media is not even represented here today, that I can tell. And it is important that the American people learn what the facts are. So I put that in formally. I ask unanimous consent that it be in order to have these proceedings printed.

Senator PELL. Without objection.

I would note in support of what you say that there is not a single body at the press table.

The CHAIRMAN. Right. Senator Pell, here is the gavel, and you handle it gently, please, sir. I will be back in a little bit.

Senator PELL [presiding]. Thank you.

I am very pleased to welcome our witnesses before the committee today. This hearing will augment the series of hearings held in 1994 on the Chemical Weapons Convention. I commend the chairman for his present plan to complete these hearings this month, if possible. Under a unanimous consent agreement, the committee is expected to finish its work by the end of April. These several wrap-up hearings now contemplated should be of particular value to our new members, and should help in dealing with any current concerns with regard to the treaty.

The Chemical Weapons Convention was signed in Paris on January 13, 1993, in the last few days of the Bush administration. President Clinton submitted the Convention to the Senate the following November. In 1994, I chaired six open hearings and 2 closed sessions of the Committee on Foreign Relations to assess in depth the Chemical Weapons Convention. Our witnesses included the Secretary of State, the Arms Control and Disarmament Agency Director, the chief negotiator of the treaty, the Chairman of the Joint Chiefs of Staff, and other executive branch witnesses, as well as intelligence community officials.

The committee was careful to include among its outside witnesses a number of supporters and critics of the treaty. Throughout the process, we were careful to accommodate all requests and concerns of the members of the committee, including Senator Helms, the committee's present chairman.

On the basis of the extensive and thorough hearings conducted earlier by the committee, I concluded that the Chemical Weapons Convention was a sound and important undertaking. Its purpose, to rid the world of the lethal and debilitating chemical weapons, is certainly laudable. I do not operate under the illusion that the Convention will resolve all of our chemical weapons problems. But it
will be a significant milestone in the effort to rid the world of this class of weapon.

Nevertheless, with the entry into force of the Chemical Weapons Convention, one can expect that there will be a tremendous worldwide increase in public support for the removal of chemical weapons. Chemical weapons have been a plague since they were first used in the trenches of Europe in World War I. The public disgust with regard to those weapons led to the 1925 Geneva Protocol against the use of chemical weapons in war.

In the 1970's, the Biological Weapons Convention was a major milestone. Now, the Chemical Weapons Convention offers us the opportunity to take another major step.

I would now call on Mr. Spring, if he would care to present his testimony. Mr. Spring is the senior policy analyst with the Heritage Foundation. Mr. Spring.

STATEMENT OF BAKER SPRING, SENIOR POLICY ANALYST, HERITAGE FOUNDATION, WASHINGTON, DC

Mr. SPRING. Thank you, Mr. Chairman, for inviting me to testify today on the Chemical Weapons Convention, and whether ratifying the Convention serves the national interest.

In the interest of time, I would like to summarize my remarks here, and ask that my entire statement be entered in the record.

Senator PELL. Without objection, it will be done.

Mr. SPRING. Thank you, Mr. Chairman.

At the outset, let me say that the Senate's decision on ratification of this agreement, whichever way the decision goes, is certain to have profound implications for the future course of arms control and nonproliferation policy. All of us, regardless of our views on the Chemical Weapons Convention itself, can agree that this decision by the Senate is an important one. Indeed, the debate over the Chemical Weapons Convention is really over competing notions of the proper role of diplomacy and arms control in protecting the Nation's security.

With that, let me describe my concerns about the Convention. Any arms control agreement, in order to deserve the support of the Senate, in my view, should pass a five-part test. This test should serve to determine whether a particular arms control agreement meets the minimum standards necessary to serve the national interest. The test consists of five questions, all of which must be answered affirmatively when applied to a particular agreement, to ensure that it does not contain a fatal flaw.

The Chemical Weapons Convention fails to pass this test in all five particulars, and let me go over each question with regard to the Convention.

The first question is: Will the Chemical Weapons Convention reduce the risk of war? In my judgment, no. By undermining the U.S. chemical deterrent, the Chemical Weapons Convention may increase the likelihood of war. The Chemical Weapons Convention is the product of a policy that equates reduced levels of armaments with greater security. But the experience of World War II shows that having chemical weapons can deter a chemical attack.

If the United States bans all its chemical weapons, outlaw states that retain them will then have a military advantage they are like-
ly to see as a means to challenge the United States militarily. This incentive to challenge the United States is a prescription for war.

Question 2: Are Chemical Weapons Convention's requirements consistent with America's global responsibilities? Again, the answer is no. The Chemical Weapons Convention, by treating all nations alike, fails to acknowledge America's special role in global security. With the cold war over, the United States is the world's superpower. Superpower status imposes important global responsibilities which the United States can fulfill only by maintaining armed forces capable of projecting overwhelming force around the world.

Because America has these special responsibilities, it is treated as an exceptional case under the Nuclear Non-Proliferation Treaty regarding possession of nuclear weapons. The same principle should apply to America's chemical weapons arsenal.


In a devastating report prepared for the Defense Nuclear Agency in 1991, contractors stated, "detecting most types of cheating will be highly unlikely, if not impossible." This committee itself was notified of the problems with verification during a June 23, 1994, hearing. At that hearing, then-Director of Central Intelligence James Woolsey stated, as the chairman noted, "but still the chemical weapons problem is so difficult from an intelligence perspective that I cannot state that we would have high confidence in our ability to detect noncompliance, especially on a small scale."

Question No. 4: Are the provisions of the Chemical Weapons Convention enforceable? Again, in my judgment, they are not. Violations of the Chemical Weapons Convention are likely to go unpunished. The Chemical Weapons Convention makes only a feeble attempt to address the question of enforcement. It states that unspecified sanctions can be imposed on a state that is violating the Convention, either by the Organization for the Prohibition of Chemical Weapons, or by the United Nations.

Ultimately, the U.N. Security Council would have to impose penalties severe enough to change the behavior of an outlaw state. But the five permanent members of the U.N. Security Council are in a position to veto any enforcement resolution lodged against them. China and Russia, for example, will be able to veto resolutions imposing sanctions on them for violations of the Convention.

Question 5: Does the Chemical Weapons Convention enhance U.S. national security? This is the most important question. No. By making arms control an end in itself, the Chemical Weapons Convention will not serve to protect U.S. national security. Arms control is one of only several means for achieving the goal of national security. A comprehensive security strategy will make room for the tools of deterrence, defenses, and even offensive military operations, as well as arms control.

The Chemical Weapons Convention does not meet this most basic test, by requiring that the United States completely abandon its chemical deterrent. It makes no sense for America to give up its chemical weapons if, as a practical matter, other nations still possess them.
By way of analogy, would it be in the U.S. interest to conclude a similar agreement relative to nuclear weapons? Such an agreement would require the United States to dispense with its nuclear arsenal, even though some other countries may retain nuclear weapons.

This is no longer an academic question. India, among other nations, is demanding that the United States commit to such an agreement in principle at the negotiations over banning nuclear tests at the Conference on Disarmament in Geneva. The precedent set by U.S. ratification of the Chemical Weapons Convention would indicate that the United States is willing to accept a similar agreement attempting to ban nuclear weapons.

Mr. Chairman, the Chemical Weapons Convention is a flawed agreement. Likewise, existing U.S. policy to counter chemical attacks is also flawed. As a result, I hope the Senate will consider a different approach.

Two treaties serve as models for agreements on controlling weapons of mass destruction throughout the world: The Nuclear Non-Proliferation Treaty of 1968 and the Biological Weapons Convention of 1972. The Biological Weapons Convention is a discredited treaty. It seeks to ban biological weapons in their entirety by requiring all participating states, including the United States, not to develop and deploy biological weapons. But it is now known that the Biological Weapons Convention was violated by the Soviet Union from the beginning.

Further, a report issued by the Arms Control and Disarmament Agency on May 30, 1995, states that China, Iran, Iraq, Libya, Russia, and Taiwan either definitely have or may have violated the terms of the BWC. Thus, despite evidence that other countries retain biological weapons, the United States has destroyed its biological deterrent. The Nuclear Non-Proliferation Treaty, by contrast, has been relatively successful. While it has not prevented the spread of nuclear weapons, it has limited proliferation significantly.

Today, only a handful of countries outside of the five declared nuclear states have nuclear weapons. More important, the Non-Proliferation Treaty did not require the elimination of the U.S. nuclear deterrent. Unfortunately, the Chemical Weapons Convention adopts the same flawed approach as the Biological Weapons Convention. And therefore the Senate has grounds for concluding that the Chemical Weapons Convention is flawed.

If this conclusion were reached, the Senate could request the Clinton administration renegotiate the terms of the Chemical Weapons Convention so that it is modelled on the Nuclear Non-Proliferation Treaty. This is the better approach, and I hope this committee, and the Senate as a whole, considers it as an option.

With that, Mr. Chairman, I look forward to answering any questions, you or other members of the committee may have.

[The prepared statement of Mr. Spring follows:]

Prepared Statement of Mr. Spring

Thank you, Mr. Chairman, for inviting me to testify today on the Chemical Weapons Convention and whether ratifying the convention serves the national interest. At the outset, let me state that the Senate's decision on ratification of this agreement, whichever way the decision goes, is certain to have profound implications for the future course of arms control and non-proliferation policy. All of us, regardless
of our views on the Chemical Weapons Convention itself, can agree that this decision by the Senate is an important one. Indeed, the debate over the Chemical Weapons Convention is really over competing notions of the proper role of diplomacy and arms control in protecting the nation’s security. With that, let me proceed to a description of the history behind the Chemical Weapons Convention.

THE DECADES-LONG EFFORT TO BAN CHEMICAL WEAPONS

Mr. Chairman, the history behind the Chemical Weapons Convention is a long and tortuous one. It has long been the aim of diplomats to curtail both the use and stockpiling of chemical weapons. Among the earliest attempts in modern times to ban the use of chemical weapons was the 1907 Hague Convention. Approved by the European powers, the convention prohibited the use of weapons containing poison, but the widespread use of chemical weapons in World War I proved that this prohibition had little effect. After the war, a League of Nations conference convened in Switzerland to approve the 1925 Geneva Protocol, which prohibited the use of both biological and chemical weapons in war, but not their development, production, and stockpiling. Among the countries signing the Geneva Protocol were the U.S., France, Germany, Britain, Italy, and Japan. Unlike the 1907 Hague Convention, the Geneva Protocol was successful once war broke out. Chemical weapons were not used widely during World War II, but this success was due to implicit threats by allied leaders, particularly President Franklin Roosevelt, to respond in kind to any chemical attack. It is one of history’s clearest examples of a successful deterrence policy.

The Geneva Protocol is still in force, and the U.S. honors its terms, although it did not ratify the protocol until 1975. It is, however, a weak agreement. If countries violate it, they remain unpunished, and there are no established procedures for determining the veracity of reported claims of biological or chemical weapons use. It is sometimes referred to as the “no first use” agreement because participating states agreed to comply with its terms so long as biological or chemical weapons were not used against them first. Some states, including the U.S., ratified the agreement with the reservation that it would cease to be binding if they were attacked first.

Violations of the Geneva Protocol have occurred on several occasions since the end of World War II. The Soviet Union and its clients, for example, used mycotoxins, commonly referred to as “yellow rain,” against civilians in Afghanistan and Southeast Asia in the 1970s and 1980s, and Iraq used chemical weapons during its eight-year war with Iran in the 1980s.

Negotiations leading to the Chemical Weapons Convention began in 1971 when the U.N. Conference on Disarmament’s predecessor organization, the Eighteen-Nation Disarmament Committee, voted to conduct separate talks on banning biological and chemical weapons. This allowed for the conclusion of the Biological Weapons Convention, which banned the production and stockpiling of biological and toxin weapons in 1972, but put negotiations to ban chemical weapons on the back burner for well over a decade.

By the mid-1980s, the Reagan Administration, expressing concern over the large-scale Soviet chemical weapons program, began producing a new generation of chemical munitions for the U.S. military. The subsequent U.S. program was legal because the 1925 Geneva Protocol outlawed only the use, not the development, production, and stockpiling, of chemical munitions.

Diplomatic efforts in the 1980s focused on stopping the spread of chemical weapons to Third World countries. In 1984, Australia proposed to establish controls on the export of ingredients that could be used to manufacture chemical weapons. This proposal was made to the Organization for Economic Cooperation and Development (OECD), an organization of the industrialized states to coordinate economic development policies for the Third World. The Australians wanted participating countries to coordinate export control policies to stem the transfer of chemical weapons-related technologies to the Third World. Specific restrictions and enforcement mechanisms were left to individual governments. The "Australia Group" now has 29 members, including such prominent nations as the U.S., France, Britain, and Japan.

The informal and voluntary nature of the Australian proposal has limited its effectiveness. For example, the enforcement of the export restrictions falls to individual member governments, but industrialized nations have a spotty record on how vigorously they enforce export restrictions. In the 1980s, a Phillips Petroleum Company subsidiary in Belgium delivered the chemical thiodiglycol (used in manufacturing mustard gas) to Iraq, and Britain is reported to have sold thiodiglycol and thionyl chloride to Iraq in 1988 and 1989. Both transfers were contrary to the commitments made by Belgium and Britain in the Australia Group. Export control policies, while useful to pursue, by themselves cannot stop the spread of chemical weapons.
President George Bush came to office determined to ban chemical weapons. President Bush and Soviet President Mikhail Gorbachev signed an agreement on June 1, 1990, in Washington to reduce the chemical stockpiles of the U.S. and the Soviet Union to 5,000 metric tons each. No accord, however, was reached outlining inspection procedures for confirming the destruction of these weapons. That was left to subsequent negotiations, which were supposed to be completed by December 31, 1990. This deadline passed without agreement between Moscow and Washington, and the "bilateral destruction agreement" has yet to be brought into force. This failure, to some extent, was due to the turmoil in the Soviet Union, which was collapsing politically. Further, both sides were aware that progress was being made on the Chemical Weapons Convention at the U.N. Conference on Disarmament, and that this convention would have extensive inspection procedures and would ban the weapons entirely.

Despite the setbacks at the bilateral level with Russia, President Bush announced on May 13, 1991, that the U.S. would agree to a complete ban of chemical weapons even if some other nations did not eliminate their arsenals. Bush also pledged that the U.S. would forswear the use of chemical weapons under any circumstances, including situations in which U.S. forces are attacked with such weapons first.

Until that time, Washington had reserved the right to use chemical weapons if attacked with them first and to maintain a chemical weapons stockpile for the purpose of deterrence and possible retaliation. This unilateral concession by the U.S., along with another to drop the demand for stringent "any time, anywhere" inspections of possible chemical weapons facilities, put the Chemical Weapons Convention negotiations on the fast track. The final draft of the convention was completed on September 3, 1991, in Geneva. It was signed in Paris by more than the 65 countries required for ratification to bring the convention into force, including by the United States. Now the Senate, in fulfilling its role to advise and consent to all treaties, must decide whether the United States will ratify the Chemical Weapons Convention.

PROVISIONS OF THE CHEMICAL WEAPONS CONVENTION

Mr. Chairman, I think it also would be useful to the committee to review the content of the Chemical Weapons Convention. The purpose of the convention is to ban chemical weapons and forbid their production, stockpiling, and use by participating states. It would do so by establishing elaborate procedures for eliminating chemical weapons no later than ten years after the convention enters into force and by requiring the elimination of chemical weapons production facilities within the same ten-year period. The convention, however, does not require the destruction of toxic chemicals, their precursors (chemicals that can be combined to form toxic chemicals), or facilities that are used for peaceful purposes. Likewise, small stockpiles of lethal chemicals may be retained for the development of defenses against chemical weapons. These chemicals, precursors, and production facilities are subject to verification measures to detect any attempt to convert them into weapons. The convention is of unlimited duration, which is designed to make the destruction of chemical weapons permanent.

Overseeing the implementation of the agreement will be a large international bureaucracy that in many ways resembles the International Atomic Energy Agency (IAEA), a U.N. agency that fosters cooperation among nations in the peaceful uses of nuclear power. In a similar vein, a new chemical weapons bureaucracy will be created, the Organization for the Prohibition of Chemical Weapons. Headquartered at The Hague, this organization will have three parts. The first will be the Conference of State Parties, consisting of the representatives of all states participating in the convention. It will establish general policies for implementing the convention and will oversee the functions of the organization. The second will be the Executive Council, the executive arm of the organization, consisting of the representatives of 41 participating states picked to achieve geographic balance. The third will be the Technical Secretariat, led by a Director General, who will be responsible for carrying out the inspections to verify compliance.

The first meeting of a commission preparing the groundwork for the chemical weapons organization took place on February 8, 1993, at The Hague. Since that meeting, the Preparatory Commission has focused on building the Provisional Technical Secretariat, the forerunner of the monitoring agency that will be created after the convention comes into force. Activities of the Preparatory Commission thus far have included finding a building to house the agency, establishing inspection procedures, drafting inspection manuals, procuring and testing inspection equipment, and hiring and training inspectors. According to the Arms Control and Disarmament Agency, the 1995 budget for the Preparatory Commission was roughly $17 million, of which the U.S. paid 25 percent. Once up and running, the Organization for the
Prohibition of Chemical Weapons will operate at a cost of about $200 million annually. On the basis of a 25 percent contribution, U.S. taxpayers could be expected to pay $50 million annually to support this international organization.

The verification responsibilities of the Technical Secretariat are vast. The convention's Annex on Implementation and Verification (verification Annex), over 100 pages long, establishes a long list of inspections to verify that chemical weapons and chemical weapons production facilities are destroyed. The Technical Secretariat also is tasked with ensuring that commercial chemical production facilities are not used to develop and produce weapons. The Verification Annex outlines a number of inspection procedures, including the timing of inspections, the appointment of inspectors, the privileges and immunities that governments must extend to inspectors, and the equipment inspectors may bring with them.

The Verification Annex establishes eight different kinds of inspection regimes, all of which must be carried out by the Technical Secretariat. The first kind of inspection verifies whether chemical weapons are destroyed. The second is to verify the destruction or conversion of chemical weapons production facilities. The third, fourth, and fifth kinds of inspections are to detect whether certain types of chemicals have been used in building chemical weapons, based on how easily each of three categories (schedules) of chemicals can be turned into weapons.

The sixth kind of inspection pertains to production facilities that produce chemicals not found in any of the first three schedules. The seventh is the most sensitive insofar as it involves short-notice inspections of states suspected of violating the terms of the convention. The final kind of inspection requires investigating sites where chemical weapons have been used.

At first, the U.S. demanded that so-called challenge inspections be allowed anywhere and at any time a violation was suspected. It ultimately abandoned this approach in favor of a British proposal for so-called managed access to suspect sites. Under this provision, the inspected state may take steps to guard its national security, as long as they do not involve evading the convention's terms. In order to protect its security, an inspected state may remove sensitive papers; shroud displays and equipment; log off computers; restrict the types of analyses that may be carried out on air, soil, and effluent samples; and even limit which inspectors may gain access to particular areas at a suspect site.

The inspection process is long and involved. It starts with OPCW officials inspecting the locations declared by a member state as weapons sites. The declaration must be filed with the Technical Secretariat no later than 30 days after the convention enters into force. Work on destroying the chemical weapons at the sites must begin within two years and must be completed within ten years.

Once on a weapons site, inspectors will place seals and monitoring devices to guard against a violation. Similar procedures, such as for placing cameras, exist for monitoring whether chemical weapons, production facilities, and non-weapons chemical production facilities have been destroyed. As many as 1,000 inspections a year may be required.

Operating this complex arrangement of inspection regimes will prove costly to U.S. industry and the government. According to expert David Evans of Analytic Services, Inc., of Arlington, Virginia, U.S. industry can be expected to incur costs of between $20 million and $200 million annually to support the inspection process. The higher costs are more likely in the early stages of implementation of the Chemical Weapons Convention. But this general cost to industry assumes that everything goes as planned. If the mechanism in the convention to protect proprietary and other sensitive business information fails, Mr. Evans estimates that the cost to business could exceed $1 billion annually. The U.S. government will have its responsibilities for implementing the convention as the national authority serving as an intermediary between industry and the Organization for Prohibition of Chemical Weapons. The cost of these activities to the U.S. government is estimated to be $25 million annually.

The Chemical Weapons Convention also contains a provision on compliance. The Executive Council bears the responsibility for demanding that a participating state redress a violation. If corrective action is not taken, the Conference of State Parties may suspend the offending state's privileges under the convention. This could include terminating cooperative programs to assist states in developing chemicals for peaceful purposes or denying the offender the right to vote in the Conference of State Parties. In more serious cases of violation, stricter countermeasures would be taken. For example, trade in all chemicals with the offending state could be shut off. In cases where a threat to the security of other states, the Conference of State Parties may refer the matter to the United Nations General Assembly and the United Nations Security Council. Ultimately, the Security Council serves as the court of final appeal in the enforcement process.
A FIVE-PART TEST OF ARMS CONTROL AGREEMENTS AND THE CHEMICAL WEAPONS CONVENTION

Mr. Chairman, any arms control agreement, in order to deserve the support of the Senate, should pass a five-part test. This test should serve to determine whether a particular arms control agreement meets the minimum standards necessary to serve the national interest. The test consists of five questions, all of which must be answered affirmatively when applied to a particular agreement to insure that it does not contain a fatal flaw. These five questions are: 1) Does the agreement reduce the risk of war? 2) Are the agreement's requirements consistent with U.S. global security responsibilities? 3) Is the agreement adequately verifiable? 4) Is the agreement enforceable? and 5) Does the agreement enhance national security? The Chemical Weapons Convention fails to pass this test in all five particulars.

Question #1: Will the Chemical Weapons Convention reduce the risk of war?

Answer #1: By undermining the U.S. chemical deterrent, the Chemical Weapons Convention may increase the likelihood of war or result in the escalation of an existing conflict.
Reducing the level of armaments is not the most important goal of arms control. Reducing the risk of war is far more important Arms control agreements should not be destabilizing. It is counterproductive to achieve an arms control agreement that, by reducing arms, only invites attack.

Yet this is precisely what the Chemical Weapons Convention will do. The Chemical Weapons Convention is the product of a policy that equates reduced levels of armaments to the elimination of war, with greater security. But the experience of World War II shows that having chemical weapons can deter a chemical attack if the U.S. bans all of its chemical weapons, outlaw states that retain them will have a military advantage.

Almost as important as reducing the risk of war is the goal of preventing the escalation of an existing conflict to a higher level of violence. The Chemical Weapons Convention, although unintentionally, will encourage escalation in two ways. First, chemically-armed enemies, knowing that the U.S. and its allies do not possess chemical weapons, will have little incentive to refrain from using such weapons. They will enjoy a unilateral advantage over the U.S., and in time of war they are likely to use it. Second, the convention may increase the likelihood that nuclear weapons will be used. Lacking chemical weapons, the U.S. will be forced to rely on nuclear weapons to deter a chemical attack on U.S. forces. While it is prudent to reserve the right to use nuclear weapons, it is certainly unwise to take steps that lower the threshold for the employment of nuclear weapons.

Question #2: Are the Chemical Weapons Convention's requirements consistent with America's global responsibilities?

Answer #2: The Chemical Weapons Convention, by treating all nations alike, fails to acknowledge America's special role in global security.

With the Cold War over, the U.S. is the world's sole superpower. Superpower status imposes important global responsibilities which the U.S. can fulfill only by maintaining armed forces capable of projecting overwhelming force around the globe. Because America has these special responsibilities, it is treated as an exceptional case under the Nuclear Non-Proliferation Treaty.

The same principle should apply to America's chemical weapons arsenal. In Europe, Asia, the Middle East, and elsewhere, the U.S. has proved on numerous occasions that it exercises its unmatched power in a manner that is both responsible and respectful of the legitimate interests of other states. But America's global responsibilities also mean that its forces are the most likely to be engaged in major conflicts. The more dangers America faces, the greater the likelihood that chemical weapons will be used against U.S. forces.

The Chemical Weapons Convention ignores the special responsibilities of the U.S., treating all countries in the same manner. It assumes that U.S. troops face the same likelihood of chemical attack as the tiny constabulary force fielded by Costa Rica, which has the same rights and obligations under the treaty. In this way it contrasts sharply with one of the more successful arms control agreements of the post-World War II era, the Nuclear Non-Proliferation Treaty, under which the U.S. and four other nations (Britain, China, France, and Russia) are treated in a manner fundamentally different from all other nations. The Nuclear Non-Proliferation Treaty accounts for the special responsibilities and broad political roles played by these five acknowledged nuclear weapons states in world affairs. The Chemical Weapons Convention also could have done so, simply by adopting the same discriminatory approach established by the Nuclear Non-Proliferation Treaty.
Question #3: Is the Chemical Weapons Convention adequately verifiable?

Answer #3: Despite elaborate and burdensome verification provisions, compliance with the Chemical Weapons Convention cannot be adequately verified.

The Chemical Weapons Convention is not adequately verifiable. Many lethal chemicals are common and have peaceful uses, and trying to keep track of all these chemicals throughout the world is an impossible task. In a devastating report prepared for the Defense Nuclear Agency in 1991, contractors stated: “Detecting most types of cheating (possible under the Chemical Weapons Convention) will be highly unlikely, if not impossible.” This committee itself was notified of the problems with verification during a June 23, 1994, hearing. At that hearing, then-Director of Central Intelligence James Woolsey stated: “But, still, the chemical weapons problem is so difficult from an intelligence perspective that I cannot state that we have high confidence in our ability to detect noncompliance, especially on a small scale.”

Question #4: Are the provisions of the Chemical Weapons Convention enforceable?

Answer #4: Violations of the Chemical Weapons Convention are likely to go unpunished.

Verification of compliance with an arms control agreement is not enough. The U.S. also must be able to do something if other countries are caught violating the agreement.

The Chemical Weapons Convention makes only a feeble attempt to address the question of enforcement. It states that unspecified sanctions can be imposed on a state that is violating the convention, either by the Organization for the Prohibition of Chemical Weapons or by the United Nations. Ultimately, the United Nations Security Council would have to impose penalties severe enough to change the behavior of an outlaw state.

The history of the Biological Weapons Convention provides an object lesson in what can go wrong with this agreement. Starting in the early 1980s, the U.S. acknowledged that it suspected the Soviet Union of violating the Biological Weapons Convention. Yet the U.S. never lodged a complaint with the U.N. Security Council, which is charged with resolving the Biological Weapons Convention’s enforcement problems just as it would under the Chemical Weapons Convention. The reason for this inaction is clear: If the U.S. had lodged a complaint against the Soviet Union, Moscow simply would have vetoed any enforcement resolution brought before the U.N. Security Council. China and Russia will have an equivalent veto authority against enforcing the provisions of the Chemical Weapons Convention as they pertain to their programs.

Question #5: Does the Chemical Weapons Convention enhance U.S. national security?

Answer #5: By making arms control an end in itself, the Chemical Weapons Convention will not serve to protect U.S. national security.

This question establishes the most important test of arms control. Arms control is one of several means for achieving the goal of national security. It should never be thought of as an end in itself. Reduced arsenals are not always better. A comprehensive security strategy will make room for the tools of deterrence, defenses, and even offensive military operations, as well as arms control. In short, any arms control agreement must serve the supreme purpose of foreign policy, which is protecting the nation’s security.

The Chemical Weapons Convention does not meet this most basic test. The convention requires that the U.S. completely abandon its chemical deterrent. But this requirement will not enhance U.S. security. Since no country is compelled to join the convention, it will be perfectly legal for those that do not join to retain chemical weapons. And since it is unrealistic to expect countries which want to retain chemical weapons to join, the result cannot possibly be global chemical disarmament. It makes no sense for America to give up its chemical weapons if, as a practical matter, other nations still possess them. By way of analogy, would it be in the U.S. interest to conclude a similar agreement relative to nuclear weapons? Such an agreement would require the U.S. to dispense with its nuclear arsenal even though some other countries may retain nuclear weapons. This is no longer an academic question. India, among other nations, is demanding that the U.S. commit to such an agreement in principle at the negotiations over banning nuclear tests at the Conference on Disarmament in Geneva. The precedent set by U.S. ratification of the Chemical Weapons Convention would indicate that the U.S. is willing to accept a similar agreement attempting to ban nuclear weapons.
TOWARD AN EFFECTIVE COUNTER-PROLIFERATION POLICY: THREE PRINCIPLES

Mr. Chairman, the Chemical Weapons Convention is not just an arms control agreement; it is also a non-proliferation agreement. As such, it carries important implications for U.S. non-proliferation policy. While the U.S. has a clear interest in stopping the proliferation of chemical weapons around the world, an effective counter-proliferation policy cannot depend on arms control alone. A truly effective policy will balance arms control with deterrence, effective chemical defenses, and, if necessary, military options for destroying chemical weapons and weapons facilities. As the Senate considers the merits of the Chemical Weapons Convention, it should ask whether it is part of an overall counter-proliferation policy that rests on the following three principles.

Principle #1: The need to deter a chemical attack.

Deterrence requires maintaining a credible threat to retaliate for chemical attacks against the U.S. or its allies. This retaliatory threat must be able to convince any potential aggressor that he has nothing to gain by attacking the U.S. with chemical weapons.

By requiring the destruction of chemical weapons, the Chemical Weapons Convention would deny the U.S. the capability to retaliate in kind for a chemical attack. America therefore would be left with only two options in case of a chemical attack: 1) to escalate the conflict by launching large-scale counter-attacks with conventional (non-chemical and non-nuclear) arms, or 2) to retaliate with nuclear weapons. But the Clinton Administration has not made the adjustments necessary to deal with these options. Not only is it cutting the conventional forces needed to deter chemical attacks; it also has not declared that nuclear weapons have a role in deterring chemical weapons attacks.

Principle #2: The need for defenses against chemical weapons.

There are no guarantees, however, that deterrence will always work. Such dictators as Saddam Hussein and Mu'ammar Qadhafi may not act rationally in a crisis or exhibit restraint. Therefore, the U.S. needs some insurance against chemical attack if deterrence fails; it needs defenses against chemical weapons and their delivery systems. U.S. forces need to be outfitted with garments, masks, and decontamination kits, and they need to be defended as well from aircraft and missiles which may carry chemical munitions.

There certainly is room for improvement in chemical defenses. The General Accounting Office’s Director of Army Issues, Richard Davis, testified before Congress on April 16, 1991, that America’s soldiers were neither adequately trained nor equipped to conduct operations in an environment contaminated by chemical weapons. Although some progress has been made in improving the chemical defense posture of U.S. forces during the intervening years, it is unlikely that all the vulnerabilities cited by Mr. Davis in 1991 have been eliminated. As for defenses against the delivery systems used to launch chemical attacks, the Clinton Administration has cut funding for the nation’s missile defense program by more than 50 percent.

Furthermore, if history is any guide, the Chemical Weapons Convention will make it politically difficult to field better defenses. In 1969, President Nixon announced that the U.S. would forswear the use or development of biological weapons in preparation for the Biological Weapons Convention in 1972. After the Nixon decision, the U.S. biological defense program withered. This outcome was not the result of a provision in the Biological Weapons Convention outlawing defenses; it was the result of constant criticism of these programs by arms control advocates who viewed them as contrary to the spirit, although not the letter, of the Biological Weapons Convention.

The unintended consequences of the Biological Weapons Convention surfaced during the Persian Gulf War. An interim report to Congress on the results of the Gulf War stated that America’s biological defense capabilities were so weak that if the Iraqis had used biological weapons, which later evidence shows they possessed, the casualties and casualties would have overwhelmed the military medical care system.

This same sort of vulnerability to chemical attack is likely to be the unintended consequence of the Chemical Weapons Convention. The convention does not outlaw defensive programs, yet arms control advocates are sure to lobby against defenses. The argument will go that they are not needed because chemical weapons have been banned.
Defensive systems are not the sole means for countering a chemical attack. U.S. armed forces can destroy preemptively an enemy's chemical weapons and weapons facilities with air strikes and other forms of offensive combat operations. Targets for such strikes should include chemical production facilities and storage depots, as well as forces armed with chemical munitions. Destruction of the production facilities and storage depots would limit the enemy's supply of weapons, and targeting enemy forces armed with chemical munitions would lessen the chances chemical munitions will be used against U.S. and allied forces.

The Clinton Administration should be required to devise a comprehensive strategy for destroying enemy weapons and facilities in time of war. It can do so by continuing and improving Pentagon programs already underway. The Air Force has conducted "sensor to shooter" experiments with the aim of devising a system for directing attacks against enemy forces within minutes of detection. The Navy has an equivalent concept called the "cooperative engagement capability." These programs need to be coordinated and focused on destroying the weapons and forces capable of delivering chemical munitions.

**Redrafting the Chemical Weapons Convention**

Mr. Chairman, the Chemical Weapons Convention is a flawed agreement. Likewise, the existing U.S. policy to counter chemical attacks also is flawed. Neither is solely the fault of the Clinton Administration. The decisions to conclude and sign the convention and to change U.S. policy toward countering chemical attacks were made by the Bush Administration.

Nevertheless, the Clinton Administration has chosen not to alter the policies begun by the Bush Administration. As the Clinton Administration proceeds down the same path, it will be up to the Senate, as it considers the Chemical Weapons Convention, to adopt a different approach. It can do so through the advice and consent process established by the United States Constitution for approving the ratification of treaties. As it does so, it should consider that:

*A chemical weapons treaty should be modeled on the Nuclear Non-Proliferation Treaty.*

Two treaties serve as models for agreements on controlling weapons of mass destruction throughout the world: the Nuclear Non-Proliferation Treaty of 1968 and the Biological Weapons Convention of 1972.

The Biological Weapons Convention is a discredited treaty. It seeks to ban biological weapons in their entirety by requiring all participating states, including the U.S., not to develop and deploy biological weapons. But it is now known that the Biological Weapons Convention was violated by the Soviet Union from the beginning. Further, a report issued by the Arms Control and Disarmament Agency on May 30, 1995, states that China, Iran, Iraq, Libya, Russia, and Taiwan either definitely have or may have violated the terms of the convention. In most of the listed cases, it is impossible to determine with absolute precision both compliance with the convention and verification. Further, the report states that Egypt and Syria may have biological weapons programs. These two countries have signed but not ratified the Biological Weapons Convention. Thus, despite the evidence that other countries retained biological weapons, the U.S. has destroyed its biological deterrent.

The Nuclear Non-Proliferation Treaty, by contrast, has been relatively successful. While it has not prevented the spread of nuclear weapons, it has limited proliferation significantly. Today only a handful of countries outside the five declared nuclear states have nuclear weapons. More important, the Non-Proliferation Treaty did not require the elimination of the U.S. nuclear deterrent.

The Clinton Administration could have resolved many of the problems with the Chemical Weapons Convention by sending the treaty back to the United Nations Conference on Disarmament to be redrafted. The Administration, unfortunately, chose not to take this step. The Senate has the option of concluding that the treaty is flawed. If this conclusion were reached, the Senate could request that the Clinton Administration renegotiate the terms of the Chemical Weapons Convention so that it is modeled on the Nuclear Non-Proliferation Treaty.

If the Clinton Administration resists, there is a second alternative available to the Senate. The advice and consent is not limited to approving or disapproving ratification. The Senate can amend the text of a treaty. Through this amendment process, the Senate itself can alter the Chemical Weapons Convention so that it resembles the Nuclear Non-Proliferation Treaty. Doing so would require amending the convention in several articles. After adopting these amendments, the Senate could approve its ratification. The practical effect would be that the Clinton Administration...
would have to ask other treaty signatories to accept the changes made by the Senate. Thus, the net effect would be a demand to renegotiate the treaty.

* A new policy is needed to deter chemical weapons strikes.*

Changing the Chemical Weapons Convention itself, however, will not address the threat to U.S. security posed by chemical weapons. This would require changing the overall chemical weapons policy adopted by the Bush Administration. The policy established by President Bush on May 13, 1991, essentially committed the U.S. to the unconditional elimination of its chemical arsenal. This policy should be dropped, and the U.S. should state it will preserve the broadest possible array of responses to a chemical attack, including retaliation with conventional military means, an in-kind response, and, in the most extreme circumstances, a nuclear response. Further, it should not describe the specific circumstances under which it will resort to any particular response, in order to retain the greatest deterrent effect possible.

While it would be preferable that the Clinton Administration make these changes in U.S. chemical deterrence policy, the Senate also can take actions that result in the same changes. First, the Chemical Weapons Convention would have to be amended to permit a U.S. chemical deterrent. Second, the Senate could adopt a reservation—a means by which the Senate can qualify its approval of ratification—that declares that the U.S. reserves the option of retaliating against a chemical attack with nuclear weapons. I must acknowledge, however, that in order to adopt such a reservation the Senate may first be required to strike Article XXII of the convention. Article XXII bars reservations. Striking Article XXII is something that should be of general interest to the Senate in any event. Barring reservations narrows the freedom of action of the Senate in terms of its advice and consent role. The Senate should not accept any provisions in this convention or any future treaty that so limits its freedom of action.

* U.S. defenses against chemical weapons need to be improved.*

Pursuing an effective defense program is not prohibited by the Chemical Weapons Convention, even as currently drafted. In fact, the convention explicitly allows for the continuation of defense programs. The danger is that the implementation process will be hijacked by arms control advocates who oppose such programs and who will undermine them with calls for budget cuts.

The Senate can counter these pressures on U.S. chemical defense programs in three ways. First, it can provide adequate funding levels for chemical defense programs in the annual authorization and funding bills for the Department of Defense. But since the funding question is under the jurisdiction of other Senate committees, the Foreign Relations Committee may prefer to focus on establishing clearly defined standards for the military in terms chemical defense preparedness. A condition could be attached to the resolution of ratification that requires the Secretary of Defense to certify that the Department of Defense has met the requirements for improving chemical defense preparedness made by Richard Davis of the General Accounting Office in testimony before Congress. These include meeting minimum chemical training standards set forth in service regulations and properly integrating chemical defense training into the overall training program for U.S. troops.

The Senate should also set requirements for improving U.S. defenses against delivery vehicles used to launch chemical attacks, particularly ballistic missiles. This must include a requirement for the development and deployment of missile defenses capable of effectively destroying chemically armed ballistic missiles in the boost phase. The Senate could force this outcome by adopting a condition requiring the Administration to propose such a boost-phase defense for deployment by a specific date.

* The U.S. capability to destroy chemical weapons production and storage facilities, as well as deployed forces with chemical weapons, should be improved.*

Defensive systems cannot meet all the requirements for defending U.S. and allied forces and civilians against chemical attack. These can be met only by maintaining offensive capabilities for striking at enemy positions. For example, countering enemy chemical forces by striking the offensive force with opposing artillery or air strikes, as does interrupting enemy command and control networks and destroying chemical production and supply facilities.

The U.S. proved during the Persian Gulf War that it has an effective deep strike capability. Many command and control centers, for example, were destroyed by U.S. air power in and around Baghdad. But this is not to say that improvements cannot be made. For example, the U.S. had trouble countering Iraqi mobile Scud missiles with air power. To deal with this problem, the military services, and the Air Force and Navy in particular, have launched programs which are focused on enhancing the U.S. ability to strike quickly and accurately at enemy forces and facilities. The Senate should direct the Department of Defense to coordinate these programs and
focus them on countering weapons of mass destruction and their delivery systems, including chemical weapons. The Senate again has the option of adopting a condition during its advice and consent process that forces the Clinton Administration to continue these programs and gear them to meeting the weapons of mass destruction threat.

The Chemical Weapons Convention's arms control enforcement mechanisms need to be strengthened.

There are three problems with U.S. policy for enforcing compliance with the Chemical Weapons Convention. First, the Chemical Weapons Convention has a built-in conflict of interest in terms of enforcement. By establishing the U.N. Security Council as the court of last appeal in its enforcement process, the convention will allow the U.N. Security Council's five permanent members to veto any pending resolution ordering sanctions against it for an alleged violation. Any attempt to impose sanctions—on China, for example—for violating the convention are doomed to failure at the outset.

This problem can be resolved by redrafting the Chemical Weapons Convention along the lines of the Nuclear Non-Proliferation Treaty. Since the redrafted convention would establish declared chemical weapons states, it would be logical that these states be the five permanent members of the U.N. Security Council, thereby eliminating the conflict of interest.

The second enforcement problem is that the U.S. historically has been reluctant to take action to remedy a violation by an arms control treaty partner. Despite clear evidence of Soviet violations of the Biological Weapons Convention and the 1972 Anti-Ballistic Missile Treaty, the U.S. did not take the proportionate steps allowed to it under international law. Thus, the violations went unpunished.

Solving this problem will require a change in the government process for handling these issues. Currently, the Arms Control and Disarmament Agency reports annually on arms control treaty violations, but there is no requirement for follow-up. Ultimately, the law could be changed to require that the President propose a proportionate response to a reported treaty violation no later than 60 days after the report is issued. This would guarantee a substantive response once a violation is discovered.

The third problem is addressing the actions of states that refuse to ratify or accede to the Chemical Weapons Convention. This can be dealt with only by retaining a strong military posture that can deter and, if necessary, retaliate against a chemical attack. This is the ultimate insurance policy, but it can be maintained over the long term only by the actions of a Congress determined to fund and supervise America's defense programs.

CONCLUSION

Mr. Chairman, meeting the chemical weapons threat requires redrafting the Chemical Weapons Convention to declare that a few countries, including the U.S., are weapons states. It also requires a policy under which the U.S. reserves the right and capability to respond to chemical attack either in kind or with nuclear weapons, in addition to conventional means.

Perhaps the best example in history of a successful deterrence policy came during World War II. Despite the existence of chemical arsenals, chemical weapons were not used widely during that conflict. The reason: The Allied powers, including the United States, convinced the Axis that the use of such weapons would result in swift retaliation.

The U.S. may now be throwing away this successful policy. By adopting the Chemical Weapons Convention and declaring a unilateral policy of neither maintaining nor using chemical weapons, even in retaliation, the U.S. would eliminate its chemical deterrent even though it could never be sure that potential enemies have taken equivalent steps. U.S. national security interests demand that this process be reversed. The U.S. must not abandon its ability to deter attacks with chemical weapons.

Senator LUGAR. Mr. Chairman, could I make an opening statement at this time?

Senator PELL. Absolutely.

Senator LUGAR [presiding]. Thank you, Mr. Chairman.

I, too, welcome our witnesses. I have just come from a 4-hour session of the permanent subcommittee on investigations, where we were exploring this morning the growing illicit trade in weapons and materials of mass destruction and the inadequacy of U.S. ef-
forts to defend the United States against these nuclear, chemical, and biological weapon threats.

The European subcommittee of this committee sought to explore the implications of nuclear leakage and nuclear smuggling for the United States in two hearings last August. The permanent investigations subcommittee has been focussing its efforts on the chemical component of the proliferation of weapons of mass destruction. This hearing this morning was the most chilling and impressive scene-setter for our hearing this afternoon on the Chemical Weapons Convention.

Let me jump to the bottomline. If the Senate fails to act on the Chemical Weapons Convention before the end of the current legislative session, the entire enterprise may be doomed. Delay of the treaty’s entry into force for another year or two may kill it completely.

Signatories to the Convention are having trouble in The Hague, as issues long thought resolved are reopened. In Russia, environmental, military, and political concerns combine with inadequate resources and nationalist posturing to stall Russian participation. And in more than 112 countries who have signed the Convention, the verification process has yet to be completed.

Despite these problems, the fate of the CWC will be decided in Washington. And for that reason, I am pleased that Chairman Helms has scheduled these hearings. Most of the problems the Convention is encountering, be they in The Hague, the Organization for the Prohibition of Chemical Weapons, in Moscow, or in the capitals of many signatories, these problems are not of the United States’ making. But they cannot be solved without U.S. leadership.

U.S. leadership in this field can only be restored with prompt and serious consideration of this Convention, and its ratification by the U.S. Senate. The Senate must take up debate and dispose of arguments put forward by skeptics of the Convention. It must do so with recognition of both the prevailing security environment and current U.S. strategic interests.

There are a number of issues that I would hope that the committee will explore with witnesses over the course of these hearings. First, to what extent are chemical weapons a valuable military asset for the United States? If such weapons do indeed offer certain distinct military capabilities, what actual advantages do they create? And are any such advantages outweighed by the military benefits of chemical disarmament?

Second, while it is important to discuss the verifiability of the Chemical Weapons Convention, I believe it is equally important to consider whether the lack of complete verifiability is militarily important for the United States. Verification is a living, evolving process, not a mechanistic one that produces evidence of compliance or noncompliance. I hope that witnesses can explain that process and the role that the CWC verification provisions can play in it.

According to the U.S. intelligence community, the CWC could prove to be a useful adjunct to the verification capabilities of our national intelligence programs.

Third, there is the issue of cost associated with the implementation of the CWC. But all costs are relative. I would be interested in the CWC's annual implementation cost in relation to the cost to
build and to maintain the existing stockpile of chemical weapons, as well as the cost to destroy our existing CW arsenal, as Congress had already mandated.

Last, while there would be cost to the U.S. chemical industry under the CWC, I would be interested in the perceived costs to the U.S. chemical industry if the United States does not ratify the Chemical Weapons Convention. Various chemical industry spokespersons consider the CWC a trade enabling regime that could counteract trends in the future, in which U.S. chemical trade and investment could be constricted under even tighter export controls.

In the end, of course, the fundamental question the Senate must answer is whether the Chemical Weapons Convention serves the national interest. That is for each member to decide. But what is clear is that failure by the Senate to dispose of CWC this year could not only harm various U.S. interests, but nonproliferation goals more broadly.

Senate decisions on U.S. national interests should reflect an act of commission, not omission. For that reason, I applaud the chairman's decision to proceed with the hearings as the prologue to consideration of the Chemical Weapons Convention by the full U.S. Senate.

Thank you, Mr. Chairman.

Senator Robb.

Senator ROBB. Thank you, Mr. Chairman. I will not have an opening statement, but I have profited by listening to the statements of my colleagues and two of the witnesses. I hope to hear at least the opening statements of one or perhaps both of the remaining additional witnesses before I have to depart.

Thank you.

Senator LUGAR. Very well.

Dr. Crouch.

STATEMENT OF J.D. CROUCH, Ph.D., PROFESSOR, DEFENSE STRATEGIC STUDIES PROGRAM, SOUTHWEST MISSOURI STATE UNIVERSITY

Dr. CROUCH. Mr. Chairman, members of the committee, I am pleased to appear before this committee to testify on security issues related to the Senate's consideration of the Chemical Weapons Convention. I have a full prepared text that I would ask your permission to submit for the record, and I would intend to summarize my remarks.

Senator LUGAR. It will be printed in full.

Dr. CROUCH. Mr. Chairman, I do not plan on exploring the intricacies of the CWC itself, nor will I dissect the verification regime and its overall effectiveness in detecting noncompliance, as well as its potential effect on American industry and secure facilities. I would advise the Senate to take a close look at each of these issues, for the agreement has many flaws and loopholes that can be exploited by states inclined to do so.

Instead, I would like to examine a basic but often overlooked question regarding arms control agreements. Amid the myriad articles, provisions, protocols, and annexes that make up most modern arms agreements, the CWC itself is some 120 pages in length. It
is all too easy to forget what their purpose is: To make the United States of America safer.

Arms agreements are not concluded to make us feel good about ourselves or to enhance an abstract and ill-defined global security, or even to establish international norms of behavior, although sometimes they do that too. The first and only true test of arms control agreements is whether they contribute to the national security of the United States of America.

In the Chemical Weapons Convention, I cannot imagine an agreement less suited to our security needs in the post-cold war security environment. The deal implicit in the CWC is that the United States of America, its citizens, Government, and Armed Forces deployed at home and abroad will be safer by giving up its offensive chemical deterrent in the hopes that America's potential enemies will give up their chemical weapons. If we do this, we are told, the states of the world will follow our lead. If we do not, chemical weapons will continue to proliferate. That is the essence of the agreement. And I wish to explain why I believe this premise is flawed.

As I am sure the committee is aware, the Chemical Weapons Convention is not the first agreement that has tried to deal with the problem of chemical weapons use. I underline “use” in my text, because it seems to me that it is the use of chemical weapons that should be the central focus of our concern and our policy.

The 1925 Geneva Protocol banned use. The CWC was, in large part, born out of the failure of the international community to enforce the provisions of the Geneva Protocol when they were violated by states, most notably during the long Iran-Iraq war. Absent the will to enforce agreements, simply adding a new one that bans use and possession will not increase the safety of America, its allies, or our military forces.

Mr. Chairman, American military forces are designed to deter any aggression from the outset. If this deterrence fails, then we try to deter the use of certain types of military forces against our country or our allies. First and foremost, these have been called so-called weapons of mass destruction, chemical, biological, and nuclear weapons.

The Chemical Weapons Convention stands in stark contrast to the Geneva Protocol of 1925. The 1925 Protocol bans use, and particularly the way it was interpreted by the United States, offensive use. The CWC bans possession. These are two different approaches to the same end.

But, in my judgment, the CWC approach trades a weakening in the overall deterrence to use for a widespread, but by no means universal ban on possession. It does so by trading our deterrent in being for the dubious promise that this arms agreement will ensure that chemical weapons are, in the words of President Bush, eliminated from the face of the Earth.

Let me remind the committee that since World War I, the United States has not had chemical weapons used against it. While it is impossible to know exactly why deterrence works in any individual case, we must not rule out the possibility, and I would say the strong probability, that our offensive chemical weapons program
played a crucial role in deterring chemical attack on the Armed Forces of the United States.

Indeed, the historical evidence of where CW was used and where it was not used since the Geneva Protocol went into force strongly suggests that the ability to retaliate in kind is the best deterrent of chemical attack. Only once since World War I have chemical weapons been used in any significant way by states that both possessed a CW capability: The Iran-Iraq war. In this case, Iraq quite probably felt it had a major advantage over the Iranians in its offensive CW capability, in terms of numbers, sophistications of its agents, deployment means, and protection equipment and training.

All of this brings me to the judgment that the United States is abandoning, with the CWC, one of the most effective deterrents to chemical use against itself and its allies, no matter what the perceived benefits of the CWC from a diplomatic or political standpoint. The Senate should understand that the CWC will contribute to the weakening of deterrence, not to its strengthening, by eliminating the ability of the United States to respond in kind to chemical attack. A weakening of deterrence means, in practical terms, that American and allied soldiers and citizens are more, not less, likely to be attacked with chemical weapons.

The CWC may result in fewer chemical weapon states in the world, although the great majority of states that have signed and ratified the Convention have had no offensive CW program in the past, and there is no reason to expect them to develop one in the absence of the CWC. The objective of keeping a great many states who have no interest in offensive CW from developing CW programs might make us feel good about ourselves, but does it make us safer? We should care little if most of those states have chemical weapons programs in any case. What we should care about is that the states that represent interests inimical to our own will retain an offensive CW capability. I would list foremost among these Russia, China, Iran, Syria, Libya, North Korea, and Iraq.

Now, in my prepared remarks, I quote at some length on the CW programs of the states I have just listed. I will not do so now, except to quote from the final report of the intelligence community entitled "The Weapons Proliferation Threat," and this is about a year ago, March 1995. "CW proliferation will continue to be a serious threat for at least the remainder of the decade, despite a number of arms control efforts, such as the Chemical Weapons Convention. Several countries of proliferation concern, including Libya, Syria and Iraq, have so far refused to sign the CWC, and some CW-capable countries that have signed the CWC show no signs of ending their programs."

For some reason, the Russian Federation and the People's Republic of China are left out of this report on proliferation. This is surprising, because they possess real and potent offensive chemical weapons programs. They are both capable of and likely to challenge U.S. interests in the coming decade. And while both have signed the CWC, neither is, in my judgment, showing much of an effort to dismantle its offensive CW or offensive BW military programs.

Russia and China are also special cases because they have become second-tier suppliers to other Third World chemical weapons programs. Both Russia and China are supplying dual-use equip-
ment and precursors to countries like Iran, Pakistan, and Libya, thereby filling the niche created by the Western restraint through the the Australia Group. Whether this is being done as government policy, or because neither country has any significant control over the entities that are selling equipment and precursors, it is extremely unlikely that these practices will change. The CWC will certainly have no impact whatsoever on either Russian or Chinese export policies.

The purpose of this brief review of the CW threats the United States will face in the coming decade is to underscore a key point: The United States Armed Forces and potentially the American people will continue to face chemical and biological threats from likely opponents even if the CWC is implemented. The question then becomes how best to deter the use of CW.

As I have suggested, the historically most-effective deterrent to CW use has been the ability to respond in kind with chemical weapons. The CW defensive doctrine that the U.S. Armed Forces relied on up until the CWC had two pillars. First, maintain a robust passive defense capability, including detection, physical protection, decontamination, and antidotes. But, second, maintain a CW stockpile to use for retaliation purposes and, at a minimum, to force the adversary that used CW to adopt a protective posture that would degrade its operational effectiveness as much as ours.

How do we best deter a CW attack in the absence of our own offensive CW capability? And if deterrence fails despite our best efforts, how do we respond to a CW attack in ways that are both militarily effective and likely to create a strong intrawar deterrent to further CW use?

The answers I have seen coming from the civilian arms control community reflect the view that the United States can successfully deter CW attacks with nuclear forces. The military community seems to believe that U.S. advances in conventional capabilities can alone deter a CW attack. I would like to explore these two approaches with the committee briefly, and demonstrate the difficulties and risks inherent in each.

There is no question that our nuclear forces form an essential part of the fabric of deterrence that helps to deter all attacks on the United States, its Armed Forces, and our allies. However, it is a mistake, in my judgment, to rely solely or even substantially on the deterrent effect of nuclear forces to deter a chemical weapon attack. In this regard, I have three specific concerns.

First, for any deterrent to be effective, it must be both capable and credible. By credible, I mean the deterring nation must be willing to use its deterrent if attacked, or at least convince its opponents that it is willing to do so. Perhaps the most dangerous aspect of relying on the nuclear deterrent to deter CW and BW attacks comes not from a potential enemy’s misunderstanding of how the United States might respond, but from a correct understanding of how difficult a decision it would be for any American President to use nuclear forces.

How credible are nuclear forces for responding to a CW attack? Partly, this will depend on the nature of the threat, what is it we are trying to deter, is it a threat to use CW against American cities
or civilians, or is the threat focused on our Armed Forces deployed overseas, what kinds of casualties are expected.

But even in the worst-case scenario, there will be a tremendous reluctance to use or even threaten to use nuclear forces. What American President will want to be the first to use nuclear weapons in anger since the end of the Second World War?

I recall the difficulty that the Bush administration had during the Gulf war to make clear publicly and privately to the Hussein regime that any use of Iraqi CW or BW could result in a U.S. nuclear response. Without some credible threat actually to respond using nuclear weapons, just saying that we will deal with those countries that do not join the CWC with our nuclear deterrent is nothing more than whistling past the graveyard. I fear that graveyard could be filled with American soldiers that fall victim to a chemical weapons attack.

Moreover, by eliminating our offensive chemical deterrent, the United States will be putting more pressure on our nuclear forces to deter chemical and biological attack at a time when we have essentially denuclearized the U.S. Navy, completely denuclearized the U.S. Army, and we are vastly scaling back our strategic nuclear capabilities.

Outside Western Europe, the United States has no deployed tactical nuclear weapons, and there are no such forces at sea or with U.S. Army units. And it is unlikely that we would deploy those tactical nuclear assets with our conventional forces in a crisis, leaving us, I think, a very inappropriate threat of strategic nuclear forces, which would raise a serious concern about a Russian or Chinese reaction to a launch, or even the threat of the use of those forces.

We find ourselves in an unenviable position of being more reliant, from a deterrent standpoint, on nuclear weapons at a time when we have a less robust and flexible nuclear deterrent to rely on.

A second concern I have in relying on nuclear weapons is that in the future it is quite possible, even likely I would say, that the United States will face opponents not just armed with chemical weapons, but with nuclear weapons of their own. Likely candidates include North Korea, Iran, or even China.

How effective would a nuclear deterrent to chemical attack be if it forced the United States to go first against even a minimally armed nuclear opponent? There would be strong pressures to prevent escalation of a crisis or a subnuclear conflict, pressures that would certainly weaken the credibility of our nuclear forces as a deterrent to chemical attack, and may even invite such an attack.

Finally, and in the context of the above arguments, the Senate would do well to examine the existing web of international agreements and policies that already limits the options of the United States in using its nuclear forces as a deterrent to chemical attack. No doubt this committee is familiar with the current standing U.S. policy of negative security assurances to nonnuclear weapon states.

President Clinton reaffirmed this policy recently, despite our experience during the Gulf war. The United States has thus made a commitment not to use or threaten to use nuclear weapons against any state that is not a nuclear weapon state itself, or allied to a nuclear weapon state. The policy of negative security assurances it-
self could be interpreted by foreign leaders as a carte blanche to use CW and BW against the United States or other allied forces, or even against civilian populations friendly to the United States, without the implicit risk of a U.S. nuclear response.

The Clinton administration is currently contemplating signing the Protocols to the African Nuclear Weapons Free Zone Treaty that will be signed in April in Cairo. Those protocols would legally bind the United States not to use or threaten to use nuclear weapons against a country in the zone. This would include Libya as well as Egypt.

As the United States prepares to give up its ability to retaliate with CW forever, has it reviewed the combined effect of the legal obligations of the CWC and the effect of the potential obligations under the African Nuclear Weapon Free Zone Protocols to maintain a credible deterrent against potential Libyan use of CW or BW against U.S. forces or even against NATO's southern flank?

And if the United States makes this legal commitment for Africa, how can it logically resist making the same commitment for the Middle East or East Asia?

As an important aside, let me point out that the ABM Treaty of 1972 also effectively prohibits the ability of the United States to defend itself against ballistic missile attack. The demarcation proposals currently being considered by the Clinton administration will also substantially undercut the effectiveness of any theater missile defense the United States might deploy. Patriot, even an upgraded Patriot, is not the answer to CW/BW threats that we now know Saddam could have unleashed during the Gulf war. Future threats are certain to be even more stressing.

Let me turn briefly to the military view that advanced conventional weapons can deter CW use. This, in my judgment, is one of the more dangerous beliefs being spread by those seeking ratification of the CWC.

To ascertain how effective conventional forces might be, even ones possessing more lethality than those used in the Gulf war, we must first ask why is it that a nation might use CW against the United States, its forces, or its allies. The answer, it seems fairly clear, would be to intimidate the United States from intervening further in a crisis or conflict, to punish the United States for some act it has already taken, such as intervening in a conflict, or to undercut the effectiveness of our overwhelming advanced conventional advantage. In none of these cases is it obvious that advanced conventional forces will be able to deter CW use.

Mr. Chairman, I have seen the Pentagon officials assert that these advanced conventional forces can deter the use of CW and BW. But I have only seen assertions, not arguments explaining how advanced conventional capabilities can replace CW or nuclear weapons in this role. Like a mantra that is chanted over and over again, the administration seems to think that the mere repeating of this assertion will give it credibility in the minds of our enemies. Yet, the whole idea of deterrence implies that we will hold in reserve a military capability that would be used to deny or punish the use of CW or BW weapons.

What advanced military capabilities or targets for those weapons are American forces prepared to hold in reserve in a future Gulf
war conflict to dissuade a future Saddam Hussein that using CWC will not improve his war outcome? The Gulf war is instructive here.

Why did we not rely on advanced conventional weapons to deter Iraq's weapons of mass destruction use? What target sets would we have gone after with conventional forces to respond to a CW or BW attack? Would we use advanced conventional forces against civilians, and for what purpose? How would we have communicated this threat to Saddam Hussein and the Iraqi leadership structure prior to their decision to use CW?

It is far from clear that these states who would possess CW will be deterred from its use by the threat of conventional retaliation, especially if the United States or coalition forces intend to use or are already using those forces against them in a conflict. In fact, the overwhelming advantage that U.S. forces could have against a CW-capable state might actually create an incentive for CW use to level the battlefield.

Mr. Chairman, these national security concerns I have outlined today form the basis of my judgment that the CWC will not make the United States, its allies, or its Armed Forces safer in the post-cold war security environment. On the contrary, it could contribute to a weakening of CW deterrence and increase the likelihood that American forces and citizens will face attacks from chemically armed opponents.

Let me conclude with a few recommendations, very briefly.

First, the United States should reject the Chemical Weapons Convention. To stand against an arms control agreement is a difficult political decision. But unlike, perhaps, so many other areas of arms control, if the CWC fails, it will not leave these weapons beyond control. On the contrary, the proper international norm against the use of chemical and biological weapons will continue to have legal force in the 1925 Geneva Protocol. The Australia Group will continue to cooperate in the control of technology and materials to potential CW states.

Second, the United States should maintain a modest stockpile of binary offensive chemical weapons as a deterrent to use and to retaliate in kind if CW is used against U.S. forces. We can and should eliminate our stockpile of unitary weapons. Moreover, the United States should fund a research and development effort to stay abreast of the latest offensive CW threats, and to provide the best protection available for U.S. military forces.

Third, the United States should seek to cooperate with its friends, allies, and other interested parties in enforcing the Geneva Protocol's ban on the use of offensive CW. The irony of the CWC is that its negotiation was in response to the failure of that international community to respond to violations of the Geneva Protocol. Adding another unenforceable agreement will not create the will to enforce treaties.

If we are serious about the threat of chemical weapons, and I believe we should be, and establishing legal norms against their use, then we must be equally concerned with enforcement. Without enforcement, all law, especially new laws, are impotent.

Fourth, the United States should consider a modification of its negative security assurance policy that at least provides for a nuclear response to the use of nonnuclear weapons of mass destruc-
tion against the United States. Such a measure would lessen the ambiguity about the options available to the President to respond to CW, without forcing him into any kind of automatic response.

These measures, and not the CWC, are likely to provide the most effective deterrent to the use of chemical weapons against U.S. military personnel. And that objective, in the increasingly dangerous international security environment the United States will face in the next century, is far more important than taking an empty, ineffective moral stand on banning chemical weapons from the face of the Earth.

Thank you, Mr. Chairman, and I look forward to the question period.

[The prepared statement of Dr. Crouch follows:]

PREPARED STATEMENT OF MR. CROUCH

Mr. Chairman, members of the Committee. I am pleased to appear before this committee to testify on security issues related to the Senate’s consideration of the Chemical Weapons Convention. While I testify today as a private citizen, I would point out to the committee that I have been on both sides of the hearing process before, as Principal Deputy Assistant Secretary of Defense during the Bush Administration in which I dealt with, among other things, the Administration’s policy regarding the CWC; and as an aide to Senator Malcolm Wallop on the Senate Armed Services Committee.

Today I would like to share with you my thoughts and concerns about the potential security implications of the United States joining the Chemical Weapons Convention. I do not plan on exploring the intricacies of the CWC itself, nor will I dissect the verification regime and its overall effectiveness at detecting non-compliance as well as its potential effect on American industry and secure facilities. I would advise the Senate to take a close look at each of these issues, for the agreement has many flaws and loopholes that can be exploited by states inclined to do so. For example, two of the CW agents used during World War I—chlorine and hydrogen cyanide—are explicitly exempted from the treaty on the grounds that they are widely used for industrial purposes. Another example is that only declared chemical weapons production facilities need to be destroyed; many facilities inherently capable of producing chemical weapons and not declared to be currently involved in doing so can continue to operate.

I understand the committee will be hearing from experts on these subjects, such as Dr. Kathleen Bailey at Lawrence Livermore Labs, who will doubtless shed more light on these subjects.

Instead I would like to examine a basic, but often overlooked question regarding arms control agreements. Amidst the myriad articles, provisions, protocols, and annexes that make up most modern arms agreements—the CWC itself is some 120 pages in length—it is all too easy to forget what their purpose is: To make the United States of America safer. Let me quote briefly then from the mission of the Arms Control and Disarmament Agency:

"The mission of the U.S. Arms Control and Disarmament Agency is to strengthen the national security of the United States by formulating, advocating, negotiating, implementing, and verifying effective arms control, non-proliferation, and disarmament policies, strategies and agreements. In so doing, ACDA ensures that arms control is fully integrated into the development and conduct of United States national security policy."

Arms agreements are not concluded to make us feel good about ourselves, or to enhance an abstract and ill-defined global security, or even to establish international norms of behavior (although sometimes they do that too). The first and only true test of arms control agreements is whether they contribute to the national security of the United States of America. The Carter Administration used “measurable contribution” to U.S. national security as the standard. In so doing, agreements must be, in words of the ACDA mission, “fully integrated into the development and conduct of United States national security policy.” In the Chemical Weapons Convention I cannot imagine an agreement less suited to our security needs in the post-Cold War security environment.

The “deal” implicit in the CWC is that the United States of America—its citizens, government and armed forces deployed at home and abroad—will be safer by giving up its offensive chemical deterrent in the hopes that America’s potential enemies
will give up their chemical weapons. To comply with the CWC, the United States must abandon completely its offensive chemical weapons deterrent, including any modernization programs, existing CW stockpiles, and all existing production facilities. It must also give up its non-lethal CW military capability which can demonstrably save American servicemen's lives. If we do this, we are told, the states of the world will follow our lead. If we do not, chemical weapons will continue to proliferate. That is the essence of the agreement. I wish to explain why I believe that this premise is flawed.

As the committee is aware, the Chemical Weapons Convention is not the first agreement that has tried to deal with the problem of chemical weapons use. I italicize use in my text because it seems to me that it is the use of chemical weapons that should be the central focus of our concern and our policy. The 1925 Geneva Protocol banned use. The CWC was in large part born out of the failure of the international community to enforce the provisions of the Geneva protocol when they were violated by states, most notably during the long Iran-Iraq war. Absent the will to enforce agreements, simply adding a new one that bans use and possession, will not increase the safety of America, its allies, or our military forces.

Mr. Chairman, American military forces are designed to deter any aggression from the outset. If this deterrence fails, we then try to deter the use of certain types of military forces against our country, our forces and those of our allies. First and foremost these have been so-called “weapons of mass destruction”: Chemical, Biological and Nuclear Weapons. The Chemical Weapons Convention stands in stark contrast to the 1925 Geneva Protocol on Chemical and Bacteriological Weapons. The 1925 Protocol bans use and, particularly the way it was interpreted, offensive use; the CWC bans possession. These are two different approaches to the same end. But in my judgment, the CWC approach trades a weakening in the overall deterrent use for a widespread, but by no means universal, ban on possession. It does so by trading our deterrent in-being for the dubious promise that this agreement will ensure that all chemical weapons are, in the words of President Bush, “eliminated from the face of the earth.”

The 1925 Geneva Protocol banned the use of Chemical and Bacteriological Weapons and thereby established a “so-called” international norm about the expected behavior of states. The United States, while not a party to the protocol until 1975, adhered scrupulously to it through World War II and two minor wars. Our one reservation to the protocol—one shared by many of our friends and allies at the time—was that we reserved the right to retaliate in kind against a country that had used chemical weapons on us. And we backed up that right to retaliation by maintaining a modest offensive chemical weapons program as well as a defensive CW program designed to protect troops in the field who might become exposed to CW. President Bush withdrew this reservation in 1991 in part to stimulate the CWC negotiations to closure.

Let me remind the Committee that since World War I the United States has not had chemical weapons used against it. While it is impossible to know exactly why deterrence works in any individual case, we must not rule out the possibility—and I would say the strong probability—that our offensive chemical weapons program played a crucial role in deterring chemical attack on the armed forces of the United States. Indeed, the historical evidence of where CW was used and where it was not used since the Geneva Protocol went into force strongly suggests that the ability to retaliate “in kind” is the best deterrent of chemical attack.

Only once since World War I have chemical weapons been used in any significant way by states that both possessed a CW capability—the Iran-Iraq War. In this case Iraq quite probably felt it had a major advantage over the Iranians in its offensive CW capability in terms of numbers and sophistication of CW agents, deployments means, and protection equipment and training. Moreover, the most extensive Iraqi use of CW came later in the war to stop the Iranian tactic of “human wave” attacks. Open source reporting indicates that limited Iranian uses of CW agents were far less effective than the Iraqi CW attacks from both a military-operational standpoint and in terms of the numbers of casualties produced.

On the other side—No Use—it is interesting to note that the Japanese did not use CW or BW against the United States at anytime during World War II, although there were Japanese contingency plans toward the end of the war to do so. These plans were not implemented, at least in part, because the Japanese recognized that the United States was in a much better position to retaliate against the Japanese homeland with CW than vice versa. However, the Japanese did use CW and BW extensively from 1937 through as late as May 1945 against China despite warnings by President Franklin Roosevelt that the United States would retaliate “in kind and in full measure.” The Chinese had no CW or BW capability.
All of this brings me to the judgment that the United States is abandoning, with the CWC, one of the most effective deterrents to chemical use against itself and its allies: the right to an extant and mature offensive chemical weapons program. No matter what the perceived benefits of the CWC from a diplomatic or political standpoint, the Senate should understand that it will contribute to the weakening of deterrence, not to its strengthening, by eliminating the ability of the United States to respond in kind to chemical attack. A weakening of deterrence means in practical terms that American and allied soldiers and citizens are more, not less, likely to be attacked with chemical weapons.

The CWC may result in fewer chemical weapon states in the world, although the great majority of states that have signed and ratified the convention have had no offensive CW program in the past and there is no reason to expect them to develop one in the absence of the CWC. A relatively few states with active CW programs that are potential enemies of the United States have signed the convention and in virtually all of these cases we believe that their offensive CW programs will continue after the convention enters force. As you know, many of the states we are most concerned about have yet to sign the convention and are unlikely to ever do so.

The objective of keeping a great many states who have no interest in offensive CW from developing CW programs might make us feel good about ourselves, but does it make us safer? We should care little if most of those states have chemical weapons programs in any case. What we should care about is that the states that represent interests inimical to our own will retain an offensive CW capability: I would list foremost among these Russia, China, Iran, Syria, Libya, North Korea, and Iraq.

Current open source intelligence on all of these countries' programs leads one inexorably to the conclusion that they will retain an offensive CW capability whether they join the CWC or not. Let me briefly quote from a March 1995 unclassified Intelligence Community Report on The Weapons Proliferation Threat:

"CW proliferation will continue to be a serious threat for at least the remainder of the decade, despite a number of arms control efforts, such as the Chemical Weapons Convention (CWC). Several countries of proliferation concern—including Libya, Syria and Iraq—have so far refused to sign the CWC, and some CW-capable countries that have signed the CWC show no signs of ending their programs."

Seven out of the ten to twenty suspected or confirmed CW states are in the Middle East. Egypt, Iraq, Libya and Syria (along with North Korea, Serbia, and Taiwan) have not signed the CWC and will not do so until Israel signs the NPT.

On Libya the report states: "Libya's CW program continues to flourish. An existing CW plant at Rabta, which previously produced up to 100 tons of agent, is inactive but remains capable of renewing production. The Libyans are building a second CW agent production facility underground in a mountainous area near Tarunah, 65 kilometers southeast of Tripoli. This facility is reportedly complete. A recent New York Times editorial asks what we are doing about this extensive underground CW production facility? The CWC, of course, provides no access to a non-party's territory."

On Syria it states: "Syria has had a chemical warfare program since the mid-1980s."

On Iran: "Iran has continued to upgrade and expand its chemical weapons production infrastructure and chemical munitions arsenal, despite signing the CWC in January 1993. Iran produces a variety of chemical agents, including blister, blood, and choking agents. As part of this expansion, Iran is spending large sums of money on long-term capital improvements to its chemical warfare program, suggesting that it intends to maintain a CW capability well into the future. Recent revelations in the Washington Post indicate that the Iranians are receiving significant help from China on their offensive CW program."

On Iraq: "The coalition severely damaged the chemical weapons infrastructure as well, and it too will have to be rebuilt. Much of the hard-to-get production equipment was removed and hidden before the bombing started, however, and would be available for reconstruction. If UN sanctions were relaxed, Iraq could produce some CW agents almost immediately. It would take a year or more to recover the CW capability it previously achieved."

Finally, on North Korea: "North Korea has an active chemical warfare program and produces a number of agents, including mustard and blister agents. Pyongyang has produced weapons carrying chemical agents."

For some reason the Russian Federation and the People's Republic of China were left out of this report on proliferation. This is surprising because they possess real and potent offensive chemical weapons programs, they are both capable of and likely to challenge United States interests in the coming decade, and while both have
signed the CWC neither is, in my judgment, showing much effort to dismantle its offensive CW or offensive BW military programs.

If it is difficult to stop the Russian Federation continuing to develop new types of chemical and biological weapon in violation of the BWC and the CWC. If the history of the Biological Weapons Convention is any guide, the CWC will make pressing the Russians on their advanced chemical weapons program more difficult because it will require the U.S. government first to acknowledge their activities as a violation of an international agreement—something the current and past Administrations have been exceedingly reluctant to do.

Little has been said about the Chinese chemical weapons program because little is known about it publicly. Given the recent tensions with China over the Republic of China on Taiwan, it is understandable that the Administration does not want to highlight the PRC's undeclared offensive chemical and biological weapons program. Yet substantial open source evidence suggests that the Chinese have a program in both of these areas. An August 1993 congressional study by the Office of Technology Assessment found numerous open sources for a Chinese offensive chemical program. The Chinese BW program has been mentioned as a compliance concern in the annual Compliance Reports to Congress. And the former Director of Central Intelligence James Woolsey, has testified before the Senate on Intelligence Community's concerns over the Chinese BW program. The Chinese programs may explain in part the reluctance of the Republic of China on Taiwan to sign the CWC. If China has violated the BWC with impunity, not to mention trade agreements, the MTCR and other international commitments, on what basis can we conclude that they will abide by the CWC?

Russia and China are also special cases because they have become second tier suppliers to other third world chemical programs. Both Russia and China are supplying dual-use equipment and precursors to countries like Iran, Pakistan and Libya (thereby filling the niche created by Western restraint through the Australia Group). Whether this is being done as government policy or because neither country has any significant control over the entities that are selling equipment and precursors, it is extremely unlikely that these practices will change. The CWC will certainly have no impact whatsoever on either Russian or Chinese export policies.

A final comment on the traditional CW threats is illuminating on how effective the CWC is liable to be in stopping CW proliferation. Virtually all of the countries of concern that I have listed here are embedding their CW production within their legitimate chemical industries. They are developing a CW production mobilization capability indistinguishable from commercial activities. Many are constructing underground facilities and developing elaborate cover operations so that they can withstand on-site inspections. Iraq, in particular (who was able to hide its BW program from 28 extremely intrusive UNSCOM inspections—a fact only discovered when inspectors provided UNSCOM with comprehensive documentation of the program) has a base of experience from which to develop a well-protected program.

Indeed, I believe it is no exaggeration to conclude that it may be easier to hide an offensive BW program from within the CWC than from outside it. Membership in the CWC regime will ensure that parties have continued access to the chemicals necessary to produce CW precursors and weapons. As Iraq apparently decided that it was better to conduct its clandestine nuclear weapons program under the guise of NPT compliance, including inspections from the International Atomic Energy Agency, a CWC member state (and its allies) could utilize its membership in the various implementation and compliance bodies to cover its clandestine CW program and to slow or circumvent the verification and compliance process in the convention.

Another growing threat to the United States and its allies is the possibility that sub-state and trans-state actors will develop the ability to make and use chemical agents against us. The recent use of the CW agent Sarin by the Japanese cult group Aum Shinrikyo is probably just the beginning of this type of threat, not the end. President Clinton highlighted this attack in his State of the Union address, implying that if the CWC had been in place this sort of attack could have been prevented. It is interesting that at least one of the precursor chemicals, PLC-3, used by this group was not even covered by the CWC schedules or domestic Japanese law. It was obtained within Japan. This means that the export control provisions and the inspection provisions of the CWC would not have hindered this group's development, production and use of CW. The CWC is functionally irrelevant to this type of threat. This is a major loophole in the convention as non-state groups could maintain this capability, but obviously at a lower level than a state might.

The purpose of this brief review of the CW threats the United States will face in the coming decade is to underscore a key point: The United States armed forces.
and potentially the American people, will continue to face chemical and biological threats from likely opponents even if the CWC is implemented. Many of these countries not only are developing CW and BW but also delivery means, including long-range ballistic missiles, for these agents. The question then becomes how best to deter the use of CW?

**HOW TO DETER**

As I have suggested, the historically most effective deterrent to CW use has been the ability to respond “in kind” with chemical weapons. The CW defensive doctrine that the U.S. armed forces has relied on up until the CWC had two pillars:

First, maintain robust passive defense capability including detection, physical protection, decontamination and antidotes.

Second, maintain a CW stockpile to use for retaliation purposes and, at a minimum, to force the adversary that used CW to adopt a protective posture that would degrade its operational effectiveness as much as ours.

One might ask, how has U.S. war-fighting doctrine been modified to compensate for the loss of the second prong? How has military training changed and what new acquisition programs are in train to reflect this change? The answer is very little. While the Pentagon has attempted to consolidate its programs in the area of passive CW defense, overall funding for these programs is under assault from the military services who are seeking to divert funding from CW and BW defense, as well as active defenses such as theater and strategic missile defense, to traditional service capital projects. Again, if the history of arms control safeguard programs is any guide, we can expect funding for CW defense programs to fall under the budget axe shortly after the CWC has been ratified.

There is also an important relationship between the defensive component of our CW capability and the offensive component. Historically both have led to improvements in the others’ capabilities. Reportedly, the Russians and others are currently developing novel CW/BW agents that may not be covered by the CWC chemical schedules and that, more importantly, render our current detection techniques and antidotes useless. How will the Department of Defense maintain a scientifically and technologically sound research and development base for developing countermeasures and defenses to these new novel CW agents without an offensive R&D base to draw from?

Yet these passive defense programs, even if fully funded, do not answer the questions of how do we best deter a CW attack in the absence of our own offensive CW capability; and, if deterrence fails despite our best efforts, how do we respond to a CW attack in ways that are both militarily effective and likely to create a strong intra-war deterrent to further CW use?

The answers I have seen coming from the civilian arms control community reflect the view that the United States can successfully deter CW attack with its nuclear forces. The military community seems to believe that U.S. advances in conventional capabilities can alone deter a CW attack. I would like to explore these two approaches with the committee and demonstrate the difficulties and risks inherent in each.

There is no question that our nuclear forces form an essential part of the fabric of deterrence that helps to deter all attacks on the United States, its armed forces, and its allies. The idea of extended deterrence—that is, extending deterrence beyond attacks on our borders—was the basic function of American nuclear weapons until the United States became vulnerable to nuclear attack itself in the late 1950s. However, it is a mistake, in my judgment, to rely solely or even substantially on the deterrent effect of nuclear forces to deter chemical weapon attack. In this regard I have three specific concerns:

First, for any deterrent to be effective it must be both capable and credible. By capable I mean that the force must be “in being” and capable of militarily defeating the attack or so punishing the attacker as to make the attack unattractive. By credible I mean that the deterring nation must be willing to use its deterrent if attacked, or at least convince its opponents that it is willing to do so.

Perhaps the most dangerous aspect of relying on the nuclear deterrent to deter CW/BW attacks comes not from a potential enemy’s misunderstanding of how the U.S. might respond, but from a correct understanding of how difficult a decision it would be for any American President to use nuclear forces. Ironically, the United States would in many cases not consider nuclear weapon retaliation to CW use as “in kind” or proper.

How credible are nuclear forces for responding to CW attack? Partly this will depend on the nature of the threat. What is it we are trying to deter? Is it a threat to use CW against American cities or civilians or is the threat focused on the armed forces deployed overseas? What kinds of casualties are expected? How well does the
U.S. military adapt to the attack? But even in a worst case scenario there will be a tremendous reluctance to use U.S. nuclear forces. What American President will want to be the first to use nuclear weapons in anger since the end of the Second World War?

This is not a theoretical question. Despite the evidence now emerging that Iraq was deterred from using CW against coalition forces because of the implied threats of U.S. officials to respond with nuclear weapons, there remain substantial questions about whether any President would actually do so. And it does not take much to imagine either an American President who would not use them or a foreign tyrant that is convinced he would not. I recall the difficulty that the Bush Administration had during the Gulf War to make clear publicly and privately to the Hussein regime that any use of Iraqi CW or BW could result in a U.S. nuclear response. Without some credible threat actually to respond using nuclear weapons—however difficult such a response might seem to be in the abstract—just saying that we will deal with those countries that do not join the CWC with our nuclear deterrent is nothing more than whistling past the graveyard. I fear that graveyard could be filled with American soldiers that fall victim to a chemical weapons attack.

Moreover, by eliminating our offensive chemical deterrent the United States will be putting more pressure on our nuclear forces to deter chemical and biological attack at a time when we have essentially denuclearized the U.S. Navy, completely denuclearized the U.S. Army and are vastly scaling back our strategic nuclear capabilities. Outside Western Europe, the United States has no deployed tactical nuclear weapons and there are no such forces at sea or with U.S. Army units. It is highly unlikely that we would deploy those tactical nuclear assets we do have with our conventional forces in a crisis, leaving us to use inappropriate Strategic Nuclear Forces which would raise a serious concern about Russian reaction to the launch or even threat of U.S. strategic force use. The tactical nuclear forces are the most credible deterrents to CW use precisely because they can be used in a limited and discriminative way without resorting to the potentially destabilizing action of responding with our long-range strategic forces.

We are thus in the unenviable position of being more reliant from a deterrent standpoint on nuclear weapons at a time when we have a less robust and flexible nuclear deterrent to rely on. And the situation will only get worse as we implement START II, complete the dismantlement of our most effective tactical nuclear systems, and consummate a CTBT.

A second concern I have in relying on nuclear weapons is that, in the future, it is quite possible, even likely I would say, that the United States will face opponents armed not just with chemical weapons but with nuclear weapons of their own. Likely candidates include North Korea, Iran or even China. How effective would a nuclear deterrent to chemical attack be if it forced the United States to go nuclear first against even a minimally-armed nuclear opponent?

There would be strong pressures to prevent escalation of a crisis or sub-nuclear conflict, pressures that would certainly weaken the credibility of our nuclear forces as a deterrent to chemical attack, and may even invite such an attack.

The view that nuclear weapons can be substitutes for active deterrents to CW and BW attack developed during the Cold War when the main security threat was the Soviet Union. In this Cold War environment the implicit threat that CW or BW use might escalate to limited nuclear use and then to widespread nuclear use placed constraints on the superpowers use of CW and BW and some restraints on chemical weapons states that had loose alliances or security arrangements with them. Today, such constraints do not exist. Today it is not even likely that CW or BW use will escalate toward a major nuclear confrontation unless the Russian Federation or perhaps the PRC are involved but retaliation with nuclear weapons could increase the risk of such escalation. The corresponding constraints on non-aligned states have all but evaporated.

Part of this mistaken confidence that we can rely substantially on nuclear weapons to deter chemical attack comes from two fundamental, and fundamentally unchallenged, premises:

First, that chemical weapons are only weapons of mass destruction and thus their use would result in such widespread destruction and death that they would a priori warrant the use a nuclear weapon. Yet a CW attack might not cause mass destruction but instead have a major psychological effect on its recipient. For example, with the unavoidable fear the Israelis would have responded to a CW attack on Tel Aviv, it seems highly likely that it would have taken relatively few Israeli casualties to draw Israel into the Gulf War, something the Bush Administration was trying desperately to prevent.

The second premise is that there are no discrete, militarily useful purposes for chemical weapons. They are not military weapons at all, but weapons of terror. This
is simply wrong. The discrete and purposeful use of CW and especially BW against airfields, ports, or other logistics nodes, while causing relatively few casualties or deaths, could have a very serious impact on sustaining the critical time-lines for conventional military operations or maintaining the flow of friendly forces into a theater of operations prior to or during a conflict. These kinds of attacks—not just those involving mass casualties—need to be deterred as well. By signing the CWC we are eliminating an important card from the already small deck of available deterrent options.

Finally, and in the context of the above arguments, the Senate would do well to examine the existing web of international agreements that already limits the options of the United States in using its nuclear forces as a deterrent to chemical attack. No doubt this committee is familiar with the current, standing U.S. policy of providing Negative Security Assurances to non-nuclear weapon states. President Clinton reaffirmed this policy recently despite our experience during the Gulf War. The United States has thus made a commitment not to use or threaten to use nuclear weapons against any state that is not itself a nuclear weapon state or allied to a nuclear weapon state. This means in practice that even the threatened use of nuclear weapons to shore up our deterrent to chemical or biological use could be considered a violation of U.S. policy and even international law.

The policy of Negative Security Assurances itself could be interpreted by foreign leaders as carte blanche to use CW and BW against U.S. or other allied forces (or even against civilian populations friendly to the U.S.) without the implicit risk of a U.S. nuclear response. To my knowledge there has been no discussion of revising the Negative Security Assurance policy in light of the proposed abandonment, through the CWC, of the U.S. offensive CW capability. At a minimum, the United States should seek a revision of its NSA policy so that the U.S. could threaten and use nuclear weapons against states that possess any weapons of mass destruction. The Clinton administration is currently contemplating signing the Protocols to the Africa Nuclear Weapons Free Zone Treaty (ANWFZ) that will be signed this April in Cairo. Those Protocols would legally bind the United States not to use or threaten to use nuclear weapons against a country in the zone (such as Libya or Egypt). The United States will probably carve out an exception that releases it from its obligations in the event that a country in the zone were to attack the U.S. or its forces if that country were allied with or assisted by a nuclear weapons state. Will the Clinton administration also seek a similar exception to preserve its ability to make a "Saddam Hussein-like" threat against Libya to deter CW or BW use? Or will its signature of the Protocols prohibit such threats in the future? As the United States prepares to give up its ability to retaliate with CW forever, has it reviewed the combined effect of the legal obligations of the CWC with the effect of potential obligations under the African Nuclear Weapon Free Zone Protocols to maintain a credible deterrent against potential Libyan use of CW or BW against U.S. forces or NATO's southern flank? If the United States makes this legal commitment for Africa, how can it logically resist making the same commitment for the Middle East and East Asia?

As an important aside let me also point out that the ABM Treaty of 1972 also effectively prohibits the ability of the United States to defend itself against ballistic missile attack. The demarcation proposals currently being considered by the Clinton administration will also substantially undercut the effectiveness of any Theater Missile Defense the United States might deploy. Such TMD systems will have to be much more effective to cope with ballistic missiles armed with chemical or biological warheads. Patriot, even an upgraded Patriot, is not the answer to the CW/BW threat that we now know Saddam could have unleashed during the Gulf War. Future threats are certain to be even more stressing. Yet in light of the CWC and the abandonment of our chemical weapons deterrent, the Clinton Administration considers adherence to the ABM Treaty as a cornerstone of its counterproliferation policy.

Let me turn briefly to the military view that advanced conventional weapons can deter CW use. This, in my judgment, is one of the most dangerous beliefs being spread by those seeking ratification of the CWC. Clinton administration confidence that U.S. conventional forces play a role in deterring aggression from occurring at least anywhere those forces are deployed, and perhaps beyond their deployment areas. But to ascertain how effective conventional forces might be—even ones possessing more lethality than those used in the Gulf War—we must first ask why it is that a nation might use CW against the United States, its forces or its allies. The answer, it seems fairly clear, would be to intimidate the United States from intervening further in a crisis or conflict; to punish the U.S. for some action it had already taken, such as intervening in a conflict; or to undercut the effectiveness of its overwhelming advanced conventional advantage.
In none of these cases is it obvious that advanced conventional forces will be able to deter CW use. Such forces might prove so overwhelming that the effect of CW use is substantially mitigated and the U.S. easily wins the conflict, but they might just as easily not prove decisive, especially if the U.S. military is unprepared—physically and psychologically—for the CW attack.

Mr. Chairman, I have seen Pentagon officials assert that advanced conventional forces can deter the use of CW and BW. I know that this administration wants to reduce U.S. reliance on nuclear weapons to deter non-nuclear threats. But I have only recently been learning how such advanced conventional capabilities can replace CW or nuclear weapons in this role. Like a Mantra that is chanted over and over again, the Administration seems to think that the mere repeating of this assertion will give it credibility in the minds of our enemies.

Yet the whole idea of deterrence implies that we will hold in reserve a military capability that would be used to deny or punish the use of CW or BW weapons. What advanced military capabilities or targets for those weapons are American forces prepared to hold in reserve to dissuade a future Saddam Hussein that using CW will not improve his war outcome? If we are not going to hold capabilities in reserve how can we deter CW use with those conventional weapons when we are presumably using them in the most operationally effective way? The Gulf War is instructive here. Why did we not use advanced conventional weapons to deter Iraq's WMD use? What target sets would we have gone after with conventional forces to respond to CW or BW use that we were not striking before such use? Would we use advanced conventional forces against civilians? For what purpose? How would we have communicated this threat to Saddam Hussein and the Iraqi leadership structure to hold in reserve their decision to use CW?

Advanced conventional capabilities will play a role in limiting the options that CW/BW states have for employing their unconventional weapons. However, it is far from clear that these states will be deterred from CW or BW use by the threat of conventional retaliation, especially if the United States or coalition forces intend to use or are already using those forces against them in a conflict. In fact, the overwhelming advantage that U.S. forces could have against a CW-capable state might actually create an incentive for CW use to "level the battlefield." Let me take a moment to point out also where the CWC might actually impair the ability of the United States to use its advanced conventional forces. Contrary to the U.S. government position at the time of CWC signature, the Clinton administration has adopted a restrictive interpretation of how the CWC controls Riot Control Agents (RCAs). This interpretation prohibits the use of RCAs to rescue downed pilots and against civilians that are used to screen an attack. In effect, the United States has adopted a position that would have U.S. soldiers shoot civilians when they are intermingled with combatants rather than use tear gas or other RCAs. How will the U.S. military make this work as the number of ambiguous peacekeeping operations increase? How will the rules of engagement (ROEs) be written for a Somalia-like situation where a peacekeeping mission rapidly evolves into a combat situation? Apparently the ROEs for Bosnia include the use of riot control agents. If they are needed in Bosnia why can we give them up after the CWC entry into force? Perhaps more important, has the United States accepted an interpretation of the CWC that will cost more U.S. and possibly civilian lives in future military operations and Operations Other Than War (OOTW)?

These many national security concerns I have outlined today form the basis of my judgment that the CWC will not make the United States, its allies or its armed forces safer in the post-Cold War security environment. On the contrary, it could contribute to a weakening of CW deterrence and increase the likelihood that American forces and citizens will face attacks from chemically-armed opponents. Arms control agreements are often examined only in terms of what they limit or prohibit without looking at the larger picture of how the agreement will be viewed from the point of view of states seeking to gain advantage in the international arena. Agreements do foreclose opportunities for those who adhere to them. But arms agreements also open new opportunities for those willing to violate them.

As a final example let me note the reaction of the Japanese military leadership to the 1925 Geneva Protocol on Chemical Weapons. Prior to 1925 the Japanese had invested little in their CW capabilities. Apparently after the signing of the Protocol they decided that weapons worth the international condemnation of the Great Powers must be weapons worth having and especially since so many of the western powers that Japan might face in its exertions to establish hegemony over East Asia had forewarned the use of such weapons. As one analyst put it:

"Japan's biological weapons program was born in the 1930's, in part because Japanese officials were impressed that germ warfare had been banned by the Geneva Convention of 1925. If it was so awful that it had to be banned under

Today, states seeking to overturn the existing regional arms balance or to gain advantages over their neighbors and preclude American or international intervention to prevent aggression could well see in the CWC an opportunity even greater than the one Japan saw under similar circumstances in the 1930s. For unlike the Geneva Protocol, which banned only use of CW and BW agents, the CWC will prohibit the United States and its allies from possessing them and even seriously limit our defenses against them.

The former Special Adviser on the CWC to President Clinton, H. Martin Lancaster, stated that the 1925 Geneva Protocol against the use of chemical and biological weapons had two major flaws that the CWC redresses:

"First, it bans only the use of chemical weapon in war. Since countries retain the right under international law to produce and stockpile chemical weapons in large quantities, the use of these weapons has remained an ever present threat.

Second, many parties to the protocol, including the United States, reserved the right to retaliate in kind to a chemical attack." (August 16, 1995)

First, Mr. Chairman and other Senators, let us be clear that even after the U.S. ratification of the CWC the use of these weapons will be an ever present threat. This argument is simply false. But more important, the U.S. right to retaliate—and that right being backed up by a modest chemical weapons arsenal—was an essential component of our U.S. chemical defense. Far from being flaws in the Protocol and the U.S. understanding of it, this was one of the strongest aspects of our deterrent to use. And ultimately it is use, not the existence of these weapons, that we should seek to prohibit.

Let me conclude with a few recommendations.

First, the United States should reject the Chemical Weapons Convention. To stand against an arms control agreement is a difficult political decision. But unlike perhaps so many other areas of arms control, if the CWC fails it will not leave these weapons beyond control. On the contrary, the proper international norm against the use of chemical and biological weapons will continue to have legal force in the 1925 Geneva Protocol. The Australia Group will continue to cooperate in the control of technology and materials to potential CW states.

Second, the United States should maintain a modest stockpile of binary offensive chemical weapons as a deterrent to use and to retaliate in kind if CW is used against U.S. forces. We can and should eliminate our stocks of obsolete unitary weapons. Moreover, the United States should fund a research and development effort to stay abreast of the latest offensive CW threats and to provide the best protection available for U.S. military forces from those threats.

Third, the United States should seek to cooperate with its friends, allies and other interested parties in enforcing the Geneva Protocol's ban on the use of offensive CW. The irony of the CWC is that its negotiation was in response to the failure of the international community to respond to the violation of the Geneva Protocol. Adding another unenforceable agreement will not create the will to enforce treaties. If we are serious about the threat of chemical weapons and establishing legal norms against their use then we must be equally concerned with enforcement. Without enforcement, all law and especially new laws are impotent.

Fourth, the United States should seek to cooperate with its friends, allies and other interested parties in enforcing the Geneva Protocol's ban on the use of offensive CW. The irony of the CWC is that its negotiation was in response to the failure of the international community to respond to the violation of the Geneva Protocol. Adding another unenforceable agreement will not create the will to enforce treaties. If we are serious about the threat of chemical weapons and establishing legal norms against their use then we must be equally concerned with enforcement. Without enforcement, all law and especially new laws are impotent.

Finally, the United States should at least retain those tactical nuclear weapons that would be the most effective retaliatory options for our ground and naval forces, especially the artillery-fired projectiles. The forces themselves should retain the operational ability to use those weapons if required, including the necessary training and certification. This would be consistent with the terms of President Bush's Nuclear Initiative that called for the withdrawal of all ground-based tactical nuclear weapons back to the United States, and it would preserve the option to have these forces available in a crisis or in time of war.

These measures, and not the CWC, are likely to provide the most effective deterrent to the use of CW against U.S. military personnel. And that objective, in the
increasingly dangerous international environment the United States will face in the
next century, is a far more important objective than taking an empty and ineffective
moral stand on banning chemical weapons from the face of the earth.

The CHAIRMAN [presiding]. Mr. Moodie.

STATEMENT OF MICHAEL L. MOODIE, PRESIDENT, CHEMICAL
AND BIOLOGICAL ARMS CONTROL INSTITUTE, ALEXANDRIA,
VA

Mr. MOODIE. Thank you, Mr. Chairman. It is an honor to appear
before the committee on this subject. I, too, have a written state-
ment that I would like submitted for the record that I would now
like to summarize.

Mr. Chairman, I would like to begin with my bottomline. I be-
lieve the Chemical Weapons Convention serves the U.S. national
interest, and I hope the U.S. Senate will provide its advice and con-
sent to ratification as soon as possible.

In my written statement, I outline my view of the benefits of the
CWC, the conclusion of which was supported by two Republican ad-
ministrations in which I had the honor to serve. But I do not want
to detail them here. Rather, I would like to use my time to com-
ment briefly on some of the issues and concerns that have been
raised since the treaty was negotiated and signed. These issues
should be carefully considered, but, in my view, none of them is so
serious that it discredits the treaty or justifies a vote against ratifi-
cation.

The argument has been made, and we have heard it today, that
the commitment in the CWC to forego chemical weapons relin-
quishes an option of military utility. Such weapons do indeed offer
the U.S. military certain distinct capabilities, but the advantages
they provide are few, they are increasingly irrelevant in the post-
cold war era, and they are outweighed by the military benefit of
chemical disarmament.

Throughout the cold war, the United States supported a doctrine
of deterrence that held that the prospect of retaliation in kind
could prevent the initial resort to a weapon of mass destruction.
Adherence to the CWC would eliminate the option of responding in
kind to a chemical attack. In my view, this is not a major loss.

In the cold war context, the purpose of NATO maintaining a CW-
retaliatory capability was not really a question of the weapons
themselves, but of battlefield control. Such control is lost when an
opponent is able to deliver huge quantities of chemical warfare
agent, and of the proper types, with precision delivery systems, and
to continue to do so for prolonged periods of time so as to sustain
lethal concentrations. The old Warsaw Pact had just this mix of ca-
pabilities, as well as the mobility and skill to exploit tactically the
opportunities created by the use of chemical weapons. Had the pact
been able to fight a one-sided war, knowing when and where con-
tamination would occur, it stood to control a war with NATO.

Today, no situation exists in which the United States will
confront this combination of capabilities and it would not be capa-
ble of achieving battlefield control through conventional capabili-
ties. This view was reinforced by Gen. John Shalikashvili, Chair-
man of the Joint Chiefs of Staff, in 1994 testimony before the Sen-
ate Armed Services Committee, when he argued that, "Desert
Storm proved that retaliation in kind is not required to deter the use of chemical weapons."

My sense is that rather than the threat of retaliating in kind with chemical weapons, Saddam Hussein was deterred from using his CW by the realization that if he did so, coalition war aims would change from getting Iraq out of Kuwait to getting Saddam out of power.

As the chairman has also pointed out, the argument has also been made that the CWC is not verifiable. Verification, however, is not a mechanistic process that produces black-and-white judgments based on unambiguous evidence. Judgments about noncompliance are formed from a mosaic of evidence created over time from a number of sources of information, including treaty practices, as well as other nontreaty national resources.

The treaty's verification provisions do not guarantee that in all cases incontrovertible evidence of noncompliance will be discovered. But the CWC does incorporate the most extensive verification system in arms control history. The CWC creates unprecedented information-generating opportunities. Development of a militarily significant chemical weapons program entails many stages: research, development, production, agent storage, munitions filling, incorporation into military doctrine, training, and so on. Some of these activities are more detectable than others.

By banning all of them except limited, defense-oriented research, which will be closely monitored, but banning all the others, none of which are illegal under the Geneva Protocol, and making all of them subject to verification, the CWC can be used to identify a variety of irregularities in a state's behavior, short of CW use, that could be seen by others as threatening or destabilizing.

The value of the CWC in this regard was underlined by then-CIA Director Woolsey, who described the treaty in the Senate testimony to which the chairman referred as, "a new tool to add to our collection tool kit. It is an instrument with broad applicability, which can help resolve a wide variety of problems to further the common goal: The elimination of chemical weapons."

The treaty's ability to sustain attention to a country of concern is one of its unappreciated assets. The greatest successes of the U.N. Special Commission in Iraq have not resulted from discovering smoking guns. Rather, they were based on painstaking, persistent analytical and information-gathering efforts over time.

The workings of the CWC are similar. It provides the mechanisms to build the same kinds of patterns of information that the Special Commission did in Iraq. It can discover anomalies and it can exert constant pressure on suspect states to provide information until satisfactory explanations are achieved.

With respect to the situation in Russia, the slowness with which Russia has addressed its CW situation has produced some concerns about Moscow's will or its ability to comply with the Convention. This view is based not just on Russian inaction on CWC ratification, but also stems from the slowness with which Moscow has developed destruction plans for its CW stocks. It was only on October 26, 1995, that the Russian Government approved a draft program for eliminating the country's chemical weapons.
Russia's behavior on CW matters reflects a complex interaction of several factors. These include domestic politics, bureaucratic struggles over policy and resources, limited financial resources, and perhaps some opposition in the military to relinquishing Russia's increasingly unusable CW stockpile. I discuss some of these issues in my statement in more detail. I would only note in this regard, with respect to the financial dimension, that U.S. support to the Russian demil program is in the amount of less than $100 million.

Russian lack of action in the CW arena has led to the suggestion that Washington should not ratify the CWC or deposit its instrument of ratification until Moscow does so. In my view, the opposite tack—that is, ratifying the Convention to put pressure on Moscow—provides us more leverage. Until the United States acts, hardliners in Moscow will feel no pressure to do anything, and are free to postpone action indefinitely. Unless we act, we give nothing to those in Russia, such as President Yeltsin, who have publicly committed Russia to implementing the Convention.

Moreover, the domestic political situation in Russia suggests that no action will be taken on the CWC until after their June Presidential election. Even if President Yeltsin is re-elected, it will probably be months before the new administration focuses on the CWC, in light of the range of other problems awaiting the new Russian President.

The United States cannot afford to wait. There are U.S. interests and stakes involved that go beyond the situation in Russia. The United States cannot afford to let its decision on CWC ratification depend on the uncertain outcomes of political events still months in the future.

No sensible person would argue that the Chemical Weapons Convention will end the chemical weapons threat, nor that it is a panacea. And I agree with the others on this point that there is no reason for complacency when the treaty enters into force. The CWC will not obviate the need for a robust, adequately funded program for defense against chemical weapons, improved national intelligence capabilities for nonproliferation, maintenance of an effective deterrent through capable conventional forces, or trade-enabling export controls. Without these measures, the CWC would exist in a vacuum that nullifies its contribution to global and national security.

But there is nothing that says the CWC's entry into force automatically triggers cuts in these important programs. The health of those programs depends entirely on decisions made by the executive branch and the Congress. It is the responsibility, in my view, of the executive branch and the Congress to provide the United States with all of the tools possible to fight proliferation of weapons of mass destruction, including both the CWC and these other critical efforts.

The consequences of inaction or a negative Senate vote on CWC ratification are stark, both for the United States and the international community, and they must be part of this discussion as well. For the United States, the result of not ratifying should be examined at several levels. The first relates to the treaty itself.

Here the consequences of inaction could be summarized as no jobs, no inspectors, no executive council seat for which Washington
fought so hard during the negotiations, no access to the enormous amounts of information that could prove invaluable to intelligence in nonproliferation efforts. In short, no influence over the operation of the treaty if it does enter into force, and no benefits from it.

Another factor to consider is the impact on the global trade in chemicals for the U.S. chemical industry if the United States does not ratify the treaty and it enters into force anyway. The CWC bans trade from some scheduled chemicals with nonstate parties 3 years after it begins to operate. And a decision could be made to expand that prohibition to a wider group of chemicals after 5 years.

According to a U.S. chemical industry spokesman, if the United States is not a party to the CWC, such a situation would have, "an immediate and chilling effect on commercial trade in chemicals," with the United States chemical industry, "branded as a potentially unreliable supplier of chemicals to the global market." The result would be a devastating impact on the U.S. chemical industry's positive balance of trade, which, in 1994, amounted to a trade surplus of $18 billion on exports of $51 billion.

Another important consideration relates to the international consequences of inaction. Moscow and Beijing are certain to follow the U.S. example and not ratify. The international norm against CW would be seriously eroded, if not destroyed altogether, fostering the perception among potential CW proliferators that the international community does not really care what they do.

Not having the United States in the CWC regime will damage broader nonproliferation objectives. If the United States is not a party to the treaty, many states, particularly in the developing world, would see an analogy to their perceptions of the Nuclear Non-Proliferation Treaty. Just as with that treaty, they would argue that Washington is attempting to impose restrictions on the rest of the world that it is unwilling to accept. This, in the view of those countries, is totally unacceptable, and they would reject any suggestion that the United States be treated differently than they are.

Also, if the CWC does not enter into force as a result of the U.S. decision, the benefits of its groundbreaking provisions will be lost to broader arms control efforts. The current attempt to bolster the Biological Weapons Convention, for example, will certainly collapse.

Ultimately, CWC ratification represents an issue of U.S. credibility and global leadership. The United States, under two Republican administrations, led the effort to conclude the treaty's negotiations, and pushed to ensure the greatest possible number of signatures. The slowness of the U.S. ratification process over the last 3 years has raised questions around the world, not only regarding Washington's interest in or ability to confront the problem of chemical weapons, but also about its ability to appreciate the dynamics of post-cold war security.

If the U.S. Senate fails to ratify the CWC, in my view, those concerns will prove justified. Not only would an incredible opportunity be missed, but global security and stability would take a turn for the worse.

Thank you very much.

[The prepared statement of Mr. Moodie follows:]
More than three years have passed since the Paris signing ceremony of the Chemical Weapons Convention (CWC), and the CWC is still not operational. The number of ratifications needed to trigger the treaty's entry into force have not yet been deposited with the United Nations. (The treaty will become operational six months after 65 nations do so; 48 nations have deposited.) The Republican administrations of Presidents Ronald Reagan and George Bush led the push to conclude the treaty negotiations. The Bush administration signed the CWC on its last day in office. Many states now wait for the United States to ratify the treaty. It is time for the United States Senate to provide its advice and consent to ratification of the CWC.

THE VALUE OF THE CWC

In a world in which technological capabilities are rapidly expanding on a global basis, the issue is not whether potential proliferators will have the means to develop unconventional weapons; they will, especially with respect to something as technologically unsophisticated as chemical weapons (which, after all, first made their appearance on the battlefield eighty years ago). Rather, the key to nonproliferation is whether states with that potential make the choice to realize it. Such decisions will be based on their assessments of the costs and benefits associated with pursuit of a WMD program. Any arms control and nonproliferation regime must have an impact on those calculations. In my view, the CWC greatly increases the costs and risks and seriously diminishes the benefits for any state seeking to develop chemical weapons.

The Chemical Weapons Convention requires parties to destroy all of their chemical weapons and the facilities that produced them. Parties must desist from engaging in offensive CW research and development. They must declare the nature of their use of relevant chemicals and open their chemical industries to international inspection to ensure that the potential to make chemical weapons inherent in industrial capacity is not translated into actual capability. On the domestic front, any state party to the treaty is obliged to pass domestic legislation criminalizing activities prohibited by the convention. The treaty prohibits parties from transferring chemical weapons or providing any assistance related to prescribed activities to other nations. States parties must ban trade in specified chemicals with countries that decline to join the convention, and they must provide some form of assistance for states subjected to the use of chemical weapons or the threat of their use.

With 160 signatories, the CWC embodies an international norm that provides a political standard against which the behavior of states can be measured. The CWC also creates an important legal regime that does not now exist. The only existing international agreement addressing chemical weapons is the 1925 Geneva Protocol which bans only CW use, leaving issues of research, development, production, storage, and transfer of such weapons unaddressed; indeed, for now it is perfectly legal for any state to engage in such activities. Unless the CWC is adopted, the international community has no basis for raising objections to CW-related activities short of use which, nevertheless, represent a significant threat to regional and global security. By prohibiting all of the activities associated with procuring chemical weapons, the CWC provides an indisputable basis for action by the international community in the face of unacceptable behavior.

ISSUES AND CONCERNS

Critics and skeptics have raised a number of issues and concerns about the CWC. These issues should be carefully considered, but, in my view, none of them is so serious that it discredits the treaty or justifies a vote against ratification.

Military Value

Critics have argued that the commitment in the CWC to forego chemical weapons relinquishes an option of military utility. Iraq's use of chemical weapons in its war with Iran did show that in some circumstances, chemical weapons can be militarily effective. Moreover, throughout the Cold War the United States supported a doctrine of deterrence that held that the prospect of retaliation in kind could prevent the initial resort to a weapon of mass destruction. Adherence to the CWC would eliminate the option of responding in kind to a chemical attack.

It must be recognized, however, that chemical weapons are not nuclear weapons. The calculus of deterrence shaped by our cold war nuclear experience is not necessarily applicable to CW in the post-cold war era. Unlike nuclear weapons, the consequences of chemical weapons use can be offset. Wearing masks and protective gear, for example, can deny a proliferator the impact he wants in resorting to CW,
and it is instructive to note that virtually every case of CW use since the end of World War I—including Iraq's CW use against Iran—has been against unprotected opponents.

Second, in the NATO context, the purpose of maintaining a CW retaliatory capability was not a question of the weapons themselves but of battlefield control. Such control is lost when an opponent is able to deliver huge quantities of chemical warfare agent—and of the proper types—with precision delivery systems, and to continue to do so for prolonged periods of time so as to sustain lethal concentrations. The old Warsaw Pact had just this mix of capabilities as well as the mobility and skill to exploit tactically the opportunities created by the use of chemical weapons. Had the Pact been able to fight a one-sided war, knowing when and where contamination would occur, it stood to control a war with NATO.

Today, no situation exists in which the United States will confront this combination of capabilities and it would not be capable of achieving battlefield control through conventional capabilities. Moreover, even if the United States retained chemical weapons, it is questionable whether U.S. leaders would take the political decision to use them, particularly given available conventional options and the political costs associated with any CW use. This was the thinking behind President Bush's decision after the Gulf War to relinquish the option of CW retaliation in kind and commit the United States to the total elimination of its chemical weapons stockpile. This view was reinforced by General John Shalikashvili, Chairman of the Joint Chiefs of Staff in 1994 testimony before the Senate when he argued that "Desert Storm proved that retaliation in kind is not required to deter the use of chemical weapons."

**Verifiability**

Critics contend that the CWC is not verifiable.

Even the CWC's most ardent supporters recognize that, despite incorporating the most extensive verification system in arms control history, the treaty's verification provisions do not guarantee that in all cases incontrovertible evidence of noncompliance will be discovered. Verification, however, is not a mechanistic process that produces unambiguous evidence. Judgments about noncompliance are formed from a mosaic of evidence created over time from a number of sources of information, including treaty practices as well as other non-treaty, national resources. The CWC's verification regime, including extensive declaration requirements and a variety of inspections, provides critical opportunities for forming such a mosaic and noting quickly when particular pieces of information do not seem to fit, prompting yet further scrutiny.

The CWC creates unprecedented information-generating opportunities. Development of a militarily significant chemical weapons program entails many stages—research, development, production, agent storage (either in bulk or weaponized), munitions filling. Incorporation into military doctrine, training, and so on. Some of these activities are more detectable than others. By banning all of them—except limited defensive-oriented research, which will be closely monitored—and making all of them subject of verification, the CWC can be used to identify a variety of irregularities in a state's behavior. If one piece of the mosaic does not seem to fit, then other pieces can be examined more closely for an explanation of the anomaly.

The treaty's ability to sustain attention to a country of concern is one of its unappreciated assets. The greatest successes of the United Nations Special Commission in Iraq have not resulted from discovering "smoking guns" but were based on painstaking, persistent efforts over time. Those efforts involved analyzing a wide range of information, evaluating patterns that emerged from that analysis, identifying gaps in those patterns, and pushing continually for additional information to fill those gaps. The workings of the CWC are similar; it provides the mechanisms to build those same kinds of patterns, discover anomalies, and exert constant pressure on suspect states to provide additional information until a satisfactory explanation of bothersome patterns is attained.

**Industry Support**

The argument has been made that industry considers the CWC to be costly, disruptive, and endangering business information critical to continued competitiveness. This position misrepresents industry's view.

Certainly, the chemical industry had a number of interests at stake in the outcome of the CWC negotiations, including protection of confidential business information, the prospect of additional regulation (in what is already the world's heaviest regulated industry), and disruption of operations resulting from treaty-required inspections. Industry also recognized that much of the burden for implementing the CWC would fall on its shoulders. None of these issues were deemed insoluble, how-
ever, and chemical industry representatives worked closely with government negotiators for many years to find acceptable solutions.

Indeed, the involvement of industry in forging the CWC was unprecedented. Industry representatives from many countries—the United States, Europe, Australia, Japan and Brazil among them—had frequent and ongoing contacts with negotiators. They helped the diplomat understand the stakes involved in various issues, the implications of alternative options, and the impact of different outcomes. Armed with this understanding, negotiators were better able to draw the appropriate balance between competing interests that the CWC had to accommodate, such as that between the intrusiveness necessary to verify the treaty and the need to limit access to confidential, proprietary business information.

In several appearances before Congressional committees, industry representatives have consistently indicated their strong support for the CWC, despite the fact that it will entail some disruption of business activities and additional expense.

Export Controls and the Global Chemical Trade

A specific industry-related concern that has been raised about the CWC relates to trade and the export controls on dual use materials and equipment that not only serve legitimate industrial purposes but are also helpful in making chemical weapons.

Virtually every CWC signatory accepts the provision that will terminate trade in relevant chemicals with states that do not become party to the treaty. At issue is the nature of the chemical trade among treaty parties and trade controls outside the CWC. A number of developing countries insist that once the CWC enters into force, existing CW-related export controls coordinated through the Australia Group—which in their view restrain vitally important international trade—should be eliminated for any CWC state party in good standing. The more extreme non-aligned states argue that the Australia Group should be abolished altogether.

An analysis of the data on the international chemical trade does not bear out the nonaligned view. For example: In 1993, the global market for chemical and allied products totalled $1.26 trillion; between 1980 and 1991, chemical trade between the developed and developing world increased from $33 billion to $57 billion, of which materials controlled by the Australia Group constituted one percent. Annual direct investment in developing countries by U.S. chemical manufacturers between 1983 and 1993 doubled from $4.05 billion to $4.98 billion.1

Far from restricting trade, the chemical export controls coordinated by the Australia Group can be viewed as “trade enablers,” creating confidence among suppliers that recipients will use their acquisitions for peaceful permitted, not military, purposes. If they were to be withdrawn “trade and investment would be increasingly constrained by the kind of political pressure put on German industry in the wake of revelations about sales to the Libyan chemical warfare program.”2 On behalf of the Australia Group members, however, the Australian ambassador to the Conference on Disarmament (CD) did promise that the Group would review its operations after all the parties had acquired some practical experience with the treaty. This statement entails absolutely no commitment to change anything in the Australia Group’s current operation, only to review it.

CWC provisions regarding trade in chemicals have major repercussions for the U.S. chemical industry if the U.S. does not ratify the treaty and it enters into force anyway. The CWC bans trade in some scheduled chemicals with non-state parties three years after it begins to operate, and a decision could be made to expand that prohibition to a wider group of chemicals after five years. According to a U.S. chemical industry spokesman, if the United States is not a party to the CWC, such a situation would have “an immediate and chilling effect on commercial trade in chemicals,” with the United States chemical industry “branded as a potentially unreliable supplier of chemicals to the global market.”3 He went on to say that customers of U.S. companies could then find it easier to trade with companies in countries party to the treaty, including such major chemical producers as Japan, Germany, and France, all of whom have ratified the CWC. The result would be a major negative impact on the U.S. chemical industry’s positive balance of trade which in 1994, amounted to a trade surplus of $18 billion on exports of $51 billion.

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1These figures are taken from Brad Roberts, “Rethinking Export Controls on Dual-Use Materials and Technologies: From Trade Restraints to Trade Enablers,” ARENA, No. 2 Chemical and Biological Arms Control Institute, June 1995, p. 2.
2Ibid., p. 4.
Costs

During the negotiations, chemical industry representatives recognized that some additional costs would be incurred with CWC implementation. Their goal was to ensure that such costs would not be excessive while the agreement's arms control and nonproliferation goals could be achieved.

The major CWC obligation for most companies will be to submit declarations relating to various aspects of chemical production, consumption, processing, and trade. For the vast majority of companies, such declaration requirements will relate to chemicals above a certain threshold in the treaty-defined category of "discrete organic chemicals." In such cases, declarations will entail little more than a single page. A modicum of attention will ensure that such a requirement can be met at minimal cost. Other declarations relating to scheduled chemicals will be more elaborate, but the information is largely already available to the company, albeit in other forms or packages. Again, with preparation, the costs of providing such information should not be particularly onerous.

Some U.S. chemical facilities will also be the object of CWC inspections. According to estimates by chemical industry representatives, between 100 and 200 facilities in the United States will qualify for inspections. Given the treaty-mandated injunction to carry out inspections in a manner designed to minimize the disruption to a facility's operation, individual inspections are not expected to cost more, and in many cases will be less, than inspections under Environmental Protection Agency (EPA) or Occupational Safety and Health Administration (OSHA) regulations. Aggregate costs for U.S. industry inspections in the first year after the CWC's entry into force are estimated to be approximately $4 million.

Beyond the cost to industry, the United States will incur the expense of implementing the CWC, particularly for operation of the Organization for the Prohibition of Chemical Weapons in The Hague. The U.S. government currently estimates the cost of the first full year of OPCW operations to be about $70 million. These costs will be shared among states parties on the basis of the United Nations cost formula, modified to take account of treaty membership. The U.S. portion, therefore, will be about 25 percent, or $17.5 million for the first year's operating costs.

These estimates are not hard numbers. They are based on assumptions regarding how many and which states are party to the treaty at entry into force and operational details yet to be finalized by the Prep Com. These assumptions may not be completely borne out, but it is unlikely that the differences will be so great that costs will be much greater than current estimates suggest, let alone orders of magnitude greater.

The United States has already learned that arms control is not cheap. Chemical arms control is no exception. But all costs are relative. The United States has already spent billions of dollars to meet the Congressionally-mandated requirement to eliminate—unilaterally—its existing CW stockpile, and it will pay billions more to finish the job. It has also committed millions to assist the Russians destroy their stockpile. In the event the CWC does not enter into force, will these decisions be reversed? Even if they are not, what costs would be entailed in developing other options to meet what is almost certainly likely to be an enhanced CW proliferation threat if the CWC does not enter into force? If critics argue that the CWC is expensive, they should also focus on the costs of alternatives.

The Situation in Russia

The slowness with which Russia has addressed its CW situation has produced some concerns about Moscow's will or ability to comply with the CWC. This view is based not just on Russian inaction on CWC ratification, but also stems from the slowness with which Moscow has developed destruction plans for its CW stocks. It was only on October 26, 1995 that the Russian government approved of a draft program for eliminating the country's chemical weapons. Russian officials have indicated that destruction of the CW stockpile is planned to begin in 1999, probably starting with 400 tons of mustard and mustard/lewisite at the pilot construction facility to be built at Gorny.

Russia's behavior on CW matters reflects a complex interaction of factors. The slowness in developing a destruction program is in part the result of domestic politics. Moscow had not realized, for example, the extent to which local populations would raise environmental, economic, and health and safety concerns about its initial destruction proposals. That political opposition forced Moscow to abandon some early destruction options.

Bureaucratic politics also account for Russia's slowness to act. The Foreign and Defense ministries have been traditional rivals over control of CW arms control policy. President Yeltsin sought to bring control of the issue into his office through creation in 1992 of the Presidential Committee for Convention-Related Chemical and
No sensible person would argue that the Chemical Weapons Convention will end the chemical weapons threat, and there is no reason for complacency when the treaty enters into force. Some analysts contend that it is not only possible but likely that following CWC ratification the United States will "overcomply" and not take the necessary actions in other areas to ensure that the full range of policy tools for combating CW proliferation are available. If correct, this observation is disturbing.

The CWC will not obviate the need for a robust, adequately funded chemical defense program, improved national intelligence capabilities in the nonproliferation area, maintenance of an effective deterrent through capable conventional forces,
trade enabling export controls, and so on. Without these measures, the CWC will exist in a void that will nullify its potentially important contribution to national and global security. But failure to provide such programs is not a certainty; what the U.S. does in these critical areas depends entirely on decisions of the Executive Branch and the Congress.

The consequences of inaction or a negative Senate vote on CWC ratification are stark both for the United States and the international community. For the United States, the result of not ratifying should be examined at two levels. The first relates to the treaty itself. Here the consequences of inaction could be summarized as “no jobs; no inspectors; no Executive Council seat; no data; no influence.” If it is not a party to the CWC at entry into force, no U.S. nationals will be employed by the OPCW, including in the critically important inspectorate. Equally important, the United States will have no right to a seat on the OPCW’s Executive Council, the real governing body of the treaty, a right for which Washington fought extremely hard during the negotiations to ensure that it could exert leadership in the CW arms control and nonproliferation arena. The United States will also be denied access to the enormous amounts of information that will be generated by the declarations and inspections process, information that could prove invaluable to intelligence and nonproliferation efforts. The United States will miss the opportunity to take a lead in shaping the operational precedents that will be certain to be established as the CWC is gotten up and running. If the U.S. were to become a party later on, Washington could find it difficult to change practices it had already been established. The second level relates to the international consequences of inaction. First, failure of the United States to ratify the CWC will be a devastating blow to those who are committed to ridding the world of chemical weapons, and who were inspired by the demonstrated U.S. commitment to that goal and its leadership during the negotiations. Moscow and Beijing are certain to follow the U.S. example and not ratify. The international norm against CW would be seriously eroded if not destroyed altogether, fostering the perception among potential CW proliferators that the international community does not really care what they do. Second, not having the United States in the CWC regime will damage broader nonproliferation objectives. If the United States is not a party to the treaty, many states, particularly in the developing world, could see a situation analogous to that they are convinced pertains to the Nuclear Nonproliferation Treaty (NPT), that is, that Washington is attempting to impose restrictions on the rest of the world that it is unwilling to accept. This, in their view, is totally unacceptable. Third, if the CWC does not enter into force as a result of a U.S. decision, the benefits of its groundbreaking provisions will be lost to broader arms control efforts. The current attempt to bolster the Biological Weapons Convention, for example, will certainly collapse. Ultimately, therefore, CWC ratification represents an issue of U.S. credibility and global leadership in the United States under two Republican administrations led the efforts to conclude the treaty negotiations and pushed to ensure the greatest possible number of signatures. The slowness of the U.S. ratification process over the last three years has raised questions around the world not only regarding Washington’s interest in or ability to confront the problem of chemical weapons, but also about its ability to appreciate the dynamics of post-cold war security. If the U.S. Senate fails to ratify the CWC, those concerns will prove justified. Not only would an incredible opportunity be missed, but global security and stability would take a turn for the worse. We would have no one to blame but ourselves.

The CHAIRMAN. Senator Pell, are you prepared to ask some questions? Let me defer to you.

Senator PELL. Just to clarify, Mr. Moodie, did I understand that you believe that the Convention is in the national interest of the United States?

Mr. MOODIE. Yes, sir. I do.

Senator PELL. And the other three witnesses, you all believe it is not in the national interest, should we ratify it. Dr. Crouch?

Dr. CROUCH. That is correct, sir.

Senator PELL. We should not?

Dr. CROUCH. That is correct, yes.

Senator PELL. Ms. Hoeber?

Ms. HOEBER. That is correct.
Senator PELL. And, Mr. Spring?
Mr. SPRING. Yes, sir.
Senator PELL. Thank you.
I would ask Mr. Moodie if the United States would not be in a better position to monitor any of the Russian chemical activities with the Convention in place, or does it make any difference?
Mr. MOODIE. I do not think we would have any leverage, much at all, Senator, if we did not have the CWC and we do not make progress on the two bilateral agreements that exist. Without the CWC, the Russians are free to do whatever they want, unconstrained, and in the absence of those two agreements. So I think that the existence of the Convention, our ratification of the Convention, and its early entry into force, as much as possible, would provide us with certain leverage to deal with the problem that obviously exists in Russia today.

Senator PELL. And this is addressed to you, Mr. Moodie. If other nations became party to the Chemical Weapons Convention, would our inability to join the CWC lead to significant economic or competitive disadvantage to us?
Mr. MOODIE. I believe that is so. In my statement I indicated what the chemical industry representative said about the impact on chemical trade. And I would hope that you would explore that issue further with chemical industry representatives during the hearing.

Senator PELL. In negotiating the treaty, Mr. Moodie, the United States tried to strike a balance between the need for strong verification and the need to prevent unwarranted, unacceptable intrusiveness. In your view, was the balance achieved?
Mr. MOODIE. Striking that balance was a very tough issue during the negotiations, both here in Washington and in the negotiations in Geneva. At the end of the day, I believe that the balance that is reflected in the treaty is the best possible one that could be achieved.

Senator PELL. Dr. Crouch, what would be your view?
Dr. CROUCH. On the same question, sir?
Senator PELL. Yes.
Dr. CROUCH. Yes, I believe that if you isolate the verification regime specifically, that the balance that was struck was a good balance. Because I believe that, at the end of the day, many countries that wanted to have a CW capability, such as Libya, would not join the Convention, and therefore we would simply be subjecting ourselves to a set of intrusive inspections and possibly inspections of our secure facilities if we were even more intrusive than we ended up being, without getting the benefit of compliance of these other states.

So, on balance, I would say yes, the deal that was struck was fine. But, I would add that, in my judgment, a thoroughly verifiable bad agreement is still a bad agreement.

Senator PELL. Mr. Spring?
Mr. SPRING. In my view, yes, it is balanced. The question is whether it is adequate. I mean, to me, balance, in and of itself, does not hold any value. The question is whether the agreement is adequately verifiable for the purposes that it serves. And I use the word "adequately" advisedly.
That is one of the reasons that I agree with the discriminatory approach in the NPT. I am willing to have somewhat lower levels of verifiability in a regime that allows the United States to retain its deterrent, as I would in a regime that would ban the weapons entirely. So, for me, balance, in and of itself, does not carry much water.

Senator Pell. Ms. Hoeber?

Ms. Hoeber. I think we ought to talk about verification in a broader sense. You can completely, for example, verify that the Geneva Protocol has been violated. That was in the Iran-Iraq case, and it was done in the case of the use of chemicals against the Kurds. I do not know what good that verification did. No one was willing to do anything about it. No one was willing to enforce the maintenance of that treaty regime. So it is not clear to me that that is even a relevant question, sir.

Senator Pell. I appreciate that. Thank you very much.

Thank you, Mr. Chairman. Senator Biden asks unanimous consent that his statement for the hearing and a letter to him from the DuPont Co. be included in the printed record of this hearing.

The Chairman. Without objection, that is so ordered.

Senator Pell. Thank you.

[The prepared statement and information of Senator Biden follows:]

**PREPARED STATEMENT OF SENATOR BIDEN**

**Convention on Chemical Weapons: National Security Issues**

Mr. Chairman, thank you for calling this hearing on the Chemical Weapons Convention. We are reaching a critical point in this committee's deliberations on the CWC. The number of states that have ratified the CWC is coming close to the threshold of sixty-five, which will trigger the process leading to entry into force.

If the U.S. chooses to stay out of the CWC, it is my view that harm will come to our national security interests. I realize that this view is not shared by the majority of the panel before us today, but I think it is important to point out that it is the view of those in the executive branch, under this administration as well as the previous administration, who have responsibility for protecting our national security.

I also would note that the costs of opting out of the CWC would be very steep for the U.S. chemical industry. In that regard, I would like to submit for the record a letter from the DuPont Corporation, which is an important U.S. chemical company headquartered in Delaware. I think that it is important to point out that DuPont's support of the CWC is reflective of the broad support of the U.S. chemical industry for this Convention.

Mr. Chairman, in my view, we have already waited too long to act on the CWC. I know that the previous chairman of the committee, the Senator from Rhode Island, was ready to move the treaty in the last Congress, but was prevented from doing so. The hearings he held on the CWC were among the most comprehensive that this committee has seen.

I hope that the hearings this month will clarify any lingering concerns that may not have been addressed earlier, and clear the way for prompt Senate consideration of this important convention.

Enclosure

**DUPTON FEDERAL AFFAIRS,**
**WASHINGTON, DC,**

**March 7, 1996**

The **HONORABLE JOSEPH R. BIDEN, Jr.,**
**U.S. Senate, Washington, DC**

**DEAR SENATOR BIDEN:** DuPont supports ratification of the Chemical Weapons Convention and hopes that it enters into force in the near future. DuPont does not make chemical weapons, but we do make some chemicals which can be misused by others to make weapons and therefore need to be controlled as part of the CWC.
DuPont has participated with the Chemical Manufacturers Association for the last nine years in the development of the text of the Convention and in plans for its implementation. Fred Weber, President and CEO of CMA, may be invited to testify at the current hearings of the Senate Foreign Relations Committee. He would express views with which we agree.

The CWC has values to DuPont which far outweigh its potential costs. The main value is lessening the threat of the use of chemical weapons by states or terrorists anywhere in the world. In addition to concerns of national security, industry does not want the public to think about chemicals in such a negative way. Also, there are trade sanctions that would apply if the CWC goes into effect without the U.S.

Costs of the CWC to industry include providing brief reports annually which can be done in a very short time for most chemical plants. For scheduled chemicals, the reports take more time but still will not be very burdensome. A few facilities will be subjected to routine inspections, probably once every few years, and the CWC does provide for challenge inspections for cause. The CWC has built in state-of-the-art protections for confidential business information. DuPont has no facilities that would have to report scheduled chemicals in Delaware, two with schedule 2 chemicals in the U.S. and six with schedule 3 chemicals in the U.S. About fifty of our U.S. facilities would report unscheduled chemicals.

We hope that you and your colleagues on the Committee will vote in favor of a resolution of ratification before the deadline of April 30. If we can be helpful, please let us know. Dick Burgess in our Legal Function has been discussing the CWC with your assistant Puneet Talwar and should be able to answer any questions you may have. Dick can be reached on 302-774-5325.

Sincerely,

MARK D. NELSON,
Vice President.
Mr. MOODIE. Yes, Mr. Chairman, I do. But that is going to be a decision that the executive branch and the Congress will have to face, regardless of their decision on the CWC.

The CHAIRMAN. And how about you, Dr. Crouch?

Dr. CROUCH. I agree with it, as far as passive defenses are concerned. I think that there is another realm here, and that is active defense. The CW threat in many of these states will be combined in the future with a ballistic missile proliferation threat. And it seems to me that this threat will begin to threaten our allies first, and then, eventually, may threaten the United States directly.

We do not have the ability to deal with this at either the theater missile defense or the strategic missile defense level. And I would say that, in that case, we are woefully unprepared. But I do agree with the comments with respect to passive defenses.

The CHAIRMAN. Mr. Spring, if we ratify this treaty, how can we justify inadequate chemical defenses?

Mr. SPRING. That goes to the heart of what I think has been the problem with the Biological Weapons Convention.

The CHAIRMAN. Correct.

Mr. SPRING. And let me say parenthetically, about chemical defense, at least for our Armed Forces, as the GAO testified in the immediate aftermath of the Gulf war, that there were serious problems there. And I think that some of those problems have been addressed in the intervening years, but I am not sure all of them have. And Richard Davis was the GAO investigator that looked at this problem in mid-1991. And I would suggest that the committee go back and look at his laundry list, and see whether in fact the Defense Department, at least as far as our troops are concerned, have taken the measures that he recommended.

Insofar as looking ahead, the Biological Weapons Convention, I think, to some extent, is responsible for the complacency that resulted in a situation where, in the interim report that the Pentagon submitted on the Persian Gulf war, said that our biological defense capabilities for our troops were so bad that, if they had been used by the Iraqi forces, that it would have overwhelmed the military medical care system.

Now, that kind of complacency is the thing that is not only going to cause greater casualties—and it is not just a matter of controlling the battlefield and being able to win the war, it is a question of whether we are going to be able to do so with low casualties—that kind of complacency is really disturbing. It certainly is to me, at least.

The CHAIRMAN. Now, Mr. Moodie, I want to give you an opportunity. What I want is an exchange of ideas. That will help me. I will leave it to Senator Pell to take it in the direction he wants, but what is your reaction to that?

Mr. MOODIE. I think any arms control agreement addressing any of the instruments of violence that states might use cannot be seen in isolation from the range of the other tools that we have to deal with the problems that those weapons create. For that reason, I think the CWC has to be seen as part of an integrated strategy to deal with chemical weapons, just as the Biological Weapons Convention and the efforts to improve it have to be seen as part of an integrated strategic response to the challenge of biological weapons.
That response is not limited to arms control alone, but has to draw on all the tools we have available to us—passive defense. I agree with Dr. Crouch about our continuing need to investigate active defense. In the case of BW and CW, medical research has to be part of that. Intelligence capabilities have to be part of that. Export controls have to be part of that.

Arms control fills one of the roles in this strategic response to these problems. In and of itself, it is not a panacea. It is not going to solve the problem on its own. And, as a consequence, we have to pay attention to these other areas as we pay attention to arms control as well.

The CHAIRMAN. I am not so much for the sake of argument addressing myself to whether it will solve the problem. I am concerned about the possibility it might exacerbate the problem. What good would it do, in terms of North Korea, Libya, Iraq, Syria, if we ratify it and they do not?

Mr. MOODIE. I think the fact, Senator, that 160 countries have signed the treaty suggests that that limited number of countries is going to be isolated. That is the first thing. And they will be the subject of international pressure, with respect to their programs.

Second, one point that has not come up is that they will be subject to certain—if they do not sign the treaty, they will be subject to certain penalties that the treaty ascribes.

The CHAIRMAN. Imposed by whom?

Mr. MOODIE. Imposed by the states parties to the treaty who accept an obligation, under the treaty, to cut off their trade with non-signatories within 3 years, in scheduled chemicals.

The CHAIRMAN. They do not care about that now.

Mr. MOODIE. I do not want to speak for the other signatories to the treaty, Senator. All I am saying is that if they sign and ratify the agreement, they have a legal obligation to cut off trade with nonsignatories in 3 years.

The CHAIRMAN. No, no, I think you misunderstood me. I am talking about Syria and Libya and Iraq and North Korea.

Mr. MOODIE. That is right.

The CHAIRMAN. They do not give a doodle what we do.

Mr. MOODIE. But they will not be able to trade in international chemicals with any country that is a party. And you have to, I think, anticipate that once the United States ratifies, there will be a flood of ratifications to follow. So that well over 100 countries in the world, and most if not all of the world's largest chemical producers will be party to this treaty. They will not be able to trade with those countries. And those countries will not have the benefit of receiving any chemicals. And they are countries that do not have particularly well-developed chemical industries of their own.

The CHAIRMAN. There is a great black market. Do you have a comment on that?

Ms. HOEWEB. It will keep on going.

Mr. SPRING. Actually, I do. There are two answers to that. The first one is the one that you made. There is a great black market. I have no doubt that these rogue regimes that you mention, if they were faced with that sort of broad-based embargo, they would go ahead and sign the treaty and then just violate it.

Ms. HOEWEB. Sure.
Mr. SPRING. The second thing is, what if China and what if Russia do not ratify it? They are pretty good suppliers of chemicals. And they would be very happy to go ahead and have captured markets that are created by the selective ratification of the Convention. So I do not think that the trade sanctions that are employed by, or indeed, required by, the Convention, are necessarily going to be effective.

The CHAIRMAN. Do you agree with that, Dr. Crouch?

Dr. CROUCH. Yes, I do. The idea that we are going to isolate North Korea is sort of absurd on its face. North Korea is already isolated. They do not call it the Hermit Kingdom for nothing. How do you further isolate countries that have taken the steps to isolate themselves by being involved in international terrorism, by causing conflicts around the world, or simply by treating their neighbors the way these states have treated their neighbors?

And I do not believe that the penalties—there are really no penalties in the CWC. Basically, the penalties are that we will talk about imposing penalties of some sort. And those tend to be focussed on trade embargoes. I do not think history shows that trade embargoes will necessarily work against countries like this. We tried one against Saddam Hussein to get him to leave Kuwait. It did not work. We have tried against other countries, and they have been relatively ineffective.

So, I do not think that those are necessarily good.

The CHAIRMAN. I appeared to be cutting you off and I did not mean to do that. You are a great catalyst, by the way. What were you going to say?

Mr. MOODIE. Thank you, Mr. Chairman.

First of all, in the CWC, it is not a commitment on the part of states parties to talk about sanctions or cutting off chemical trade. The commitment is there. If you are a party to it, you have the obligation to cut off trade with nonparties. It is not subject to discussion.

The second point I would make, in reaction to Baker Spring's point about Moscow and Beijing, if they do not sign, they are subject to the same strictures. And if I were sitting in Moscow or Beijing, I would much rather have the ability to trade in these chemicals with the United States, Japan, Germany, France, England, and the other major chemical producers than try to generate my chemical trade with countries like North Korea, Libya, and Syria.

The CHAIRMAN. Well, the point is, is it not, that Russia right now is doing business in other areas with Iran, and they do not care what we think, do they?

Mr. MOODIE. I am not sure to what you are referring, Senator. But I am not sure that those are subject to treaty obligations that they have assumed.

The CHAIRMAN. I think they are.

Yes, ma'am?

Ms. HOEBER. I was going to say that our problem here is really in the assumption that countries abide by all obligations. I mean countries have clearly violated the obligations they have had under the Geneva Protocol, as regards this particular subject. There are
countries that have violated other obligations that they have signed up for, in the BW Treaty, for example. There have been a number.

I do not know how one can say just because a country has an obligation, that it will therefore happen.

The CHAIRMAN. I tell you what. Why do we not suggest that each of you have a 2- or 3-minute summary of what you believe, based on what others have said, so we can have something to look at in the printed record.

Ms. HOEBER. All right, let me start. And I can do it actually in just a couple of sentences.

I think my key point is that treaties, by themselves, do not solve problems. Either treaties are codifications of problems that have already been solved or treaties are codifications of fantasies. And this one is, in my view, a fantasy.

Mr. SPRING. In my view, I think you have to judge this in the fuller array of arms control and nonproliferation policy. There are basically two approaches out there. One is the comprehensive ban, like we have seen in the BWC, that has failed, and the more discriminatory and limited approach that we have seen in the NPT. I believe that the discriminatory approach, the more limited approach that is established by the NPT, is the more proper approach.

What we will see, as far as I am concerned, the logic train of going down this path of a comprehensive ban, is we are going to see a comprehensive ban on nuclear weapons proposed, which we have already seen in Geneva. And then we are going to start to see comprehensive bans on certain sorts of conventional capabilities. For example, on force projection. And, indeed, the sitting Secretary of Defense, when he was in the private sector, talked about those, in terms of cooperative security measures.

It is a logic train, I think, that will leave the United States without the sort of overwhelming military capabilities that it needs in order to maintain its position as a global superpower.

The CHAIRMAN. That is very interesting.

Dr. CROUCH?

Dr. CROUCH. Yes, Mr. Chairman. I think that we will find chemically armed opponents against the United States, whether this treaty is ratified or not. And we have to focus on deterring the use of chemical weapons and reinforcing the international norm and strengthening that international norm against use that was estab-

I believe that this agreement will weaken deterrence by eliminating one of our, I think, historically best deterrents to chemical use, that is, our own offensive chemical program. It will also weaken our defensive programs, because people will just simply argue that, well, we have solved that problem with the CWC, we do not need to put $500 million a year into chemical defense.

And so it seems to me, at the end of the day, we will have weakened deterrence, we will have a situation where the the United States, its forces overseas, will be more likely to be attacked by chemical weapons, not less likely, and we will have not banned chemical weapons from the face of the Earth, as so many people have come up to this committee and said.

The CHAIRMAN. Mr. Pell.

Senator PELL. I have nothing to add. I congratulate our chairman on this approach. I think it makes for better reading and better listening.

The CHAIRMAN. I cannot tell you how much I personally appreciate all of you, including you, Mr. Moodie. [Laughter.]

Mr. MOODIE. Thank you for the opportunity, Mr. Chairman. I deeply appreciate it.

The CHAIRMAN. Really, I have lived long enough to realize how much I do not know in this. And this hearing this afternoon, Senator Pell, has reminded me that, whereas I do not know as much as I intend to know sooner or later, we are here to try to develop the best approach we can for the American people. And you four have been very helpful, and I personally appreciate it.

And I will say, Senator Pell, that about half the time when I serve on a panel, when I am driving home, I say, gosh, I wish I had said something to so-and-so.

Do you want to say “gosh”? Do you have one further word?

Ms. HOEBER. No, I do not.

The CHAIRMAN. Well, not hearing anybody, without, objection, we will declare this hearing in recess. And thank you very much.

[Whereupon, at 3:55 p.m., the committee adjourned, to reconvene at 10:10 a.m., March 21, 1996.]
The committee met, pursuant to notice, at 10:10 a.m., in room SD-419, Dirksen Senate Office Building, Hon. Jesse Helms (chairman of the committee) presiding.

Present: Senators Helms, Snowe, Pell, Biden, Dodd, and Robb.

The CHAIRMAN. We do not really begin until both parties are represented at the hearing. I understand Senator Pell is on the way. But in the interest of time, I am going to start with my statement, and by that time, you will be asleep, and Senator Pell will be here.

The meeting will come to order. This morning's hearing is the second in this committee's concluding round of hearings on the Chemical Weapons Convention.

Today's witnesses include four very distinguished citizens who are very knowledgeable on the issue: the Honorable Kathleen Baily, who is a senior fellow on the staff of the director of Lawrence Livermore National Laboratory, and who served as Assistant Director of the Arms Control and Disarmament Agency during the Reagan administration; Dr. Brad Roberts, a senior policy analyst at the Institute for Defense Analyses; Frederick Webber, who is currently president and chief executive officer of the Chemical Manufacturers Association (CMA); and Douglas Feith—did I pronounce that right?

Mr. FEITH. Yes, sir.

The CHAIRMAN. Good, a senior founding partner of Feith & Zell, P.C., and who served as Deputy Assistant Secretary of Defense for Negotiations Policy during the Reagan administration.

Now then, as I have told you personally, I say for the record that I genuinely appreciate your coming here this morning, as the committee continues its consideration of the Chemical Weapons Convention.

The purpose of today's hearing is to examine the verifiability of the CWC, and the treaty's economic implications. Building upon my earlier comments of the previous testimony we have had, I feel obliged to lay out a few of the issues that I hope that our witnesses will touch upon.

First, I am more than concerned that the Chemical Weapons Convention is unverifiable, in my judgment. The 1994 national intelligence estimate on U.S. monitoring capabilities makes it quite
clear that monitoring and verification of the Convention will be extremely difficult, to say the least.

The intelligence community's low confidences stem from three aspects of the chemical weapons problem: One, the large number of sites involved in chemical activities worldwide; two, the dual-use nature of chemical manufacturing and production; and three, the fact that most prohibited activities can be easily concealed and/or disguised.

The heart of the verification problem is that a whole lot of chemicals are dual-use in nature. They can be used to make ballpoint pens or they can be used to make deadly nerve agents.

The Convention tries to steer a middle ground between unacceptably intrusive operations into the daily operations of industry on the one hand, and an unacceptably low level of confidence in verifiability on the other.

But I am concerned that the CWC is like a bull in a china shop. He is crashing into everything, because the middle ground cannot exist when so many chemicals have both legitimate and illegitimate purposes.

With respect to the Convention's impact upon industry, I am concerned that a large number of U.S. firms consuming or processing chemicals will have data declaration and/or inspection obligations under the CWC.

Indeed, the last time the Chemical Manufacturer's Association testified before this committee, on June 9, 1994, Mr. Will Carpenter noted that the CWC will have a negative impact on the U.S. chemical industry. Of course, we have concern about that impact.

Beyond the CMA, and, again, according to Mr. Carpenter, and to a voluminous report compiled by the Congressional Office of Technology Assessment, another 60 to 80 trade associations, besides the CMA, have members who will also be regulated under this Convention that we consider today.

I do not believe it wise for the U.S. Senate to discover after the fact, and in retrospect, just how widespread the chemical industry really is, and just how far reaching the provisions of the CWC really are.

Firms that manufacture anything, from dyes and pigments, insecticides, pharmaceuticals, ceramics, nylon, paint, varnish, electronics, textiles, soap, detergent, just to name a few, all may be affected by this Convention.

Now, I am told that the administration now estimates that between 10,000 and possibly as many 20,000 facilities, many of them processors or consumers of chemicals, as opposed to manufacturers, will assume additional regulatory burdens under this treaty.

As a minimum, they will be forced to hire more people to fill out more government forms. Some will be forced to submit to routine inspections.

Others may be subjected to intrusive challenge inspections by an international inspectorate, and a small number, comprised largely of biotechnological firms, may find their access to certain chemicals constrained or actually shut off.

Now, the most troubling fact about all of this, it seems to be, is that the overwhelming number of these companies are not even aware of the implications of the Chemical Weapons Convention.
Now, I mentioned the bull in the china shop, Joe, before you came in.

Senator BIDEN. Are you referring to me, Mr. Chairman? [Laughter.]

The CHAIRMAN. No, sir. No, sir. You are in no china shop, I will tell you.

Senator BIDEN. It would not be an inappropriate reference on occasion. [Laughter.]

The CHAIRMAN. But while the onsite inspections provided for under this treaty might be unlikely to detect a determined chemical weapons program, they are more than adequate to comprise and compromise trade secrets and proprietary information vital to the competitive edge of the various aforementioned U.S. industries.

The final report of a trial challenge inspection of the Monsanto Agricultural Co.'s Luling, LA, plant, back in August 1991, determined that the inspection yielded enough information to save a potential competitor considerable process development, time, and money.

In another instance, soil and water samples taken from the exterior of buildings at a chemical plant 3 weeks after a production run revealed the product of the operation and process details.

Now, obviously, I find troubling all of this, the potential loss of proprietary information, and all the rest. I think a lot of businesses would find this troubling as well. In fact, I understand that proprietary information is not often patented in the pharmaceutical industry, in order to preserve competitive advantage, and to prevent disclosure of CBI under the Freedom of Information Act.

A U.S. pharmaceutical firm, for example, may spend as much as $350 million to research and develop a new compound. This information, obviously, could be gleaned from challenge inspections, and would clearly be worth millions of dollars to foreign competitors.

I would add these concerns to those I laid out during the last hearing. Today, the Foreign Relations Committee has the opportunity to tap into the expertise of four distinguished witnesses I have already identified, Senator Biden, and to consider the treaty according to its own national security merits, and its potential impact upon hundreds of U.S. businesses.

I now yield to the distinguished Senator from Delaware.

Senator BIDEN. Thank you, Mr. Chairman. I will be very brief.

Mr. Chairman, I thank you for calling this hearing. I believe we are going to have one more hearing before we report out what is, in my view, a very important treaty.

We do have a distinguished panel here today, and I am anxious to hear from all of them.

We will hear, I am sure, about verification issues. I am sure we will hear about compliance concerns, and I suspect we will hear about the subject you have spent most of your opening statement referencing, and that is the impact on American industry.

I come from a state that is not unknown to chemicals. I come from a state that is not unknown to the pharmaceutical industry. I come from a state where not one single company has contacted me for any purpose other than to tell me how strongly they support this treaty.
My state is home to small companies like DuPont, Dupont-Merck, Zeneca, Hercules, and other companies.

Mr. Webber is here today to testify on behalf of the chemical industry, and I am confident that his views will correspond with those I have heard from these companies.

An uninformed observer of these hearings would likely take notice of an apparent irony today—the chemical industry is among the strongest advocates of a convention that will require it to submit to greater regulation.

That is an unusual notion on its face, that a multibillion-dollar industry would be supporting something that would require it to submit itself to greater regulatory schemes.

Of course, some will not believe that this industry could be supportive of such a treaty without having some ulterior motive. In their view, it is simply not believable that the U.S. industry would be supportive of the CWC primarily because it is beneficial to our national security.

I am anxious to hear from Mr. Webber, who I have known and spoken with. I know that he represents a number of my constituents.

I am interested to hear his argumentation as to why, and to what extent, his industry’s self-interest is involved. Self-interest is not bad, if it is for a positive purpose.

I would also note that Mr. Webber comes to testify before us today not only as a representative of industry, but also as a former official of the Nixon and Ford administrations.

On a more somber note, yesterday, we marked the first anniversary of the nerve gas attack in the Tokyo subway, which took 12 lives and injured another 5,000 people.

I think this anniversary underscores the need for prompt Senate action on the treaty, and if there is something that is not appropriate in the treaty, something that is wrong with the treaty, for us to know about it. But it is clear that some action must be taken. This has been a long time in coming.

So I thank you, Mr. Chairman, and I thank the distinguished ranking member for allowing me, in his absence, to make this brief opening statement.

The CHAIRMAN. Senator Pell, the distinguished ranking member of the Foreign Relations Committee.

Senator PELL. Thank you very much, Mr. Chairman, and thank you, too, for holding this hearing.

I am very pleased to witness today witnesses called by Chairman Helms to conclude the committee’s work on the Chemical Weapons Convention. In 1994, I chaired six open and two closed hearings on this Convention, and expect and hope to have a final hearing next Thursday, with Secretary Christopher and Secretary Perry.

Our four witnesses today offer various perspectives on the chemical weapons issue. The witnesses are well balanced, with two favoring the Convention and two opposed.

Mr. Roberts is particularly knowledgeable with regard to the debate surrounding a number of key issues, and I thank the chairman for agreeing to hear Mr. Frederick Webber, of the Chemical Manufacturers Association.
This organization, and their lead representative at the Geneva negotiations, Will Carpenter, were immensely helpful in assisting the executive branch to forge a treaty that would meet the policy objectives of getting rid of chemical weapons, while at the same time, making sure that the Convention was a manageable burden for industry.

Mr. Webber and others deserve much credit for the effort they have expended to meet their own legitimate needs, while maintaining unequivocal support for the national interest with regard to chemical weapons.

I would apologize to the chairman that I did not hold up the proceeding too long.

The CHAIRMAN. Well, I think this is the second time in 40 years that you have been tardy. I do not remember the last time. [Laughter.]

We note the presence, with appreciation, the distinguished Senator from Maine. She indicates that she does not have an opening statement.

Under a system which may not be any longer politically correct, I am going to say ladies first, and recognize you.

STATEMENT OF DR. KATHLEEN C. BAILEY, LAWRENCE LIVERMORE NATIONAL LABORATORY

Dr. BAILEY. Thank you very much, Senator Helms, and members of the committee.

I am pleased to be here today to talk to you about the issue of ratifying the Chemical Weapons Convention. I would like to note that the remarks I make are my own views, and not those necessarily of the Lawrence Livermore Laboratory, or any other institution. I would like to summarize my remarks, and submit my written testimony.

The CHAIRMAN. If you will forebear, I should have mentioned, as we always do around this place, that you may summarize, if you wish, but in any event, your full statement will be appear in the printed record. Proceed.

Dr. BAILEY. Thank you.

The CHAIRMAN. Thank you.

Dr. BAILEY. My remarks today will center on two issues. The first is the question of the cost of the treaty versus its benefits, and the second issue is the military usefulness in the context of the U.S. deterrence of chemical weapons in the future.

First, the cost benefit analysis. I have some particular expertise in the area of Chemical Weapons Convention verification issues because, in 1990, I was selected as the principal investigator to conduct a study for the Defense Nuclear Agency, entitled, "Non-Compliance Scenarios: Means by Which Parties to the Chemical Weapons Convention Might Cheat." This is a fairly technical study. The team primarily comprised of organic chemists, chemical engineers, and other technical experts.

We came to a disturbing conclusion in this study, and that is that cheating under the Convention would not only be easy and inexpensive, but virtually undetectable. I would like to mention four specific types of cheating scenarios, and will emphasize some more than others.
The first is that people can build and produce chemical weapons in clandestine production facilities. These facilities can be very small. For example, a 100-ton-per-year phosgene plant could fit in a space 40 by 40 feet. That is very small.

It would have no distinguishing features, necessarily, and would not have anything that would arouse suspicion from its external attributes.

Another scenario would be production in a commercial facility or diversion from a commercial facility. I can go into greater detail on these, should you wish later.

There is also the possibility of creation of novel agents. Novel agents are nontraditional ones, and they are important, because the chemical compounds in a novel agent would not necessarily appear on the list of scheduled chemicals.

Now, this is a really important issue, because since the CWC was drafted, information has come forward from a Russian dissident that Russia has been engaged in production of novel agents. If you sent an inspector, under the CWC, into a facility to look for novel agents, they couldn't do it because they wouldn't know what to look for.

They would not have the compounds in the novel agent on their list, their checklist, of what they are looking for.

A fourth cheating scenario, which is not only difficult to detect, but probably impossible, is to rely on production and storage of binaries. By this, I mean you would produce precursors for your chemical agent, and store them separately.

The former general in charge of the chemical weapons program of Russia cited this in a public discourse as being probably the most likely and the most difficult to verify of the scenarios by which people might cheat under the Chemical Weapons Convention.

Now, these cheating scenarios are not necessarily new, but their import has been underlined by new developments that have occurred since the CWC ratification hearings held in 1994. There are three developments that I would like to highlight.

First is the existence of the Russian program, which I mentioned a moment ago. The Russians purportedly have produced an agent more lethal, more deadly than VX.

A second new development is the Iraqi program. Despite anytime, anywhere inspections—which are much more rigorous than those that will be conducted, or would be conducted under the Chemical Weapons Convention—the inspectors were unable to find out that Iraq had produced VX in very large multiton quantities.

The inspectors also were unable to find out that Iraq had weaponized sarin. These facts were revealed unilaterally by Iraq, last August. The inspectors did not find the information through inspections.

The third new development that I think is important here has to do with Aum Shinrikyo, the Japanese cult. I think that the example of the Aum Shinrikyo cult activities are extremely important for several reasons, but there is one I would like to highlight, and that is how very small the facility can be.

I took a videotape that was given to me of the Aum Shinrikyo facility, and took three clips from it, and I brought pictures to show
you today. I would like to emphasize that these really demonstrate how very small the Aum facility is. So I would like to show you them.

This is the entryway into the facility. You can see the hand of the individual opening what looks like a big metal door. You look inside, and you see a very small area that looks like an “S.”

Over here, to the side, is some equipment, not only equipment for making chemical compounds, but also equipment for eating. They lived in the same area that they did chemical experiments.

If you walk through, you see this area right here. There is a hood. This a doorway. There is a hood here, and under this area, they were able to make lethal chemical compounds. It is very corroded. You can see that the safety measures were not particularly good.

I show you these to emphasize how very tiny this place is. This is the living area in the back, and their library. You can see the pictures of their leader on the side, and they slept down here. So it’s an extremely compact area, much smaller than this hearing room where we are right now.

So, the point of including the example of Aum Shinrikyo, here in this testimony, is that a chemical weapons facility can be extremely small, and you are not likely to find it, absent accurate human source intelligence.

If somebody tells you where to go, if they tell the Japanese police where to find it, yes, you can go there, and perhaps find it. But how are you going to get that intelligence? It is serendipitous.

Now, I would like to briefly turn to the issue of cost. Proponents of the treaty have bandied about the number that the first year of operation of the treaty would cost the United States a mere $17 million. I cannot, for the life of me, come up with a figure anywhere near that.

In looking at the costs, I come up with a conservative estimate that it would cost the United States a minimum of $70—seven-zero—$70 million a year. In my testimony, I have outlined how I reached that number, and am prepared to answer questions on it.

But in regard to that $70 million, it does not necessarily include some hidden or uncalculated costs. I will give you but one example. Experts in my laboratory recently conducted experiments to determine whether or not there would be remainder inside of the equipment that is used for samples analysis onsite.

They found out that, indeed, there is residue remaining. And if the equipment were taken offsite, off of the Lawrence Livermore Laboratory site, or off of the site of a biotechnology firm, for example, and further analysis were done on those residues, you would be able to get classified and/or proprietary information.

So if you wanted to ensure that did not happen, you would have to buy and keep the equipment. That equipment would cost approximately $15,000 per inspection. You would have to keep it after each inspection. So these are costs that I think have in no way been factored into anybody’s estimates.

I would like now to turn to my final point, and that is that the proliferation of chemical weapons is likely to continue. Proponents of the CWC, this Convention, often argue that chemical weapons are no longer militarily useful on the modern battlefield. Well, I
think that Iraq proved that this is not the case, and even though
Iraq did not use chemical weapons during Desert Storm, it does not
mean that they would not use them in the future.

In fact, I think that an analysis by Iraqi leadership, or by anyone
else, observing the lessons of Desert Storm, would reach the conclu-
sion that it would be preferable, from the Iraqi point of view, to
have used chemical weapons, particularly when the allied equip-
ment and soldiers were basically very much in one spot, on the
wharves, and in the camps, when they first arrived.

If Iraq had fired but one chemical round over the allied troops,
they would have had to suit up, and it would have changed the re-
mainder of the Desert Storm preparations.

And that leads me to the final point, which is that I think we
have not thought enough about how to deter chemical proliferants
in the future. We tend to think that conventional deterrence will
work. It may in some scenarios, but not all.

And until we have decided how we are going to deter chemical
threats in the future, we should be wary of giving up our own
chemical deterrent.

Thank you.

The CHAIRMAN. Thank you very much.

[The prepared statement of Dr. Bailey follows:]

PREPARED STATEMENT OF DR. BAILEY

Introduction

Mr. Chairman, Members of the Committee, I am very pleased to appear before
you today to address the issue of ratifying the Chemical Weapons Convention. I am
Kathleen Bailey, a senior fellow at Lawrence Livermore National Laboratory. The
majority of my professional career has been devoted to study of the proliferation of
weapons of mass destruction and delivery vehicles. I have served the United States
Government in the Arms Control and Disarmament Agency, the Department of
State, and the US Information Agency. My remarks today represent my own views
and do not necessarily represent those of the Lawrence Livermore National Labora-
tory, the University of California, or any agency of the United States Government.

My testimony today will focus on two subjects. The first is an analysis of benefits
versus financial costs of the Chemical Weapons Convention (CWC). Second, I will
posit that proliferation is likely to continue, because chemical weapons are militarily
effective, and that we have yet to clearly define how we will deter and respond to
the threat of chemical weapons.

BENEFITS VERSUS COSTS OF THE CWC

CWC “Cheating Scenarios”

I have particular expertise on the subject of CWC verification. In 1990, I was se-
lected by the Defense Nuclear Agency to be principal investigator on a year-long
study of how easy or difficult it would be for parties to cheat under the CWC.1 The
investigating team was comprised principally of organic chemists, chemical engi-
neers, and industrial engineers. The results of this study were highly disturbing. We
found that it is extraordinarily easy and inexpensive for a party to the CWC to man-
ufacture militarily significant quantities of chemical weapons agent with virtually
no risk of detection. The study results were later validated by an independent re-
view.2

The first portion of the study for the Defense Nuclear Agency was to determine
what quantity of chemical agent can be considered as militarily significant. By mod-
eling actual past battles, as well as possible future scenarios, we determined that
100 tons or less of chemical agent can be militarily significant in many scenarios.
This is not surprising today, given the experience of Desert Shield. We can well

1Kathleen C. Bailey, et al, “Noncompliance Scenarios: Means by Which Parties to the Chemi-
2See Manuel L. Sanches, et al, “Analysis of Signatures Associated with Noncompliance Sce-
imagine the effects on that operation had Iraq used CW against disembarking troops, or even against the compact targets of equipment on wharves. CW use would have been highly disruptive to operations, and might have damaged the alliance. And Iraq would not have had to use 100 tons of agent; even a few rounds containing only several pounds of agent would have been enough to cause troops to suit up, hampering their effectiveness.

The second, larger portion of the study examined scenarios by which nations might cheat. There are four approaches to clandestine production of chemical weapons for which we currently have no effective technical means of detection.

One means of cheating without detection is to produce chemical agent in a clandestine facility. A CW production facility can be very small, inexpensive, and easy to hide. A 100 tpy phosgene plant, for example, would cost only a few million dollars and would require an area of only 40 ft. x 40 ft. The Japanese religious cult Aum Shinrikyo produced CW in a space no bigger than this hearing room. Also, chemical plants need not have any distinguishing features that would arouse suspicions. To discover cheating would depend on obtaining accurate human-source intelligence.

A second type of cheating that would be nearly impossible to detect is production of chemicals in an industrial facility that makes or uses compounds usable in or as weapons. Even if traces of chemical agent were discovered, it would be impossible to prove or disprove that they were associated with weapons.

A third cheating scenario is the production of chemical agents that do not rely on scheduled chemicals—the compounds listed in the CWC. CWC inspectors will have the authority only to search for the presence of scheduled chemicals. Thus, a country such as Russia, which is reported to have developed novel CW agents, will have no fear of detection if those agents rely on unscheduled chemicals.

A fourth mode of cheating is to rely on production of common precursors. This is akin to binary CW, in which compounds are stored separately for safety and become a chemical agent only when combined. Precursors stored in such a manner, if discovered, could be explained as being for commercial uses. Referring to such a scheme, General Anatoliy Kuntsevich, who was in control of the Russian CW program for many years, said, "Production of binary weapons is very difficult to detect. I don't know of any mechanism of control."

New Developments

The profound problems with verifying the CWC were revealed publicly during the ratification hearings held by this Committee in 1994 and generated significant skepticism by some Senators about the treaty at that time. Since those hearings, three important revelations have provided fresh evidence that chemical weapons are seen by many as militarily useful and that the CWC will be impotent in addressing the growing chemical threat. Briefly, those revelations are:

- Russia continued its chemical weapons program and developed high-lethal chemical agents;
- Iraq indigenously manufactured nerve agents and weaponized them without the United Nations Special Commission on Iraq being able to detect the activity despite anywhere inspections; and
- the Japanese religious cult Aum Shinrikyo proved that chemical weapons can be manufactured in very small facilities.

The Russian Chemical Weapons Program

One of the most important events to occur since the drafting and signing of the CWC is the public revelation that Russia has had an extensive chemical weapons program, despite Moscow's commitment to end it. An article written in 1993 by two researchers in the Russian CW program stated that Russia has developed and tested a new nerve agent several times more deadly than the most potent "classical" chemical agent, VX. One of the authors, Vil Mirzayanov, a chemist who had been responsible for a program to assure Russia's chemical agents would not be detectable, was arrested and imprisoned for several days, charged with revealing state secrets in the article.

Mirzayanov provided details on the nerve agent, so-called Substance A-230, saying that it had been successfully tested in 1989. He also said that Russia has developed a new ultra-lethal "Novichok" class of weapons, some of whose chemical compounds are not listed as controlled chemicals under the Chemical Weapons Conven-
Because Western experts do not know the formulae of Russia's new CW, they will not know what chemical compounds to look for if the Convention comes into force. Unfortunately, there is no way to be sure that the Russian CW program is not continuing. Russia, or any nation, can successfully hide chemical agents and weapons, and it is even easier to hide precursor chemicals. Research is also easy to hide and, if discovered, can be explained as being for another purpose such as defense.

The Iraqi Chemical Weapons Program

That the CWC cannot be even minimally verified is perhaps best seen in the case of Iraq. Despite anytime-anywhere inspections, which are much more intrusive than those provided for in the CWC, UN Special Commission (UNSCOM) inspectors were unable to uncover critical information about Iraq's CW program. For example, Iraq volunteered in the summer of 1995, after 35 UNSCOM chemical weapons inspections had taken place, that it previously produced VX nerve agent on an industrial scale, manufactured many tonnes of VX precursors, and weaponized sarin. The fact that this information had not been uncovered before, despite intensive searches by inspectors, proves the point that CW production and weapons can be hidden. In fact, UNSCOM has stated that Iraq may still have hidden chemical weapons, agents, and production equipment.

The Aum Shinrikyo Chemical Weapons Program

Aum Shinrikyo, a subnational group, was able to manufacture chemical agents in a very small facility—one with no unusual attributes to arouse suspicion. There are two important lessons from the Aum Shinrikyo incident relevant to the CWC. First, even if the CWC had been in effect, it would have been highly unlikely that the facility would have prompted a request for challenge inspection. Thus, it will be extremely difficult, if not impossible, for the CWC verification regime to detect clandestine production of chemical agents by subnational groups. Second, the CWC will have no substantive impact on the technical abilities or political will of subnational groups to produce or use chemical weapons.

The foregoing profiles the reasons why the CWC will have very little prospect of deterring or detecting clandestine chemical weapons production. The other side of a cost versus benefit analysis is financial. What will the CWC cost the taxpayer, and will it be worth the cost?

Costs of the CWC

The CWC promises to be a very expensive treaty financially. Until key issues are resolved—such as how many inspections there will be and what equipment will be involved—no firm cost estimates can be made. However, it is possible to make general observations.

CWC proponents often argue that US costs for the first year of treaty implementation will be $17.5 million. I believe that the costs of treaty implementation to US taxpayers will be closer to $70 million, perhaps more. Let me explain by breaking the amounts down into portions for the international organization, the national organization, and costs of hosting inspections at US Government-owned facilities. Costs of the treaty to industry, although they will be significant, are not included in taxpayers' costs. A very conservative estimate is that the international organization responsible for the CWC will cost at least $120 million per year, of which the United States must pay 25%, or $30 million. This figure is derived from the following assumptions. Current plans call for 300 inspectors. The cost per year will be approximately $150,000 per inspector.

This does not include relocation expenses, housing, education vouchers for dependents, training, and support, which will, at a minimum, double the average estimate of $70 million per inspector. The interviewees also noted that Russia's new binary CW are unlike US binary weapons in that one of the components is a toxin.

*Oleg Vishnyakov, "Interview with Vil Mirzayanov and Lev Fedorov," Novoye Vremya, No. 44, October 27, 1992, p. 4-9, as translated in FBIS-SOV-92-213, November 3, 1992, p. 3. The interviewees also noted that Russia's new binary CW are unlike US binary weapons in that one of the components is a toxin.


Efforts were made to confirm cost data with the Arms Control & Disarmament Agency. Agency officials declined to make cost estimates available.

This is the average cost per year (salary, benefits, etc.) of an inspector for the International Atomic Energy Agency.
that figure. Travel for inspections is likely to cost well over $30 million. Recurring equipment costs will be at least $1 million.

The US organization responsible for national implementation will compile reports from over 6,000 chemical firms, host international inspectors, and assure US compliance with the treaty. Although US officials have not provided estimates of such implementation for the United States, it is likely to be as high or higher than such costs for Russia. Russian ambassador to the CWC negotiations, Sergey Batsanov, has stated publicly that costs for domestic implementation of the CWC to Russia will be on the order of $100 million. Another source states that Russian national implementation costs will be $45 million per year. The lower of these numbers does not seem out of bounds for US implementation.

Included in the costs for national implementation are the costs of preparations for and conduct of inspections at US Government-owned facilities. These are very hard to estimate and will vary widely. Sensitive facilities with classified information, for example, will require more preparation. Facilities engaged in potentially hazardous operations may have to be shut down to allow access. In such situations, the per day costs of an inspection could be as much as $250,000.

Any facility or site that is concerned about loss of proprietary or classified information through the sampling and analysis process will incur additional costs. For example, there is mounting evidence that sensitive facilities will need to retain the electronics and computer hardware used to analyze samples during an inspection. Research has shown that significant quantities of samples remain in equipment used for analyses, and cannot be removed without destroying the equipment. If the equipment were taken off-site, the remaining chemicals in the equipment could be further analyzed to reveal sensitive or classified information. The only way to assure that the sample analysis equipment is unusable for such further analysis is to retain it. It therefore would not be available for reuse in other inspections. Research has further shown that the cost of retaining the equipment for each inspection is approximately $15,000.

MILITARY UTILITY AND THE ISSUE OF DETERRENCE

More than twenty nations, including Russia and China, reportedly have active chemical weapons programs, and thus obviously view such weapons as being valuable military tools. Iraq used chemicals with steadily increasing effect against Iran, and was poised to use them when Desert Storm began. That Iraq did not, according to Iraqi Foreign Minister Tariq Aziz, was due to Iraq's perception that any use of weapons of mass destruction would be responded to with nuclear weapons. Nations analyzing Desert Storm are likely to conclude that Iraq's best chance of disrupting the allied coalition, and thus winning, was to have used chemical or biological weapons early, during Desert Shield. It is now clear that the United States did not contemplate use of nuclear weapons, and, for the future, it will have no ability to respond in kind to chemical or biological threats. In the future, nations may view chemical weapons as a means of deterring US involvement in regional conflicts.

There is no enunciated US deterrent policy regarding future chemical threats. Nuclear retaliation is highly unlikely. Conventional responses will be effective in some scenarios, but not all. Situations in which there is no forward presence, no friendly ports, and limited time and other resources will be especially difficult. Introduction of troops for conventional response will also invite the use of chemical or biological weapons, which may effectively sap the will of the United States to engage.

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11 This assumes that each of the 300 inspectors goes on only 25 inspections per year at 5 days each, with a total travel cost of $4,000 per inspector each trip. Travel costs could be much higher, depending on the actual number of inspections, where they are, and whether non-commercial airline travel is required.

12 Equipment costs are estimated to be $4,153,525, of which approximately $1 million may be recurring. See Provisional Technical Secretariat, Group of Experts on Programme of Work and Budget, "Proposed List of Inspection and Laboratory Equipment," Document PC-V/AWP/P.3, Annex 3, November 18, 1992.

13 Conference on Disarmament document CD/1173, 3 September 1992, pp. 51-53. Also, Russian officials have indicated that Russia will require outside financial assistance in complying with CWC obligations, which may become another cost factor for the United States.

14 This figure was given as well independently, by a US pharmaceutical firm when asked what the per day cost of hosting a CWC inspection would be.

The CWC fails the cost versus benefit test. It has little benefit due to its unverifiability, yet financial costs will be high. There are many budget priorities higher than paying for a treaty that will do little or nothing to remove the threat of chemical weapons.

The CWC will not eliminate the chemical threats likely to be faced by the United States, particularly in regional conflicts. Pundits who say that chemical weapons have no military utility are mirror-imaging; just because the United States is unwilling to use such weapons does not mean that others are. Before giving up the option of retaining chemical weapons for defense, there must be a clear answer as to how the United States will deter chemical attacks.

The CHAIRMAN. Mr. Webber.

STATEMENT OF FREDERICK L. WEBBER, PRESIDENT AND CEO, CHEMICAL MANUFACTURERS ASSOCIATION

Mr. WEBBER. Thank you, Mr. Chairman. Good morning, members of the committee. I have a prepared statement, which I would like to be included in the record of this hearing, and which I will summarize.

The CHAIRMAN. Yes.

Mr. WEBBER. Thank you, sir. Allow me to be brief and to the point. The Senate ratification of this Convention is a high priority for the chemical industry, a very high priority. Others in the business community feel the same way.

Let me just take a moment to recognize Stanley Weiss, sitting behind me. Stanley is chairman of the Business Executives for National Security, and with him is LTG Tom McInerney, its president.

Stanley's organization represents over 1,500 executives on national security issues. CMA has joined with this organization to form the Business Alliance to Protect Americans Against Chemical Weapons.

The alliance is a strong voice in support of the Convention, and people like Gen. Brent Scowcroft, and industry CEO's, are supporting this effort in every possible way.

The benefits of this treaty far outweigh the costs. It will lessen the threat of chemical weapons use by rogue governments and terrorists.

As Senator Biden pointed out just a few minutes ago, we have just observed the anniversary of the Tokyo subway gas attack. It is, indeed, a fresh and painful reminder of the destructive power of chemical weapons.

The poison used in that attack has no commercial value, and is not produced by any chemical company, but it was made from commercial chemicals that have important applications in areas like medicine and fire protection.

We feel a strong responsibility, Mr. Chairman, to do all that we can to ensure that our products do not fall into the wrong hands. The Chemical Weapons Convention is our best hope for success. I have heard some people say this treaty is bad for business.

Those people do not speak for the chemical industry. I do. And I am here to tell you that my industry unconditionally supports this treaty.

Mr. Chairman, honest businesses have nothing to fear from this treaty. On the contrary, the real price to pay is for not taking ac-
The United States, as I am sure you know, is the world's preferred supplier of chemical products. Chemical exports, last year, topped $60 billion. Indeed, we are the leading exporting industry in America.

Those exports, that $60 billion figure, sustained 240,000 high-paying American jobs throughout the land. That makes us the nation's largest exporter. More than 10 cents of every export dollar is a product of the chemical industry.

We are a fast, reliable, high-quality supplier to customers in every corner of the globe. But we could lose that distinction, we could lose it if the United States does not ratify the Chemical Weapons Convention.

The Convention sharply restricts trade in chemicals with countries who are not parties to the treaty. If the Senate does not ratify, our customers will cut us off. They will drop us, and find other suppliers.

Unfortunately, we will be lumped in the same category as nations like Libya, Iraq, and North Korea. We do not believe this is an acceptable option.

The critics like to say that this treaty imposes too many burdens on business. They say that opening our plants to inspections will mean we forfeit our most important trade secrets. It is a good story, if it were true, but it is not. Yes, the Convention does open our plants to inspection. But it also offers state-of-the-art protections for confidential business information. This treaty will not reveal our secrets.

Indeed, it will protect them. We know, because we helped develop the inspection system. Then we put the system to the test over and over again. We learned what works and what does not. We found the gaps, and we believe that we have plugged them.

Mr. Chairman, let me cut to the bottomline. The benefits of this inspection system far outweigh the costs. The rewards outweigh the risks. The treaty may not provide an iron-clad guarantee that chemical weapons will not ever again be a threat, but it does have teeth. It will provide a real deterrent. It is the best available option.

The Convention strikes a balance. It is tough, but it is fair. It is intrusive, but it is not stifling. It asks a lot, but in return, it offers a significant reduction in the threat of chemical weapons.

The chemical industry has taken a hard critical look at this treaty, Mr. Chairman. We have spent years examining its strengths and weaknesses, and we have concluded that it is the right thing to do.

It is right for our industry, it is right for the nation, and it is right for the world. I respectfully urge this committee to vote for its ratification.

And I will be happy to respond to questions afterward. Thank you.

The CHAIRMAN. Thank you, sir.

[The prepared statement of Mr. Webber follows:]
am here today to reiterate the U.S. chemical industry's unwavering support for the Chemical Weapons Convention (CWC).

The chemical industry is one of many business sectors that strongly support the CWC. I'm proud to note that the Business Executives for National Security, which represents a broad section of American commerce, and CMA, have formed the Business Alliance to Protect Americans from Chemical Weapons. The business community is united in its support for this Convention.

The members of this Committee may well wonder what would prompt a highly regulated industry like chemical manufacturers to support a treaty like the CWC. After all, it will bring additional regulation to a highly regulated industry. The answer is simple.

- Our commitment to the CWC stems from a shared belief that chemical weapons must be banned.
- Our commitment to the CWC is recognition that commercial chemical manufacturers can and must help achieve the goal of a total ban.
- Our commitment to the CWC comes from our responsibility to help prevent legitimate chemical products being used for illegal purposes. That commitment is framed in the Responsible Care® program, our industry's program for the responsible management of chemicals and chemical products.

For our industry, the many benefits of this treaty far outweigh the cost. The Convention will not have the catastrophic impact on American business that a few critics claim. Several treaty opponents have stated their belief that 25,000 American companies will be subject to on-site inspections, that American industry's most important business secrets will be compromised, and that America's economic security will be put at risk.

Those arguments are not true; they are not supported by the facts.

We have studied this treaty in great detail; we have put it to the test. We think the CWC is a good deal for American industry.

The far-reaching impact of the Chemical Weapons Convention has been over-stated. Fewer than 2,000 American companies will be directly affected. Of that number, less than 200 are likely to ever have an on-site inspection. The vast majority of the affected facilities will be required to keep records and fill out a yearly one-page report. In our view, that's a manageable burden. In an industry already subject to on-site inspections by the Occupational Safety and Health Administration and the Environmental Protection Agency, and which fills out more forms than almost any other industrial sector, the considerable benefits of the CWC outweigh the burdens.

Contrary to what the opponents would have you believe, the Convention won't affect bakers and candlestick makers. It won't put companies out of business. And it won't keep life-saving pharmaceuticals off the market. Those arguments are not true.

The Chemical Weapons Convention protects vital commercial interests. I know because we helped write the provisions related to confidential business information. I know because we helped design the reporting forms. And I know because we helped develop inspection procedures that protect trade secrets while providing full assurance that chemical weapons are not being produced.

I've heard some suggest that the Chemical Weapons Convention is going to stifle research into cancer-fighting drugs, or prevent their manufacture. But if you ask the people who make those products, they will tell you the Convention will not have an adverse effect on their operations.

The treaty doesn't prohibit legitimate medical, pharmaceutical, agricultural and industrial uses of the listed chemicals. It provides a built-in process for easing restrictions on the most promising new uses of chemicals affected by the treaty. Remember, our industry helped negotiate this treaty. We accomplished our goal.

Some treaty opponents have said we're better off if the United States never becomes a full party to the CWC. "We'll save millions," they say; "There'll be no impact if the U.S. is not a player." And as before, this argument is not true.

Ironically, our industry will suffer the greatest impact if the United States does not ratify the Convention. Chemical manufacturers are America's single largest exporting sector. We exported over $60 billion in products and technology last year, with a $20 billion trade surplus. It is no exaggeration to say that our industry is the world's preferred chemical supplier.

If the United States does not ratify the treaty, that status will change. Our largest trading partners are also party to the Convention, and will be forced to apply trade restrictions to chemicals that originate here, or that are being shipped here.

Even if the restrictions only apply to a small portion of the overall chemicals trade, our customers have an incentive to make life as easy as possible. They'll shop where there are no limits. The result? Potentially hundreds of millions of dollars of lost sales, for no other reason than the United States is not part of the CWC.
In short, the Chemical Weapons Convention makes good business sense and good public policy. It is the next best step to prevent terrorists from getting their hands on materials to make chemical weapons. The treaty gives 160 governments—including the United States—the tools to uncover and act against the illegal chemical weapons efforts of rogue countries. Every American, and every American soldier and sailor, will be safer when the Convention is in force. Attached to this statement is a summary of the very good reasons why the Convention should be approved.

Our request to this Committee is simple. Pass the Chemical Weapons Convention. Be assured of the chemical industry’s support for this important agreement. I will be happy to answer questions.

[The information referred to may be found in committee files.]

The CHAIRMAN. Dr. Roberts.

STATEMENT OF DR. BRAD ROBERTS, MEMBER, RESEARCH STATE, INSTITUTE OF DEFENSE ANALYSIS

Dr. ROBERTS. Thank you, Mr. Chairman, and members of the committee. I, too, have a written statement for the record, which I would like to summarize briefly.

I am grateful for the opportunity to be here, and to share some thoughts on the subject. This committee has heard broad support for the Convention, from witnesses of the current and past administrations, and from industry. From others, though, it has heard strong criticism of the treaty, as a dangerous folly.

These critics do us a service, I think, by posing a central question about the effect of the CWC on basic U.S. interests.

Without answers to these questions, there is no reason that any arms control measure should be implemented simply because it somehow proves negotiable. I do believe, however, that the CWC can meet the strictest criteria required by the United States, and that its implementation is in the U.S. national-interest.

My written statement addresses six specific questions. I would just summarize my arguments briefly on each.

First will the CWC, as promised, rid the world of chemical weapons? Of course not. What it will do is cut deeply into the global CW threat, restrain proliferation trends, that, otherwise, are leading to a much more severe military threat, and most importantly, eliminate all chemical warfare programs of military significance to the United States.

This last is a much more modest result than ridding the world of all chemical weapons, but it is, after all, the only result that should matter from the point of view of the United States.

The treaty will undoubtedly suffer both holdouts and dropouts, but few of these will be able to assemble chemical war-fighting capabilities of sufficient size, sophistication, and durability to take the initiative from or defeat U.S. forces.

There is also a good case to be made that the treaty will become more global, and gain more members with time.

Now, the criticism has rightly been made in prior hearings that the norm embodied in the CWC will not be global. This is true, but it is also not particularly relevant.

The norm is remarkably broad, first of all, given the dramatic number of treaty signatories, and the long tradition of control in this area. Moreover, the function of norms is often misunderstood by their critics.
Norms operate not to shape the thinking of a Saddam Hussein, or the behavior of a Mu'ammar Qadhafi, but they create the political foundations for a collective response to their egregious behavior. Without the norm embodied in the CWC, we cannot expect others to join us in policing chemical threats deemed dangerous to the United States.

The second question: Does the United States need chemical weapons, if the treaty will not rid the world of chemical weapons? You have heard a series of sometimes passionate arguments about the deterrent effect of the threat of retaliation in kind. What you have not heard is much discussion of the relative value of CW retention by the United States to the future of deterrence. I am not of the school that chemical weapons have no utility, and I do think that there are some important challenges of chemical deterrence in the years ahead, some of which will remain even if the treaty enters into force.

But nor do I believe that the chemical weapons in the U.S. arsenal are useful to the United States for meeting these particular challenges. The simple reason is that the passing of the Soviet military threat changes everything.

During the cold war, the United States generally needed a CW-retaliatory capability in Europe. Without one, the Soviet Union would have been able to use its huge quantities of chemical warfare agents, matching agent characteristics to specific target types, delivering them with precision-guided munitions, and continuing to do so for prolonged periods of time, so as to sustain lethal concentrations on the battlefield.

Had the Warsaw Pact been able to do this without a NATO reply, it would have controlled the war, forcing us to either accept defeat, or to escalate to nuclear weapons. That is why this body voted in favor of binary chemical weapons production—a compelling argument.

But none of the countries of proliferation concern has such a capability. Some have weapons, at least some have chemical warfare agents, but none has either the quantity or quality of the Soviet arsenal, or the means to exploit them to win strategically significant operational advantages.

The United States does need to concern itself with deterring chemical attack on its forces. It has studied the lessons of the Persian Gulf war. That led to a decision by the U.S. military, not enforced from above by political authorities, to renounce the right of retaliation in kind with chemical weapons.

For the kinds of threats the United States faces today and in the foreseeable future, an in-kind retaliatory capability runs a very distant third behind both overwhelming U.S. conventional advantages on the battlefield, and strong antichemical protection as deterrents of CW aggression by others.

This committee should also understand that the United States is headed out of the chemical warfare business whether or not the CWC enters into force. After studying the lessons of the Gulf war, as I indicated, this country forswore chemical weapons.

Virtually all of its CW arsenal is being destroyed for sound military and safety reasons. At the end of that destruction process mandated in the mid-1980s, the United States will be left with
roughly 600 tons of binary chemical weapons. This is a fraction of what Saddam Hussein had and this is not a militarily significant counter.

The treaty will simply be icing on the cake for the United States. The United States is relinquishing its arsenal, not simply because of the taboo on these weapons, but because they are essentially useless in the current and reasonably foreseeable future.

My third question, and to move a little more quickly, is: Is the CW verifiable? We have heard good criticisms of the treaty, of its limits, of its imperfections. You have raised excellent points. Kathleen has raised excellent points.

But in my view, it is a mistake to hold the treaty—it is a mistake for the United States, in particular, to hold the treaty to its highest verification standards, to the standards we became accustomed to during the cold war, when cheating on a treaty like this involved threats to the survival of the United States. Noncompliance with this treaty does not present that kind of threat.

In fact, I believe U.S. verification requirements to be relatively modest. The United States should not and cannot concern itself with illicit behavior in every building or tunnel in the world where agent production might occur. Rather, it must concern itself with illicit behavior that is potentially crippling to U.S. military operations.

Now, in light of my earlier arguments about deterrence, what does that mean? Well, I believe our verification requirements establish militarily significant cheating as that which occurs in a state with which we might find ourselves at war, now. That is not a particularly large number of states. And the cheating must be at a level and of a kind to threaten to rob the United States of the military initiative.

Now, that is not simply a matter of having some chemical agent laying around, or even having a lot of chemical agent laying around. It is a matter of being able to mix agent characteristics to target types, match the delivery system to the particular target, and to be able to do so repeatedly for a long period of time to force the forces to adopt that cumbersome protective gear.

Now, the United States already knows a fair amount about its potential battlefield adversaries, as well as a fair amount about their chemical warfare capabilities. Its first line of verification is its own intelligence programs.

The challenge inspections permitted under the CWC add a significant new tool to our verification abilities. Only countries thinking themselves at the brink of war are likely to take the risks of accumulating large quantities of chemical weapons, and a large chemical war-fighting capability, an act that would provide many intelligence tipoffs beyond that kind of act, and an attempt that would go unnoticed only if we do not pay attention.

Some treaty critics also fault the CWC not so much for the shortcomings of the inspection system, as for the inaction that they predict will meet any evidence of noncompliance.

They doubt a firm response by the international community. By and large, this is a criticism made by those who in the early years of the Reagan administration were bitterly disappointed in their effort to build an international campaign against the Soviet Union.
Old issues of arms control compliance aside, it is important to understand that the sharp international polarization of the cold war has passed. States that used to resist being dragged into ideological crusades against the Soviet Union now line up to join coalitions with the United States to fight these states.

The fourth question: Will it cost too much? Well, it will cost. Now, I think the $17 million figure is a pretty specific one. That would be the predicted U.S. contribution to the budget of the Organization for the Prohibition of Chemical Weapons.

That is roughly equivalent to what the United States spends in support of its safeguard commitments under the International Atomic Energy Agency.

But let us take Kathleen’s figure of $70 million. Well, that is still far short of what the United States spends to implement START and to implement the Cooperative Threat Reduction Program. It pales in comparison to what we are going to spend anyway, every year, on chemical defense and protection, $500 million.

Five hundred million dollars is also about what we are going to spend every year to destroy the chemical stockpile, something we are committed to doing for reasons other than the Convention.

We currently spend about $100 million a year maintaining the existing stockpile. So do a straight swap with Kathleen’s figure, or at least $70 million versus $100 million.

I would also observe that the binary weapons production program of the 1980’s, which produced our 600 tons of weapons, cost well in excess of $1 billion. Measured against these numbers, $17 million, or even $70 million, seems like a pretty reasonable tradeoff to me.

The fifth question: Would the CWC harm U.S. economic interests? Fred Webber has spoken eloquently to this point. I would like to emphasize that his views are not just those of the manufacturers, but also the business alliance, which brings other industries into their collaborative coalition thus expand the consensus that they represent. They speak for a good many processors and consumers as well.

And I would also emphasize the point that not ratifying the CWC will harm the long-term economic interests of this industry and related industry. If the Convention enters into force, we end up in that rogue state category with Libya and the others who are put under export controls from our friends and allies.

If the treaty does not enter into force, we can bet that if, as Fred indicated, these things fall into the wrong hands, there will be a political backlash that will compel this body to push for tightened export controls, unilaterally imposed, and this will cost jobs.

I also note that, in prior testimony, this committee has heard that export controls will disappear if the CWC enters into force. This is flat wrong. The CWC imposes export control requirements on its members, including many developing countries that do not now have them.

Sixth, and finally: Are there any better alternatives? Well, we have heard a number discussed. Relying on the CW arsenal that we have, maybe building it up a little bit, relying on nonproliferation measures, maybe setting aside the CWC and trying to nego-
tiate something that looks like the Nuclear Non-Proliferation Treaty—these are political fantasies.

These are not politically realistic in today's world or tomorrow's world. No one would line up with the United States to do those things, not even our closest allies.

In sum then, the CWC certainly is not perfect, and anybody who has told you it is, is blowing smoke. The relevant question for this committee, though, is simply: Is it good enough? Is the treaty in the national interest?

If you believe, as I do, that it is better to narrow the proliferation threat than to let it spiral out of control—which is where it is headed—that the only chemical weapons that matter to the United States are those that pose real military threats, that it is better to share verification and compliance tasks and to have onsite access than to go it alone on these matters, that it is better to add relatively modest regulatory burdens to industry than to jeopardize its long-term competitiveness, that it is better to create more tools to deal with the proliferation threat of the post-cold war era than to have fewer, and if you agree that it is better to share the burden of managing this problem than to saddle the United States alone, then support the CWC.

It is not perfect, but it is largely up to us to define and manage its risks through our military programs, our antichemical protection systems, and our own national verification capabilities. This is a task that is far easier than coping with the risks of a world of much broader chemical and perhaps biological proliferation, and the difficult challenges that would result to U.S. interests, capabilities, and leadership.

Thank you, Mr. Chairman.

The CHAIRMAN. Thank you, sir.

[The prepared statement of Dr. Roberts follows:]

PREPARED STATEMENT OF DR. ROBERTS*

As a defense policy analyst at the Congressional Research Service nearly 15 years ago, I had my first exposure to the subject of chemical arms control. At that time, well before the current Chemical Weapons Convention (CWC) had even begun to take shape, two distinct camps had emerged to debate its merits. One camp consisted of advocates of arms control of whatever kind. They tended to view chemical disarmament as an essential part of a strategy aimed at ending the Cold War, and to employ rich rhetoric to tout the CWC's promise as a way to rid the world of an entire class of weapons of mass destruction. The other camp consisted of opponents of arms control of whatever kind. They tended to view chemical disarmament as dangerously naïve, and to employ rich rhetoric of their own to tout the CWC as a sellout of U.S. interests.

Neither camp has gone away. But history has moved on. The Cold War passed on, and with it a whole way of thinking about both the chemical weapons problem and the tasks of arms control. Three Republican administrations went on to elaborate, negotiate, and conclude the CWC, and one Democratic administration to seek its implementation. At one point in this process, the Senate expressed its support for the treaty with a letter to the president signed by 74 members. And the two camps became extremes, as a growing number of policymakers and analysts had to think through the merits and demerits of the CWC in a more pragmatic and less ideological fashion.

*Brad Roberts is a member of the research staff at the Institute for Defense Analyses in Alexandria, Virginia. He served previously as a research fellow at the Center for Strategic and International Studies, where he directed a congressional study group on chemical arms control chaired variously by Senator William Cohen and Representatives Martin Lancaster and John Spratt. The views represented here are his own and should not be attributed to any organization with which he is or has been affiliated.
I am one of those who sees the CWC not in black and white terms but in shades of grey. As an analyst of the post-cold war international security dynamic, weapons proliferation, and U.S. military strategy, I have come to the conclusion that the CWC has been oversold by some of its traditional supporters. It is not a panacea. But nor is it a folly. It will work neither as well as its most passionate defenders profess nor as poorly as its most passionate detractors allege. But that it work well is in the U.S. interest. I am here to support the treaty and to encourage this committee and this body to give its advice and consent to treaty ratification at the earliest possible time.

This analysis focuses on six key questions:

1. Will the CWC eliminate all chemical weapons?
2. Does the United States need chemical weapons?
3. Is the CWC verifiable?
4. Are anticipated costs commensurate with predicted benefits?
5. Will the CWC harm U.S. economic interests?
6. Are there better alternatives?

1) WILL THE CWC ELIMINATE ALL CHEMICAL WEAPONS?

This committee has heard that the CWC promises to rid the world of an entire class of weapons of mass destruction. It has also heard that not all states alleged to possess chemical weapons are among the treaty signatories and, moreover, that among those signatories are some who seem unlikely to honor their legal commitment. How is the committee to make sense of this debate?

Among the signatories of the CWC are two-thirds of the states usually listed as of proliferation concern to the United States. The remainder are primarily in the Middle East—a region of strategic importance to the United States, to be sure, but also a region where at last a peace process may create the foundations for future progress on arms control. Among those countries of proliferation concern that have signed the treaty, none has submitted instruments of ratification. But this does not mean that they will not. In fact, they are far from being alone. More than 100 signatories have not completed ratification, in significant measure because of doubts about the treaty's fate in Washington and Moscow. (This committee should be aware of the fact that each of the major allies of the United States has ratified the CWC or stands poised to do so.) But to be sure, some countries of proliferation concern will undoubtedly remain outside the regime. How will this matter?

Once the convention enters into force, it seems likely to become more global with time. This has been the pattern with other global treaties such as the Nuclear Non-Proliferation Treaty and the Biological and Toxin Weapons Convention. Those states that remain outside the regime, whether by not signing or not ratifying, will find that this is increasingly costly to them. Economic costs of nonparticipation will mount—a little-noticed provision of the treaty requires that states parties cease trade with non-parties in a whole category of chemicals three years after the convention's entry into force, a category that includes many chemicals of substantial legitimate economic interest to developing countries. This economic factor will separate those states with strong national security motives behind their CW programs from those that have pursued such programs out of an interest in general military preparedness and a curiosity piqued by the Iran-Iraq war. (In today's world, where the CWC does not yet operate as a legal framework, there is nothing to prevent any state from pursuing its rights under the Geneva Protocol of 1925 to make chemical weapons, or even to use them under certain circumstances.) States without a strong and immediate security interest in chemical weapons may deem it unacceptable to pay any international price, political or economic, for the retention of a military program of little more than curiosity value.

Even among those with strong national security motives, a turn to chemical disarmament is not entirely out of the question. In a number of unstable regions, prolonged military stalemate appears to be giving way to a new mode of behavior; for example, in South America, the Middle East, Southeast Asia, and Africa, regional arms control measures are coming to be accepted as an alternative to sole reliance on military responses to national security problems. In many regions of the world, programs to build weapons of mass destruction have been aborted. Even among those disinterested in arms control, recognition of the limited utility of chemical arsenals, especially in attacks against military coalitions led by the United States or as a reserve capacity for states within such coalitions, may induce a reluctance to invest scarce fiscal resources in a military asset that promises little or no advantage.
Lastly, even if CW-armed states remain, it is not necessary to assume that they will also be battlefield opponents of the United States and thus somehow a reason for the United States not to see the treaty enter into force.

Treaty critics rightly note that the norm embodied in the CWC is not global. But the international scope of the norm is impressive even if it is not global. Moreover, to criticize the treaty as reflecting a norm that is not universally held is to miss the point—the norm exists because behavior exists that is deemed offensive by a significant proportion of states in the international system. The norm operates not to shape the behavior of a Mu'ammar Qadhafi or Saddam Hussein but to foster the political consensus among other states that the behavior of leaders such as these is egregious and requires a concerted response.

To illustrate the point, consider Libya's chemical weapons program. In the late 1980s, the United States tried to build an international campaign to punish Libya for its CW activities, only to find its efforts foiled by arguments that Qadhafi was breaking no international law and that the United States could hardly criticize him when chemical weapons were being made in the United States. Even to its friends and allies, this smacked of a kind of bullying by the United States. If the CWC enters into force, the United States should find it relatively easy to build a coalition against Libya's CW programs because the interest at stake is a global one, not simply a U.S. interest. Libya's neighbors might even find it possible to build such a coalition under the auspices of the CWC, with or without strong U.S. engagement. And even if Libya is not a party to the treaty, it will face the threat of tightened trade controls in the third year of implementation.

The key question is whether Russian participation should be a precondition for U.S. ratification of the CWC and implementation of its commitment to CW disarmament. During the Cold War, the answer was obvious—unilateral disarmament by the United States posed huge security risks, especially in Europe. In today's environment, the answer is less straightforward. Having Russia fully in compliance with the treaty would obviously be preferable to its nonparticipation. But the Cold War having passed, the most serious chemical warfare threat to U.S. military operations comes today not from Russia but from proliferation programs in regions where the United States offers security guarantees and has military roles. From Russia's point of view, there is no great security benefit to be gained if the United States relinquishes its CW arsenal while Russia does not—Russia's chemical warfare problem is posed not by the United States but by the growing number of proliferators along its periphery.

By not ratifying, the United States would strengthen the hand of hardline opponents of the CWC in Moscow—and of cooperative relations with the West more generally. Moreover, U.S. ratification would put new pressure on Russia to get on board. Until now, Moscow has been able to avoid a difficult decision by hiding behind inaction in Washington. By ratifying, the United States would gain a new tool for bringing further pressure to bear on Moscow to get on with chemical disarmament—and to stay engaged more generally in cooperative international measures that promote arms control, nonproliferation, and tight control of militarily-sensitive technologies and materials. Not seeing the CWC into force would compound the dangerous risks posed by weakening controls over all of the weapons of mass destruction of the former Soviet Union.

In speculating about alternative proliferation futures, it is important to understand that the United States cannot simply choose to preserve the status quo of 20 or so states in the CW business. That choice is not available. Either the United States will work within the context of the CWC to limit the number of states armed with or actively seeking chemical weapons, to reverse programs where possible, and to keep remaining ones relatively small and unsophisticated. Or it will work without the CWC to cope with the consequences of a broader proliferation of chemical weapons to a larger number of states and to regions where they have not yet proliferated, as well as with the consequences of CW programs that become more sophisticated, comprehensive, and significant. The diffusion of the technology and materials necessary to make chemical weapons is pronounced in the international system, as is the proliferation trend of the last decade. The real choice confronting the United States is between an international system in which a few states remain noncompliant with the international norm and one in which the norm treats the acquisition of such weapons as a common matter of national security and treats the use of such weapons as legitimate in a variety of circumstances. To reject the CWC is to stimulate further proliferation.

In light of these arguments, what is the U.S. interest? Ideally, the United States would like a treaty that rids the world of chemical weapons. But its interests are well served by a treaty that is more modest in its accomplishments. And the treaty's promise of broader participation in time is real.
(2) DOES THE UNITED STATES NEED CHEMICAL WEAPONS?

If the treaty will not eliminate all chemical weapons, might it make sense for the United States to retain some of its own? A number of private witnesses before this committee have made the case that U.S. security requires the retention of its arsenal of chemical weapons for the deterrence benefits associated with the threat to retaliate with chemical weapons whenever they are used against U.S. forces. (It is noteworthy that no official witness of either party has made this case.) Others argue that the United States has not actually used a chemical weapon in war in over eight decades and has never seen any advantage in initiating this type of warfare. How is this committee to make sense of this alliance's overall strategy?

Since chemical weapons will not completely disappear, the United States will continue to need some ability to deter their use against U.S. forces. But what kind of deterrent will prove most effective? The threat of retaliation "in kind" (i.e., with chemical weapons in response to a chemical attack) has evidently had an important effect in deterring chemical attack, as history records no instance of a state initiating chemical warfare against another prepared to respond in kind. This leads treaty critics to argue that the United States should not abandon its CW arsenal.

In fact, chemical warfare against U.S. forces is deterred by at least three means other than the threat of retaliation in kind. One of these is the ability of the United States to fight virtually any regional war on its terms and to outcomes of its choosing. A significant mismatch between the United States and local powers is likely in future regional wars, especially as the military technical revolution works its way through the U.S. military. This conventional force mismatch gives the United States the ability to overwhelm its opponents and to take the war to strategic targets with conventional means if it chooses to do so. This will have a deterrent effect on a regime hoping simply to survive its confrontation with the United States, as already seen in the Persian Gulf war.

The second means of deterring chemical attack is effective anti-chemical defense. If U.S. forces are well equipped with gas masks, protective suits, decontamination equipment, and CW detectors, most opponents would find little advantage in attacking those forces with chemical weapons. These protective measures can reduce the military impact of limited CW attacks on U.S. forces to minimal levels. Such protective measures do degrade the combat performance of individual units, but a well protected U.S. force is unlikely to find its overall operations and strategic decisions influenced by the chemical attacks of a regional adversary. This will have a deterrent effect on states with CW arsenals limited in numbers, agent types, and delivery systems.

The third deterrent to chemical attack on U.S. forces is the U.S. nuclear arsenal. In wars against small states equipped with only limited quantities of chemical weaponry, the threat to use nuclear weapons in retaliation may not be credible. But in large wars between the United States and peer military rivals, the use of chemical weapons by an adversary to significantly compromise U.S. war aims could well lead the United States to consider nuclear retaliation. This could also deter the use of small quantities of chemical agent in attacks on U.S. cities, or those of coalition members who would consider any such attack a strategic attack.

These three factors would likely lead any state contemplating chemical attack on the United States to consider such attack as offering little promise of success, of inciting the United States to expand its war aims, and perhaps of eliciting a strong escalatory response from the United States. These expectations should go far toward deterring such attack.

Against these deterrence benefits, how should the threat of in-kind retaliation be weighed? It is useful to consider the problem of Cold War chemical deterrence in Europe. The Warsaw Pact had available to it a very large supply of chemical weapons. Their use against NATO forces would have required that those forces fight inside their chemical protection gear, namely gas masks and protective suits, which would have degraded their battlefield effectiveness. NATO's CW retaliatory capability, in the form of the U.S. CW arsenal, was intended to ensure that the Warsaw Pact would also have to fight inside such gear if it were to initiate the use of chemical weapons. This CW deterrent was an important feature of the alliance's overall flexible response posture. CWC critics invoke this past to make the case that the United States needs a similar deterrent for the future.

But it is necessary to delve a bit more deeply. The threat posed by the Warsaw Pact was not simply its ability to use chemical weapons. It was the ability to use them in a specific way. The Warsaw Pact had the ability to match agent characteristics to target types, to deliver agents with precision munitions, and to sustain lethal concentrations for days and weeks with a huge reserve stockpile of CW munitions and agent. Moreover, it had the necessary protective gear, suitable doctrine, train-
ing, and other preparations to be ready to exploit the tactical opportunities created by CW use to its advantage. Lastly, it was prepared to up the stakes with tactical nuclear weapons if its chemical warfare gamble failed.

Against this kind of CW capability, NATO's chemical protection was not an effective deterrent. Nor, given the conventional force imbalance in Europe and stalemate at the strategic nuclear level, were the other deterrents discussed above likely to have proven effective. Indeed, the Warsaw Pact would have sought to exploit the cumbersome effects of CW protection for tactical gain. If an attacking force can use chemical weapons to force its opponent into the protected posture and to stay in that posture for extended periods, and if the attacked force cannot impose the same operational burden on the attacker, the attacker gains significant operational control and thus tactical if not also strategic advantage. The benefits to NATO of retaliation in kind derived then not from the immediate battlefield effects of chemical weapons in targeted areas, but in equalizing the operational burden of fighting in protective posture. The point of offense and defense was maintaining the initiative, not merely degraded unit performance.

But the Cold War is past and with it the Warsaw Pact. Looking to the present and future, no enemy appears likely to present a chemical warfare threat of the magnitude or in a context like that of the past. No state will have the ability to wage chemical warfare for an extended period over a broad front or to exploit a unilateral chemical advantage to gain the initiative, confound U.S. strategy, and defeat the United States. Iraq certainly did not. Had Iraq chosen to use its chemical weapons in the Persian Gulf war in attacks on coalition forces, those weapons would have been expended in a matter of hours, not days, with little operational effect on the overall coalition campaign. Iraq could not gain the initiative with chemical weapons anywhere other than locally, if even there. The United States did not need them to maintain the initiative. Had Iraq used them, the United States would simply have found a way around them, having been provoked to seek an even more prompt and decisive victory. Had Iraq used them repeatedly, the United States might have changed its war aims, seeking to eject Saddam Hussein from power.

The point is simply that in an era of limited wars against potential enemies with small CW stockpiles of limited military utility against U.S. forces, the United States gains little or no benefit from threatening retaliation in kind. The deterrence benefits of retaliation in kind have been overstated for future contingencies. There may well be scenarios in which the United States could reap deterrence benefits from the threat of retaliation in kind, but they are few and unlikely and their number will decrease if the convention enters into force. Moreover, given the taboo against these weapons, the U.S. president will generally have a clear preference for conventional capabilities over chemical weapons in deterring the use of chemical weapons by an opponent in the developing world or in shaping the outcome on the battlefield if such weapons are used.

How then do these various forms of deterrence compare? For the potential wars of the future between the United States and regional powers, the one-sided advantages of the United States in carrying out wars with conventional weapons in combination with strong and effective anti-chemical protection offers more deterrence value than the threat of retaliation in kind. For the unlikely wars between the United States and peer military powers, the military technical revolution in combination with the strategic nuclear arsenal are likely to offer strong CW deterrence value as well.

This committee should understand as a footnote to this discussion the strong preference of the U.S. military to minimize the circumstances in which it might have to cope with chemicals on the battlefield. The more it is compelled to do so, the less it is able to conduct wars in ways that play to U.S. advantages and allow U.S. forces to exploit superior technology, mobility, and mass. It might be able to cope with a world of widespread CW proliferation through an even larger investment of deterrence and protection capabilities, but it would come at a cost of diminished U.S. leverage in time of war.

Even if this committee is unpersuaded by these arguments and concludes that the United States needs chemical weapons to deter chemical attack, it must understand that the United States is highly unlikely to have a significant offensive chemical warfighting capability even if the CWC does not enter into force. The United States has forsworn the right of retaliation in kind, after close study of the lessons of the Persian Gulf war. Furthermore, its arsenal of weapons is aging badly, most of it having been built before the production moratorium that began in 1969. Only the handful of binary weapons built in the mid- to late-1980s will remain after the rest of the stockpile is destroyed under existing law. Resuming CW production would be politically contentious. It is important to recall that even at the height of the Cold War of the 1980s and with a compelling case about NATO's Achilles heel, Congress
consented to CW production only on the basis of a tie-breaker vote cast by then-Vice President George Bush.

A final footnote. This committee has heard one further argument on military readiness and the CWC: that once a problem has an arms control “solution,” military readiness against it drops off. Undoubtedly, ratification of the CWC will lead to pressures in this body and in the Pentagon to cut spending on anti-chemical protection. This would be a terrible mistake.

But in fact, neither the Cold War nor the present circumstance has proven sufficient to generate the political support necessary for chemical defenses that are indeed adequate to the threat. The United States has suffered chronic problems in preparing for chemical warfare. Some of these were flagged in a report suppressed at the height of Desert Storm for fear of alerting Iraq to U.S. vulnerabilities. Arms control did not create this problem. Nor will arms control solve it. Other mechanisms must be found, not least effective oversight from this body. I for one would welcome a decision by this committee to safeguard U.S. interests under the CWC with a stipulation that the readiness of U.S. forces to fight and survive on a chemically-contaminated battlefield be subject to regular, systematic review and backed by a strong commitment to adequate funding.

In light of these arguments, what is the U.S. interest? In the current and foreseeable security environment, unlike the Cold War, the United States does not need to retain chemical weapons. While such weapons do constitute certain distinct military capabilities, the actual advantages they might create for the United States are few and increasingly irrelevant in the post-cold war era. Effective deterrence of CW attack on U.S. forces derives first and foremost from the overwhelming preponderance of U.S. military power and second from U.S. anti-chemical defenses. The threat of retaliation in kind comes third and last on this list. Moreover, the scenarios in which a president would choose to authorize chemical warfare by the United States are few and relatively implausible. Thus the argument against retaining a CW stockpile is not that such weapons are bad, but that they are essentially useless to the United States except where it faces a Soviet-style threat. This is why it seeks to complement its military posture with a broader arms control mechanism, one that encourages as many states as possible to follow the U.S. lead.

(3) IS THE CWC VERIFIABLE?

The committee has heard that the verification provisions of the CWC are among the most elaborate and intrusive known in arms control. It has also heard that the U.S. intelligence community has low confidence in its ability to detect small quantities of CW agent production. How is the committee to make sense of this argument?

The verification tasks are numerous: confirming declarations; monitoring destruction (and nondiversion) during the 10-year destruction phase; monitoring industrial and commercial activities not prohibited by the CWC so as to ensure nondiversion; and ensuring timely detection of activity not consistent with the convention in any facility of any kind. Toward this end, the CWC specifies a mix of systematic, ad hoc, and challenge inspections crafted for different types of monitoring challenges. Moreover, these tasks must be performed in a multinational context, accounting for different political viewpoints, levels of industrial development, and capacities to supplement the multinational approach with national intelligence resources and/or influential bilateral contacts. The Organization for the Prohibition of Chemical Weapons (OPCW) currently being put together in The Hague will carry out these tasks. Final determinations of compliance will remain in the hands of individual states—the purpose of the inspectorate is to investigate and report.

The capacity of the institution to carry out many if not most of these tasks is not in question. Also not in question is the simple fact that undeclared activities at undeclared facilities will occur and go undetected by the organization. What is in dispute is the importance of this latter fact.

From the point of view of the United States, verification requirements are surprisingly modest. The United States should not and cannot concern itself with illicit behavior in every building or tunnel in the world. Rather, it should concern itself with illicit behavior that is militarily significant. What are the criteria of significance? First, the cheating would have to occur in states with which the United States might find itself at war. This is not a large group. And a great deal is in fact already known about the military capabilities of these nations. Second, the cheating would have to be on a large scale to threaten significant operational consequences on the U.S. military, especially if the United States has maintained effective CW defenses. Production facilities on this scale are large and static and should prove detectable, not least because they require commercial inputs that can be tracked. Third, the
cheating would have to include not just the production of chemical warfare agents but also their weaponization and storage, the acquisition (or production) and testing of delivery methods, the fielding of protective gear, and the practicing of tactics aimed at exploiting the battlefield advantages created by offensive CW operations. A CW program of this scale presents many indicators to an alert observer, especially in a country that constitutes a known military threat to the United States for other reasons.

The United States is well equipped to find these tip-offs, given the formidable verification capabilities in its national intelligence programs. Indeed, it already has an excellent understanding of the number of countries engaged in CW work and, if media reports are to be believed, a fair knowledge of the location of production and storage facilities in countries of particular military significance to the United States. Moreover, many countries will bring strong national verification assets to the work of the OPCW, and will often have intelligence strengths and national interests in regions where the United States may not pay particularly close attention. These will be helpful mostly as tools for initiating and carrying out challenge inspections allowed under the treaty.

Treaty critics emphasize the large effort that will be expended on monitoring declared facilities, and rightly lament the investment this will require to inspect facilities in developed countries with large chemical industries but no likelihood of making chemical weapons. But they make too little of the challenge inspection provision and of the ability of secret facilities of the OPCW to conduct on-site investigations, perhaps repeatedly, and to bring international attention to bear on problem states in a way that they could not do alone.

Because challenge inspections may be initiated at short notice, a CW proliferator is likely to find it difficult to impossible to destroy all signs of a production, storage, or testing facility within the timeliness set out in the treaty. Given what many states in the CWC regime already know about the CW programs of potential adversaries, challenge inspections seem likely to turn up “smoking guns” in states that sign but cheat. Such inspections may of course also turn up ambiguous evidence, or no evidence at all, of noncompliant behavior. It is rarely essential, however, that they turn up a “smoking gun,” at least in an initial inspection phase. Treaty verification facilities consist of a long-term effort to build up a mosaic of information and thus a picture of the behavior of the suspect country, one that helps contrary behavior to stand out. By accumulating data from a range of activities and sources, only some of it derived from the CWC mechanisms itself, verification analysts in national capitals support political leaders in forming a political judgment about the country in question. This should ultimately enable the OPCW to find the “smoking gun.”

This process should have a longer-term deterrent effect more substantial than the likelihood of immediate detection. States might get away with maintaining a surreptitious program through one or two challenge inspections, but the long-term would have to be low. States considering an illicit CW program in the light of an international effort to eliminate such weapons might reasonably conclude that the perceived short-term benefits of accumulating a CW arsenal are outweighed by the long-term likelihood of being caught. It seems reasonable to conclude that only states expecting to go to war in the short-term would run these risks and assemble CW arsenals. But their ability to use these weapons in surprise should be sharply in doubt as their aspiration to war is likely to be recognizable in political signals and in military preparations not solely located in the chemical domain.

Some treaty critics assert that even when clear evidence of noncompliance is available, multilateral mechanisms are inherently unreliable in responding. They are suspicious of the willingness or ability of the international community to take actions to compel compliance by states determined to cheat. Many draw these conclusions from their personal experience in the early years of the Reagan presidency, when the administration was notably unsuccessful in building its case that the Soviet Union was cheating on existing arms control agreements. To be sure, there is no guarantee that states will act together in defense of principles when it is politically or militarily costly to do so. But the politics of arms control has changed fundamentally in the last 15 years. Few states were willing to be made unwitting partners in a campaign to deepen cold war divisions, especially on the basis of evidence that was poorly presented and of dubious veracity. In the post-cold war era, multilateralism has new possibilities, especially in Iraq and North Korea, among others, has created a new politics of arms control, one that is already manifest in a number of collaborative bilateral mechanisms, such as the United Nations Special Commission on Iraq, to police compliance of especially troublesome states.
It is true that no inspection system and verification regime, however intrusive, can provide 100 percent certainty of the absence of a military threat to U.S. forces anywhere in the world. The CWC provides high assurance, but not a guarantee. The extent that this matters to the United States is entirely a function of the investment it makes in minimizing the vulnerability of its forces to such attack with a program of effective anti-chemical protection. Put differently, the United States itself defines what is militarily significant about a potential opponent’s CW capability. If U.S. forces are well protected, the threshold at which cheating becomes militarily relevant goes up substantially.

In light of these arguments, what is the U.S. interest? An inspection regime certain of detecting all illicit behavior is neither possible nor necessary. The United States requires of the CWC a verification system that supplements its own national verification capabilities. It requires a combination of measures that will enable it to detect militarily significant cheating in timely fashion. The CWC promises both. In fact, the United States ought find itself far more comfortable with the verification provisions of the regime than other states lacking strong national intelligence assets or more vulnerable to cheating at lower thresholds of activity.

(4) ARE ANTICIPATED COSTS COMMENSURATE WITH PREDICTED BENEFITS?

Regarding the likely costs to the United States of CWC implementation, the committee has heard, on the one hand, that costs are quite modest and, on the other, that costs are out of all proportion to any reasonable gain. What are those costs and how are they best evaluated?

Annual implementation costs of the regime are estimated to be $70 to $100 million. If the lower figure holds, the United States will pay about $17 million in its first annual assessment. At a time of austerity in the U.S. federal budget, this sum is substantial. But it must be seen in relative terms.

The United States currently spends approximately $500 million per year on its chemical defense and protective posture (an amount that should be sustained in future years). It spends nearly $100 million per year to maintain its existing stockpile of chemical weapons. The annual costs to destroy that stockpile will run approximately $500 million once the program is fully underway. Obviously, there will be a trade-off between these latter two costs over time, and a complete zeroing out at some point. Against these figures, $17 million appears a bargain. At the end of the day, the United States will have traded $100 million in stockpile maintenance costs for the $17 million OPCW cost. It is important to note moreover that the destruction costs are mandated with or without the CWC and final elimination of the small stockpile of binary weapons.

Moreover, the figure of $17 million per year is roughly equivalent to the amount spent by the United States in support of the safeguards budget of the International Atomic Energy Agency, and far lower than annual costs to implement START I or the Cooperation Threat Reduction program. And it is a pittance compared to what it would cost to reconstitute a chemical weapons arsenal for long-term stockpiling in the United States.

These costs must be weighed against expected gains. One gain is the creation of the implementing agency, the OPCW. Some critics assert that any spending on an organization like the OPCW is money wasted. They dismiss it as “just another expensive, ineffective international organization like the IAEA.” They fail to note that the OPCW will not have the IAEA’s mandate to promote civil-industrial applications of banned items. Moreover, the OPCW is being put together by people who know first-hand the IAEA’s shortcomings as well as how industry operates and why UNSCOM has worked relatively well in Iraq. The result is an instrument of policy that can be used well, badly, or not at all by member governments. Whatever shortcomings it exhibits are likely to have much more to do with the level of commitment and interest shown by its leading members than with faults of the organization itself.

Another set of gains are the indirect benefits associated with the CWC. CWC implementation should be helpful in achieving U.S. goals in the nuclear and biological domains, where we face an arduous diplomatic and technical agenda associated with ensuring the long-term functioning of the legal regime. It should deepen consensus in the international system about the problems of dual-use technologies and materials, thus strengthening the export control effort. It should contribute to an easing of tensions in regions in conflict. It will help to distribute the burden for managing the CW proliferation problem from a narrow group of states to a much broader one. These gains are indirect and not easily quantifiable but nor are they inconsequential.
In light of these arguments, what is the U.S. interest? The United States seeks a reasonable return on its investment and wants to avoid throwing money away on fraudulent international undertakings. The OPCW promises to be a useful tool of U.S. national security and international stability more broadly, able to carry out its mandate effectively. Whether this promise will be realized is up to leading member governments. The cost to the United States of sustaining the OPCW will be far lower than the cost of sustaining a CW stockpile, equal to or lower than what it invests in other arms control measures, and a pittance compared to what it spends on chemical defense.

(6) WILL THE CWC HARM U.S. ECONOMIC INTERESTS?

U.S. industry is quite capable of representing its views to this body. Indeed, the support of U.S. chemical manufacturers for the CWC is a fact known to anyone familiar with the debate on the CWC. The dialogue between various administrations and the Chemical Manufacturers Association is a model of the type of collaboration between government and industry that can secure the general public interest as well as the specific interests of corporate America. Other trade associations have also expressed their support, such as Business Executives for National Security. But among both manufacturers and processors of chemicals are undoubtedly some firms that are unfamiliar with the obligations of the CWC or that deem further government intrusion into their work to be undesirable. How are you to evaluate their concerns?

As a point of departure, it is important to recognize that the industries that produce and process chemicals are heavily regulated industries. They are already subject to inspections by the EPA and OSHA, among others. The challenge of protecting confidential business information from loss to corporate spies, disgruntled employees, a government inspector, is a million dollar one. These firms are accustomed to making corporation information available to a variety of government agencies. Where the CWC will impose new obligations on these firms, those will be consistent with this existing experience and modest in comparison.

In those infrequent instances where CWC obligations might impose a direct financial cost upon a firm of some kind, these must be kept in perspective. The fiscal part of the regulatory burden on U.S. firms is already substantial. In the most recent year for which figures are available (1993), the U.S. chemical industry spent $2.2 billion on compliance with environmental regulations (27 percent of its total capital expenditures). All manufacturing industries combined spent $4.3 billion. There are many other examples of the regulatory cost to industry of operating in the United States. The obligations that might fall upon individual firms to prepare declarations or host inspections have been inflated by some treaty critics. Few if any firms are likely to find these costs to be anything but a fairly small fraction of their total investment in regulatory compliance.

There is another argument related to industry interests made by treaty critics. Some allege that the CWC will harm industry interests by impairing its ability to compete at the international level. In fact, these views are rarely heard in industry and almost always in industries operating in the dual-use domain (i.e., industries that export and import technologies and materials that are sensitive from a military point of view, such as the precursors of chemical weapons). These industries recognize a clear choice between a trading system in the dual-use area characterized by well established rules and self-policing mechanisms and a trading system lacking those rules and mechanisms. In the latter system, industry's long-term prospects are not good. The reason is that in the latter system sharpening competitive pressures inevitably drive industry closer to sales that are linked to military programs, which result in media coverage, sharp public revulsion, and a backlash against industry in the form of unilateral tightening of national export restraints and the resulting contraction in international business. This is what happened to German industry in the wake of revelations about its involvement in weapons programs in Libya and it is a reminder of what an outraged public can do to the exports of U.S. firms. U.S. industry has supported the CWC because it needs something like it to survive politically in a market that so closely skirts the war-making potential of states.

That clear rules and fair controls are conducive to trade is well demonstrated in the chemical area. Since the creation of the Australia Group to control the trade in military-sensitive chemicals over a decade ago, U.S. industry has prospered greatly. One illustration is the growth of direct investment in developing countries by U.S. chemical manufacturers which, between 1983 and 1993, more than doubled from $4.05 billion to $9.93 billion (these are annual investments). (Chemicals and allied products are the largest exporting sector of the U.S. economy.) Thus the con-
trols embodied in the CWC are not trade restraints but trade enablers. Their function is to make trade more transparent so that egregious misuses can be investigated, identified, and isolated. In an economy of multiple suppliers of sensitive technologies, they provide a way to balance competitive and cooperative interests of different states. They provide industry a tool to police itself. And they help to make surreptitious weapons programs more costly, difficult, and time consuming.

This observation about industry interests and export controls relates to another criticism of the CWC—that the CWC will somehow promote the proliferation of chemical weapons by weakening export controls and increasing assistance to developing countries. On the latter point, the committee should understand that dual-use materials and technologies already flow in huge volumes in the international economy. In 1993, the global market for chemical and allied products totalled $1.26 trillion. In 1991, the value of exports of chemicals from the developed world to the developing one was $57 billion. The CWC does not entitle states parties to Western assistance, as some have alleged, and even if there were formal assistance programs under the CWC, their effect would pale in comparison to the effect of commerce.

With regard to weakening export controls, the CWC will in fact have the contrary effect. CWC implementation requires of all countries that they have export controls in place and one of the novelties of the movement toward entry into force is watching countries like India and China put such controls in place. The dispute about the future of the Australia Group has been mischaracterized to this committee: the question is not whether export controls will remain but where and how they will be coordinated. There is agreement that the more multilateral the process, the more trade will be controlled. At dispute is known is the CWC will be prepared to take over the tasks of the Australia Group. One way or the other, the vast majority of the world’s trade in dual-use materials will be subject to national export controls and broad international monitoring.

A final point on U.S. economic interest relates to possible entry into force of the CWC without U.S. participation. This is a reasonable possibility if the Senate fails to consent to U.S. ratification. U.S. industry could begin to pay a very large price in the third year of the regime, when states parties are required to curtail trade in schedule 1 and 2 chemicals. Many thousands of jobs would be lost to U.S. industry, and many investment opportunities abroad would be won by non-U.S. firms. U.S. industry would be made to suffer the penalties intended for renegade manufacturers among the rogue nations of the world, enforced against the United States by a coalition of some of those rogues and U.S. allies.

In light of this argument, what is the U.S. economic interest? The CWC will help to promote the long-term competitiveness of U.S. industry. The regulatory burden on industry imposed by the CWC is a negligible factor in the context of the overall regulatory burden. Costs to the most significant industrial sector—the chemical manufacturers—are at least commensurate with the benefits gained. The support of major industry groups for the treaty should help the committee to appreciate that the costs to industry have been inflated by some treaty critics.

(6) ARE THERE BETTER ALTERNATIVES?

If the CWC is not perfect, are there reasonable alternatives that do a better job of securing U.S. security and economic interests?

One option is national self-reliance through preservation of the U.S. CW arsenal. The United States might cancel its plans to destroy its aging arsenal. Or might simply rely on the residual arsenal of binary weapons produced in the 1980s. Or it might opt to build a new arsenal of weapons.

This alternative has a number of shortcomings. An arsenal consisting solely of the weapons built in the 1980s would fall far short of the quantitative and qualitative parameters of effective chemical deterrence against a well-armed adversary. An arsenal consisting solely of a relatively few artillery shells filled with nonpersistent nerve agents would offer little operational flexibility to U.S. forces. Moreover, these requirements would likely increase if, in the wake of a U.S. decision to abandon the CWC, the proliferation of chemical weapons were given a sharp boost, as existing proliferators expanded their CW capabilities, both quantitatively and qualitatively, and as new proliferators joined their ranks.

To reap the benefits of in-kind deterrence in a world of broader proliferation, the United States would probably have to resume the production of chemical weapons. Significant political and economic barriers would have to be overcome to do so. It is important to recall that even at the height of superpower tension in the mid-1980s, the tie-breaker vote was needed in Congress to approve CW production; it is difficult to envision politicians being willing to make such an unpopular vote today or in the foreseeable future, at a time of diminished international tension.
There would also be resistance within the military to any such move, given its stated preference to eliminate such weapons and its historic reluctance to use them in war.

Another option, or perhaps a complement to the foregoing, would be to pursue nonproliferation as an alternative to disarmament. The United States could formally abandon the CWC regime and call for the negotiation of a treaty analogous to the NPT, i.e., one that allocates to the United States (and perhaps some other states) the right to retain its arsenal while denying others that right. This might be backed up by an effort to revitalize the Geneva Protocol of 1925. This is political fantasy. CWC critics have floated this idea periodically in the past only to see that no government was willing to back it, ever. Any effort by the United States to retain unilateral advantages in chemical warfare would produce a sharp rebuke from partners in the CWC, including many friends and allies. It would be taken as another sign that the United States is an unreliable partner. Some would see it as an act of mindless hubris, driven by the belief that the unipolar status of the United States confers upon it an ability to ignore the world and its own stated word, all in the name of preserving relatively useless weapons.

If the United States lived in a different world, it might be able to avoid the consequences of such an action—in a world where it alone possessed the ability to make such weapons, this kind of sharp turn at the last minute might produce grumbling but no meaningful responses. But it lives in a world in which most if not all states can make chemical weapons if they choose to do so. A U.S. decision to retain or restore its CW arsenal would generate a large political backlash and a rapid proliferation of chemical weapons. Both would contribute to a decay of U.S. security.

Another way to consider this question is to compare the ability of the United States to manage the risks it would confront in each of these strategies. The primary risk associated with both of the above strategies—renewed reliance on in-kind deterrence and reliance on nonproliferation—is the further proliferation of chemical weapons. The only reply to a collapse of the CWC and to further proliferation would be higher spending on chemical protection and a larger build-up of the U.S. stockpile.

The risks associated with reliance on the CWC may be more numerous but appear more manageable. One risk is that some CW-armed states will cheat or not even sign up in the first place; but this risk is manageable with strong U.S. chemical protection that drives the threshold of militarily significance well above what a small state could achieve. Another risk is that the OPCW will not function well to detect or deter malefactors; but this risk can be minimized with a commitment by the United States and other interested states to support the OPCW with the full fiscal resources, intelligence information, and political capital necessary. Another risk is that Russia will be a reluctant partner; but a regime that offers the prospect of broad international compliance will be attractive to a Russia that wants to sustain its great power credentials and to avoid the economic costs imposed in the third year of treaty implementation.

The long-term risk of reliance on the CWC is that the United States may find itself obligated to chemical disarmament when the disarmament regime has disintegrated to nothing but a piece of paper held in contempt by many governments of the world, including potential peer military competitors of the United States. But the CWC provides some means of coping with this drift of events as well. Review conferences will be conducted periodically in order to address problems of implementation, leading perhaps to tighter controls or improved mechanisms. The United States can expect to be influential in this work, assuming it is a party to the regime. If the regime completely collapses, the United States could recreate a CW arsenal, given the technical capability inherent in its advanced economy. The real barriers to doing so are political. But those barriers would likely be lower in the event of a collapsing CWC than they are today or have been in the recent past. The breakdown of the CWC would necessarily be a symptom of a broader worsening of international relations brought on by the increasing frequency or destructiveness of interstate war. In such a global climate, it would not be surprising if many states abrogated multilateral treaties under "supreme national security" clauses in order to bolster their security by military means.

In light of these arguments, what can be concluded? There are indeed alternatives to the CWC. But they are not better. The two basic alternatives are very unlikely to secure U.S. interests. Retention of a CW retaliatory capability promises to have little deterrent effect relative to the CW proliferation it would unleash, unless new weapons are constructed, which is very unlikely. Nonproliferation measures cannot be a substitute for the disarmament agenda, given existing U.S. commitments and the extent diffusion of technical weapons competence.
The CWC will not be perfect. But the question before the Senate is not whether the CWC is perfect. It is whether the CWC is good enough. Does it serve the national interest?

The Cold War taught us a certain way of thinking about arms control. After all, the possibility of arms control cheating by the Soviet Union represented a potential threat to the very survival of the United States. This led to a legitimate focus on treaties with high standards, especially for verification and the ability to detect minor violations. But the Cold War is of course over and treaty requirements must suit U.S. national interests as they exist today. Chemical weapons do not pose anything like the threat to U.S. survival posed by Soviet strategic nuclear programs. So how do we assess the impact of the CWC on the U.S. national interest? The following points are key:

(1) The CWC cannot rid the world of chemical weapons, but it can effectively eliminate them as a threat of operational significance for the United States. Even if the CWC is only moderately successful, it will narrow the range of scenarios in which the CW arsenals of states will make a difference to the national security of the United States, by keeping the number of CW-armed states few and their arsenals and warfighting skills relatively unsophisticated. Absent the CWC, a much larger number of states capable of using a much broader range of CW assets seems likely to emerge, given proliferation trends.

(2) For the kind of military threat that remains, the United States does not need chemical weapons. They are not helpful for either deterring or defeating the use of such weapons against U.S. forces in the kinds of interstate wars likely in the post-cold war era. Greater benefits are to be reaped from improved anti-chemical defenses and protection and from other forms of conventional and nuclear deterrence than from maintaining a narrowly based in-kind retaliatory capability. The overwhelming capacity of the United States to fight wars on its own terms without reliance on unconventional weapons is the best guarantor of U.S. security in the face of threats from a chemically armed adversary and far outweighs any possible benefits associated with retaining a CW capability for this purpose. Moreover, regardless of the Convention the United States is embarked on a program to destroy the vast majority of its existing CW arsenal for sound military and safety reasons. Given this preexisting commitment, it makes sense to bring as much of the world as possible along with the United States on the path away from chemical weapons.

(3) The regime promises to meet U.S. needs with regard to verification. It will not detect all cheating but should detect all militarily significant cheating, at least in timely fashion. The United States already knows a great deal about the CW capabilities of potential adversaries. It has an impressive national capability to monitor the military disposition of potential adversaries and the proliferation problem more generally. The monitoring inspections and on-site challenge inspections made possible under the CWC will add a valuable dimension to U.S. verification capabilities.

(4) The costs to the U.S. Treasury and to U.S. industry are within reasonable bounds. Measured in relative as opposed to absolute terms, they are minimal. The regulatory burden on industry that will be created by the CWC is relatively modest, given the burdens already falling on industry, and is far preferable to jeopardizing industry's long-term competitiveness by failing to create agreed trading rules.

(5) The proposed alternatives to the CWC promise to make the CW threat to the United States worse, not better, by stimulating proliferation. It is politically unrealistic to expect that the United States could recreate a robust CW arsenal. Moreover, many of the risks embodied in the CWC are susceptible to efforts by the United States to minimize them.

The convention is certainly no panacea. But its contributions to U.S. national security, given existing security requirements and political circumstances, are not to be dismissed lightly. The benefits of its entry into force outweigh its costs. As former DCI Woolsey argued in hearings before this committee, the CWC is an urgently needed addition to the set of tools available to U.S. policymakers to cope with the risks posed by all weapons of mass destruction and by the new challenges of international security in the post-cold war era.

The CHAIRMAN. Mr. Feith, last, but not least.
Mr. FEITH. Thank you, sir. I appreciate the opportunity to address the committee on whether the Senate should approve ratification of the Chemical Weapons Convention.

Mr. Chairman, I believe it would be desirable to eliminate chemical weapons from the world; nevertheless, I think the CWC should not be ratified.

As the chairman noted, I served during the mid-1980's as the Deputy Assistant Secretary of Defense for Negotiations Policy, and among my responsibilities were the negotiations that ultimately produced the CWC several years after I left the Pentagon.

One can oppose the CWC without being prochemical weapons or antiarms control. I am neither, but I oppose this treaty, because I have concluded that it would accomplish the opposite of its intended result.

It would make chemical warfare in the future more, rather than less likely, not the first time a well-intended idea would have proved harmful to the very interests it aimed to promote.

No realistic person expects the new treaty to rid the world of chemical weapons, as we have heard from those witnesses today who support the treaty. We cannot count on knowing whether countries are keeping or building chemical arsenals clandestinely, even if those countries become treaty parties. Some countries, both hostile and untrustworthy, inevitably will sign on to the treaty, but not comply with it. This is a serious danger.

The CWC's basic approach to chemical weapons arms control is flawed. That basic approach is to declare a ban on possession of such weapons. The flaw is that these weapons can easily be manufactured and stored without detection.

Production of chemical weapons is not a high-technology enterprise. A factory or laboratory that makes fertilizer, pharmaceuticals, or insecticides can readily be adapted to produce a certain quantity of chemical weapons.

Such facilities exist all around the world. Also, chemical weapons can now be produced in laboratories, with no intelligence signatures, rather than in smokestack factories, where concealment is more difficult.

Moreover, chemical weapons can be highly militarily significant in relatively small quantities. One does not need thousands or even hundreds of tons of toxic agent to have a substantial arsenal.

For forces deployed defensively that rely on rapid mobilization in the event of war, forces such as those in South Korea or Israel, time is of the essence, and mobilization delays can have strategic consequences.

The mobilization of such forces could be severely impeded by a few dozen chemical munitions delivered on target.

For the U.S. Government to become party to an unverifiable national security treaty, with hostile and untrustworthy states, is misleading and dangerous. It makes a bad precedent.

The verifiability of arms control agreements should be upheld as a principle of U.S. national security policy, and we should not act like the Groucho Marx character in the movie, who said: "Those, sir, are my principles, and if you do not like those, I have others."
The problem with the CWC is not the lack of air-tight verification. The problem is not that our intelligence would detect only 90 percent, or 80 percent, or even 50 percent of significant violations.

The issue is not a quarrel over probabilities, or over how much confidence is enough. The problem is flat and stark. The countries now of greatest concern to us, the People's Republic of China, North Korea, Syria, Iraq, Libya, and Iran, could become parties, and then violate the treaty, knowing that they can produce and stockpile chemical weapons without detection.

Our intelligence agencies cannot be confident at all, under any standard, that we would know if the treaty were being violated by the kinds of regimes we worry about.

We have no systematic way of knowing whether a significant violation is occurring. If we could get information from a defector or other local dissidents, as Dr. Bailey mentioned before, then we would be lucky, but a treaty cannot be said to be verifiable because we might get lucky.

CWC supporters stress that its verification regime will yield us more information than we now have about activities around the world relevant to chemical weapons. But this is beside the point. The treaty cannot be justified as an information collection device. It purports to be an effective ban on chemical weapons possession. If its verification provisions do not reasonably ensure the ban's effectiveness as to the key parties, then the treaty fails of its purpose.

Events in Iraq in recent years should have laid to rest the question of whether the CWC is verifiable. The mandate of UNSCOM, the U.N. Special Commission on Iraq, was to see to the dismantling of Iraq's chemical and biological weapons programs.

It has had more than 1,000 inspectors combing Iraq since Iraq's defeat in Desert Storm in 1991.

The UNSCOM inspectors have had more extensive and thorough access in Iraq, over a greater period of time, than inspectors would have in any country under even an extreme reading of the CWC.

Nevertheless, after 3, 4, and 5 years of persistent on-the-ground investigation, UNSCOM continually makes significant new discoveries about Iraq's chemical and biological weapons activities.

I would call the committee's attention to the front page of the Washington Post this morning, where, citing the head of UNSCOM, it is reported that Iraq is hiding 6 to 16 scud warheads that can deliver germ nerve agents.

This is a brand new discovery, after 5 years of extensive inspections, far beyond anything that could occur under the CWC.

Under the circumstances, no one can convincingly maintain that inspections under the CWC, burdensome though they will be, can ensure effective monitoring of the ban.

The head of UNSCOM spoke recently in Washington. He is a man who helped negotiate the CWC, and remains a supporter, but he stated candidly, and categorically, that the new treaty would not be effective against countries like Iraq, that act in bad faith and clandestinely.

If the CWC will not be effective against countries like Iraq, it is reasonable to ask why we need it. If we want to ensure that countries like the United States, Canada, and Britain do not have
chemical weapons, we can achieve this without a burdensome treaty, and without a new international bureaucracy.

The CWC's purpose is precisely to constrain hostile, secretive, nondemocratic countries like Iraq, and if it clearly will not do so, then the treaty has no reason for being.

When confronted with this analysis, the CWC supporters, as we have heard this morning, often fall back on the argument that the new treaty will at least strengthen international norms against chemical weapons, especially if the United States will lead by example by destroying its own chemical arsenal.

But if the administration is intent on eliminating the U.S. arsenal in any event—as a statement against chemical weapons in principle, or for other reasons—then I believe it would be better to do so unilaterally, rather than through ratification of an unverifiable and ineffective treaty.

Since 1925, a treaty has existed that bans initiation of chemical warfare. As opposed to the new treaty, which is a ban on possession, the famous 1925 Geneva Protocol is a ban on the use of chemical weapons.

The old protocol is a verifiable, sensible treaty. If it were enforced, if violators were duly sanctioned, this would contribute valuably to controlling the problem.

It is irresponsible, indeed, deplorable for the international community to fail, as it has, in its duty to uphold the Geneva Protocol, and then to claim that it is taking chemical weapons arms control seriously by creating a new unverifiable treaty that, by its very nature, has less chance of being enforced.

The world does not need a large, new international bureaucracy under the CWC, supervising an ineffective, but costly inspection regime. What it needs is for the civilized powers to agree on penalties against states that violate existing law against chemical weapons use.

The CWC makes a complex, new law, when enforcement of the simple, old law would accomplish much more.

Another Iraq-related piece of recent history deserves careful consideration. During the Iran-Iraq war of the 1980's, Iraq used chemicals against Iran. Iran invited U.N. inspectors onto its territory to examine the victims and analyze the situation.

Through gruesome videotapes, laboratory analyses, and otherwise, the inspectors proved that Iraq had used chemical weapons in violation of the 1925 Geneva Protocol. Iraq's flouting of the protocol led, a few months later, in January 1989, to the convening in Paris of a large international conference to do something to uphold the old treaty.

But the conference could not agree upon any sanctions against Iraq. Indeed, it could not pass a resolution even mentioning Iraq by name. The conference, designed to uphold the Geneva Protocol, succeeded, rather, in mocking it.

This failure exposed the essence of the problem of chemical weapons arms control, which is not a lack of law, but the failure to enforce the law already on the books.

If Iraq's use of chemicals, in violation of the Geneva Protocol, a U.N.-confirmed violation about which there was no verification dispute, a violation that produced horribly disfigured victims and
lurid corpses, all displayed on television around the world—if such a violation produced no condemnation of Iraq, let alone punishment, what basis exists for believing that a violation of the CWC will produce such action?

A violation of the CWC's nonpossession ban would be less likely to be detected in the first instance, could be disputed, even if detected, and would, in any event, not entail heart-rending television pictures of human victims. If the Geneva Protocol cannot be enforced, then much less can the CWC. And if the Geneva Protocol is properly enforced, then the CWC is unnecessary.

I wish to conclude my testimony by highlighting the harm that would result from the CWC's false advertisement that it will significantly reduce the dangers of chemical warfare. U.S. participation in such false advertising is undesirable. Among other reasons, it will tend to reduce concern about a problem, the chemical weapons threat, that deserves increased concern. The consequence would be less investment by us and our friends in programs for countering this threat.

Chemical weapons are most useful against targets that are not well-defended. So the fewer resources devoted to chemical weapons defense, the greater the incentive for aggressor states to employ chemical weapons.

A clear view of the unhappy unrealities in this area should lead us to invest in various defensive measures, such as protection gear, detection equipment, and medical treatment capabilities, and active methods, such as methods of intercepting missiles that could carry chemical warheads. This, together with a serious effort to strengthen the 1925 Geneva Protocol, would affect the cost-benefit calculations of potential chemical weapons users, so as to discourage use.

An unverifiable, ineffective, unenforceable treaty like the CWC, does not advance the cause of world peace, based on law. Rather, whatever good intentions may exist in the background, it tends to undermine respect for arms control and for international law in general.

If we want to use law as a weapon against chemical weapons, we should reject the CWC, and shore up the Geneva Protocol.

Thank you.

The CHAIRMAN. Thank you very much.

[The prepared statement of Mr. Feith follows:]

PREPARED STATEMENT OF MR. FEITH

Mr. Chairman, I appreciate the opportunity to address the Committee on whether the Senate should approve ratification of the Chemical Weapons Convention ("CWC").

INTRODUCTION AND SUMMARY

As desirable as it would be to eliminate chemical weapons from the world, I believe the CWC should not be ratified.

During the mid-1980s, I served as the Deputy Assistant Secretary of Defense for Negotiations Policy. Among my responsibilities were the negotiations that ultimately produced the CWC, several years after I left the Pentagon.

Supporters of the treaty argue that U.S. policy should aim to eliminate chemical weapons from all the world's arsenals. They say that we should strengthen international taboos or norms against chemical warfare and reduce as much as possible the chances that anyone would initiate such warfare. On all these points, in my opinion, they are correct. Indeed, it is for these reasons that I oppose the CWC.
Proponents of the new treaty are right to warn us against ignoring or belittling the chemical weapons problem. Nor should we overlook or forego the role that sensible arms control law can play in managing the problem. One can oppose the CWC without being pro-chemical weapons or anti-arms control. I am neither, but I do oppose the new treaty because I have concluded that it would accomplish the opposite of its intended purpose. It would make chemical warfare in the future more rather than less likely, not the first time that a well-intended idea would have proved handful to the very interest it aimed to promote.

To summarize my view of the CWC: No realistic person expects the new treaty actually to rid the world of chemical weapons, not even from all the countries that ratify the treaty. We cannot count on knowing whether countries are keeping or building chemical arsenals clandestinely, even if those countries become treaty parties. Some countries, both hostile and untrustworthy, inevitably will sign on to the treaty but not comply with it. This is a serious danger.

Though it will not be effective, the treaty will be talked of as a comprehensive, global ban on the possession of chemical weapons. It will commonly be viewed as having reduced the worldwide threat from such weapons. The CWC will therefore tend to reduce concern about a problem that deserves increased concern. Reduced concern translates into reduced investment in defenses against chemical weapons. This, in turn, will result in greater incentives for outlaw actors to use chemical weapons against their inadequately defended enemies among the law abiding countries.

Since 1925, a treaty has existed that bans initiation of chemical warfare. As opposed to the new treaty, which is a ban on possession, the famous 1925 Geneva Protocol is a ban on the use of chemical weapons. The old Protocol is a verifiable, sensible treaty. If it were enforced—if violators were duly sanctioned—this would contribute valuably to controlling the problem. It is irresponsible—one might even say deplorable—for the international community to fail (as it has) in its duty to uphold the Geneva Protocol and then to claim that it is taking chemical weapons arms control seriously by creating a new, unverifiable treaty that by its very nature has far less a chance of being enforced.

The world does not need a large, new international bureaucracy under the CWC supervising an ineffective but costly inspection regime. What it needs is for the civilized powers to muster will and creativity to agree on penalties against states that violate existing law against chemical weapons use. The CWC makes complex new law when proper enforcement of the simple old law would accomplish much more. The new treaty diverts attention from the venerable but abused Geneva Protocol of 1925, which has repeatedly been violated with impunity. An unverifiable, ineffective, unenforceable treaty like the CWC does not advance the cause of world peace based on law. Rather, whatever good intentions may exist in the background, it tends to undermine respect for arms control and for international law in general. If we want to use law as a weapon against chemical weapons, we should reject the CWC and shore up the Geneva Protocol.

**EFFECTIVENESS**

Chemical weapons arms control should strive to minimize the danger that someone will use chemical weapons against an enemy. That danger is what I mean when I use the term "the chemical weapons problem."

The CWC tackles this problem by declaring a ban on possession of chemical weapons. The flaw in this approach is that such weapons can easily be manufactured and stored without detection. Production of chemical weapons is not a high technology enterprise. A factory or laboratory that makes fertilizer, pharmaceuticals or plastics can readily be adapted for the purpose. And such a facility need not be committed full-time; after producing a quantity of toxic agent, for example, it can return to non-military manufacturing. Factories and laboratories of this kind exist all around the world, even in technologically deficient countries. Also, as a result of widespread recent advances in bio-technology, countries can produce toxic agent by means that provide little or no intelligence "signature" at all. Chemical weapons can be produced in laboratories now, rather than smokestack factories that make concealment more difficult.

Moreover, chemical weapons can be highly militarily significant in relatively small quantities. Consider: A score of rockets or half-ton aerial bombs delivered at an airbase would be amply to disrupt operations, such as repair of runways cut by conventional explosives. Causing such disruption at three or four key airbases would be militarily significant against any opponent. One does not need thousands or even hundreds of tons of toxic agent to have a substantial arsenal. Chemicals have appeal to potential aggressors because small quantities—quantities that could be
stored in a single warehouse of moderate size—could suffice to impose significant
delays on an enemy's efforts to mobilize, receive reinforcements, maintain air sortie
rates and the like. For forces deployed defensively, using limited active duty units and
relying on rapid mobilization in the event of war—forces such as those in NATO
(especially during the Cold War) and in South Korea and Israel—time is of the es-
sence and mobilization delays can have strategic consequences. The mobilization of
such forces could be severely impeded by a few dozen chemical munitions delivered
ton target.

If chemical weapons were difficult to manufacture or hide or militarily significant
only in large quantities, it might make sense to attempt to ban them. But the oppo-
site is the case and the ban cannot be expected to work against countries whose gov-
ernments can easily act in bad faith. Non-democratic regimes that do not have to
account to independent legislatures or a free press will be able to sign the CWC and
violate it. The ban will influence and constrain primarily the law-abiding countries
of the democratic world. It will tend to lessen fear of chemical weapons without less-
ening the danger. It will blunt the drive to develop defenses. This is not constructive
and will increase the military incentives for bad faith regimes to employ chemicals
in war.

**VERIFICATION**

It is bad practice for the United States to enter into an arms control agreement
that cannot be verified. Joining in such an agreement implies either that we trust
the other parties, or, if we do not trust them all, that we can satisfactorily monitor
those of concern to us. For the U.S. government to become party to an unverifiable
national security treaty with hostile and untrustworthy states is misleading and
dangerous. In the case of the CWC, it is dangerous specifically regarding the chemi-
cal weapons threat to us and our allies, but also as a precedent for other unverifi-
able arms control agreements. The verifiability of arms control agreements should
be upheld as a principle of U.S. national security policy. We should not act like the
Groucho Marx character in a movie who declared: "Those, sir, are my principles.
And if you don't like those, I've got others."

When addressing the CWC's unverifiability, the treaty's supporters often remark
that there is no such thing as "perfect" or "airtight" verification. It is important,
therefore, that the verification objection be clarified. The problem with the CWC is
not that our intelligence agencies would be able to detect only 90% or 80% or even
60% of significant violations. The issue is not a quarrel over probabilities or over
how much confidence is enough. The problem is flat and stark. The countries now
of greatest concern to us—the People's Republic of China, North Korea, Syria, Iraq,
Libya and Iran—could become parties and then violate the treaty knowing that they
can produce and stockpile chemical weapons without detection.

No U.S. intelligence official will testify that we can be confident of detecting a viola-
tion by a country intent on concealing the violation. The issue is not that we
should be highly confident rather than moderately confident. The point is that our
intelligence agencies cannot be confident at all, under any standard, that we would
know if the treaty were being violated by the kinds of regimes we worry about,
those that run relatively closed societies. We have no systematic way of knowing
whether a significant violation is occurring there. If we could get information from
a defector or other local dissident, then we would be lucky. But a treaty cannot be
said to be verifiable because we might get lucky.

It would be well for the Committee to press its inquiry on this point with the Ad-
ministration. I understand that the Defense Department has concluded that the
treaty is not verifiable, but it supports ratification anyway on the grounds that
there are benefits that we could derive from the treaty in any event.

CWC supporters stress that its verification regime will yield us more information
than we now have about activities around the world relevant to chemical weapons.
Whatever such information's value, it is beside the point. The treaty cannot be justi-
fied as an information collection device. It purports to be an effective ban on chemi-
cal weapons possession. If its verification provisions do not reasonably ensure the
ban's effectiveness as to the key parties, then the treaty fails of its purpose.

When asked about the impossibility of verification, treaty proponents tend to
change the subject, saying that we shall know more about the chemical weapons
problem with the treaty than without it. They say the treaty's verification regime
is the most lengthy, complex and intrusive of any arms control agreement in history.
What they cannot say, however, is that the verification regime will give us a sub-
stantial chance (let alone a likelihood) of detecting a concealed violation.

Here we should clarify the role of the CWC's challenge inspection provision, which
is sometimes highlighted as a powerful verification measure. Contrary to common
misconception, challenge inspection will not actually serve as a means of detecting
violations. One cannot hope to catch China or Iran in an illegal activity through a random spot check. The purpose of challenge inspection is to call attention to an apparent violation that has already been detected by other means. That is, once we have learned from a defector, for example, that chemical agent is being stored illegally somewhere, we can demand a challenge inspection to try to embarrass the wrongdoer and publicize the illegality.

Challenge inspection is a tool of limited utility, however, for a number of reasons: First of all, if we cannot detect the violation in the first place, the challenge inspection provision is irrelevant. Secondly, if we have detected the violation by other means and make a challenge, the wrongdoer has ways to impede the inspectors and avoid embarrassment. The CWC's challenge inspection provision is not tightly constructed and affords a challenged party substantial room for maneuver. If a treaty party gets caught in a violation and a challenge inspection would prove this, that party will most likely refuse to admit the inspectors and then attack the challenger's motives. The ensuing debate will focus not on whether the challenged country has illegal weapons, but whether or not it has complied properly with the treaty's inspection regime. A legalistic quarrel of this kind, we have learned from many decades of arms control compliance controversies, will generate little interest in the United States or elsewhere and will not produce bold and effective international action against the accused wrongdoer. (Indeed, that history teaches that, even if a party is caught in a patent violation of an arms control agreement—even one graver than simple illegal possession of a weapon—neither the United States nor the international community has a tendency to act boldly or effectively in response. This point is of course significant and will be elaborated below.) So one should not assume that the CWC's challenge inspection provision adds significantly to the treaty's verifiability.

Whether a ban on chemical weapons possession can be verified effectively is a matter of longstanding controversy. Events in recent years, however, have taken the matter beyond debate. The mandate of UNSCOM—the United Nations Special Commission on Iraq—was to see to the dismantling of Iraq's chemical and biological weapons (and nuclear weapons and long-range missile) programs. It has had more than a thousand inspectors combing Iraq on the ground for years, ever since Iraq's defeat in Desert Storm in 1991. The Iraqi regime, under military threat and the pressure of severe international economic sanctions, has suffered this intrusion and allowed UNSCOM inspectors access to Iraqi facilities and personnel to a remarkable degree.

The UNSCOM inspectors have had more extensive and thorough access in Iraq over a greater period of time than inspectors would have in any country under even an extreme reading of the CWC. Nevertheless, after three, four and five years of persistent (and courageous) on-the-ground investigation, UNSCOM continually made (and makes) significant new discoveries about Iraq's chemical and biological weapons activities. Years of intense scrutiny of a single country that was compelled to cooperate did not suffice to allow the inspectors to uncover all the major elements, let alone the finer points, of the Iraqi programs. Under the circumstances, one can hardly maintain that inspections under the CWC, burdensome though they will be, can ensure effective monitoring of the ban.

Ambassador Rolf Ekeus of Sweden, who heads UNSCOM, spoke recently in Washington and was asked to relate his experiences in Iraq to the issue of CWC verification. The ambassador, who helped negotiate the CWC, remains a supporter, but he stated candidly and categorically that the new treaty would not be effective against countries like Iraq that act in bad faith and clandestinely.

If the CWC will not be effective against countries like Iraq, it is reasonable to ask what is the need for it. If we want to ensure that countries like the United States, Canada and Britain do not have chemical weapons, we can achieve this without a burdensome treaty and a new international bureaucracy. It can be done by the friendly, democratic countries themselves, acting jointly or in parallel, but without treaties or other elaborate arrangements. The CWC's purpose is precisely to constrain hostile, secretive, non-democratic countries like Iraq that act in bad faith and clandestinely.

When confronted with this analysis, CWC supporters often fall back on the argument that the CWC, at least, strengthens international norms against chemical weapons, especially if the United States will lead by example in destroying its own chemical arsenal. I shall not now enter the debate over whether the United States at present needs a chemical retaliatory capability. But if the Administration is intent on eliminating the U.S. chemical arsenal in any event, as a statement against chemical weapons in principle, then I believe it would be better to do so unilaterally than through ratification of a unverifiable and ineffective treaty.

We know that the CWC will not succeed in eliminating chemical weapons in the hands of hostile states, so U.S. ratification would anyway be tantamount to a unilater-
eral disarmament. Also, a unilateral U.S. renunciation would surely make a moral statement about chemical weapons and challenge the rest of the world to follow our lead. If circumstances justified maintaining our renunciation of chemical weapons, we could do so. If it were necessary to alter our unilateral policy so as to maximize the disincentive for anyone to use chemical weapons against us or our allies, we could do so.

Another Iraq-related piece of recent history deserves careful consideration. During the Iran-Iraq war of the 1980s, Iraq used chemical weapons against Iran. This included the first military use ever of nerve gas. Iran invited a United Nations inspection team onto its territory to examine the victims, witness the damage and study the unexploded chemical munitions fired from Iraq. The international inspectors did a professional job. Through gruesome videotapes, laboratory analyses and otherwise, they proved that Iraq had used chemical weapons in violation of the 1925 Geneva Protocol, to which it is a party. Iraq's widely-publicized flouting of the Geneva Protocol led, a few months later, in January 1989, to the convening in Paris of a large international conference to do something to uphold the old treaty. But the conference could not agree upon any sanctions against Iraq. It did not resolve to concur Iraq. Indeed, it could not pass a resolution even mentioning Iraq by name. The conference designed to uphold the Geneva Protocol succeeded rather in mocking it. This damaged the effectiveness of the treaty and of arms control and international law in general. This failure exposed the essence of the problem of chemical weapons arms control, which is not a lack of law, but the failure to enforce the law already on the books.

The governments that fell down on the job of upholding the Geneva Protocol then strove to demonstrate their commitment to arms control by agreeing upon an unverifiable ban on possession of chemical weapons. Thus we have the CWC. If Iraq's use of nerve gas and other chemicals in violation of the Geneva Protocol—a U.N.-confirmed violation about which there was no verification dispute, a violation that produced horribly disfigured victims and lurid corpses, all displayed on television around the world—produced no condemnation of Iraq, let alone punishment, then what basis exists for believing that a violation of the CWC will be so much more likely to be detected in the first instance, could be disputed even if detected and would in any event not entail heart-rending TV pictures of human victims. If the Geneva Protocol cannot be enforced, then much less can the CWC. And if the Geneva Protocol is properly enforced, then the CWC is unnecessary.

Rather than impose on our government, industry and people the costs and constraints of the CWC, and the new legislation and regulations required for implementation, all of which will be burdensome without being effective, U.S. officials could more constructively direct their energies to devising means to enforce the existing Geneva Protocol ban on chemical weapons use—putting teeth in the Protocol. This would be a worthy U.S. arms control initiative. The non-use treaty makes much more sense than a ban on possession. It is inherently easier to verify because the victim has incentives to prove the violation to the world. It does not require elaborate, bureaucratized verification measures. And, as discussed earlier, there should be greater general outrage in the world, and therefore a stronger political basis, for punishing violations of a non-use treaty than of a treaty that bans stockpiling. No approaches to enforcing the Geneva Protocol, however, have ever been agreed upon in advance. Our policymakers and diplomats should, I recommend, attend to this, proposing methods, for example, by which the assets abroad of violators of the Geneva Protocol could be seized to satisfy victims' claims adjudicated in an appropriate forum. This approach, if U.S. officials worked it vigorously in the name of upholding the law, could actually help control the chemical weapons problem and strengthen norms against such weapons.

I have mentioned various types of costs or harm that the CWC would impose on us. I will not attempt to detail the burdens on industry, or the costs of the CWC's new international bureaucracy for I understand that other witnesses will discuss this. I wish to conclude my testimony by highlighting the harm that would result from a proposal I have advocated that CWC has significantly reduced the dangers of chemical warfare. The falseness inheres in the CWC's unverifiability and the fact, which even treaty supporters will admit (but only if pressed), that the new treaty will not be effective against dishonest and secretive states such as North Korea and Iraq.

U.S. participation in false advertising is a problem on several levels. First of all, it is not honest, and, honesty should be valued by democratic governments even (perhaps especially) in the field of national security. Secondly, it will tend to lessen concern about the dangers of chemical warfare when it would be better to intensify those concerns. The consequence would be less investment by us and other law-abid-
ing states in programs for countering the chemical weapons threat. Chemical weapons are most useful against targets that are not well-defended against such weapons. So, the fewer the resources devoted to chemical weapons defense, the greater the incentive for aggressor states to employ chemical weapons. If the United States (and others) do not ratify the CWC, there will be less illusion about the actuality and gravity of the chemical weapons danger facing the United States and our allies. A clear view of the unhappy realities in this area should lead us to invest in various defensive measures—such as protection gear, detection equipment and medical treatment capabilities, and active measures such as methods of intercepting missiles that could carry chemical warheads. This, together with a serious effort to strengthen the 1925 Geneva Protocol, would affect the cost-benefit calculations of potential chemical weapons users so as to discourage use. U.S. ratification of the CWC, however, would have the opposite effect, and thus, despite the good intentions of many of those who produced the treaty, create conditions that would make chemical warfare more rather than less likely in the future.

The CHAIRMAN. This is the time of year, lady and gentlemen, when we have throngs of very fine young people coming to Washington, and they often focus on this committee. I am glad about that. I know you are as well.

We have some today, and I would say to them that this very significant hearing that we are conducting this morning, we have two witnesses who favor a chemical weapons ban treaty, and we have two who say it will not work.

They are all distinguished, and none of the four is in favor of using chemical weapons. I want to get that clear at the outset.

Well, we are going to limit the questions to, let us say, 6 minutes for the first round. I will start with the Honorable Kathleen Bailey.

In your testimony, which was immediately disputed, you said that biotechnology and pharmaceutical industries will be in danger by the Chemical Weapons Convention.

Do you want to say for the record how that will happen, and why they have not come forward to say so?

Dr. BAILEY. Yes, sir. The biotechnology and pharmaceutical industries depend on processes which are, in general, proprietary information.

They also depend on chemistry processes that, if you took samples and understood something about what they were doing, you could steal trade secrets. By the way, I would add that the same type of risk is posed to laboratories such as my own, where classified information could be derived by doing analyses of the chemistry that goes on.

Now, if pharmaceutical and biotechnology industries were to learn about this treaty, I think that they would be very alarmed.

The basis upon which I say this is that I decided last month to do a small survey myself, and I called several biotechnology companies in California and elsewhere, I also called a few pharmaceutical companies, and I talked to them, and asked them if they were aware of the treaty. Not one single one had ever heard of it.

When I spoke to them about what it was, they said: "Oh, well, it does not apply to us. It is about chemical weapons."

I explained that the under the challenge inspections regime, they actually could be inspected, at which point they became exceedingly alarmed, and said: "Well"—and almost every one of them brought up this issue, they said: "Well, it is not possible that there could be a challenge inspection of our facility, because the fourth amendment protects us against illegal searches and seizures."
We talked a little more, and it became evident, to me, that they would very definitely be presenting a court challenge to the treaty, should there be an instance in which a challenge inspection were to be asked for at one of the biotechnology or pharmaceutical firms I talked to. Admittedly, my sample is very small, but I think that because I do not know a lot of company names, I think they were significant company names, and that there is, indeed, a very serious problem here.

We have the Chemical Manufacturers Association saying, Well, it is good for the chemical industry.

I also know, from talking to representatives from some chemical firms and from U.S. Government officials, that there are a large number of chemical companies that have not yet heard of the treaty, either.

So it is an open question of how widely supported it would be within the industry once the treaty would enter into effect. I hope that answers the question.

The CHAIRMAN. In fairness, this is what I would like. I like discussions.

Mr. WEBBER. So do I, Mr. Chairman. Thank you——

The CHAIRMAN. I recognize you, Mr. Webber.

Mr. WEBBER (continuing). Thank you, sir. I am surprised at Ms. Bailey's allegations, and deep down, I have a feeling that they are probably unfounded.

We have several of the major pharmaceutical firms in the world represented on our board of directors, because they are also members of the Chemical Manufacturers Association, Monsanto, Bayer, et cetera, they are all there, and they all strongly support this Convention.

I suspect that those who are not as familiar as they should be, if we were to sit down and explain to them what this is all about, I think they would feel much better about it, and lend their support as well, at least those who are not members of the Chemical Manufacturers Association.

This industry, again, Mr. Chairman, helped develop this treaty. We tested the verification program over and over and over again. We tested the reporting system three times. We found the holes, as I said in my testimony, and we plugged them. We have been part of the process.

Each facility has the right to negotiate a facility agreement, and that agreement will govern the inspection process, and it provides a means of assuring that trade secrets will not be made available to inspectors.

Indeed, the inspectors will be subject to personal liability and sanctions for wrongful disclosure of information, and we are satisfied with that.

The CHAIRMAN. Let me say, and I am not taking sides in this contest, but the Foreign Relations Committee made its own survey, and found what the lady said to be precisely accurate. Most of the people we contacted had never heard of the treaty. Now, my time may be slipping away.

Mr. Feith, I want to talk to you about the Reagan administration, which you served in this connection. How and why did this treaty get itself put forward in the Reagan administration——
Mr. FEITH. Mr. Chairman—

The CHAIRMAN [continuing]. In light of your testimony?

Mr. FEITH [continuing]. The decision to put forward a draft treaty text, I am sorry to say, was an example of how national security decisions should not be made.

The story is actually quite interesting. There was an interagency study done in 1984 by the intelligence community of whether a chemical weapons ban on possession could be verified.

This was done in the context of a proposal by the State Department that the United States put forward a draft treaty text.

The conclusion of the interagency study was categorical. A chemical weapons ban on possession could not be verified. So the decision was made, in interagency deliberations, that we would not put forward a draft treaty text.

In January 1985, however, Secretary of State Shultz was on his way to Stockholm to open an international arms control conference on another subject, a very technical subject.

He turned to the Assistant Secretary of State, who was on the plane with him, and said: "The speech that I am giving is on a very technical subject, it is not interesting. Is there anything we can do to make this speech more interesting?"

The Assistant Secretary of State said: "Yes. You could announce that the United States is going to put forward a draft treaty banning chemical weapons."

Secretary Shultz, to his credit, said: "Am I authorized to do that?"

And the Assistant Secretary said: "I will call the NSC staff."

And he called from the airplane, spoke to the deputy national security adviser, who was not familiar with the workings of the issue, and the deputy national security adviser said: "I will check it."

The Assistant Secretary of State said to the deputy national security adviser: "There is a speech that was cleared for the President's delivery that would have announced that we are going to put forward a draft treaty text."

That speech, by the way, was also a kind of "commando operation" by the State Department, where they slipped something into a speech that had not been cleared.

The speech had not been delivered for some reason, but the fact that it was in the files was noted by the deputy national security adviser, who said: "Well, it appears to have been cleared," whereupon Secretary of State Shultz announced at the opening of the Stockholm Conference in January 1985, that the United States would put forward a treaty text banning chemical weapons possession.

This announcement appeared on the front page of the New York Times. Secretary Weinberger, the Secretary of Defense at the time, and Chairman of the Joint Chiefs, General Vessey, read about it in the New York Times.

They were shocked, because the interagency deliberations had just decided not to approve putting forward a draft treaty text, but the Secretary of State had announced it, it was on the front page of the New York Times, and we were off and running.
The CHAIRMAN. I see. Thank you very much. I want to be fair to the other Senators. We will assume that we consumed 8 minutes, and take 8 minutes, if you wish.

Senator PELL. Thank you very much, sir. I think Dr. Roberts, you mentioned in your testimony, that 600 tons of chemical weapons did not have much military significance. Did I hear correctly?

DR. ROBERTS. Yes.

Senator PELL. Well, why would that be? I would say 600 tons, placed in the right place, could wipe out a whole government.

DR. ROBERTS. Used in terrorist attacks, it would have that effect. We have seen what kilograms of chemical agent can do in terrorist attacks.

Senator PELL. Exactly.

DR. ROBERTS. But in terms of military utility, perhaps a better way to illustrate the point is with the Iraqi arsenal of chemical artillery munitions that it had prepared to use in the war to keep Kuwait. Using just the artillery tubes that were deployed into the Kuwaiti theater of operation, not the rest of the many hundreds in the Iraqi arsenal but just the artillery in the theater, had they used their thousands of tons of chemical munitions in those artillery tubes, they could have shot them all off in about an hour and a half.

Now, for an hour and a half that would have been a dandy problem for the military. And the Iraqis probably would not have chosen to shoot them all off in an hour and a half, sprinkling them here and there instead. But this calibrates the problem.

This is not the Soviet threat. A few hundred tons of chemical agent do not give an aggressor the ability to control outcomes on the battlefield. That is not to deny this problem—the terrorist problem is a real problem—but it is a different point.

Senator PELL. Explain to me, if you will, the difference between using weapons in a terrorist attack, which I agree could well be focused on civilians, and military attacks, when similar agents are being used and human beings are getting killed.

DR. ROBERTS. Well, there are all sorts of weapons that can be used for terrorist effect. We see terrorists reaching for many different tools these days.

Chemicals can be used, poisons have been used through history, to affect political decisions at key moments, to disrupt public attitudes on various points. But the disarmament agreement is focused on solving a military problem. That it might be constructive to some of the things we would like to do, otherwise, in the terrorist domain is a nice side benefit.

The allegation is sometimes made that a treaty like this is not helpful in dealing with the terrorist problem. The Japanese police clearly knew about the chemical warfare activities of this sect. But they had no legal basis to move against them. There was nothing illegal about the behavior of what went on in that room, and the Convention will help criminalize that.

So there are two sets of problems. There are certainly terrorists who can lay their hands on anything, from nuclear weapons to a machinegun. But this treaty is about getting rid of a problem of military security for nations.

Senator PELL. OK. Mr. Feith wanted to be recognized.
Mr. FEITH. Senator, I appreciate the opportunity to deal with this question of the military use of chemicals, because I think it is very unclear to many people what, from the military point of view, is the purpose of using chemicals.

One of the principal reasons that one uses chemicals is not to kill people. It is to force the other side to suit up in very cumbersome protective gear, which impedes any activity that you want to engage in.

One of the principal scenarios that was discussed amongst the military advisers in the chemical weapons negotiations, when I was participating, was an attack on an airbase.

One of the principal issues in NATO was rapid response in the event of a Warsaw Pact attack. We only had a few points of ingress into Europe, and a few airbases that were crucial to a rapid reinforcement of NATO.

If the airstrips at those airbases were chopped up with normal high explosives, conventional weapons, and then persistent nerve agent were laid down, you could slow enormously the repair of those runways, because you would force the people doing the repairs to suit up in bulky spacesuits.

The effect of laying down persistent nerve agent in that kind of scenario, at three or four major airbases, would have been substantial delay in NATO's reinforcement.

As I mentioned, the same kind of considerations apply in South Korea, and would apply in Israel. They would apply to any country that has a defensive deployment, that is not going to be picking the time and place of the attack, and is going to rely on rapid mobilization and reinforcement in the event of war.

Chemical weapons in very small quantities are, therefore, highly militarily significant, and that was the position, and I think it remains the position of the Pentagon today.

Senator PELL. Thank you very much. I would like to turn to Mr. Webber and ask him if there are any chemical corporations that he knows of that oppose the treaty. For example, I notice you did not mention Merck.

Mr. WEBBER. What company, sir?

Senator PELL. Merck.

Mr. WEBBER. Merck.

Senator PELL. Dupont-Merck.

Mr. WEBBER. Yes.

Senator PELL. That is what it is now. And it is in Wilmington.

Mr. WEBBER. In terms of chemical companies, and we have 190 in our membership, sir, and they produce about 90 percent of all of the chemicals manufactured in the United States; the answer is no, I am not aware of any company opposition to the treaty. I am not specifically familiar with the position of Merck.

Senator PELL. That is the largest chemical company in America, is it not?

Mr. WEBBER. I believe it is in the pharmaceutical category, Merck is. The largest chemical company in America, you are right, is DuPont.

But my board, made up of 50 chemical company chief executive officers, 25 percent of our membership, has always voted unani-
mously in support of this Convention. And that is our policy, and
that is why I am here today.

Senator PELL. And you would say that roughly 80 percent, 90
percent of your industry is——

Mr. WEBBER. We produce 90 percent of the chemicals manufac-
tured in the United States, yes, sir, my membership does.

Senator PELL. And they have specifically approved the treaty by
questionnaire.

Mr. WEBBER. They have specifically endorsed this treaty, and it
is official Chemical Manufacturers Association policy.

Senator PELL. All right.

Mr. WEBBER. And I have been directed to spend my time urging
support of this.

Senator PELL. And I do not understand why—what is the dif-
ference between the chemical industry and the pharmaceutical in-
dustry?

Mr. WEBBER. Well, the pharmaceutical industry, of course, uses
chemicals to make its medicine.

Senator PELL. To make more money.

Mr. WEBBER. That might be true. And as I said earlier, many of
them are combination companies, such as Monsanto and Bayer,
where they are both in the pharmaceutical business as well as the
chemical business, and they are supporting this Convention.

Senator PELL. Thank you very much.

Mr. WEBBER. Yes, sir.

The CHAIRMAN. Senator Biden.

Senator BIDEN. Mr. Chairman, thank you. Let me start with you,
Mr. Webber. I spent, coincidentally, almost an hour with the chair-
man of the board of DuPont-Merck on Monday, last. I met about
4 weeks ago with the chairman of the board of Zeneca, which is not
a small chemical operation, and I have spoken to the chairman of
the board of the DuPont Co. They are for the CWC.

I wonder, Ms. Bailey, what would be the reply if you picked up
the phone and called those same people, and asked them about un-
announced challenge inspections by EPA. These people you are
talking to are not very smart. I mean they are not good lawyers.
You did not talk to any lawyers in those firms.

Dr. BAILEY. Yes, I did.

Senator BIDEN. Well, if you did, then they should be disbarred,
because they do not know their business. And the reason is, right
now, how do you think EPA gets into these places? It is the same
principle.

EPA challenges the same way. They do not have search war-
rants. EPA obtains what they call an administrative warrant. It is
the same way inspections under this treaty would work—with an
administrative warrant.

If anybody wants a challenge inspection, then all they have to do
is to get a judicial warrant. It has been working for a long time.
This is not reinventing the wheel. This is not rocket science. This
is not what is going on in your laboratory, high-tech stuff, that I
do not understand. But I do understand the law.

And it works now; it has been working; it is nothing new.

Yes, Mr. Feith?
Mr. FEITH. Senator, everything you have said, as far as I understand the law myself, is accurate, but there could be cases under this treaty where a foreign government would make a challenge inspection of a facility in the United States, where the U.S. Government does not believe that there is probable cause.

Senator BIDEN. But that is irrelevant.

Mr. FEITH. No. No.

Senator BIDEN. The United States—I do not want to get into an argument of the law. I would be happy to do that, but my 8 minutes are going to be up.

I want to talk to you about what I think is a mistaken notion that you have. An international treaty becomes the supreme law of the land, and the front end of a treaty, when we sign it, says the United States is acknowledging, to put it in nonlegal terms, that there is probable cause if, in fact, a nation believes there is probable cause.

Therefore, it eliminates the need to provide for the probable cause that would ordinarily be required for the government, in this case, the EPA, because it becomes the supreme law of the land.

None of us have been here as long as our ranking member, but the Senator from North Carolina and I came in at the same time.

So I say this just from institutional memory here—the strongest argument you make, and I think it is a real argument, is the full-them-to-sleep argument.

It has been a fundamental argument of everybody who has been opposed to arms control since I came here. I remember debating Dr. Henry. We would stand in front of audiences of 2,000 or 3,000 people at places like the University of North Carolina, and we would have a big debate. He would stand there and say: “My young friend just does not understand communism,” and then he would go on to make his point. And his point was a basic one, no arms control agreement makes sense—none, zero, none.

And the reason it did not, he argued, is that it would give a false sense of security, because you can never have 100-percent verifiability. And that is a legitimate argument. It seems to me it is the most compelling of the arguments you have made.

I would like you to respond to your Warsaw Pact analogy. I thought Dr. Roberts made a very good point. There is no Warsaw Pact now.

The idea of the United States being in jeopardy, as a consequence of the failure of being able to respond instantly to the two gaps in the line that existed in the inner German border area, and the need to have a forward defense capability, which was the whole reason for the neutron bomb, is all history.

Now, it may become reality again. The irony to me is, that the very thing that could prevent it from becoming reality would be this treaty. We acknowledge that there is no possibility of dealing with Mu'ammar Qadhafi—and by the way, Mu'ammar Qadhafi might, at this moment, be shipping in pieces of a hydrogen bomb to the United States, to be reassembled in the basement of the World Trade Tower. It is perfectly within his capability to do that. No arms control treaty is going to be able to deal with that.

But arms control agreements do deal with whether or not there is a second-strike capability that would warrant anyone thinking
they could be emboldened to have it around to use. When you have 8,000 nuclear warheads, that is where arms control makes a difference.

Nothing is going to make a difference, nothing, that I can see, is going to make a difference as to whether or not a few whackos get sarin gas to put in a subway.

There is almost nothing we are going to be able to do to stop that, almost nothing.

We can diminish the likelihood, but no verification regime that I am aware of can ever deal with that fully. Some day we may face Mu'ammar Qadhafi or someone of his nature picking up the phone, as in a science fiction movie, and saying: "I have a nuclear weapon, and I am going to detonate it unless you give me your first born for the next 27 generations." No arms control treaty is going to be able to stop that completely.

So what I find fascinating about this argument is that, as we lawyers say, there are a lot of red herrings. We are talking about things that no one is suggesting that we can completely end or stop these threats.

It seems to me, based on your testimony, that if we just change the name of the treaty, you might be less concerned. If we said that this is the "treaty to help diminish the prospect of the use of chemical weapons," you do not deny that it would do that, do you?

Dr. Bailey. Yes.

Senator Biden. You do?

Dr. Bailey. Yes.

Senator Biden. Why is that?

Dr. Bailey. This treaty—if you take a scale of 1 to 100 of verification, and you say: "Well, where do you put the INF Treaty on that scale." I would personally put it somewhere well above 50 percent, maybe even up around 70 percent.

If you ask me where I would put the Chemical Weapons Convention, I would put it down near zero. This treaty is not even minimally verifiable. The taxpayer will be paying money for nothing.

Senator Biden. Well, Ms. Bailey, I find that fascinating, because with the INF Treaty, and other treaties, folks like you came in and said it was zero.

Dr. Bailey. I did not say it was zero.

Senator Biden. I am not suggesting that you did. I am saying that very reputable people came in and said we could not verify it. But interestingly enough, the same people we looked to for advice on the verifiability of that treaty are the same people we look to for advice on the verifiability of this treaty.

And guess what? They tell us the same thing. They say it is verifiable, within the means of our ability, that it benefits us, that nothing is 100 percent verifiable.

This reminds me of the debate we had about treatment for drugs. People say you cannot prove to me it works. I say, I can prove to you that 75 percent of the people benefit from it, but 25 percent do not.

The only two places we ever demand perfection is in treaty verification and in drug treatment. Everyplace else, if we demanded the same kind of verification, we would not get very far.
But at any rate, my time is up. I will come back in the second round.

The Chairman. Thank you. I served my first 2 years in the Senate with Senator Irving, Sam J. Irving. He said that the United States, as of that time, had never lost a war or won a treaty.

Senator Robb. Thank you, Mr. Chairman. Mr. Chairman, I do not have the background that any of my three distinguished colleagues on this particular panel do, with respect to either arms control or the CWC, generally, so let me approach it in perhaps a more neutral fashion, if I may, and just ask for a comment, particularly from the opponents, if I may, but I would appreciate any comments that proponents at the table would have on this as well.

And that really comes down to the question of the consequences, the adverse consequences, of ratification.

In other words, putting aside the fact that it may not be perfect, and I know that you have made much stronger statements than that with respect to what it will not do, but what do we lose, what enhanced risk or danger to the United States, or to the international community, in your judgment, would occur from ratification, looking at that aspect of it?

Dr. Bailey. Senator, I will begin. I see three major costs. The first one is financial, and that is, as Brad Roberts has said, to some, inconsequential, but it is tens of millions, and I think in the future, and as the international organization grows, as the national organization grows, and so forth, we will get into hundreds of millions of dollars. So there is a high-dollar cost to the treaty.

The second cost is the potential loss of classified and proprietary information. That is the cost not only to industry, but the U.S. Government. And I emphasize, when I say industry, it will be primarily those that have formula to protect in the biotechnology industry, as the example.

Senator Robb. May I just suggest, has not industry, in effect, said that they are proponents?

Dr. Bailey. You would get that impression today, but the answer is, no. And the reason I say that is because the Chemical Manufacturers Association represents the chemical production industry.

It does not represent the biotechnology industry, for example. And there are literally dozens and dozens of biotechnology firms who have not heard of this treaty, who would be affected by its challenge inspections provision, and who, I think, will be informing this committee of their dissent of the treaty.

The third cost, I think, is to security. This one is a very complex one. We have not talked about it here today, except that I think someone noted the fact that our military preparedness would assuredly drop, because people will say, oh, well, the Chemical Weapons Convention will protect us against chemical threats, and, therefore, our preparedness can drop.

I think that it also is very important to note, though, that there is a cost, in terms of security, if we give up our chemical deterrence, and we are not willing to use our nuclear deterrent for such a thing, and we want to depend on our conventional, only, that we are at very high risk, because other countries will not be giving up their chemical weapons.
We will not have any way to make them give up chemical weapons, we will not have any way to confirm that they do, or that they do not. And we know that the Mu'ammar Qadhafi's of the world have a different world view of chemical weapons, and how valuable they are. Otherwise, they would not be spending all the money and effort that they are in getting these weapons.

Senator ROBB. I have just one question, and I would like to have everybody respond, if I could. To those nonrogue states, the rogue states, I think we would all agree, are not likely to comply with the terms of this, or, frankly, almost any other treaty, at least, their track record does not give one a great deal of confidence that they would.

But how about those states that do not fall into the rogue category, would there not be some incentive to them, and some accountability for the system, generally, that would accompany ratification of this treaty, particularly, with respect to the United States?

Dr. BAILEY. It depends on where you draw the line in how you define rogue. The CIA Director, for example, said that there are some 20 nations in the world that have chemical weapons now, and that the number may be larger. Do we have a category that is 20 nations big for rogue nations?

Senator ROBB. I was using the half a dozen or so that have been referred to several times, with which—

Dr. BAILEY. I think that the number of countries—

Senator ROBB [continuing]. We have regular problems in a whole variety of areas. But in any event, the question I am asking, in effect, is: Is there not some good that would come with respect to the accountability of the nonbad behaviors over a long period of time that would come from this treaty, and some disincentive to do some of the things that might place them potentially in a rogue category at some future time? I want to give everybody a response to respond, so I do not—

Dr. BAILEY. It will make sure that the good guys remain good, and the bad guys, who want to have the chemical weapons anyway, will be able to do it, despite this treaty.

Senator ROBB. I did not mean to debate—

Mr. FEITH. Senator, this responds, I think, to both your question and to what Senator Biden was asking. It seems to me that there is an important principle here. We have a treaty that purports to be a comprehensive global verifiable ban on possession of chemical weapons, and everybody, including the treaty proponents, admits that it will not accomplish its stated purpose.

Now, from my point of view, there is a dishonesty problem.

Senator BIDEN. What is the stated purpose?

Mr. FEITH. The stated purpose is to ban possession of chemical weapons, globally. And it will not accomplish that purpose.

I happen to believe that honesty is a good policy, even in national security affairs. We will be promulgating a falsehood by signing onto this treaty, announcing, because that is the implication of our signing onto this treaty, that we have confidence that the other treaty parties will be complying, and that we will be able to know it if they are not, and we will take action if they are not. It is patently not true. Actually, the problem is that it is not patently not
true. It is not true, and the fact that it is not true is not patent enough.

As far as the harm goes, think of it this way. If you have a problem, heart disease or cancer or AIDS or any other disease that you want more resources invested in fighting, how would the people who are trying to raise money to fight those diseases view an effort by the U.S. Government to announce that that problem is largely solved. When those people say: "Well, it is not largely solved," the government would reply: "We know it is not largely solved, but we would like it to be solved, so we have declared that it is largely solved."

The effort to get more resources to fight the disease would be harmed by the false statement by the U.S. Government that the problem is not serious.

If we want to prevent chemical weapons from being used, we need to beef up defenses, and shore up the Geneva Protocol, not falsely say that we have concluded an effective possession ban.

Senator ROBB. Let me suggest an analogy that I have not thought all the way through, but just to see how it might apply. We have in this nation speed laws.

I think it would be regarded by just about everyone that they are widely observed in the breach, at least to some extent, but I think it is also clear that they act as some restraint on unfettered speeding, and the hazards that might flow from it.

Could not a similar analogy be made, in any stretch of the imagination, in your judgment, that this might act even as a modest salutary restraint on the peril against from which we are trying to guard ourselves?

Mr. FEITH. Well, Senator, I like the line of the analysis that you are on. I think that the U.S. Government should be thinking along the lines of what can we do that would have a constraining effect in this area.

I think a closer analogy, though, is this: If you have a town that does not have a police force at all, a town in the old wild west, and they have a rash of bank robberies, and the town elders get together, and they say: "What can we do about this," and they say: "Well, it is too hard to arrange for police, why do we not just pass a law saying that bank robbers are not allowed to come into our jurisdiction."

That is the analogy. It is an empty exercise. You have to do the hard thing, enforce existing law. Everybody is running away from the hard problem, which is how do you uphold existing law in the area, and they are running off to make a new law that will not be effective.

Senator ROBB. Mr. Chairman, my time is up, but could the other two participants, Mr. Webber and Dr. Roberts, just have a chance to just—

The CHAIRMAN. Sure.

Senator ROBB [continuing]. Briefly to that question?

The CHAIRMAN. Sure.

Senator ROBB. I appreciate it.

Dr. ROBERTS. Briefly, I know time is short. Rather than arguing the straw man, that the treaty is not perfect, we are all willing to stipulate that the treaty is not perfect.
The question is: Is it good enough? I think Doug put his finger on the primary vulnerability, and it was the one Senator Biden came to: That when the treaty enters into force, we are lulled to sleep. We think that this is a solution, we think the problem has gone away. But you are going to make a $500 million investment every year in the fact that the problem has not gone away.

That is the defense budget for chemical protection. You are going to make an investment in ballistic missile defense. That is an investment in this problem not going away. And there will be the intelligence budgets that support this work.

There is a large investment to be made in every tool for coping with this problem, in recognizing the fact that it is not going to go away. The choice is making it more manageable or less manageable.

I have a sidebar comment on the discussion about how many in industry actually know what is going on, who is making phone calls to whom. We have not heard from ACDA. ACDA has made a lot of phone calls. It has made about 5,000, 6,000, or 7,000 contacts with various firms around the country, explaining their obligations, conducting seminars with them regionally, nationally, and otherwise.

I cannot speak for that activity and I cannot report its conclusions, but the notion that somehow it has been left to CMA, and a few phone calls here and there, is wrong. This is an important part of the overall picture.

Dr. Bailey. Those phone calls are to the chemical industry, and not to the pharmaceutical industry, or to the biotechnology industry, and that is an important point.

Senator Robb. Mr. Webber.

Mr. Webber. Senator Robb, ironically, if this treaty is not satisfied, we are going to suffer. I mentioned in my formal testimony that we are the country's largest exporting industry, $60 billion in products and technology last year. If we do not ratify the treaty, that status is going to change. Our largest trading partners, who will be party to the Convention, what they are going to do is, they are going to apply trade restrictions to chemicals that originate here, or that are being shipped here. That is an impact.

Somehow, our opponents do not address that issue. Even if the restrictions only apply to a small portion of the overall chemicals trade, our customers have an incentive to make life as easy as possible, and they are going to go elsewhere.

And the result, potentially hundreds of millions of dollars of lost sales, for no other reason than that we are not part of the CWC. We think that is a major issue.

Senator Robb. Thank you, Mr. Chairman.

The Chairman. I have just conferred with the distinguished ranking member. I have instituted, since I have been chairman, a little session at the end, on the grounds that I have never in my life made a speech that on the way home I said: "Well, why did I not say so and so?"

So I am going to say, each of you take a couple of minutes.

Dr. Roberts, are you sure of the figures about ACDA. Either your understanding is in error, or ours, because my folks tell me that
of the first 2,400 firms contacted by ACDA, only 110 responded. But we will check on that, and see who is right.

Now you may want to question one another, or you may want to make a comment. Have at it.

Dr. Bailey. Thank you, Senator. I would like to correct what I think are two mistakes in things that have been said before.

The first one has to do with the idea that the United States, if it does not ratify the treaty, will create a situation which sharply restricts trade in chemicals. There are three schedules of chemicals listed in the Convention. Schedule 1 chemicals are essentially chemical weapons. They are very nasty chemicals, they are not traded by the United States anyway.

Schedule 2 chemicals are terrible, but they were less terrible than schedule 1, in terms of chemical weapons. But these chemicals also are not traded very widely. This is the category of chemicals on which there is a trade restriction.

Now, schedule 3 chemicals, the ones in which we have a lot of trade, is not restricted by the treaty. So statements made today that not ratifying the treaty would result in a restriction on trade is simply not true, because the trade we do in chemical trade is schedule 3 chemicals, and the treaty does not restrict that.

The second issue that I think is important to add to is the statement that 600 tons or so—this is in response to a question by Senator Pell—that 600 tons is militarily significant.

There was a study conducted, a classified study conducted under the auspices of the Defense Nuclear Agency in 1993, which reached the conclusion that 100 tons or less of chemical agents is significant in many military scenarios.

This was a result of a study that looked at modeling of past battles and scenarios for the future. This study was circulated amongst the military in the United States, and the stamp of approval, or whatever, was given to it, and so 100 tons or less is the correct number.

Thank you very much.

The Chairman. Thank you very much. You folks are great. Mr. Webber.

Mr. Webber. Thank you, Mr. Chairman. Well, again, I am the official spokesman here for the chemical manufacturers, and so I want to make two points, sir, if I may, in closing.

One, we do not want those chemicals that we manufacture to ever be used for illicit purposes, whether they be for illegal drugs, or for chemical weapons.

No. 2, we are acutely aware of the fact that this treaty will be intrusive, and will cost us money, but we strongly believe that the benefits will far outweigh the costs, and we are going to do everything we can to ensure the passage of this Convention.

Thank you.

The Chairman. Thank you.

Dr. Roberts.

Dr. Roberts. Thank you, Mr. Chairman. I have three quick points. First of all, to military utility. This is a debate we could conduct endlessly. Tiny grams of quantities of things have utility, and thousands of tons may not, in other circumstances.
From the point of view of the question before this committee, which is under what conditions does the United States run risks by giving up its retaliatory capability for that, that is the operative question.

There, we already have an answer, which is a pre-existing statement of forsaking the right to retaliation in kind, after the passing of the Soviet threat.

We already have a military decision about what is strategically significant in the chemical problem today. And the answer is: What is out there, is not.

Second, on the Geneva Protocol. If we could have made the Geneva Protocol work, we would not have the problem we are in today. The Geneva Protocol's shortcomings are part of the reason we have the problem of proliferation that we have today. It has patently not worked.

Now, why has it not worked? It has not worked because there has been no political consensus that punishing a state for doing things in the chemical area is a bad thing. We talked briefly about Libya.

In the 1980's, the United States tried to conduct a campaign against Libya's chemical warfare program, to no effect. Everybody observed that the United States was making chemical weapons at the same time. They argued: Who are you to tell Libya that it cannot make chemical weapons?

Answering the Libya problem would be much easier politically in the context of the CWC.

And last, to the consequences of not ratifying, to turn your question around. We have bipartisan consensus in this country that the proliferation of weapons of mass destruction is one of the key post-cold war issues and challenges for this country, and it has been a subject of lots of different hearings and lots of different debates in this body.

If we do not get it right in the chemical area, it is going to make it a lot more difficult to do what we need to do in the nuclear and biological area. Both problems, in the long term, are much more complicated than this one.

Thank you.

The CHAIRMAN. Mr. Feith.

Mr. FEITH. Mr. Chairman, I would like to spear two red herrings. One is that the opposition to this treaty comes only from people who are arguing that the United States should retain its own chemical weapons arsenal.

My argument is not that—if the U.S. Government wants to relinquish its chemical arsenal for its own reasons, my argument is we would be better off doing that unilaterally than entering into a treaty that is ineffective and unverifiable, because we should not be entering into national security treaties that we know, in advance, will be ineffective and unverifiable.

It is a very bad precedent, and that is part of the harm, and not an insignificant part of the harm that follows from signing onto a treaty that everybody admits will not accomplish its purpose.

Now, the second red herring is the term “perfect verification.” I want to make it as clear as I possibly can: I am not saying that
this treaty is deficient in the verification area because it is not perfect.

That is not the argument. It is very misleading to suggest that our criticism regarding verification is that the treaty is not perfect.

I would ask the committee to call any U.S. intelligence official and ask if we have the proverbial snowball's chance in hell of finding a violation in a country acting in bad faith, secretly. That is the standard, not perfection.

The CHAIRMAN. Thank you very much. It was said this morning, as I understood it, that the Supreme Court had upheld inspections without a warrant when criminal penalties were involved.

I believe that statement, whoever made it, was in error, and I want the record to show otherwise.

Thank you again. I certainly enjoyed each one of you. You are the kind of folks I would like to sit down with for an hour, and just have a chat about anything. But thank you for coming, and good luck to you.

We stand in recess.

[Whereupon, at 11:55 a.m., the committee adjourned, to reconvene at 10:06 a.m., March 28, 1996.]
CONVENTION ON CHEMICAL WEAPONS  
(TREATY DOC. 103–21)  

THURSDAY, MARCH 28, 1996  

U.S. SENATE,  
COMMITTEE ON FOREIGN RELATIONS,  
Washington, DC.

The committee met, pursuant to notice, at 10:06 a.m., in room SD–419, the Dirksen Senate Office Building, Hon. Jesse Helms (chairman of the committee) presiding. 

Present: Senators Helms, Kassebaum, Thomas, Pell, Biden, Robb, Feingold, and Feinstein. 

Senator KASSEBAUM [presiding]. The committee will please come to order. 

Senator Helms has been delayed briefly and asked if I would open the hearing on his behalf. And it is a pleasure to welcome back again to this committee Secretary Christopher and Secretary Perry and, representing the Chairman of the Joint Chiefs of Staff, Lt. Gen. Wesley Clark. 

This is an important hearing this morning regarding, of course, the Chemical Weapons Convention and the ratification of the CWC. There have been many hearings regarding this. This is a prestigious one, and we value the expertise that all three of you bring to this issue. 

This committee has taken a close look at this treaty. We know, I think, its strengths and its weaknesses. The question we must ask ourselves is not whether it has flaws—it does, as does all legislation—but rather whether its strengths outweigh its flaws. 

I believe they do. And I think in the course of the hearing this morning, we can hear your observations and exchange questions and answers regarding that. 

The treaty is not about ironclad guarantees, but about balances. I believe that on balance this treaty is important to the national security of the United States. I reach that conclusion by asking myself a simple question: Would this Convention reduce the odds that countries or organizations hostile to the United States will acquire chemical weapons or expand and improve their existing supplies. 

I believe the clear answer to that question is yes. And for that reason, I support this treaty. 

The Senate already has waited too long to act on this treaty. It is unclear whether our delay will undermine the work of the implementing organization, which already is in place at The Hague. 

I believe we must not allow our delay to further erode this agreement's prospects for success, and I hope the Senate will give its ad-
vice and consent this summer. Senator Pell, would you have an opening statement?

Senator PELL. Thank you, Madam Chairman. And I would like to join in welcoming Secretaries Christopher and Perry and say that they will be making a strong case, I hope, for early Senate consent to ratification for the Chemical Weapons Convention.

The Secretaries are accompanied by Lieutenant General Clark, Director for Strategic Plans and Policy of the JCS. And General Clark has been very helpful to our committee in the past, and we look forward to hearing his response today to crucial questions the committee must pose by senior military leaders.

These wrap-up hearings are designed to compliment eight open and two closed hearings I chaired in 1994 on the Convention. The committee will consider the Convention next month, and I hope the full Senate will be able to consider the treaty this spring.

Thank you, Madam Chairman.

Senator KASSEBAUM. Thank you. Senator Biden, do you have any opening comment?

Senator BIDEN. Welcome, gentlemen. I apologize in advance. At 10:30 a.m., I am going to leave to go to the White House for another matter, and then I will get back. But thank you for being here.

The chairman said it best. This is time to move. This is in U.S. interest, and I am looking forward, as the ranking member so instructively indicated in his strong statement, to make this case. It is clearly in U.S. interest, and I think we should be about ratifying it.

Thank you very much.

Senator KASSEBAUM. Thank you.

Welcome, Secretary Christopher. Would you like to lead off?

STATEMENT OF HON. WARREN M. CHRISTOPHER, SECRETARY OF STATE

Secretary CHRISTOPHER. Thank you, Madam Chairman.

I am pleased to testify before this committee, along with Secretary Perry and General Clark, to assert and, I hope, persuade that the prompt ratification of the Chemical Weapons Convention is in the overriding interest of the United States.

Senator Kassebaum, I thought you made a very eloquent statement and a very proper statement about the nature of this treaty and the balance that must be struck here.

I hope the statement I make today will show that the balance is very strongly in favor of prompt ratification by the Senate.

As you know, President Clinton has made putting the stop to the spread of weapons of mass destruction at the top of our efforts to protect and enhance the security of every American.

Working with this committee on a bipartisan basis, with the Congress as a whole, we have achieved a number of important non-proliferation and arms control victories in the course of the last 3 years.

We have secured the indefinite and unconditional extension of the Nuclear Non-Proliferation Treaty. We have shut down North Korea's dangerous nuclear program and sent it on the way to the scrap heap.
Thanks to the efforts of the committee and all of those who are here today, the Senate ratified the START II Treaty, which deepens the cuts in our cold war nuclear arsenals.

And the United States had just recently joined 28 other nations in the so-called Wassenaar Arrangement, which controls transfers of dangerous conventional arms and sensitive dual-use goods and technology.

These achievements would not have been possible without strong American leadership and, I would want to emphasize, strong American bipartisan leadership.

Indeed, only the United States has the power and influence to forge a strong global consensus against the proliferation of weapons, a fact brought home very strongly in my recent trip to South America, where Argentina and Brazil have become our partners against proliferation and announced the nuclear option. But that is a development that we have long sought and now has happened.

Now the United States has the opportunity and responsibility to lead the world toward another landmark achievement, the ratification and entry into force of the Convention that is before the committee today, the Convention that will reinforce the security of each and every American.

President Clinton again underscored the urgency of Senate approval in his State of the Union speech and has made ratification this year a top priority.

For that reason, I am very grateful to the committee for having this hearing, not the first on this subject, but I hope the ultimate recommendation to the Senate as a whole.

Ratification of this Convention not only represents a remarkable opportunity to strengthen our own security, but it is important to note that it denies us no option that we would ever wish to exercise.

Under current American law, the United States is already required to destroy the vast majority of our chemical weapon stockpile by the year 2024.

By imposing an international legal obligation to deny chemical weapons to other countries and to destroy them, this Convention puts all other states capable of deploying chemical weapons, including Russia, on the same footing that we are by our own voluntary action.

President Yeltsin and other senior officials in Russia have publicly reaffirmed Russia's commitment to destroy its chemical weapons arsenal. Russia must still take additional steps to follow through on these commitments and to rectify remaining problems.

By ratifying the Convention, the United States will add the force and weight of the entire international community to our efforts to assure the destruction of Russian chemical stocks.

Our action will also spur such other nations as China to ratify and join the regime.

Members of the committee, I believe the main danger we face is the possible use of chemical weapons against U.S. forces deployed overseas and against our allies. The case of Iraq underscores the danger posed by a brutal dictator possessing unconventional weapons.
We now know that Saddam's factories were capable of producing thousands of tons of deadly chemicals per year, including mustard gas and the nerve agent sarin and tabun.

After overcoming repeated Iraqi deception efforts, the United Nations has only recently confirmed that Saddam also produced large quantities of a highly toxic nerve gas called VX.

The United Nations suspects that Iraq may still be hiding stocks of the weaponized VX, which certainly is an indication of the kind of threat that Saddam Hussein continues to pose.

If we had had this Convention two decades ago, we might have been able to prevent or at least severely hamper Iraq's chemical weapons activities.

We must act now because Iran is engaged in a major effort to develop its chemical arsenal, and we believe that some 20 countries already have, or may be developing, chemical weapons, which makes the importance of this treaty, I think, quite obvious and very patent.

The best protection against these weapons is to make it more difficult for hostile nations and groups to obtain and use them. By blocking the supply and the demand for chemical weapons, this Convention does just that.

Let me outline briefly some of the principal provisions of the Convention. First, all states that are parties, or become parties, to the Convention will be required to give up their chemical weapons. The Convention requires the destruction of existing stockpiles, and it also bans virtually every aspect of the chemical weapons program, from development to stockpiling. It puts in place a comprehensive inspection regime——

Senator KASSEBAUM. Mr. Secretary?
Secretary CHRISTOPHER. Yes? Pardon me.
Senator KASSEBAUM. Pardon me. I hate to interrupt, but there are many people here and some confusion. If you could pull the microphone a little closer to you, I think it might help.
Secretary CHRISTOPHER. I am glad you——
Senator KASSEBAUM. I am sorry to interrupt.
Secretary CHRISTOPHER. Is that better, or can you tell if that is better?
Senator KASSEBAUM. Lift it up just a little bit more.
Secretary CHRISTOPHER. All right.
Senator KASSEBAUM. That is better.
Secretary CHRISTOPHER. We will give it a try, and put up your hand if that is not working.
Senator KASSEBAUM. That is fine. Thank you.
Secretary CHRISTOPHER. I was beginning to summarize very briefly some of the principal provisions of the Convention. First, all states that are parties to the Convention will be required to give up their chemical weapons.

The Convention requires the destruction of existing stockpiles, and it bans virtually every aspect of chemical weapons programs from development to stockpiling. It puts in place a comprehensive inspection regime that includes intrusive challenge inspections and commits parties to enact legislation to punish violators. And violators, of course, will also risk very strong international sanctions.
No treaty is 100 percent verifiable. And as you indicated, Madam Chairman, this one is not. But this Convention is carefully structured so that parties tempted to cheat will never be sure that they can evade detection and sanctions.

The sooner the Convention enters into force, the sooner those countries possessing or seeking chemical weapons will have to make a choice. Either they will have to abide by its provision or suffer the weight of penalties and sanctions imposed by the international community.

Second, the Convention prohibits parties from helping any country. To circumvent its provisions by specifically banning trade in certain chemicals with countries that are not members, the Convention will make it harder for nonparties to acquire the key ingredients they need to produce chemical weapons. And that certainly would be true of rogue states that did not ratify the Convention.

The Convention will also help to combat chemical terrorism. The legislation required by the Convention will strengthen the legal authority of countries to prosecute anyone who tries to acquire chemical weapons.

The destruction of chemical stockpiles will also reduce the threat of stolen weapons which might fall into the hands of terrorists. And international transfers of many of the key chemicals that can be used to make these weapons would also be controlled.

Indeed, I think it is quite meaningful and no surprise that the Japanese Government moved to ratify the Convention immediately after the gas attack in the subways in Tokyo. American leadership was vital to the completion of the treaty initially, and now it is vital if this Convention is successfully going to enter into force.

So far, 160 countries have signed the Chemical Weapons Convention, a very wide agreement and approval of the Convention; 49 have already deposited instruments of ratification.

When 65 countries have ratified, a 180-day countdown toward entry into force begins. We are now only 16 ratifications away from that countdown, which could come within just a few months.

If the United States is among the first 65 parties to ratify the Convention, we will retain our critical leadership role in the global fight against chemical weapons. If we are not, that is, if we do not ratify this Convention, we will lose our chance to ensure that our views are fully reflected in the final preparations for the entry of the Convention into force.

This is not an inconsequential matter at all. We want to be in a position to participate in the organization of the prohibition of chemical weapons which moderates compliance. Unless we ratify promptly, we will be unable to join in those procedures and join in the initial international inspections.

I note that the chairman has arrived, so I will desist for the moment in case he may wish to make a comment.

The CHAIRMAN [presiding]. I am sorry I am the late Jesse Helms this morning, but you know the traffic coming in from northern Virginia.

I will speak later, and if you will continue, Mr. Secretary. And good morning to all of you gentlemen.

Secretary CHRISTOPHER. Thank you, Mr. Chairman. And you had a very able acting chairman.
The CHAIRMAN. You bet.

Secretary CHRISTOPHER. Failure to ratify the Convention promptly will jeopardize not only our security and our international standing, but our prosperity. Because the treaty restricts trade with non-parties in certain chemicals, failure to ratify could cutoff U.S. companies from their traditional trading partners. Uncertainty about U.S. participation in this regime could lose business for American companies and lose jobs for American workers.

I think it is important to note that the U.S. chemical industry enthusiastically supports the treaty. They worked closely with our negotiators to ensure that it will safeguard their proprietary information.

Eliminating chemical weapons has long been a bipartisan goal. By law adopted during the Reagan administration, our chemical weapon stockpiles are already headed for destruction. This Convention itself, of course, is the product of many years of bipartisan effort.

President Bush took a strong personal interest in the treaty, which the United States signed during his administration. President Reagan, President Bush, administration officials, including Secretary Eagleburger, Brent Scowcroft, Ronald Lehman, have recently reaffirmed their support for this treaty.

Mr. Chairman, our administration supports the treaty because it is especially suited to the post-cold war security environment, where the threat posed by chemical weapons is not limited to one state or one group of states.

This Convention will simultaneously remove chemical weapons from the world's stockpiles and build up the barricades against future acquisition.

The CHAIRMAN. Mr. Secretary, if you will, your mike is going off.

Secretary CHRISTOPHER. Is that better now, Mr. Chairman? I am sorry. I cannot tell from where I am whether it is—

The CHAIRMAN. Of course.

Secretary CHRISTOPHER. Let me just conclude by saying we signed the Convention in January 1993. Since November 1993, the Senate has considered it thoroughly, holding 10 hearings, admitting hundreds of questions, submitting hundreds of questions for the record, which we have answered to the best of our ability.

It is our time, in our judgment, now to bring the Convention to a vote. We must not let this opportunity to strengthen our own security or affirm our leadership in nonproliferation pass by. On behalf of the President, I urge the Senate to give its advice and consent to the ratification of this vital treaty and to do it very promptly.

Before ending my remarks, Mr. Chairman, members of the committee, let me say just a brief word about the Nuclear Safety Convention that is also before you. Parties to this Convention are obligated not only to operate their nuclear facilities safely, but to report to other parties on steps that they have taken to do so.

This Convention, like the Chemical Weapons Convention, will enhance our security and our safety. It has been adopted by all of the other G-7 participants at the nuclear summit next month in Moscow, where it will be high on the agenda.
I urge the committee to give the Convention prompt consideration so that when the President goes to that summit in Moscow next month, he will be in a position to join the other G-7 parties in adopting and relying on that Convention as well.

Thank you very much, Mr. Chairman and members of the committee.

The CHAIRMAN. Thank you, Mr. Secretary.

[The prepared statement of Secretary Christopher follows:]

PREPARED STATEMENT OF SECRETARY CHRISTOPHER

Mr. Chairman, members of the Committee, I am pleased to testify before you for the first time this year. With my colleagues Secretary Perry and General Clark, I am here today to explain why prompt ratification of the Chemical Weapons Convention this year is in the overriding interest of the United States.

President Clinton has put stopping the spread of weapons of mass destruction at the top of our efforts to protect and enhance the security of every American. Working with this Committee and the Congress, we have achieved a number of important nonproliferation and arms control victories. We secured the indefinite and unconditional extension of the Nuclear Non-Proliferation Treaty. We shut down North Korea's dangerous nuclear program and sent it on its way to the scrap heap. Thanks to the efforts of this Committee, the Senate ratified the START II treaty which deepens cuts in our Cold War nuclear arsenals. And the United States joined with 26 nations in the so-called Wassenaar Arrangement to control transfers of dangerous conventional arms and sensitive dual-use goods and technologies.

These achievements would not have been possible without strong American leadership. Indeed, only the United States has the power and influence to forge a strong global consensus against the proliferation of weapons that threaten the security and prosperity of the world. That fact was brought home to me again during my recent trip to South America, where Argentina and Brazil have become our partners against proliferation and renounced the nuclear option.

Now the United States has the opportunity and responsibility to lead the world toward another landmark achievement. The ratification and entry into force of the Chemical Weapons Convention will reinforce the security of each and every American. President Clinton again underscored the urgency of Senate approval in his State of the Union speech, and has made the Convention's ratification this year a top priority.

Ratification of this Convention not only represents a remarkable opportunity to strengthen our own security, it denies us no option that we would ever wish to exercise. With the dramatic changes of the past decade, the threat of a massive chemical attack from the nations of the former Soviet Union has been drastically reduced. Under American law, the United States is already required to destroy the vast majority of our chemical weapons stockpile by 2004. By imposing an international legal obligation to destroy chemical weapons, the Chemical Weapons Convention puts all other states capable of deploying chemical weapons—including Russia—on the same footing as we are.

President Yeltsin and other senior officials have publicly and privately reaffirmed Russia's commitment to destroy its chemical weapons arsenal. Russia must still take additional concrete steps to follow through on these commitments and rectify remaining problems. By ratifying the Convention, we will add the force and weight of the entire international community to our efforts to assure the destruction of Russian chemical stocks. Our action will also spur other nations such as China to ratify and join the regime.

Today, Mr. Chairman, the main danger we face is the possible use of chemical weapons against U.S. forces deployed overseas and against our allies. The case of Iraq underscores the danger posed by a brutal dictator possessing unconventional weapons. We now know that Saddam's factories were capable of producing thousands of tons of deadly chemicals per year, including mustard gas and the nerve agents sarin and tabun. After overcoming repeated Iraqi deception efforts, the United Nations has only recently confirmed that Saddam also produced large quantities of the highly toxic nerve agent VX. The UN suspects that Iraq may still be hiding stocks of weaponized VX, which confirms the threat that Saddam continues to pose.

If we had had the Convention two decades ago, we might have been able to prevent or at least severely hamper Iraq's chemical weapons activities. We must act now. Iran is engaged in a major effort to develop its chemical arsenal, and we believe that some 20 countries already have, or may be developing, chemical weapons.
The best protection against these weapons is to make it more difficult for hostile nations and groups to obtain and use them. By blocking the supply and demand for chemical weapons, the Chemical Weapons Convention does just that.

First, all states that are Parties to the Convention will be required to give up their chemical weapons. The Convention requires the destruction of existing stockpiles and bans virtually every aspect of a chemical weapons program, from development to stockpiling. It puts in place a comprehensive inspection regime that includes intrusive challenge inspections, and commits parties to enact legislation to punish violators—who also risk international sanctions. No treaty is 100 percent verifiable, but the Convention is carefully structured so that Parties tempted to cheat will never be sure they can evade detection and sanctions. The sooner the Convention enters into force, the sooner those countries possessing or seeking chemical weapons will have to make a choice: abide by its provisions, or suffer the weight of penalties and sanctions imposed by the international community.

Second, the Convention prohibits parties from helping any country try to circumvent its provisions. By specifically banning trade in certain chemicals with countries that are not members, the Convention will make it much harder for non-Parties to acquire the key ingredients they need to produce chemical weapons.

The Convention will also help us combat chemical terrorism. The legislation it requires will strengthen the legal authority of countries to prosecute anyone who tries to acquire chemical weapons. The destruction of chemical stockpiles will reduce the threat of stolen weapons. And international transfers of many of the key chemicals that can be used to make these weapons will be controlled. Indeed, it is no surprise that the Japanese government moved to ratify the Convention immediately after the attack in Tokyo.

American leadership was vital to complete the Convention. Now it is required again if the Treaty is to enter into force successfully and we are to begin a transparent and orderly process to eliminate stockpiles, stop production and erect stronger barriers against proliferation.

So far, 160 countries have signed the Chemical Weapons Convention, and 49 have deposited instruments of ratification. When 55 countries have ratified, a 180-day countdown toward entry into force begins. We are now only 16 ratifications away from that countdown, which could come within just a few months.

If the United States is among the first 65 parties to ratify the Convention, we will retain our critical leadership role in the global fight against chemical weapons. If we are not, we will lose the chance to ensure that our views are fully reflected in the final preparations for entry into force. We will not be able to participate immediately in the Organization for the Prohibition of Chemical Weapons, which monitors compliance. We will not be able to join immediately in international inspections.

Failure to ratify the Convention promptly will jeopardize not only our security and international standing, but our prosperity. Because the treaty restricts trade with non-Parties in certain chemicals, failure to ratify could cut off U.S. companies from their traditional trading partners. Uncertainty about U.S. participation in this regime could lose business for American companies and lose jobs for American workers. Let me note that the U.S. chemical industry enthusiastically supports the treaty, having worked closely with our negotiators to help ensure that it will safeguard proprietary information.

Eliminating chemical weapons has long been a bipartisan goal. By law adopted during the Reagan Administration, our chemical weapons stockpiles are headed for destruction. The Convention itself is the product of years of bipartisan effort. President Bush took a strong personal interest in the treaty, which the United States signed during his Administration. Reagan and Bush Administration officials, including Lawrence Eagleburger, Brent Scowcroft and Ronald Lehman, have recently reaffirmed their support for the treaty.

Mr. Chairman, the Clinton Administration supports this treaty because it is especially suited to the post-Cold War security environment, where the threat posed by chemical weapons is not limited to one state of group of states. The Convention will simultaneously remove chemical weapons from the world's stockpiles and build up the barricades against their future acquisition. It will make it more difficult for others to threaten or use chemical weapons against the United States, our soldiers, our allies and friends.

We signed the Convention in January 1993. Since November 1993 the Senate has considered it thoroughly, holding ten hearings and submitting hundreds of questions for the record. It is now time to bring the Convention to a vote.

We must not let this opportunity to strengthen our own security and affirm our leadership in nonproliferation. On behalf of the President, I urge the Senate to give its advice and consent to the ratification of this vital treaty now.
Before ending my remarks, Mr. Chairman, I would like to say a brief word about the Nuclear Safety Convention that is also before you. Parties to this Convention are obligated not only to operate their nuclear facilities safely, but to report to other Parties on the steps that they have taken to do so. The Convention will enhance our security and our safety. It has been adopted by all of the other G-7 participants at the Nuclear Summit next month in Moscow, where it will be high on the agenda. 
I urge this Committee to give the Convention prompt consideration.
Thank you very much.

The CHAIRMAN. Secretary Perry?

STATEMENT OF HON. WILLIAM J. PERRY, SECRETARY OF DEFENSE

Secretary Perry. Thank you, Mr. Chairman.
My testimony could be summed up in one sentence, and that is that we believe that the security of the United States will be enhanced if the CWC Treaty enters into force as soon as possible.

Rather than stopping with this one sentence summary, let me address six issues, six questions, that have been raised and been considered by the Defense Department and our answers to those six questions, why we believe what we believe.

The first of these is: How will we deal with the risk that a nonparty or a violator might use chemical weapons against us?

Fundamentally, we believe that the ability to retaliate with conventional weapons is no longer a necessary element in countering chemical weapons. And this is because we have an effect range of capabilities to protect against, to deter, or to retaliate against the use of chemical weapons.

I will talk more in a few minutes about our protective capabilities. But I want to emphasize that we would not rely on protection alone.

For obvious reasons, we choose not to specify in detail what responses we would make to a chemical attack. However, as we stated during the gulf war, if any country were foolish enough to use chemical weapons against the United States, our response would be absolutely overwhelming and devastating. And we do not need chemical weapons to provide an effective deterrent or to deliver an effective response to the use of chemical weapons against our forces.

The second question is: What will the Defense Department do to protect our troops? We maintain a robust chemical defense capability supported by an aggressive intelligence collection efforts.

All of this is based on the assumption that we must be prepared for the presence of chemical weapons almost anywhere the United States is likely to deploy forces, including northeast Asia, the Persian Gulf and the Middle East.

As a result of this, the Defense Counter Proliferation Initiative seeks to assure that U.S. forces are equipped and trained to effectively and oppose an aggressor armed with chemical weapons.

The development of enhanced CW detection and protection capabilities is a major component of this initiative.

And this commitment to protecting our forces, combined with an ability to rapidly bring to bear the overwhelming military capabilities, will form the backbone of military deterrence against any aggressor in the post-CWC world.
The treaty recognizes the need for states party to the Convention to continue with chemical weapons defensive program. It is clearly and unambiguously provided in article 10 of the Convention.

And our chemical defensive programs will continue in accordance with the provisions of the treaty, and we will continue to provide our forces the best protection available.

A third question is: How will we meet our CWC destruction obligations? Because under the CWC, the United States would be required to destroy its existing CWC stockpile.

While it is true that this will be a complex and a costly process, I want to point out that Congress has already directed the executive branch to undertake the major part of this obligation without regard to the CWC Treaty.

The current destruction plan calls for incineration in specially designated facilities at the chemical weapons storage sites. Both the Defense Department and the National Research Council concur that this incineration/destruction process is safe and effective and should proceed expeditiously.

We also agree with the NRC that the risks from continued storage of the stockpile outweigh the minimal risks of incineration. We are already undertaking destruction at Johnston Island, and each new facility will incorporate lessons learned from other facilities.

The fourth question has to do with verifiability; namely, how will we verify this treaty? The CWC contains the most extensive verification provisions of any arms control regime. It consists of detailed declarations, routine inspections of declared sites, and short notice challenge inspections.

With its complementary and overlapping verification requirements, the CSC's regime provides the means to help deter a state party from violating the provisions of the Convention.

Therefore, we are confident that activities such as the destruction of declared CW stocks and production facilities can be verified. We are confident that we will be able to detect large-scale production, filling, and stockpiling of chemical weapons.

And while we recognize that detecting illicit production of small quantities of CW will be extremely difficult, we also recognize that that would be even more difficult without a CWC.

In fact, the CWC verification regime, through its declaration, routine inspection, factfinding, consultation, and challenge inspections, should prove effective in providing a wealth of information on possible CW programs that simply would not be available without the Convention.

The fifth question is the other half, the other side, of the verification coin. How do we ensure that this verification system is not so intrusive that it invades the privacy of our people and our businesses or compromises our national security information and industrial technology?

During the CWC negotiations, the intrusiveness of many of the verification provisions had to be balanced against legitimate national security and proprietary concerns, as well as constitutional protections.

In the Defense Department's view, a proper balance has been achieved between effective verification of the Convention on the one hand, and the protection of DOD's national security on the other.
In addition to that, the Chemical Manufacturers Association's longstanding support of this Convention is a testament to its view that industry's proprietary concerns have been taken into account. Indeed, this association has helped with preparing the language of this treaty to make sure that that is the case.

And the sixth and the last question that has been raised as an issue in the Defense Department is: Will the treaty allow us to use riot control agents for legitimate purposes?

CWC permits the use of riot control agents in law enforcement, domestic riot control, counterterrorism and hostage rescue, but the Convention prohibits the use of riot control agents as a method of warfare.

Neither the CWC nor the formal negotiating record defines this term "method of warfare."

The administration has studied this issue very carefully, and it has concluded that while CWC prohibits the use of riot control agents against combatants, it does not prohibit the use of riot control agents in situations in areas under direct U.S. military control, to include controlling rioting prisoners of war, protecting convoys from civil disturbance and terrorists and paramilitary organizations.

In conclusion, the Department of Defense considers that the Chemical Weapons Convention is a well-balanced treaty, that in conjunction with the other efforts against CW proliferation, a robust chemical production program and maintenance of a range of nonchemical military capabilities will serve the best interests of the United States.

The Department of Defense strongly supports this Convention. And I respectfully request that the Senate give its advice and consent to its ratification.

[The prepared statement of Secretary Perry follows:]

PREPARED STATEMENT OF SECRETARY PERRY

Mr. Chairman, I am pleased to be here today, on behalf of the Department of Defense, to provide testimony concerning the ratification of the Chemical Weapons Convention (CWC). This Convention is a tremendous advance over the 1925 Geneva Protocol in that it represents a total ban on chemical weapons, not just a ban on use. It is the strong desire of the Administration that this treaty, with its prohibitions on chemical weapons, enter into force as soon as possible. Rapid Senate action will support this important objective.

The Chemical Weapons Convention truly is a significant breakthrough in the area of arms control. It is both a disarmament and a nonproliferation treaty, and the scope of the Convention is the broadest ever negotiated.

The CWC obligates a State Party never, under any circumstances, to develop, produce, acquire, stockpile or retain chemical weapons. It also prohibits the States from using or preparing to use these weapons. The Convention forbids the transfer of chemical weapons to other States and also prohibits assisting, encouraging, or inducing anyone to engage in activities prohibited under the treaty.

In addition to these comprehensive prohibitions, the CWC requires the destruction of all chemical weapons and the facilities that produced them. In cases of exceptionally compelling need, a State Party may request permission to convert a former chemical weapons production facility to acceptable civilian uses. Such a converted facility would be subject to additional verification procedures and restrictions on its activities.

The CWC will also help combat the growing proliferation of chemical weapons. By tracking the production, processing and consumption of the specified chemicals through the treaty's declaration and verification regimes, the CWC's international organization will establish a framework and mechanism to curtail the proliferation
of chemical weapons. The Convention bars trade in high-risk chemicals with non-States Parties. Three years after entry-into-force, trade in certain other chemicals is also banned to such countries. In addition, an end-use certificate will be required for transfers involving low-risk chemicals to nonparties. These export control provisions strengthen the Convention and make it a valuable tool for monitoring these potentially dangerous dual-use chemical weapons precursors.

Other provisions of the CWC—of particular importance to the Department of Defense—allow a State Party to maintain and continue research into methods of protection, such as detection and protective equipment and decontaminants for use against chemical weapons. The Convention also calls upon States Parties to provide financial, protective or other assistance through the international organization if a Party is subjected to an attack or threat of attack. Such provisions in the Convention will help reduce the global CW threat while enhancing CW protection and assistance to all signatory States.

The routine inspection requirements, fact-finding and consultation mechanisms, and the ability to conduct a short-notice challenge inspection anywhere create a synergy that is unique for the verification of any arms control agreement. The CWC has the most intrusive verification regime in history and is effectively verifiable. I firmly believe that the CWC contributes significantly to the security interests of the Defense Department, and to U.S. national security as a whole.

The drafters of the treaty defined RCAs separately from chemical weapons; they believed that these chemicals warranted special consideration within the Convention. Riot control agents are allowed for use in law enforcement and domestic riot control, and a State Party must declare the types of RCAs it maintains. The Convention prohibits the use of riot control agents (RCAs) as a method of warfare. This prohibition applies only to their use as a method of warfare in international and internal armed conflict. Uses of RCAs for operations such as peacekeeping operations, humanitarian and disaster relief missions, counterterrorism and hostage rescue are unaffected by the Convention.

I now would like to address several questions often posed to the Department of Defense with respect to the CWC. These questions cover six general areas, including:

— Retaliatory capability
— Chemical weapons destruction
— Verifiability
— Protecting national security information
— Chemical defense program
— Riot control agents

**RETAILIATORY CAPABILITY**

First, how, having renounced CW even as a means of retaliation, will we deal with the risk that a nonparty, or a violator, might use CW against us? The Department of Defense believes that the ability to retaliate with CW is no longer a necessary element in countering chemical weapons. This is true, even though the CWC may not be universal, or complied with universally. Successive Administrations have concluded that U.S. national security is best served by including a comprehensive ban.

Fundamentally, DOD supports giving up the ability to retaliate with CW because we have an effective range of alternative capabilities to deter or retaliate against use of CW. Our protective and other counterproliferation capabilities have been improved, partly as a result of Gulf War experiences. But we will not rely on protection alone. For obvious reasons, we choose not to specify in detail what responses we would make to a chemical attack. However, as we stated during the Gulf War, if any country were foolish enough to use chemical weapons against the United States, the response will be "absolutely overwhelming" and "devastating." We do not need chemical weapons to provide an effective deterrent or to deliver an effective response to CW.

Renouncing retaliation-in-kind allows us to pursue more effectively, with strong international backing, our long-held goal of a complete ban and saves us the costs and controversy that were associated with maintaining a chemical stockpile for retaliation. I will describe more fully our protective program later in this statement.

**CHEMICAL WEAPONS DESTRUCTION**

Second, what will be required to meet our CWC destruction obligations? Under the CWC, the U.S. will be required to destroy its existing CW stockpile. While it is true that this will be a complex and costly process, it is worth pointing out that Congress has already directed the Executive Branch to undertake the major part of this destruction obligation irrespective of whether the CWC ever enters into force.
With the U.S. having stopped the production of unitary CW agents and munitions in 1969, the unitary weapons in our stockpile have since then increasingly become obsolete and, in some cases, unsafe. In fact, as a result of the 1985 Chemical Warfare Review Commission's Report, Congress directed the Defense Department in the Defense Authorization Act of 1986 (Public Law 99–145) to dispose of the unitary CW stockpile by September 30, 1994. The 1993 Defense Authorization Act (Public Law 102–484) extended the destruction schedule to December 31, 2004. To date, we have destroyed over one thousand tons of chemical weapons at our facility on Johnston Island.

In sum, the most difficult task—destroying the old unitary stocks—would be the same with or without the CWC. But, with the CWC, we gain important benefits in controlling and monitoring CW around the globe.

How can we ensure the stockpile is destroyed safely? The same Act that set the current deadline for destruction of unitary stocks directed the Secretary of the Army to submit a report to Congress "setting forth the Army's plans for destroying all chemical warfare material of the United States."

In addition to destruction of our unitary stocks, our CWC destruction obligations will include: binary chemical munitions; buried chemical munitions, if excavated and determined to meet the CWC definition; recovered chemical weapons from test ranges; unfilled chemical munitions and devices; and chemical weapons production facilities. The Army provided a report on Nonstockpile Chemical Materiel to the Congress in November of 1993, and it is preparing an update to be submitted in spring of 1996.

Under Congressional direction, the CW destruction program—which will be accomplished by incineration in specially designed facilities at current CW storage sites—was delayed until the Army submitted a report to Congress on the National Research Council's findings and recommendations on the Army's baseline incineration program and alternative technologies.

The Army reviewed and considered each of the National Research Council's findings and recommendations. The Army and I concur with the NRC that the baseline incineration destruction process is safe and effective and should proceed expeditiously. We also agree with the NRC that the risks from continued storage of the stockpile outweigh the potential risks from incineration.

Of the four alternative technologies recommended for further research by the NRC, the Army has conducted tests on two of them—stand-alone neutralization and neutralization followed by biological treatment. Investigations are continuing to determine the efficiency of these processes.

In the meantime, we are refining the destruction process at Johnston Island and each new facility will incorporate lessons learned from the last one. We expect that performance at these facilities will quell public concerns in each of the localities. The Department of Defense is working closely with members of Congress who have chemical weapons sites in their states and districts so that we are sensitive to their concerns and responsive to the specific circumstances at each site.

The Defense Department, working with Congress, will ensure that all the chemical weapons materiel covered by the Chemical Weapons Convention will be destroyed within the treaty-mandated time limit of ten years.

VERIFIABILITY

Third, is the treaty verifiable? While no treaty is 100% verifiable, the CWC is effectively verifiable. The CWC contains the most extensive verification provisions of any arms control regime. The CWC's regime consists of detailed declarations, routine inspections of declared sites, and short notice challenge inspections. With its complementary and overlapping verification requirements, the CWC's regime provides the means to help deter a State Party from violating the provisions of the Convention. We are confident that activities such as the destruction of declared CW stocks and production facilities can be verified. While detecting illicit production of small quantities of CW will be extremely difficult, it is easier to detect large-scale production, filling and stockpiling of chemical weapons. Over time, through its declaration, routine inspection, fact-finding, consultation, and challenge inspection mechanisms, the CWC's verification regime should prove effective in providing a wealth of information on possible CW programs that would not be available without the Convention. When we combine information gained under the CWC with our own intelligence and assessments, we will be able to make sound judgments in determining a State Party's compliance. When we combine the deterrence provided by the CWC regime with our military preparedness, we have an effective approach for combating CW proliferation.
PROTECTING NATIONAL SECURITY INFORMATION

Fourth, does the CWC protect the privacy of our people and businesses, and our national security information and industrial technology, from compromise under the CWC's verification system? During the CWC negotiations, the intrusiveness of many of the verification provisions had to be balanced against legitimate national security and proprietary concerns, as well as Constitutional protections. In DOD's view, the balance between effective verification of the Convention and the protection of DOD's national security concerns has been achieved. In addition, the Chemical Manufacturers Association's long-standing support of the Convention is a testament to its view that industry's proprietary concerns have also been accounted for.

The CWC provides safeguards against frivolous or contrived inspection demands. The inspection team must strictly observe its inspection mandate. The team is not allowed to collect or retain information that is not related or relevant to the object and purpose of the Convention. Declared facilities that are subject to routine inspection have the right to negotiate facility agreements. Consistent with the CWC, these agreements will address in detail the degree of access, the scope of information provided, and any sample-taking or monitoring that is to be conducted at the particular facilities.

These protections apply particularly to challenge inspections. Under a challenge inspection, a State is allowed up to 120 hours from the time it is notified of an inspection until it must provide access to the requested inspection site. During this time, the inspected state and inspection team will negotiate the nature and extent of access within the inspected site. The inspected State also, as stated in the Convention, "** has the right under managed access to take such measures as are necessary to protect national security." Such measures could include but are not limited to shrouding, removing sensitive papers or items from the area, or restricting sample analysis. The inspected state may also take into account "any constitutional obligations it may have with regard to proprietary rights or searches and seizures." These powerful protections are balanced with the obligation not to use them to evade compliance. Accordingly, if a State provides less than full access it must "** make every reasonable effort to provide alternative means to clarify the possible noncompliance concern."

Industry was closely involved in developing the CWC's verification provisions and, based on DOD's experience, we believe the risk of industrial espionage, invasion of privacy expectations, and compromise of national security information is very small.

CHEMICAL DEFENSE COUNTERPROLIFERATION PROGRAM

Fifth, what will DOD do to protect our troops? The Department of Defense will maintain a robust chemical defense capability supported by aggressive intelligence collection efforts. DOD's Bottom-Up Review refocused us from a scenario fighting a war in Europe to fighting two near-simultaneous regional contingencies. The resulting regional threat assessment determined there was a very high probability that aggressors would threaten, wield or use nuclear, biological or chemical weapons almost anywhere the U.S. is likely to deploy forces—including Northeast Asia, the Persian Gulf and the Middle East. As a result, the Defense Counterproliferation Initiative seeks to assure that U.S. forces are equipped and trained to effectively oppose an aggressor armed with CW. The development of enhanced CW detection and protection capabilities is a major component of the initiative. This commitment to protecting our forces, combined with an ability to rapidly bring to bear the overwhelming power of our military capabilities, will form the backbone of military deterrence against any aggressor in the CWC world.

The treaty recognizes the need for States Party to the Convention to continue with chemical weapons defensive programs. This right is clearly and unambiguously provided in Article X of the Convention, which states that "** Nothing in this Convention shall be interpreted as impeding the right of any State Party to conduct research into, develop, produce, acquire, transfer or use means of protection against chemical weapons, for purposes not prohibited under this Convention." Also, Article II includes in its definition of "purposes not prohibited" protection against chemical weapons. The Convention also subjects these programs to monitoring and verification in order to ensure that such activities cannot be used to hide offensive programs. To guarantee that our soldiers, sailors, airmen and marines are the best protected and best equipped fighting force for operations on a nuclear, biological or chemical (NBC) battlefield, we have, with the support of Congress, developed a centralized management and oversight process that serves to coordinate the Services' requirements in these areas.
Our NBC defensive programs will continue in accordance with the provisions of the treaty and we will continue to provide our forces the best protection available. Nothing in the treaty restricts our activities in this regard.

RIOT CONTROL AGENTS

Finally, what about the use of riot control agents (RCAs) for legitimate purposes? The CWC permits the use of RCAs in law enforcement and domestic riot control, but the Convention prohibits the use of RCAs as a method of warfare. The Administration understands that this prohibition applies only to their use as a method of warfare in international and internal armed conflict. Use of RCAs for peacetime operations such as normal peacekeeping operations, humanitarian and disaster relief missions, and counterterrorism and hostage rescue are unaffected by the CWC.

Neither the CWC nor the formal negotiating record defines "method of warfare." The Administration has studied this issue very carefully and has concluded that the CWC does not prohibit the use of RCAs in riot control situations in areas under direct and distinct U.S. military control, to include controlling rioting prisoners of war, and in rear echelon areas outside the zone of immediate combat to protect convoys from civil disturbance, terrorist and paramilitary organizations. The CWC does prohibit the use of RCAs solely against combatants and, according to the understanding of our allies and treaty signatories, even for humanitarian purposes in situations where combatants and noncombatants are intermingled. However, as the President's June 23, 1994 letter to Congress states, "were the international understanding of this issue to change, the United States would not consider itself bound by this position." I would like to note that the President's June 23 letter also states his intention to direct the Office of the Secretary of Defense "to accelerate efforts to field nonchemical, nonlethal alternatives to RCAs for use in situations where combatants and noncombatants are intermingled."

CONCLUSION

In conclusion, the Department of Defense considers the Chemical Weapons Convention a well-balanced treaty that, in conjunction with our other efforts against CW proliferation, a robust chemical protection program and maintenance of a range of nonchemical response capabilities, will serve the best interests of the United States and the world community. The Department of Defense strongly supports the Convention. I respectfully request that the Senate give its advice and consent to ratification this spring.

The CHAIRMAN. General Clark?

STATEMENT OF LT. GEN. WESLEY CLARK, DIRECTOR FOR STRATEGIC PLANS AND POLICY, THE JOINT STAFF

General Clark. Thank you, Mr. Chairman, members of the committee. I am very pleased to be here today with Secretary Christopher and Secretary Perry to testify on behalf of General Shalikashvili on the Chemical Weapons Convention and to address the Convention's impact on the U.S. military.

This Convention represents a significant milestone in arms control in that it bans an entire class of weapons of mass destruction. As a result, the Chemical Weapons Convention will have a positive impact on the lives of our service people and on how the U.S. military fulfills its responsibilities to national security.

Since General Shalikashvili last testified, the Joint Staff has played an integral part in continuing negotiations in the preparatory commission work concerning the specifics of the Convention's implementation.

We are well acquainted with the relative advantages and shortcomings of the Convention and its implications for the U.S. fighting force.

The most significant advantage derived from the Convention is the potential elimination of chemical weapons by states parties.
Upon the Convention's entry into force, all state parties will be obliged to destroy their chemical stockpiles.

As you know, the United States is required by national law to destroy the vast majority of the U.S. chemical weapons stockpile by 2004 regardless of whether the CWC enters into force or not.

The Convention's imposition of an internationally recognizable obligation to destroy all chemical weapons essentially places all other CW capable state parties on an equal footing with the United States.

Because of the Convention's trade restrictions and provisions, the proliferators outside the Convention will find it increasingly more difficult to acquire the chemical precursors essential to building a chemical weapons stockpile.

While the Convention's verification provisions allow for compliance monitoring by the Organization for the Prohibition of Chemical Weapons, its national implementation will require significant effort by the U.S. military. All chemical weapons-related facilities will be suspectable to routine declaration and verification.

In preparation for this process and to facilitate the demilitarization of our chemical weapons, the U.S. Army recently declassified our chemical weapons stockpile. This action demonstrates our preparedness to make full and complete CW declarations as required by the Convention and our commitment to the ultimate elimination of these weapons of mass destruction.

Under Public Law 99-145, we have already begun destruction of our CW stockpile. And to date, we have destroyed about 1,000 tons of chemical munitions on Johnston Island.

Also as a result of the Chemical Weapons Convention, all U.S. military facilities, both within the U.S. continent and overseas, will be susceptible to short-notice challenge inspections.

With On Site Inspection Agency assistance, the services have been preparing their facilities for the receipt of both routine and challenge inspections.

Since General Shalikashvili last spoke on this issue, we have also successfully concluded a series of similar inspections, conducted bilaterally with the Russians, as confidence-building measures associated with the Wyoming Memorandum of Understanding.

These bilateral inspections were both routine and challenge, and they provided valuable information on how such inspections should be conducted, and they give us confidence that we will be able successfully to implement this intrusive, multilateral inspection regime with little difficulty.

In the past, the United States has relied upon its chemical weapons stockpile and an active chemical weapons defense to deter chemical weapons used against U.S. forces.

However, in May 1991, President Bush clearly stated the U.S. commitment to banning chemical weapons and giving up its own chemical weapons deterrent by formally forswearing the use of chemical weapons for any reason, including retaliation, against any state effective when the Convention enters into force.

This decision is based on the belief that banning chemical weapons is more important to national and international security than the possible threat of retaliatory use. General Shalikashvili asked
me today to reaffirm that decision and once again request your support for the ratification of this Convention.

The U.S. military’s ability to deter chemical weapons in a post-CWC world will be predicated upon a robust chemical weapons defense and the ability to rapidly bring to bear superior and overwhelming military force should chemical use be initiated by an adversary.

Our military demonstrated in Desert Storm that retaliation in kind is not required to deter the use of chemical weapons. U.S. forces are the best equipped and trained forces in the world.

A robust chemical and biological defense program, coupled with an overwhelming nonchemical retaliatory capability second to none, will impact the decision process of any would-be aggressor, if that aggressor were contemplating the use of chemical weapons against U.S. forces.

Now, in earlier testimony to the Committee on Armed Services, both Dr. Deutsch and General Shalikashvili were repeatedly questioned on the use of riot control agents.

We would like to note that the Joint Chiefs of Staff have met twice on this matter, most recently in July 1995, and reaffirmed their previous position that although we would have preferred to preserve all four options for the use of riot control agents which were contained in Executive Order 11-850, we agreed with the administration that the benefits of the treaty outweigh the importance of preserving the two disputed options.

From a military perspective, the Chemical Weapons Convention is clearly in our national interest. The Convention’s advantages outweigh its shortcomings. The United States and all other state parties incur the same obligation to destroy their chemical weapons stockpile and forswear the development or production of such weapons.

While less than perfect, the verification regime allows for intrusive inspections while protecting our national security concerns.

Of paramount importance are the nonproliferation aspects of the Convention, which will retard the spread of chemical weapons and, in so doing, reduce the probability that U.S. forces may encounter chemical weapons in a regional conflict.

And finally, while foregoing the ability to retaliate in kind, the U.S. military retains the wherewithal to deter and defend against a chemical weapons attack.

On behalf of General Shalikashvili and the Joint Chiefs of Staff, I would like to state that we continue to strongly support this Convention and once again respectively request your consent to ratification.

Thank you, Mr. Chairman.

[The prepared statement of General Shalikashvili follows:]

PREPARED STATEMENT OF GENERAL SHALIKASHVILI

INTRODUCTION

Mr. Chairman, members of the Committee, I am pleased to be here today with the Secretary of Defense and Secretary of State to testify on the Chemical Weapons Convention (CWC) and address the Convention’s impact on the U.S. military. As I testified previously, the CWC represents a significant milestone in arms control in that it bans an entire class of weapons of mass destruction. The potential benefits of the Chemical Weapons Convention will have a positive impact on the lives of our
service people and how the U.S. military fulfills its responsibility to national security.

Since I last testified, the Joint Staff has played an integral part in continuing negotiations in the Preparatory Commission concerning the specifics of the Convention's implementation. As such, I am well acquainted with the relative advantages and shortcomings of the Convention and its implications for the U.S. fighting force.

ADVANTAGES OF THE CWC

The most significant advantage derived from the Convention is the potential elimination of chemical weapons by state parties. Upon the Convention's entry into force, all state parties will be obligated to destroy their chemical weapons stockpiles. Currently, regardless of whether the CWC enters into force, the U.S. Army is required by national law (Public Law 99-145) to destroy the vast majority of the U.S. chemical weapons stockpile by 2004. In fact we have currently destroyed 1,000 tons of CW on Johnston Island. The U.S. is presently the only state that is systematically conducting an ongoing chemical weapons destruction program. The Convention's imposition of an internationally recognizable legal obligation to destroy all chemical weapons will place all other CW capable state parties on equal footing with the U.S.

Nearly two-thirds of the countries believed to have chemical weapons programs are signatories to the Convention. While this does not imply that they will all ultimately become parties to the Convention, it does indicate a near universal acceptance of the Convention's objectives. The list of signatories includes the Russian Federation, which possesses the world's largest declared chemical weapons stockpile. The eventual destruction of approximately 40,000 tons of declared Russian chemical weapons will significantly reduce the chemical threat faced.

Another advantage of the Convention is a verification regime that allows the International Organization for the prohibition of Chemical Weapons (OPCW) to routinely monitor a state party's compliance. While no treaty is 100% verifiable, the CWC is effectively verifiable. It provides for complementary and overlapping verification requirements that help deter CW violations. The CWC does this through the most intrusive verification provisions of any arms control regime to date. This verification regime consists of declarations, routine inspections of declared facilities, and short notice challenge inspection of any facility. Of note, some of the Convention's imperfection was intentional in order to protect our military interests. The regime allows military commanders to protect classified information, equipment, and facilities unrelated to the Convention.

The Convention is both an arms control agreement and a nonproliferation regime that restricts trade in specified chemicals to member states. Because of the Convention's trade restrictions and provisions, would-be proliferators will find it increasingly difficult to acquire the chemical precursors essential to building a chemical weapons stockpile. Signed by 160 states, and currently ratified by 49 states, including the major industrialized states, the Convention will help to defuse regional instability by reducing every state's ability to acquire a chemical weapons stockpile.

IMPACT OF CWC IMPLEMENTATION

While the Convention's verification provisions allow for compliance monitoring by the OPCW, its national implementation will require a significant effort by the U.S. military. First, all chemical weapons related facilities will be subject to routine declaration and verification. These include storage facilities in 10 geographic areas, former production facilities in 6 geographic areas, 3 existing destruction facilities, and those destruction facilities yet to be built.

Second, all military facilities, will be susceptible both within the U.S. and overseas, to short notice challenge inspections. All the Services, with On Site Inspection Agency assistance, have been preparing their facilities for these chemical weapons inspections. We have conducted site assistance visits, table-top exercises and mock inspections to assist the CINCs, major commands and installation commanders in understanding their CWC inspection obligations.

Additionally, since I last testified we have successfully concluded a series of similar inspections conducted bilaterally with the Russians as "confidence building measures" associated with the 1989 Wyoming Memorandum of Understanding (MOU). These bilateral inspections, both routine and challenge, provided valuable information on how such inspections will be conducted and give us confidence that we will be able to successfully implement this intrusive multilateral inspection regime with little difficulty. While the preparations for these bilateral and potential CWC inspections have been costly in terms of personnel and resources, we are confident that U.S. facilities will be able to protect themselves against the disclosure
of national security information and information on sensitive equipment and facilities through managed access.

Another critical element of CWC implementation is CW data declarations. Data declarations were prepared by the Services and Joint Staff and exchanged with Russia in compliance with the Wyoming MOU. Compiling these declarations provided the Services an excellent opportunity to develop the expertise and the data bases required to comply with the Convention's declaration requirements. Previously this data was compiled using paper forms and long hand. This process is now being automated and we are confident we will be able to provide a real-time status of our declaration requirements.

DETERRENCE AND RETALIATION

U.S. forces are the best equipped and trained forces in the world. The Defense Department maintains and is committed to maintaining a robust Chemical Biological Defense program. The program seeks to protect U.S. forces during all phases of the operational spectrum.

Even if chemical weapons are not introduced onto the battlefield, their threat of use impacts upon our military. Operating in a potential chemical environment affects both operational and logistical planning. Protective equipment displaces other commodities on cargo carriers and NBC defense units replace combat units in deployment plans. Protective equipment worn by military personnel for prolonged periods in a hot environment can degrade their performance.

The U.S. military's ability to deter chemical weapons in a post CWC world will be predicated upon both a robust CW defense capability, and the ability to rapidly bring to bear superior and overwhelming military force in retaliation to a chemical attack.

A robust chemical weapons defense program is essential not only to protect U.S. forces but also to ensure their combat effectiveness in a chemical environment. A well trained and protected force will help deter any would be aggressor when contemplating the employment of chemical weapons against U.S. forces.

While U.S. forces will forego CW retaliation in kind we will retain a retaliatory capability second to none. Should deterrence fail, a chemical attack against U.S. forces would be regarded as an extremely grave action subject to an appropriate non-chemical response of our choosing. The U.S. will rely on the full range of military capabilities to deter and defend against a chemical weapons attack. I strongly support this convention and respectfully request your consent to ratification.

RIOT CONTROL AGENT

In earlier testimony to the Committee on Armed Services both the DEPSECDEF and I were repeatedly questioned on the issue of Riot Control Agents. I would like to note that the Joint Chiefs of Staff met on 19 July 1995 and reaffirmed our earlier position that "although we would have preferred to preserve all four options in EO 11860, we agreed with the administration that the benefits of the treaty outweighed the importance of preserving the two disputed options." It is further noted that the Administration RCA decision of June 1994 took account of the need to develop humanitarian alternatives for these two prescribed options, in the form of non-chemical non-lethal technologies.

CWC IN THE NATIONAL INTEREST

From a military perspective, the Chemical Weapons Convention is clearly in our national interest. The Convention's advantages outweigh its shortcomings. The U.S. and all other CW capable state parties incur the same obligation to destroy their chemical weapons stockpile. While less than perfect, the verification regime allows for intrusive inspections while protecting national security concerns. The non-proliferation aspects of the Convention will retard the spread of chemical weapons, and in so doing, reduce the probability that U.S. forces may encounter chemical weapons in a regional conflict. Finally, while foregoing the ability to retaliate in kind, the U.S. military retains the wherewithal to deter and defend against a chemical weapons attack. I strongly support this convention and respectfully request your consent to ratification.

The CHAIRMAN. I thank all three of you distinguished gentlemen. I am going to claim a little bit of the chairman's time for a few comments, which I hope will be brief. And I know you do, too.

The thing that bothers me most, I suppose, about the way this Convention is being presented is the psychology of it, where people
are assuming things are going to be all right just so we ratify this treaty. And I think we all know that is not so.

Now, let me say, gentlemen, that I respect every one of you. I have doubts about this treaty. I think a lot of Americans do. We had two or three panels where they were evenly divided.

One occasion I thought we were going to have fistfights because everybody was enthusiastic about his point of view or her point of view pro or con of the treaty.

But that being said, these experts that we heard from previously in many instances question the national security implications of what we call the Chemical Weapons Convention. Every one of them mentioned the verifiability and the potential impact upon industry and business.

And I just feel that we ought to maybe be a little bit more candid and tell the American people, one, that this is something that will kill you if it is not brought under control. And it could very well be used against the United States.

I have asked a lot of people just at random for my own test if they have thought anything about the Chemical Weapons Treaty. They said no, no. And these are generally erudite people who are concerned about various aspects of the perils confronting us.

So I would hope that we would be a little more candid with the American people and say that we do have a problem, not only from what might happen if the chemical weaponry are used against us, but we also have a problem of psychology.

The truth of the matter is that 6 of the 14 countries identified by our own intelligence agencies as having chemical weapons have not ratified the treaty. They are Libya, Syria, Iraq, Egypt, and North Korea. I mention those five together, and then there are one or two others, as a matter of fact, such as Taiwan, which is an ally of ours.

But not one country outside of Europe that has ever had an offensive chemical weapons program has ratified, not one. Russia has not ratified it. Communist China has not ratified it. Nor has Iran or India.

Russia, the country that possesses the largest and most sophisticated chemical weaponry in the world, has signaled that it has no intention of abiding by our bilateral agreement to get rid of the chemical weapons stockpile, unless there has been a change in the last 24 or 48 hours.

To the contrary, over the past 6 years, Russia consistently has refused to come clean about the true size of its chemical weapons stockpile and about the status of its binary chemical weapons program.

Well, I am very much interested in your testimony, and I am not being critical of you. And I really do not disagree with you, because I think you are here because you want to do the best you can to bring this situation under control. But I tell you, a lot of the American people are—they do not have this on their minds.

And when you think about Saddam Hussein and what he did to his own people with chemical weaponry or poison gas, then we know what could possibly confront us from the standpoint of terrorism in the United States.
Well, I am not going to comment further, and I am going to put some other thoughts in the record. But let us try to work on the psychology of it, because this is not the end-all, be-all of controlling chemical weaponry either here or in the rest of the world.

[The prepared statement of Senator Helms follows:]

PREPARED STATEMENT OF SENATOR HELMS

THE CHEMICAL WEAPONS CONVENTION: A FATALY FLAWED TREATY

This morning's hearing is the third in this Committee's concluding round of hearings on the Chemical Weapons Convention. Today, we are privileged to hear testimony from the Honorable Warren Christopher, Secretary of State, the Honorable William Perry, Secretary of Defense, and Lieutenant General Wes Clark, Director for Strategic Plans and Policy in the Office of the Chairman of the Joint Staff.

I also will take this moment to recognize the Deputy Chairman and members of the Russian Duma's International Relations Committee who are attending our hearing today. These gentlemen have the same responsibility as we do today—to consider the Chemical Weapons Convention.

We appreciate Secretary Christopher, Secretary Perry, and General Clark for appearing here this morning to testify on behalf of the Administration in support of the Chemical Weapons Convention (CWC). I will say at the outset that we should all agree that a verifiable treaty, accomplishing real reductions in these abhorrent weapons, will clearly be in the national security interests of the United States. However, in all candor, I must observe that this arms control agreement is not verifiable, nor do I believe it stands a chance in accomplishing reductions in the arsenals of countries hostile to the United States.

The Committee has heard testimony over the last several weeks from a number of distinguished experts, many of whom have questioned the national security implications of the CWC, the Convention's verifiability, and the CWC's potential impact upon industry and business. I feel obliged to lay out some of the issues raised during those hearings that I hope our Administration witnesses will touch upon:

First, I am troubled that some came before this Committee in the past and vowed that the CWC will create a global ban on chemical weapons, and/or that it will create an international norm against their possession or use. The truth of the matter is precisely the opposite—six of the fourteen countries that are suspected by the United States of possessing chemical weapons have not even signed the CWC, let alone ratified it. Yet these countries—Libya, Syria, Iraq, Egypt, and North Korea—are the ones that the Intelligence Community has identified as having the most aggressive chemical weapons programs.

Moreover, not one country outside of Europe that has ever had an offensive chemical weapons program has ratified this Convention—not one. Russia has not ratified the CWC. Nor has Communist China, or Iran, or India. In fact, Russia—the country that possesses the largest and most sophisticated chemical weapons arsenal in the world—has signaled that it has no intention of abiding by our bilateral agreement with Russia to get rid of its chemical weapons stockpile. To the contrary, over the last six years Russia consistently has refused to come clean about the true size of its chemical weapons stockpile, and about the status of its binary chemical weapons program. This, it seems to me, is an ominous sign of things to come in terms of even the slightest show of good faith regarding to Russia's willingness to eliminate its chemical weapons capabilities.

I will be interested to hear today whether the Administration recommends walking away from the bilateral arms control agreement in favor of an even more intrusive, costly, and—in my view—unworkable Chemical Weapons Convention. It seems to me a dangerous precedent to get into the habit of perpetually papering over old, unenforced treaties with newer, unenforceable ones.

Equally troubling is the fact that this Chemical Weapons treaty is unenforceable because it is unverifiable. The then-Director of Central Intelligence, James Woolsey, declared in testimony before this Committee on June 23, 1994, that "the chemical weapons problem is so difficult from an intelligence perspective, that I cannot state that we have high confidence in our ability to detect noncompliance, especially on a small scale."

I was even more astounded to learn lately that the Intelligence Community has concluded that the vast majority of countries now possessing chemical weapons—even if they were to ratify the CWC—would be highly unlikely to abide by it and get rid of their chemical weaponry. In fact, the only countries that might even potentially forgo chemical weapons are all U.S. allies.
The heart of the problem with the CWC is that whole lot of chemicals are dual-use in nature. They can be used to make ball point pens, or they can be used to make deadly nerve agent. A truly global ban on the possession of chemical weapons would entail oppressive government regulation of thousands of different industrial processes. As it is, this imperfect treaty will have a major impact upon industry. A large number of U.S. firms that consume and process chemicals will have data declaration and or inspection obligations under the CWC. Between 60 to 80 trade associations have members who will be regulated under the CWC. Firms that manufacture anything from dyes and pigments, insecticides, pharmaceuticals, ceramics, nylon, textiles and varnish, electronics, textiles, and soap and detergent—just to name a few—all may be affected by the CWC.

As if their regulatory burden were not great enough already, all of these companies will be forced to spend more money to hire more people to fill out more government forms. Some will be forced to submit to routine inspections. Others may be subject to intrusive challenge inspections by an international inspectorate. In fact, we fully expect some of those foreign inspectors to practice economic espionage against our companies. And a small number of companies, comprised largely of biotechnology and pharmaceutical firms, may find their access to certain chemicals constrained or shut off. The most troubling fact about all of this is that the overwhelming number of these firms are not even aware of the implications of the Chemical Weapons Convention.

I believe it ill-advised for the U.S. Senate to discover in retrospect just how widespread the chemical industry really is, and just how intrusive and far reaching the provisions of the CWC really are. Yet I fear that will be the case. This fatally flawed arms control agreement is subject to a strict unanimous consent agreement. Those who are beating the arms control lobby's drums will claim that the U.S. Senate has had ample time to consider the CWC. After all, several hearings were held on this treaty in 1994. In response, I would point out that a much simpler, far more verifiable treaty banning the use of chemical weapons in war—the 1925 Geneva Protocol—took 50 years to ratify.

In sum, I believe the Committee's consideration is being undertaken with an incomplete understanding of the manner in which the CWC will be implemented. The Executive Secretary of the Prep Com reported just last week that 37 of the 49 tasks to be completed "for the purpose of carrying out the necessary preparations for the effective implementation of the Convention" had not yet been completed. Frankly, I am somewhat puzzled how anyone could testify with absolute certainty about the CWC, or about the functioning and costs of the OPCW, the conduct of inspections, the protection of confidential business and national security information, or the regulatory burden that the CWC will foist upon industry, when there are 37 unresolved issues that are integral to the operation of this treaty.

All of this is just the tip of the iceberg. There is a whole array of other problems associated with this treaty which I hope we can discuss today. It will be both interesting and helpful in hearing the judgments from the Administration regarding the CWC's scope, verifiability, the need for chemical weapons defenses, the wisdom of forgoing our offensive deterrent, and their assessment of the overall potential impact of the CWC on our national security.

The CHAIRMAN. Let me see. Let us ask the ranking member, Senator Pell, to begin the questioning. And I suggest that we have 7-minute rounds. The timekeeper will bear that in mind.

Senator Pell.

Senator PELL. Thank you, Mr. Chairman.

I was struck in Secretary Perry's statement where he mentioned that the United States has forsworn the use of chemical weapons for any reason, including retaliation when the Convention comes into force. And I was curious if this continues to be our policy.

Secretary PERRY. Yes, it does. It continues to be our policy. We continue to believe that our security and military effectiveness is best enhanced with that policy.

Senator PELL. If, God forbid, another country did stage a chemical weapon attack, what would be the response: Would it be—are you thinking in terms of nuclear weapons? Are you thinking in terms of conventional weapons? What would be the means of responding?
Secretary Perry. We would not specify in advance what our response to a chemical attack is except to say it would be devastating. And we have a wide range of military capabilities to make good on that threat.

Senator Pell. I guess basically two, conventional and nuclear. There is not much else.

Secretary Perry. The whole range would be considered. That is correct.

Senator Pell. Just out of curiosity, I think the public might be interested. What would be an example of a weapon that was not nuclear and not conventional?

Secretary Perry. If you look at a particular example, such as Desert Storm, we had with our conventional weapons alone the capability to devastate the Iraqi army whether or not they had used chemical weapons. I think they very quickly recognized that.

The example of—there is a bit of a definitional problem in trying to answer your question, Senator Pell, but we have conventional weapons, the ones which have been used in wars in the past. We also have advanced conventional weapons, a term sometimes used to describe our precision-guided munitions, weapons like the Tomahawk land attack missile, for example. And then we have nuclear weapons. That pretty well covers the spectrum of capabilities.

What are the advantages in terms of our national defense of a complete ban on a chemical weapon?

Secretary Perry. The ban that is envisioned by this treaty, the advantages that I see, first of all, there will be a major, truly major, reduction in stockpiles in the world. And that means that there will be a reduced, substantially reduced, opportunity for the transfer of these weapons from the countries that have the stockpiles to other countries. So it helps in proliferation.

Second, this treaty controls the sale of dangerous chemicals. And therefore, countries like Iran or Iraq or Libya will have a much more difficult time getting the chemicals to support their own domestic program.

And then finally, there is a very intrusive verification program, verification regime, which gives us a much better basis for assessing the details of any chemical threat.

Senator Pell. I thank you. And I would ask Secretary Christopher, some people believe that some nations that are interested in chemical weapons signed the Convention and continue to build a clandestine program.

Do you see that happening? In other words, nations will sign it, verify it, and continue to build chemical weapons.

Secretary Christopher. Senator, there are very strong disincentives from any nation taking that course. First, they cannot know whether they are going to be detected. Although the verification procedures are not, as I said earlier, 100 percent perfect, they are very comprehensive.

So any nation that signed and ratified and then commenced a program or maintained a program, would be running the risk of detection, a very high risk of detection, with the consequent action of the international community.
And I think the international community would come down very hard on any country that had signed and ratified and then set about to violate.

There are a number of other disincentives, of course, that would flow from a violation. For example, there would be restrictions or penalties in connection with trade that could be a great disadvantage to the legitimate industries in those countries if there were a violation the convention.

So I don't think that any country would lightly sign and then proceed to violate. On the contrary, I think the international community would come down very hard on such a country.

And frankly, one of the reasons I think the United States should ratify is so that we would be in a position of leadership. If we do not ratify, I think we are left out, and we will not have a leading role as the procedures are decided upon.

On the other hand, if we ratify, I think our moral authority, as well as our international competence, would be brought to bear on any country that signed and then ratified and then sought to violate.

Senator PELL. Would it not also serve to promote other arms control initiatives?

Secretary CHRISTOPHER. No question of that. These arms control agreements and nonproliferation agreements fit together. And it is important that there be a comprehensive system.

In the beginning of my statement, I outlined some of the achievements that have been made in the last several years with the strong cooperation of this committee. This would complete one more link in that important chain.

Senator PELL. As I mentioned in my own opening statement, I recall about 10 different hearings on this treaty, and we have heard—sought to hear all of your—all viewpoints.

No further questions. Thank you.

The CHAIRMAN. Thank you, Senator Pell.

Senator Thomas.

Senator THOMAS. Thank you, Mr. Chairman. Thank you, gentlemen. I appreciate your being here today. I will be fairly quick in my questions. Perhaps you can do the same.

How threatening do you think the chemical weapons program is to the United States and its allies?

General CLARK. Well, Senator, we are concerned about the use of chemical weapons against our forces, and that is why we have devoted considerable resources and a great deal of attention over the years to developing our own defensive techniques.

We have detection gear. We have defensive gear. We have decontamination gear, and we have medical treatment regimes. These are in place. We train with them. We train at our national training center and our other combat training centers, at home station and in our joint exercise program.

So we are concerned about chemical weapons. It is because of that concern that we feel that the Chemical Weapons Convention is in our interest.

Senator THOMAS. So that is a high-threat priority to you?

General CLARK. It is a high-threat priority. Absolutely.
Senator THOMAS. And what do you think will happen to this chemical defense program should the CWC go into effect?

General CLARK. I think we will retain it. It is an essential component of our overall military capabilities.

Senator THOMAS. The defense portion of it?

General CLARK. Yes, it is.

Senator THOMAS. You know, I guess most of us are looking at this in the broader policy sense, and everyone would agree with the things you have said. But the economic costs are a concern as are the verification procedures, certainly, as is creation of another U.N.-type organization.

Now, Mr. Secretary, to follow up a little on the earlier question, I think the CIA in 1995 said that some of the countries that had signed this agreement show no intention of ending their programs. Now, you have sort of generally talked about what the international community would do, but how do you feel about that kind of a report?

Secretary CHRISTOPHER. I think, Senator, that if the treaty comes into effect with the other 16 ratifications, I think we will have a new tool to use against violators. Countries may have thought, it certainly would be foolish on their part, but until there is a ratification by 65 countries and the treaty comes into force, their need to comply may be less urgent.

Once it comes into force, I think that all the tools that the treaty provides, such as verification and inspections, both challenge and regular inspections will provide greater opportunities to detect and deal with violators.

If we found the situation that the CIA reported to be extant after the treaty came into effect, the United States would lead the way in moving against those violators. And I hope that we would take very firm action at that point.

Senator THOMAS. I think our international inspections with Iraq and North Korea have had some problems. Secretary Perry, do you think verification, with that experience, is going to be as useful as you suggest?

Secretary PERRY. I think the experience we have had in Iraq with intrusive inspections has had both positive and negative lessons to it. It has been, I believe, quite effective in giving us a much clearer picture of Iraq's capabilities than we had before the inspections.

It is not capable, by in and of itself, of discovering every violation. My judgment on that, Senator Thomas, has always been that you need a combination of very good intelligence data combined with an intrusive inspection.

I think that is the powerful combination. And that is what is being used, I think, effectively in Iraq, and that is what would be used in this case as well.

Senator THOMAS. My understanding is that the preparatory commission has been in operation for 3 years. It was originally assumed to take 2 years. There is some indication it is behind schedule. Is there any problem with that?

Secretary CHRISTOPHER. Senator Thomas, I think that part of the problem has been the relative slowness of overall ratification. I think the preparatory commission has sensed that until they reach
near to 65, that the full effect of the Convention will not be taken
into account.

Now after our testimony is finished, you will have testimony
from some individuals who have been following this with more
data-to-day precision than Secretary Perry and I have had time to.
And they may be able to elaborate more fully.

But I do not think that we regard that delay as being a disquali-
fying one by any means, especially since the delay has taken place
during a period in which the Convention has not been ratified.

Senator THOMAS. We can talk more with Director Holum about
this issue. It is my understanding that 37 out of 49 of the pre-
paratory items have not taken place, and that is a fairly high num-
ber.

Have the states that you would imagine most dangerous signed
yet?

Secretary CHRISTOPHER. No. I think a number of the rogue states
have not signed. I believe the chairman referred to that. But I
would think the treaty, the Convention, deserves support and rati-
ﬁcation precisely because of that fact.

We have more tools to deal with rogue states after ratification
than we had before, first because of the persuasion of the inter-
national community, but also because of the disincentives that
exist in the treaty, especially with respect to trade.

Those countries are going to be cut off from legitimate trade in
chemicals, which could be very harmful from an economic stand-
point to their industry. So to the extent that rogue states have not
yet signed up, I think it is all the stronger reason to ratify the Con-
vention.

Senator THOMAS. Just one last quick question. What do you an-
ticipate the cost of participation to be for the United States?

Secretary PERRY. The cost of—the major cost will be the cost of
the destruction of our existing stockpile, and that will be about a
billion dollars a year.

Senator THOMAS. A billion a year?

Secretary PERRY. About a billion a year. I would point out to you
that cost—we are going to bear that cost whether or not we
have the CWC treaty. We have thousands and thousands of tons
of chemical weapons now obsolete. They have to be destroyed. The
only issue is the timing of destroying them.

So the bulk of that billion dollars a year cost is inherent in the
fact that we have these obsolete chemical weapons. And that will
be the big cost of the treaty, though, the destruction of the existing
many, many thousands of tons of—

Senator THOMAS. We will bear about 25 percent of the oper-
ational costs of the program.

Secretary PERRY. Oh, the cost of overseeing the treaty itself, yes.
That is estimated to be about $70 million, of which one-fourth, 25
percent, will be U.S. cost.

Senator THOMAS. $70 million?

Secretary PERRY. $70 million, of which 25 percent will be the
U.S. So we will have $17.5 million a year.

Senator THOMAS. Thank you very much.

Secretary PERRY. That cost, of course, is dwarfed by the cost of
the destruction, which is the really big bill here.
The CHAIRMAN. Senator Robb.

Senator ROBB. Thank you, Mr. Chairman. Thank you, gentlemen, for giving us some time this morning to discuss the CWC.

We have had two excellent hearings in the last couple of weeks with a number of people who feel very strongly one way or the other and certainly approach their role in providing advice and counsel to the Congress with great conviction, not always coming down on the same side.

Secretary Christopher, I wonder if I could ask you what you believe the consequences with respect to the ratification process in China and Russia would be if the United States fails to ratify this particular Convention.

Secretary CHRISTOPHER. It would have an adverse effect in both countries. To put it another way, to put it positively, Senator Robb, I think the ratification by the United States is a strong incentive for them to ratify and gives us an opportunity in bilateral discussions with them to urge them to go forward.

If we have not ratified, our argument, of course, on that subject is very hollow. You can see that same analogy in connection with START II. After we had ratified START II with the leadership of this committee, I think our arguments with Russia were far stronger.

And I hope they will soon be successful. But until we have ratified, countries like China and Russia have a perfect answer when we urge them to go ahead with the ratification procedures.

If we were having to take some action we would not otherwise take, then I suppose the argument might be made that we ought to force them to go first.

But the fact is that this treaty does not cause us to take any action we would not otherwise take. So I think the ratification is just a plus in our dealings with countries like China and Russia in particular.

Senator ROBB. The question of verification in any treaty or convention is always difficult because you can never be absolute.

But the question about verification of this particular treaty is of greater concern.

I think it is fair to say that most of those, all of those, who have appeared before this committee to discuss it have listed that at very top of the reasons they believe that the Convention should not be ratified.

But even those who have been strong and articulate proponents of the treaty have acknowledged that verification was one of the real challenges.

Given the fact that verification would be difficult, how would the United States propose to use the challenge process in conjunction with the verification process in ways that might be different from some other treaty where verification was at least arguably easier?

Secretary PERRY. Let me try that question. First of all, as I indicated in my opening statement, some aspects of verification are fairly straightforward and easy: verifying that the destruction, large-scale destruction, has taken place, verifying that large-scale production is not underway. Some very important aspects of this treaty I think are readily verifiable.
What is not readily verifiable is the small-scale manufacture, which can be done in warehouses and back rooms. And I do not know of any way of getting 100 percent confidence that some rogue nation is not having some small-scale development of chemical weapons, even though they may have signed this treaty.

Senator ROBB. Mr. Secretary—

Secretary PERRY. But my point I would want to make about that is that we have that problem today, and we have it in spades. And what the treaty gives us is not just the verification, but the basis for controlling the chemicals being sold to those nations.

So on the one hand the verification gives us a much better assessment of what the facts are, better than we have today, better than what we could possibly have without the treaty.

On the other hand, it makes it more difficult, even for the small-scale production weapons because of the control of the flow of chemicals.

Senator ROBB. Mr. Secretary, what I was attempting to do is elicit a response with respect to the increased likelihood that we could address concerns about verification when they were brought to our attention through whatever means with the challenge process and whether or not you felt that was adequate under the circumstances and given the range of options that are available to us to meet this particular concern.

Secretary PERRY. Yes. I think the challenge inspection is a very powerful tool. As I indicated in my answer to Senator Thomas, it is particularly powerful when used in conjunction with the intelligence we already have. Either one of them alone is probably not nearly as powerful as they are combination.

Senator ROBB. Let me just ask one question that comes up, and certainly the chairman of the committee made reference to both the nonsignatories and those who have not ratified the Convention at this point.

How will we—if the Convention goes into effect, what would be our approach with respect to proliferation to those nations, particularly the rogue states, that have not signed, obviously have not verified—I mean have not ratified—what would be the essence of our nonproliferation strategy toward those nations in this area?

Secretary PERRY. We would simply have additional tools for doing what we would want to do anyway, even in the absence of the treaty, which is to keep the flow of chemicals and production material away from them.

We want to do that already today, but we do not have sufficient internationally accepted tools for doing that. The Convention would give us those tools. So it gives us a stronger hand to play.

Maybe Secretary Christopher would like to elaborate on that.

Secretary CHRISTOPHER. Essentially, I think we would simply go on a campaign with them with some new resources, especially trying to withhold from them legitimate trade and thus try to get the influence of their chemical industry pushing them in the direction of ratification.

But I think we just try to deal with the whole panoply of tools that we are given by the Chemical Weapons Convention.
As I say, we would go on a campaign to try to ensure first ratification by those who had signed and also signature by those who had not signed.

Senator ROBB. Thank you, gentlemen.
Mr. Chairman, my time has expired. I thank you.

The CHAIRMAN. Thank you, Senator.

I have been asked to deliver to you, Secretary Perry, a commendation. I have had a great many people in my office from North Carolina, a lot of farmers, businessmen, and so forth, and they took note of what you said about the U.S. Navy.

Do you recall the quote attributed to you about what kind of Navy do we have?

Secretary PERRY. Yes, I do.

The CHAIRMAN. Was it accurate?

Secretary PERRY. I said it was the best damn navy in the world.

The CHAIRMAN. Right.

Secretary PERRY. And that was not hyperbole. That is just a statement of fact.

The CHAIRMAN. Well, you know, the slightest little statement sometimes gets a lot of attention. And I thought you would be interested in the reaction to that.

Secretary PERRY. Thank you.

The CHAIRMAN. Now, having said that, I want you to give the same sort of statement to assure me what will be—what are you laughing about?

He has heard me lead people in testimony.
Suppose somebody used chemical weapons or poison gas on people in the United States. What would you say would be the result that they would feel? Would it be—would they damn well regret it? [Laughter.]

No, I am serious.

Secretary PERRY. Yes.

The CHAIRMAN. I want to know what the response will be if one of these rogue nations uses poison gas or chemical weaponry against either us or our allies that are the signatories to this, or not signatories, for that matter. What is the response of this country going to be?

Secretary PERRY. Our response would be devastating.

The CHAIRMAN. Devastating. To them?

Secretary PERRY. To them, yes.

The CHAIRMAN. All right. [Laughter.]

You would not say damn devastating.

Secretary PERRY. And I believe they would know that it would be devastating to them.

The CHAIRMAN. Let the message go out.

Secretary Christopher, when is your next trip, sir? You do not ever seem to have jet lag. I have seen you have jet lag one time since I have known you. When are you leaving on another trip?

Secretary CHRISTOPHER. I will be going with the President when he goes next April first to Japan and then on to Moscow for the nuclear summit.

And I will be breaking off from that trip to go to the Netherlands to meet Li Chen Chi Chen, the Chinese Foreign Minister. So I think I will be keeping up my frequent flyer miles, Mr. Chairman.
The CHAIRMAN. Very good. [Laughter.]

Now, I do not believe, Mr. Secretary, that the failure on the part of the Russians to implement the Bilateral Destruction Agreement can be attributed to any economic difficulty. That has been suggested, but I just do not believe it.

I believe that even if finances were not such a problem, that Russia would not implement the CWC. Instead, I understand that the key elements of the Russian leadership favor retaining a chemical weapons program.

I have here a Russian document, as published by the Ministry of Defenses Military Journal, in which General Petrov—have you met him?

Secretary CHRISTOPHER. General who?

The CHAIRMAN. Petrov, P-e-t-r-o-v.

Secretary CHRISTOPHER. Yes.

The CHAIRMAN. He is chief of the Russian chemical and biological weapons forces, and he wrote that even if requirements of the Chemical Weapons Program are fulfilled and these weapons are subsequently destroyed, we, meaning Russia, cannot completely rule out the possibility of using them or seeing them used in armed conflicts.

Now, who in the Russian leadership do you think supports cheating on CWC? And in the light of this statement of this military leader of Russia, do you favor shelving the Bilateral Destruction Agreement?

Secretary CHRISTOPHER. I have talked to a good many people in the Russian military, Russian Ministry of Defense, about a lot of issues, including chemical weapons.

And some of them are very much opposed to Russia entering this CWC Treaty. They feel that the chemical weapons are an important asset the Russians have.

I would observe a fact which you know, that the Russians have the largest supply of chemical weapons of any nation in the world today, and they are reluctant to give up that capability.

From my point of view, that is all the more reason for pushing to try to get this CWC and to get the Russian Government's agreement.

The point that you raised suggests that there is enough negative view in Russia about this, they might not agree to ratify a CWC Treaty. But if they agree to it and if they ratify it, then I believe they will comply with it, and I believe that we will have the means to determine compliance.

The dangers of compliance here, the verification dangers are largely with small-scale production in secret facilities. It is not primarily tied to the huge stock and the huge production facilities which the Russians have and which we are already well aware of.

So if they agree to ratify this treaty, I believe this will be a major step forward. But I do know that many people in Russia do not favor the treaty, and therefore it is entirely possible that they might not ratify it.

The CHAIRMAN. Well, I am talking about the Bilateral Destruction Agreement. Now Russia is absolutely flat out refuses to agree to that.
Secretary CHRISTOPHER. Yes. To my knowledge, Senator Helms—
The CHAIRMAN. I just wanted to know if you knew anybody else in the Russian administration.
Secretary CHRISTOPHER [continuing]. Their slowness in proceeding on the Bilateral Destruction Agreement has to do with the cost and the technical difficulties of affecting the destruction. We have ongoing and very serious and very intensive technical discussions with them about the ways of affecting that destruction.
It is expensive. It is costly. It is complex. And I might, also say there is a technical disagreement among people both in this country and in Russia as to the best way to destroy the chemicals in incineration or several other competitive techniques.
The CHAIRMAN. Now, let me raise another question. The Vice Chairman, or former Vice Chairman, of the Joint Chiefs, Admiral Owens, put forward a plan to cut $805 million from counternproliferation support and chemical and biological defense programs through fiscal year 2001.
Now, does that initiative bode well for the maintenance of robust chemical defenses? Do you agree with what the admiral said?
Secretary PERRY. I am familiar with the admiral's recommendation. I have, from my first day in the Defense Department, strongly supported our counternproliferation programs and will continue to support them, notwithstanding that recommendation.
The CHAIRMAN. Well, I think it is critical for the U.S. military, and I am concerned, as you are, as all of us are, about their safety and so forth.
Since I am the last one, I wanted to ask Secretary Christopher a question. So I think I perhaps have satisfied that one.
General CLARK. Thank you, Mr. Chairman.
The CHAIRMAN. I am concerned at the administration's interpretation of the CWC's provisions concerning riot control agents will require the use of deadly force in situations where currently humanitarian considerations and the safety of our armed services personnel would dictate the use of tear gas.
Now, I understand that at least until June 1994, the sentiment within the Department of Defense was opposed to any change through Executive Order 11850, which regulates the use of riot control agents war.
I would ask you, if you will, sir, to discuss the administration's policy on riot control agents, and say for the record here whether there is any concern among the Joint Chiefs or the staff that this new interpretation will put the lives of U.S. servicemen and non-combatants at risk.
General CLARK. Well, thank you, Mr. Chairman. It is a very important question, and it is one that we considered in great depth with the Joint Chiefs over the past 2 years. The military would always like to keep as many options available as possible.
And as I stated on behalf of General Shali in the opening statement, we initially preferred to keep all four uses of riot control agent that were stated and authorized in Executive Order 11850.
During the process of the negotiation of the Chemical Weapons Convention with our allies, we had many discussions about this. Essentially, the prevailing legal opinion was that in two of those instances it could be construed—that is, when riot control agents were used in conjunction with opposing combatants, either in the downed pilot rescue or in the mixing of noncombatants and combatants in a human shield situation—it could be construed that we were using riot control agents as a method of warfare.

In addition, there was concern expressed that the use of riot control agents on the front line, so to speak, in areas not under U.S. control might be misinterpreted by adversaries to indicate that this was the initiation of chemical warfare by our own side.

And we looked at that. We looked at what the other possibilities were to handle those two situations, not only the use of lethal force, but also the use of other nonlethal technologies, sticky foam and other types of nonlethal technologies, which we applied in Somalia last year with some very good effects.

And we considered what the significance of that was, trying to retain those two additional uses versus the overall benefits for the U.S. Armed Forces of the adoption of the Chemical Weapons Convention.

The Joint Chiefs on two occasions considered this issue in depth and on both occasions determined that they preferred overall the adoption of the Chemical Weapons Convention, even acknowledging that there would be these two specific instances listed from the previous Executive order in which riot control agents would not be used.

I might point out that there are still many opportunities for the use of these riot control agents. For example, in Somalia, in peacekeeping operations, under chapter 6, chapter 7, U.N. operations, of course, the provisions of this Convention do not apply, and we would be able to use riot control agents, and, as Dr. Perry mentioned in his opening statement, in a number of domestic situations and so forth.

The CHAIRMAN. Are you referring, also, to Bosnia?

General CLARK. In Bosnia, under—

The CHAIRMAN. Do the rules for engagement of our forces in Bosnia call for the use of riot control agents?

General CLARK. I want to confirm that for the record. But it is my understanding that we could use riot control agents in Bosnia.

The CHAIRMAN. Very well. Well, I promised to get these distinguished gentlemen out of here so they could make an 11:30 a.m. appointment.

I want you to know that all of us appreciate very much your coming. It is always a pleasure to see you. And you keep on supporting the Navy and the Air Force and the Army and the Marines.

Secretary PERRY. And the Marines, yes, sir.

The CHAIRMAN. And the Coast Guard. Any other nominations? Merchant Marine? No. That is not under your purview.

Thank you very much.

Secretary PERRY. Thank you, Mr. Chairman.
The CHAIRMAN. The Chair will instruct that the record be kept open for 24 hours so that questions may be filed by Senators not present or who wish to file additional questions.

[The information referred to may be found in the appendix.]

The CHAIRMAN. Senator Pell?

Senator PELL. Thank you, Mr. Chairman.

Mr. Holum, the President has determined that the National Authority, the entity responsible for the enforcement of this Convention, for involvement in the Chemical Weapons Convention, will be housed in your agency, the ACDA.

Would you spell out for me what the National Authority's responsibilities will be, how many people would be involved, what kind of budget you would need?

Mr. HOLUM. The Office of National Authority has the basic job of serving as the liaison between the United States and the international authority that will implement the Convention, the Organization for the Prohibition of Chemical Weapons.

So we will be the interface, working with the Department of Commerce, which will in turn work with U.S. industry.

We anticipate that the number of people involved will be relatively small, 10, 15, in that range, in this activity, because it will be relying very heavily on the activities of the Department of Commerce and their relationship with industry to begin with.

So it will not be a large institution, but it is a vitally important part of the process.

Senator PELL [presiding]. Did I hear you correctly to say that it would be about 10 or 15 people would be the National Authority?

Mr. HOLUM. That is approximately the range. We are not fully set up for this. We will be ready to go when the Convention enters into force.

Senator PELL. And what kind of budget do you see yourself needing?

Mr. HOLUM. Roughly $1.7 million, in that range.

Senator PELL. I would like to ask Mr. Carter if he could describe to our committee the efforts the Pentagon is making to assess the potential value of the nonlethal weapons where riot control agents might be used that were not prescribed by the CWC.

I find myself quite interested in the research into the development of nonlethal weapons which can have the same eventual effect and still avoid the loss of life.

Mr. CARTER. Yes, Senator. We are researching and actually have available for field nonlethal methods. The general gave an example in the form of sticky foam. And we have had some experience in the employment of those nonlethal agents.

And with your leave, I would ask General Clark to comment on that experience, particularly in Somalia.

Senator PELL. If you would give us a few examples of nonlethal weapons, I think it would be of interest.

General CLARK. Senator, we are looking at five categories of nonlethal weapons. These are in various stages of research and discussion and policy formulation. And some have been fielded for use in various circumstances.
Acoustic, microwave, entanglement nets, aqueous foam, and sticky foam are the five categories. I will just describe each one of those, if I might.

The acoustic weapons are low frequency sound waves that can cause temporary physical discomfort by inducing nausea and breathing difficulty.

The microwaves are electromagnetic emissions that temporarily cause internal discomfort. The entanglement nets are webs of strings that impede mobility of personnel by wrapping around their bodies.

Aqueous foam is large volumes of a very light foam that engulfs individuals to reduce their visibility. And sticky foam is a dense, sticky substance sprayed on the lower extremities of persons, which makes it impossible for them to walk or stand up.

As I said, they are in various stages of research and development and, in some cases, fielding.

Senator PELL. Did our experience in Somalia teach us anything of value about the nonlethal weapon?

General CLARK. Well, it did. It—and I cannot give you the full details. I am not prepared to do that. I will provide those for the record, if I could, Senator.

But I would say that in my personal discussions with the personnel who were there, they said that they were able to train and bring these nonlethal weapons with them and, on at least one occasion, used them. And they felt they used them to good effect.

Senator PELL. I would be grateful if you would send us written support of that statement.

General CLARK. I certainly will.

[The information referred to follows:]

A variety of nonlethal weapons were deployed to Somalia, to include pepper spray, CS (Tear Gas), aqueous foam and sticky Foam. These agents were successfully employed and proved to be very effective.

Pepper spray was the most readily available agent and was successfully employed on a number of occasions to disperse potentially dangerous crowds and subdue individual aggressors. CS was used under similar situations, on a less frequent basis, with only one documented use by U.S. forces.

Aqueous foam was used in its concentrated form on gates and roadways to impede the movement of hostile Somalis. Sticky foam was also used on gates and fences, to enhance the defensive positions of U.S. troops. Neither aqueous foam nor sticky foam was employed against personnel.

Senator PELL. That answers my questions.

PREPARED STATEMENT OF SENATOR FEINGOLD

One of the very first questions I asked as a member of the SFRC came at Secretary Christopher's 1993 confirmation hearing and I urged then that the Administration work hard for the ratification of the Chemical Weapons Convention (CWC). So I am pleased to see Secretary Christopher and the other witnesses here carefully addressing the remaining concerns of this Committee.

I applaud the Chairman for calling these hearings and moving this treaty forward. We have a matter before us beyond partisan politics; this treaty could affect the lives and fortunes of American soldiers on some future battlefield. It could impact on the ability of terrorists to obtain the essential ingredients of the "poor man's atom bomb."

There are areas in the treaty for legitimate concern, such as the chemical weapons programs of non-signatory rogue states, verification and perhaps a weak sanctions regime.

I am hopeful that the witnesses can shed some light on these problems and suggest solutions. If the treaty is flawed, let us see what can be done to fix it. But my own view is that none of the objections are irremedial. While not perfect, the CWC
does add another tool to the effort to assure future generations that there will be no repeat of past nightmares.

Senator PELL. At the request of the chairman, the committee is recessed pending the call of the chairman.

[Whereupon, at 11:35 a.m., the committee adjourned, to reconvene subject to the call of the Chair.]
APPENDIX

MARCH 28, 1996

RESPONSES OF SECRETARY CHRISTOPHER TO QUESTIONS ASKED BY CHAIRMAN HELMS

Question 1. Which countries does the United States assess as: (1) currently possessing or developing a chemical weapons capability; (2) previously having engaged in chemical weapons activities; and (3) possessing the capability to develop chemical weapons?
Answer. [Classified.]

Question 2. Please identify those countries which produce chemicals named in the Australia Group's list, and identify which Australia Group chemical(s) those countries are capable of producing.
Answer. A large number of countries worldwide produce at least one of the 54 dual-use precursor chemicals on the Australia Group's export control list. Most of these same countries also are capable of expanding their current production to include more of the 54 AG chemicals, and potentially all of them. For more specific information on national production of Australia Group chemicals, please see the Chemical Weapons Reference Guide, volumes 1, 2, and 3 (Institute for Defence Analyses, June 30, 1995).

Question 3. The Intelligence Community has identified several “countries of concern” which possess “aggressive” chemical weapons programs. Please identify these countries? Which “countries of concern” have not signed the CWC?
Answer. [Classified.]

Question 4. Has any non-European country ever suspected of possessing chemical weapons ratified the CWC at this time? If so, who?
Answer. [Classified.]

Question 5. The Central Intelligence Agency stated in a report in March, 1995, that “some CW-capable countries that have signed the CWC show no signs of ending their programs.” Which countries do you believe are likely to join the CWC but are unlikely to forego their offensive chemical weapons programs? Which countries are likely to forego their programs?
Answer. [Classified.]

Question 6. Some have suggested that international inspections in Iraq represent the most intrusive level of access imaginable into a country’s chemical and biological weapons programs. Yet those inspections did not uncover evidence that was revealed only with the defection of a key Iraqi official. What obstacles encountered by UNSCOM diminished the effectiveness of the inspection regime? How would such obstacles affect the CWC’s inspection regime?
Answer. While the UNSCOM inspections in Iraq have not produced a “smoking gun,” they have provided a wealth of information that augments our previous knowledge and confirms the existence of chemical and biological weapons activity. Although a violator may not deliberately allow a “smoking gun” to be found, challenge inspections will contribute significantly to our compliance judgments. In this regard, non-cooperation of States Parties will be taken into account. The inspection team report will contain not only the factual findings of the inspection but also an assessment of the degree and nature of access and cooperation granted. Our judgment about the compliance of the inspected State Party will rest upon an accumulation of information, e.g., information provided by the challenging State Party, the extent of cooperation by the inspected State Party, information from the inspection and alternative means offered, and U.S. national intelligence.

Question 7. Is it correct that an inspected party may take up to six days to provide inspectors with access to an inspection site during a challenge inspection? What could be accomplished during such a delay and with the “managed access” provi-
sions accompanying challenge inspections to diminish the possibility that evidence of noncompliance activities might be found?

Answer. No, it is not correct that an inspected party may take up to six days to provide inspectors with access to an inspection site during a challenge inspection. The CWC requires the OPCW to provide an inspected State Party a minimum of 12 hours notice prior to the arrival of the inspection team at the point of entry (POE). For declared facilities, the inspected party must transport the inspection team to the site within 24 hours after arrival of the inspection team at the POE and grant access to the site within 27 hours after arrival of the inspection team at the POE. For undeclared facilities, the inspected party must transport the inspection team to the site within 36 hours after arrival of the inspection team at the POE and grant access within the perimeter of the site within 108 hours (4.5 days) after arrival of the inspection team at the POE.

The CWC’s challenge inspection provisions balance competing interests—the right to protect sensitive non-CW related information on the one hand and, on the other, the obligation to satisfy compliance concerns. Specifically, the provisions of the CWC allow inspected States Parties to manage access during challenge inspection in a manner that protects sensitive non-CW-related information. If a State Party restricts access, it is obligated to make every reasonable effort to provide alternative means to satisfy the compliance concern that generated the inspection request.

Although a violator may not deliberately allow a “smoking gun” to be found, challenge inspections will contribute significantly to our compliance judgments. In this regard, non-cooperation of States Parties will be taken into account. The inspection team report will contain not only the factual findings of the inspection but also an assessment of the degree and nature of access and cooperation granted. Our judgment about the compliance of the inspected State Party will rest upon an accumulation of information, e.g., information provided by the challenging State Party, the extent of cooperation by the inspected State Party, information from the inspection and alternative means offered, and U.S. national intelligence.

A U.S. official who led UNSCOM inspections in Iraq has noted with regard to the question of timely access and non-cooperation that while you cannot directly compare the experience of inspection in a country defeated in war with voluntary acceptance of inspections (with rights to protection) under the CWC, there are some salient points to be made. “It is not true that inspections must be no-notice whatsoever in order to have a chance in detecting a violation. And it is certainly not true that a verification exercise in which the inspector intentionally reveals nothing is likely to be futile. Iraq had months to clean up the many sites that were candidates for inspection. A trained inspector will not have difficulty in knowing when something is not quite right. We could determine which facilities had legitimate enterprises and which had significant evidence to indicate a cover-up or situation for which the explanations given were not entirely convincing. Suspicious activities can be readily discerned and it is then up to the inspected State Party to demonstrate their professed compliance. Furthermore, I would argue that it is short-sighted to demand a smoking gun as a measure of success in catching a cheater. The inspections centering on the Iraqi biological warfare program did not uncover the “smoking gun” many had expected or hoped for.* * * However, the facts in evidence and an assessment of the findings did provide a picture of where the Iraqis were in this effort, along with a reasonable determination of where they were headed.”

A basic tenet of the CWC is that the requirement, as well as the right, to make every effort to satisfy compliance concerns, rests with the inspected State Party. Its ability or inability to do so will facilitate compliance judgments by other States Parties to the Convention.

Question 8. Are all chemicals usable as chemical weapons precursors, or as chemical weapons, covered by Schedule 1 of the CWC? If not, which chemicals not covered would be suitable for use as either chemical weapons or as precursors?

Answer. [Classified.]

Question 9. Are any potential chemical weapons agents or precursors not listed on any of the CWC’s Schedules? If so, please identify these chemicals and their commercial use as well as their chemical weapons related uses.

Answer. The attached chart describes the CW and commercial uses of the 20 AG chemicals not on the CWC Schedules, but does not include all non-scheduled chemicals which can be used for CW production, e.g. those referenced in Answer 8.
<table>
<thead>
<tr>
<th>Chemical</th>
<th>Commercial uses *</th>
<th>Military uses</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-Hydroxy-1-methylpiperidine</td>
<td>Reagent in manufacture of pharmaceuticals and bleach precursors.</td>
<td>Not identified.</td>
</tr>
<tr>
<td>Potassium fluoride</td>
<td>Catalyst; Glass frosting and etching; Reagent for various chemical processes.</td>
<td>GB, GD, GF.</td>
</tr>
<tr>
<td>2-Chloroethanol</td>
<td>Agent used to sprout potatoes; Catalyst for olefin polymerization; Reagent for various chemical processes.</td>
<td>HD, Q, Nitrogen mustard (HN–1).</td>
</tr>
<tr>
<td>Dimethylamine (DMA)</td>
<td>Acid gas absorbent; Additive in electroplating and antioxidants; Reagent for various chemical processes.</td>
<td>GA.</td>
</tr>
<tr>
<td>Dimethylamine hydrochloride</td>
<td>Ingredient in ink-jet printing solutions; Reagent for various chemical processes.</td>
<td>GA.</td>
</tr>
<tr>
<td>Hydrogen fluoride</td>
<td>Solvent extraction; Catalyst in petroleum alkylation process; Reagent for various chemical processes.</td>
<td>GB, GD, GE, GF.</td>
</tr>
<tr>
<td>Methyl benzilate</td>
<td>Additive to polyurethane; Reagent for various chemical processes.</td>
<td>BZ.</td>
</tr>
<tr>
<td>3-Quinuclidone</td>
<td>Coating stainless steel with silicone; Reagent for various chemical processes.</td>
<td>BZ.</td>
</tr>
<tr>
<td>Pinacolone</td>
<td>Separation of impurities from acrylic acid; Reagent for various chemical processes.</td>
<td>GD.</td>
</tr>
<tr>
<td>Potassium cyanide</td>
<td>Cataly&gt; for benzoin condensation; Fumigating agent; Reagent for various chemical processes.</td>
<td>GA, Hydrogen cyanide.</td>
</tr>
<tr>
<td>Potassium bifluoride</td>
<td>Agent for etching, frosting and polishing glass.</td>
<td>GB, GD, GF.</td>
</tr>
<tr>
<td>Ammonium bifluoride</td>
<td>Agent to frost or polish glass; Reagent for various chemical processes.</td>
<td>GB, GD, GF.</td>
</tr>
<tr>
<td>Sodium fluoride</td>
<td>Agent used in fluoridation; Component of laundry sours; Reagent for various chemical processes.</td>
<td>GB, GD, GF.</td>
</tr>
<tr>
<td>Sodium bifluoride</td>
<td>Agent used in biological specimen preservation; Component of laundry sours; Reagent for various chemical processes.</td>
<td>GB, GD, GF.</td>
</tr>
<tr>
<td>Sodium cyanide</td>
<td>Agent used for mineral flotation; Fumigation agent; Reagent for various chemical processes.</td>
<td>GA, Hydrogen cyanide, Cyanogen chloride.</td>
</tr>
<tr>
<td>Phosphorus pentasulfide</td>
<td>Ingredient in pyrotechnic compositions; Reagent for various chemical processes.</td>
<td>VG, VX.</td>
</tr>
</tbody>
</table>
Question 10. Will the verification system of the CWC be confined to the Schedules of chemicals and relevant facilities? What are the implications of such a limitation?

Answer. No, the verification system of the CWC will not be confined to the Schedules of chemicals and relevant (declared) facilities. The CWC's verification provisions constitute the most comprehensive and intrusive verification regime ever negotiated, covering virtually every aspect of a CW program, from development through production and stockpiling. These provisions provide for access to both declared and undeclared facilities and locations, thus making clandestine CW production and stockpiling more difficult, more risky and more expensive.

Under the Article II definition of a chemical weapon, all toxic chemicals and their precursors “except where intended for purposes not prohibited under this Convention,” are captured by the Convention's prohibitions on development, production, stockpiling, and use. Paragraph 2 of Article II also notes, parenthetically, that toxic chemicals which have been identified for the application of verification measures are listed in the Annex on Chemicals. While the Schedules contain, inter alia, the chemical agents traditionally and/or currently used in chemical weapons, it is paragraphs 1 and 2 of Article II, not a listing on the Schedules, that define which chemicals are considered to be “chemical weapons” for purposes of the Convention. This ensures that the prohibitions and verification measures related to chemical weapons are not limited to those chemicals listed in the Schedules. While routine inspections will likely focus on the Schedules, the overall verification regime is broader in scope, providing mechanisms for investigating any CW activities, whether they involve Scheduled or un-Scheduled chemicals. This will enhance both deterrence and detection of prohibited activities.

The CWC also captures new chemicals of concern and novel CW agents under the definition of a “chemical weapon.” As new CW agents are identified and as new technology emerges and experience is gained, the lists of chemicals subject to declaration and verification can be expanded to improve verification.

Question 11. Are all of the chemicals named in the Australia Group’s list covered under Schedule 1 or 2 of the CWC? If not, which chemicals are not covered?

Answer. Some 23 of the Australia Group (AG) list chemicals are covered under the CWC Schedules 1 and 2, and 11 others are covered under Schedule 3, leaving 20 AG list chemicals not on the CWC Schedules. For the list of those chemicals, please see Answer 9.

Question 12. Please detail for the Committee the specific provision of the Convention, actions of the Preparatory Commission, and efforts in the development of the National Authority intended to safeguard proprietary information?

Answer.

Provisions of the Convention

At the request of the chemical industry, the Chemical Weapons Convention contains provisions designed to protect confidential business information (CBI) from unauthorized disclosure. These provisions were developed during the treaty negotiations in Geneva with the active participation of the U.S. Chemical Manufacturers Association and other trade associations representing the international chemical in-
industry. The major chemical industry associations support the Convention and believe that treaty compliance will not pose an undue burden on industry.

The CWC protects against the loss of proprietary information through a number of provisions. The key provisions of the Convention are found in Article VI (Activities Not Prohibited Under the Convention) and its related parts in the Verification Annex (Part II: General Rules of Verification, Part III: General Provisions for Verification Measures Pursuant to Articles IV, V and VI, Part VI-VIII which sets forth the Regimes for declarations, inspections and transfers of Schedules 1, 2 and 3 respectively, and Part IX: Regime for Declaration and Verification of Other Chemical Production Facilities). Also the provisions in Article IX and relevant Verification Annex Part X dealing with challenge inspections provide protection against loss of sensitive non-CW related information. Finally, the Annex on the Protection of Confidential Information, known as the “Confidentiality Annex,” specifically provides for the handling of confidential information, relevant aspects of employment and conduct of personnel, measures to protect sensitive installations and prevent disclosure of confidential data in the course of on-site verification activities, and procedures in case of breaches or alleged breaches of confidentiality. These provisions of the Convention for routine and challenge inspections and for the handling and dissemination of information by OPCW personnel provide protection in a number of ways.

With regard to routine inspections, CBI can be safeguarded though the facility’s opportunity to request that a facility agreement negotiated with the CWC international organization specifying the nature of access and the information to be collected in routine inspections. The inspection team need not be granted access to commercially sensitive areas unrelated to the CWC or to data that do not contribute directly to the verification of CWC compliance. We consider categories of information generally falling outside the scope of the routine inspection regime to include proprietary information such as technical details of the production process (e.g., temperature, pressure or catalysts) and marketing information. Inspected facilities can store sensitive documents that the inspection team must consult repeatedly (e.g., photographs, process flow charts, or notebooks) in a safe located at the facility. The inspected facility also has the right to take requested photographs or samples instead of the inspection team. The inspected State Party has the right to inspect any instrument used or installed by the inspection team and to have it tested in the presence of representatives of the inspected State Party.

Under challenge inspections, States Parties have the right and ability to manage access to their facilities by negotiating the extent and nature of access within the site (beyond that provided under routine inspections at declared facilities), the activities of the inspection team and the inspected State Party’s activities and provision of information. States Parties also have the right to take steps to prevent disclosure of sensitive information not related to chemical weapons, through, e.g., shrouding. In the event access is restricted, Parties are required to take steps to provide alternative means to clarify compliance concerns.

The Confidentiality Annex provides, inter alia, procedures for States Parties to designate sensitive information requiring special handling and to have their concerns about breaches of confidentiality investigated. Furthermore, the Annex provides for the establishment of levels of sensitivity of confidential data or documents, based on uniformly applied criteria, in order to ensure appropriate handling and protection of sensitive information.

Access to confidential information is to be regulated in accordance with classification, and the dissemination of such information within the Organization will be strictly on a need-to-know basis. The Annex requires the Preparatory Commission to develop a classification system for approval by the Conference of the States Parties after the Convention enters into force. The Annex further provides procedures for governing the protection and release of information and procedures for punitive action against employees who violate these rules.

During the negotiations, many of the negotiating countries performed national trial inspections to provide an experience base upon which to develop effective inspection provisions. The U.S. conducted four national trial inspections at commercial industry facilities. These trial inspections proved to be both effective and realistic in the inspection provisions of the Convention but to facilitate development of provisions protecting industry concerns.

The Preparatory Commission

As noted above, the Confidentiality Annex requires the Preparatory Commission to, inter alia, develop a classification system for approval by the Conference of the States Parties after the Convention enters into force. The Preparatory Commission is working on such a system as well as developing detailed procedures to follow in cases of an alleged breach of confidential information and procedures for the protec-
tion and dissemination of confidential information. As with all the work of the Pre-
paratory Commission, its recommendations must be approved by the Conference of
the States Parties after the Convention enters into force.

With regard to other industry-relevant work of the Preparatory Commission,
members of U.S. industry are directly involved in the elaboration of technical proce-
dures for declarations and inspection of chemical industry both in The Hague and
in Washington.

The National Authority

On May 24, 1995 the Administration submitted to Congress the proposed "Chemical
Weapons Convention Implementation Act of 1995." During the development of
the proposed Act, comments were solicited from industry, specifically the Chemical
Manufacturers Association (CMA) and twelve other industry associations, as well as
from staffs of the Congressional committees responsible for foreign relations, the
armed forces, the judiciary, and intelligence matters.

The proposed Act requires the President to establish the National Authority and
contains provisions authorizing the U.S. Government to collect information from
members of industry as required by the CWC. The proposed Act also prohibits the
public disclosure of information obtained pursuant to declarations or inspections, in-
cluding disclosure through the Freedom of Information Act, except to the Organiza-
tion for the Prohibition of Chemical Weapons (OPCW), to appropriate committees
of the Congress, for law enforcement purposes, and when disclosure is determined
to be in the national interest. Significant civil and criminal penalties are provided
for unauthorized disclosures. At the same time, the Act also outlaws the failure to
provide such information and materials, and provides penalties for those who refuse
to do so.

We continue to involve the U.S. chemical industry in the Prep Com's work elabo-
rating technical procedures for inspection and declarations and to conduct extensive
outreach programs to industry. We have conducted regional educational seminars
for industry and have contacted companies individually and through trade associa-
tions to familiarize them with their obligations under the CWC and to help them
prepare for declarations and inspections. Additionally, we have made available to
industry and Congress a series of papers on the provisions of the Convention affect-
ing and protecting industry.

Question 13. What loopholes, if any, exist despite these safeguards that would
allow confidential business information to be compromised?

Answer. As discussed in answer 12, the CWC and the proposed implementing leg-
islation provide a wide variety of protections against the loss of confidential busi-
ness information. While these protections cannot guarantee that there will be no un-
authorized release of confidential business information, the Administration believes
that by restricting access to such information and imposing severe penalties on indi-
viduals who engage in such activities, the risk of confidential business information
being released will be minimized to the greatest extent possible.

Question 14. What risks do challenge inspections pose to the confidentiality of
trade, industry, or national security secrets? What risks do routine inspections pose?

Answer. CWC challenge and routine inspection procedures have been specifically
designed to protect the confidentiality of trade, industry and national security infor-
mation unrelated to chemical weapons.

Challenge inspection procedures incorporate the need to protect sensitive non-CW
related information through "managed access," which allows Parties to negotiate the
extent and nature of access, including sampling, within an inspected site. This in-
cludes the right of the inspected Party to take such measures as are necessary to
protect sensitive information unrelated to the Convention. If less than full access
is provided, the inspected Party must make every reasonable effort to provide alter-
native means to address the concern which prompted the inspection.

Routine inspection procedures protect industry by limiting the number of these in-
spections that a facility can receive in a year, providing advance notification of in-
spector arrival, limiting the duration of inspections, and restricting the scope of in-
spection to the minimum necessary to verify CWC compliance. Inspections must also
be carried out in a manner designed to minimize their impact on facility operations;
for instance, inspectors are not permitted to operate facility equipment. The CWC
also provides for the conclusion of facility agreements outlining procedures for rou-
tine inspections at declared facilities.

The CWC also safeguards information collected by the OPCW, including by pro-
viding for punitive action against employees who violate rules against disclosure.
The Administration's proposed CWC implementing legislation adds further protec-
tion for confidential business information provided by industry to the Federal Gov-
ernment for transmission to the OPCW.
**Question 15.** Please provide a detailed assessment of all anticipated costs that the CWC will impose upon individual firms.

**Answer.** Exact costs to industry are not yet known, but will depend on: 1) the number of affected companies, 2) the number of inspections per year, 3) the nature of reporting forms; 4) the amount of preparation each company undertakes for implementation.

Assuming that roughly 3,000 plants in the U.S. are covered by the CWC, that 30–60 routine inspections occur per year in the U.S., that current reporting forms are used, and prudent preparations are made by companies for inspection, we estimate the overall cost to U.S. industry will be approximately $4 million the first year, with reductions thereafter.

**Question 16.** Will industry data submitted annually to the National Authority be subject to Freedom of Information Act requests?

**Answer.** Subsection 302(a) of the proposed “Chemical Weapons Convention Implementation Act of 1995,” provides, with certain exceptions, for an extensive prohibition on the public disclosure of information obtained from declarations or inspections required under the CWC. The term “information” is intended to include such things as data obtained during inspections; data contained in data declarations, facility agreements or internal compliance programs; or data submitted for the purpose of consideration of or concerning applications for permits. The term “disclosure” is intended to make clear that the exchange of information between government agencies and departments is not covered by this provision.) This provision is designed to provide the chemical industry and any other persons affected by declarations and inspections under the CWC with the greatest amount of protection for their information possible. Specifically, this provision is intended to make clear that information obtained from declarations or inspections shall not be required to be disclosed pursuant to the Freedom of Information Act, and may be disclosed only in accordance with the criteria set forth in the provision.

Subsection 302(b) of the proposed Act provides for four exceptions to the extensive prohibition on disclosure: disclosures to the Organization for the Prohibition of Chemical Weapons (OPCW), disclosures to appropriate Congressional committees and subcommittees, disclosures to agencies and departments for law enforcement purposes, and disclosures determined to be in the national interest.

**Question 17.** Does the Administration believe the U.S. Government should assume liability for the release of proprietary information either by the National Authority or by the OPCW?

**Answer.** The principal method chosen by the U.S. Government to address the issue of liability for any wrongful acts of National Authority or Technical Secretariat personnel has been to create provisions in the Chemical Weapons Convention and the proposed implementing legislation that have as their purpose the prevention of the acts in the first place. For example, the CWC's verification regime contains a number of provisions for protecting sensitive information unrelated to the CWC. These include: the right of the inspected facility to have a facility agreement specifying the nature of access and the information to be collected in routine inspections; the right of the United States to manage access in challenge inspections; and the right of the inspected facility to take requested photographs or samples instead of the inspection team.

The Administration's proposed “Chemical Weapons Convention Implementation Act of 1995” provides, with limited exceptions, for an extensive prohibition on the disclosure of information obtained from declarations or inspections required under the CWC. This provision is designed to allow the U.S. Government to withhold CWC-related information from requests for disclosure under the Freedom of Information Act.

Finally, U.S. firms and individuals may seek legal recourse against inspectors and other Technical Secretariat personnel for their unlawful action if the Director-General of the Technical Secretariat waives their immunity from suit in U.S. courts for their official acts, as provided for in Part II(14) of the Annex on Implementation and Verification and paragraph 20 of the Confidentiality Annex of the CWC.

**Question 18.** What procedures, if any, should the U.S. Government and the OPCW establish to permit private industry or institutions to obtain monetary recompensation for loss of proprietary information?

**Answer.** See Answer 17.

**Question 19.** Will data collected to fulfill treaty reporting requirements be forwarded to the OPCW in aggregate form, or will plant-specific data be made available to the OPCW?

**Answer.** The CWC requires an initial declaration containing this information from States Parties 30 days after the CWC enters into force followed by annual updates. Specific site information on facilities that exceed threshold reporting requirements...
for scheduled and discrete organic chemicals is required. Site information includes
the plant name and ownership, its location, main activities and information on each
scheduled chemical declared.

The site-specific data declarations will be compiled by the U.S. National Authority
into a U.S. National declaration with aggregate quantities of declared chemicals as
well as specific information on where and why the chemicals were produced. The
CWC provides for special handling by the OPCW of information that companies con-
sider sensitive. In addition, the Administration's proposed implementing legislation
includes provisions designed to protect confidential business information (CBI) from
unauthorized disclosure. (Answer 12 addresses specific protections in more detail.)

Question 20. Will the Administration support the maintenance of the Australia
Group if the Chemical Weapons Convention enters into force? Does the Administra-
tion believe the consensus of the AG will be maintained among the Australia Group members
if the CWC enters into force?

Answer. Yes, the Administration believes that the Australia Group (AG) still has
an important role to play in U.S. nonproliferation policy after entry into force of the
CWC. As appropriate, the AG will review, in light of the implementation of the
CWC, the measures that they take to prevent the spread of chemical substances and
equipment for purposes contrary to the objectives of the CWC. The Administration
is confident that the cohesiveness of the AG will be maintained after the entry into
force of the CWC.

Question 21. Will the CWC significantly reduce the threat of terrorist use of chem-
ical weapons?

Answer. It is difficult to predict what impact the CWC will have on actual terror-
ist use of chemical weapons, as the CWC was not designed to deal with this threat.
Nevertheless, certain aspects of the Convention, including its law enforcement re-
quirements and nonproliferation provisions, will strengthen existing efforts to fight
chemical terrorism. Implementing legislation required by the CWC will impose pun-
ishments for a broad range of illicit CW activities, including the development, acqui-
sition, production, possession, transfer, or use of chemical weapons and the knowing
provision of assistance to anyone engaged in these activities. It will also make the
public more aware of the threat of chemical weapons and of the fact that the acqui-
sition of such weapons is illegal. This will strengthen legal authority to investigate
and prosecute chemical terrorist, even before chemical weapons are used.

Nonproliferation provisions of the CWC will deny terrorists easy access to chemi-
cal weapons by requiring States Parties to eliminate national stockpiles and by
monitoring and controlling transfers of certain chemicals that can be used to make
chemical weapons. In particular, the CWC requires States Parties to cease transfers
of certain CW agents and CW precursor chemicals to non-States Parties and restrict
such transfers to States Parties. In addition, reporting is required on anticipated
production levels of all Scheduled chemicals and anticipated imports and exports of
Schedule 1 and 2 chemicals. These measures will help restrict access to key chemi-
cals, while also helping to alert law enforcement and government officials to sus-
picious activities.

Question 22. The Preparatory Commission (Prep Com) has been in operation for almost three years, although
it was originally assumed that it needed only two years to complete its work. Has
it completed all of the work specifically mentioned in the CWC and the Paris Reso-
lution? If not, what specific items remain to be completed? Why has there been a
delay?

Answer. The Preparatory Commission (Prep Com) has already completed a signifi-
cant portion of the work mandated by the CWC and the Paris Resolution. The re-
mainder is in the process of finalization or has been designated for action during
the final six months before entry into force of the CWC. While work still remains
to be done in the Prep Com, the Administration believes that prompt U.S. ratifica-
tion, continued active U.S. participation, and strong international support for the
Prep Com will ensure effective implementation of the CWC upon entry into force.

The main reason that the Prep Com’s mandated work is not yet complete is the
lack of a sense of urgency due to the slower than expected pace of ratifications. As
a result, some tasks, such as development of inspection procedures and advance
planning for inspector recruitment and training are close to completion but not yet
final. Completion of these tasks will not be excessively time consuming. We expect
that U.S. ratification will significantly increase the sense of urgency needed to en-
sure successful outcomes.

A number of other items will not be addressed until the date of entry into force
of the CWC is known, since they can be completed within the six month period be-
fore entry into force and might have to be redone if begun too soon, thus incurring
unnecessary cost. These include inspector training, certain staff recruitment and
equipment procurement actions, and final preparations for the first Conference of States Parties.

Two particularly complex tasks have taken more time than anticipated, but recent progress is encouraging. These are: 1) completion of agreements on housing for the Technical Secretariat of the Organization for the Prohibition of Chemical Weapons (OPCW) and 2) establishment of the information management system. The Preparatory Com has completed legal preparations for construction of the OPCW building as well as plans for interim accommodation. OPCW building construction is scheduled to begin in April 1996. The OPCW information management system will incorporate OPCW administrative, inspection planning and declaration data management systems. The U.S. delegation has provided technical assistance in this area; we are satisfied that the administrative and inspection planning elements of the system will be functioning effectively by entry into force. We are working with other interested governments on the development of the declaration data element of the system. Our goal is to ensure that the OPCW can function on the basis of a computerized data base rather than "hard copy" data declarations. This would avoid inefficiencies and afford a much more effective basis for handling and control of declaration data.

**Question 23.** Since the Preparatory Com uses the rule of consensus, what will happen if there is no agreement on some issues? Which, if any, of the unresolved issues are likely to make the verification regime less comprehensive or weaken it?

**Answer.** We expect that the administrative regulations and technical procedures being developed by the Preparatory Com will be ready for approval by the first meeting of the Conference of States Parties, after entry into force of the CWC. Although some delegation experts have suggested measures that would weaken the verification regime or make it less comprehensive, these efforts have received little support and are therefore unlikely to succeed. For instance, suggestions of ways to block a challenge inspection by adding new guidelines for assessing a request have failed to garner support. Another proposal to establish a new understanding regarding the definition of a chemical weapons production facility has also been rejected by a broad group of Preparatory Com participants on the grounds that it is not consistent with the provisions of the CWC.

Nonetheless, certain outstanding Preparatory Com tasks must be completed during the final six months before entry into force in order to ensure effective verification. These include inspector training, agreement on a proposed budget for the first year after entry into force, and equipment procurement. The most crucial aspect of Preparatory Com preparations for effective verification is the need for active participation and support from countries that have signed and ratified the CWC. In particular, U.S. ratification will spur action on these outstanding tasks and help generate the political impetus needed to resolve any disagreements on implementation details. The U.S. will continue to oppose any suggestions which might limit or weaken the verification regime.

**Question 24.** There seems to be some dispute as to the equipment that inspectors are allowed to use during inspections. What is the significance of this?

**Answer.** Based on requirements to fulfill inspection aims, the Preparatory Commission has developed equipment specifications. During this process, disagreements arose among experts regarding the specifications for certain pieces of equipment, including equipment to be used for safety and health purposes as well as equipment for chemical analysis of samples. Concerns were raised by some delegations regarding technical capabilities that should be permitted for this equipment and the possibility that this equipment could be used for purposes beyond the mandate of an inspection. These issues were resolved by developing specifications based on technical parameters that allow the inspectors to search for violations of the CWC, while also permitting the inspected State Party to exercise its rights under the CWC regarding protection of sensitive non-CWC information. Participation by the U.S. and other delegations in the Preparatory Com and later, in the OPCW, will ensure that the proper balances struck in the CWC between the rights of the inspection team and the inspected State Party are faithfully maintained.

The equipment specifications are now complete and have been published to solicit bids from international contractors. The bids are being reviewed and equipment will be tested to meet the agreed specifications before purchase. The Preparatory Commission will purchase the best possible equipment within its resource constraints and in accordance with agreed specifications.

**Question 25.** The Dutch government was to provide a tailor-made building for the OPCW. Is this now ready for occupancy? Has the rent substantially increased on this building? Is the Administration aware of any other circumstances of cost overruns, inefficiency, mismanagement, nepotism, or corruption in the operation of the Preparatory Com/OPCW? If so, please provide details.
Answer. The Dutch government is currently providing an office building, at no charge, to the Provisional Technical Secretariat (PTS) of the Preparatory Commission for the OPCW. A Preliminary Tenancy Agreement, between the new building developer and the Executive Secretary of the PTS, for the construction of a new building for the OPCW was signed March 19, 1996. Concurrently, Dutch officials and representatives of the developer signed financial guarantees and a development agreement for the new building, clearing the way for construction to begin as early as the end of April. This would allow for scheduled occupancy of the new building in January or February 1998. The rent on the new building will be in accordance with the Tenancy Agreement and will be adjusted to market level at the end of each lease term. Some additional interim office accommodations will be required for the PTS/OPCW, just prior to and immediately after entry into force of the treaty, before the new building is completed. The PTS is currently undertaking discussions with the owner of a building adjacent to the current PTS offices regarding these interim accommodations.

Regarding the issue of potential cost over-runs, inefficiency, mismanagement, nepotism, or corruption, please see the answer to Question 26.

Question 26: Some have suggested that the OPCW is subject to the same mismanagement, misuse of funds, needless duplication, and nepotism that has characterized the United Nations. What steps has the Administration taken to ensure that U.S. funds are not being squandered?

Answer. Since the United States contributes nearly 25% of the Prep Com/OPCW budget, we have a vested interest in ensuring that they are economical, efficient, and effective. Therefore, the Administration closely scrutinizes the annual budget proposals, as well as the quarterly budget status reports.

The Administration has worked very hard to ensure that the Director of Administration for the Preparatory Commission/OPCW (PTS) is a U.S. citizen and is positioned to directly supervise Prep Com expenditures. The incumbent is a dynamic and experienced former managing partner at one of the leading U.S. accounting firms.

At U.S. insistence, the Prep Com put into place two other measures that will help ensure that swift corrective action will be taken against any cases of mismanagement, misuse of funds, needless duplication, and nepotism. The first is the expansion of the current internal audit office into a comprehensive inspector general function for the Prep Com/OPCW. The second is the establishment of a security office, headed by a highly qualified security specialist. The incumbent is a U.S. citizen.

In general, we believe that the PTS is a lean and tightly managed organization. As is the case with most new, rapidly growing organizations, there have been a few isolated management problems. In July 1995, the external auditor reported that his staff was unable to get complete and reliable data about the purchases made by the Information Systems Branch in 1994, and that records available at the time indicated that prescribed purchase procedures were not always rigorously followed. The problems in this branch were dealt with by replacing the management team.

Question 27: Are there any contentious definition-related issues related to the CWC that remain unresolved? What are they? Which countries are pressing for definitions contrary to those put forward by the United States? Why are they doing so?

Answer. There are very few contentious definition-related issues in the CWC that remain unresolved. Iran has stated that the CWC’s definitions of “chemical weapons” and “equipment designed for use directly in connection with chemical weapons” are unclear. Other States Parties have attempted to clarify the definition as it is set out in the CWC and we believe that Iran’s concerns will be resolved as declaration guidelines are finalized. Russia has expressed concern about the verification costs for chemical weapons production facilities and has proposed a new, narrower approach to the definition and verification of such facilities. Prep Com members question Russia’s willingness to address the economic concerns said to underlie their position and the Russian position has been rejected by other Prep Com participants.

All of these ideas have been opposed by other Prep Com participants because they would alter the basic provisions of the Convention. The presence and active participation of the U.S. and many other committed delegations has been a critical factor in ensuring that the framework established by the CWC is respected and that a sound basis for effective implementation is maintained.

Question 28. Has the CWC’s requirement that the OPCW’s Director General should dispatch an inspection team “as soon as possible” after receiving a request for a challenge inspection been defined more precisely? Answer. The CWC requirement for the OPCW’s Director General to dispatch an inspection team “as soon as possible” after an inspection request has been received has not been precisely defined. It must be pointed out that the U.S. negotiating requirement was that the regime balance effectively the need for international intru-
siveness and measures to address compliance concerns against the need to protect sensitive non-CW information, as well as Constitutional privacy rights and proprietary information. Thus, CWC challenge inspection provisions enable us to control access to sensitive or private facilities in a manner which protects our interests.

**Question 29.** How many challenge inspections does the Administration expect to be requested per year?

**Answer.** It is unknown how often challenge inspections will occur, within the U.S. or elsewhere. There is no quota on the number of challenge inspections that a State Party must accept. In the event a challenge inspection does occur in the U.S., the CWC allows us to control access to facilities in a way that protects sensitive non-CW information as well as constitutional rights. By subjecting all inspector access and activity to negotiation, managed-access procedures afford the opportunity for comprehensive protection of proprietary information unrelated to chemical weapons. Challenge inspections of declared industrial facilities, if they occur at all, are expected to be a rarity, and managed access offers an adequate opportunity to protect confidential business information during the few inspections that may arise. The "managed access" provisions require, in cases where less than full access is provided to an inspection team, that the inspected State Party make every reasonable effort to provide alternative means to satisfy concerns about compliance. Therefore, facilities that could potentially be subject to a challenge should prepare for this eventuality by conducting a vulnerability assessment and taking appropriate protective measures, including procurement of shrouds, training of escorts, and preparation of an inspection plan.

**Question 30.** Do any participants in the Prep Coin forum actively seek to weaken inspection provisions and to reduce, if not eliminate restrictions on chemical trade? If so, which countries and by what means?

**Answer.** A Russian proposal to establish a new, narrower approach to the definition and verification of a chemical weapons production facility has been rejected by other Prep Coin participants. A proposal by China to weaken challenge inspection procedures has also received little support. Efforts by Iran and a few other non-aligned countries to require States Parties to eliminate all exports controls among themselves has been vigorously opposed by Prep Com participants. Occasionally, even a U.S. ally has put forward a position on an issue which differs from the U.S. and the majority of other countries. However, decisions at the Prep Com have been made through consensus, thus making it possible for the U.S. and other signatories to ensure that decisions are consistent with the object and purpose of the Convention. Most countries join consensus upon encountering strong resistance to their position on an issue.

**Question 31.** The Organization for the Prohibition of Chemical Weapons (OPCW) will be funded through assessments tied to the United Nations assessment procedure. How much will the anticipated annual U.S. assessment total?

**Answer.** Article VIII of the CWC specifies that the costs of the OPCW’s activities are to be paid by States Parties in accordance with the United Nation’s scale of assessments adjusted to take into account differences in membership between the UN and the OPCW. The Administration anticipates that the U.S. assessment for the OPCW for FY97 will be $24,935 million. This is reflected in the President’s FY97 budget proposal.

**Question 32.** What percentage of the total contribution to the OPCW will the U.S. pay? What are the anticipated percentages and amounts assessed to the next five countries in line behind the United States?

**Answer.** Article VIII of the CWC specifies that the costs of the OPCW’s activities are to be paid by States Parties in accordance with the United Nation’s scale of assessments adjusted to take into account differences in membership between the UN and the OPCW. Currently, there are 160 signatories to the CWC. The U.S. contributes 24.96% of the annual budget for the Preparatory Commission of the Organization for the Prohibition of Chemical Weapons.

In the Preparatory Commission, the top five contributors after the United States are: Japan, 13.92%; Germany, 8.93%; France, 6.31%; Russia, 5.67%; and United Kingdom, 5.26%. The assessed contributions for the OPCW will be dependent on the membership.

**Question 33.** In light of discussions over disparities between assessment levels at the U.N., has the Administration discussed revising the U.S. share of the assessment?

**Answer.** Article VIII(7) of the CWC states that the “Organization’s activities shall be paid by States Parties in accordance with the United Nations scale of assessment adjusted to take into account differences in membership between the United Nations and this Organization.”
The Administration continues to pursue lowering the U.S. assessment to the UN on a negotiated basis. Therefore, any adjustment to the UN scale of assessments will be automatically reflected in the OPCW's scale of assessments, under current financing arrangements.

**Question 34.** How will the U.S. contribution to the OPCW be budgeted? Will it comprise identifiable line items within the Administration budget? Which agency will be responsible for preparing and presenting the budget request?

**Answer.** The U.S. contribution to the OPCW will be drawn from the Contributions to International Organizations (CIO) Account, managed by the Department of State, upon entry into force of the Convention. Until that time, the U.S. assessment for the Preparatory Commission will continue to be drawn from the ACDA budget. The CIO Account cannot be used to pay assessments to organizations in which U.S. participation has not been approved by some form of legislative action. The U.S. contribution to the Preparatory Commission, and subsequently the OPCW, will be budgeted as a lump sum. Until entry into force, ACDA will continue to pay the costs of U.S. participation. After entry into force, State and ACDA will cooperate to prepare a budget request for inclusion in the CIO Account.

**Question 35.** A report prepared by the General Accounting Office (GAO) in March 1994, "found that the U.S. government is missing potential opportunities for cost savings in three areas," one of which was failure to conclude cost-sharing arrangements for the $85 million the U.S. plans to expend on research and development to improve the CWC's verification regime. Has the U.S. concluded any cost-sharing arrangements with the OPCW or member states to date?

**Answer.** The Administration reviewed the GAO recommendation and agreed that such an arrangement would be impractical. The Preparatory Commission is not staffed, chartered or funded to manage international research and development efforts. U.S. expenditures for this program were unilaterally determined to support our own CWC verification needs, our safety and protective needs, and our interest in the development of Preparatory Commission equipment and procedures and the training of international inspectors. We continue to assess and evaluate U.S. costs to ensure that our expenditures on research and development are cost effective and meet our national interests.

**Question 36.** A number of different government agencies will be involved in implementing the CWC and assuring U.S. compliance with the Convention's provisions. Please identify the various elements within the government that will be involved. Will funding for these efforts be identifiable?

**Answer.** The following agencies of the U.S. Government will be involved in implementing the CWC and assuring U.S. compliance with the Convention's provisions: the National Security Council; the Department of State; the Department of Defense; the Department of Commerce; the Department of Justice; the Department of Energy; the Arms Control and Disarmament Agency; the Joint Chiefs of Staff; the Senate; and such other officials of executive departments and agencies as the President may, from time to time, designate. Each of the agencies is responsible for developing its own planning and budget needs.

**Question 37.** Have CWC cost estimate studies been prepared for the U.S. government? If so, would you provide copies for the Committee?

**Answer.** A CWC cost model was prepared by the Institute for Defense Analyses in June 1990. A preliminary CWC cost estimate was also prepared by the U.S. Government and introduced in the Conference on Disarmament in August 1991. Since that time, many key assumptions contained in these studies have changed, due to the establishment of the Convention itself in late 1992, detailed planning efforts underway at the CWC Preparatory Commission in The Hague since February 1993, and the experience gained in implementing the Wyoming Memorandum of Understanding. We are not aware of a more recent CWC cost estimate study prepared for the U.S. Government. Copies of these earlier studies are attached.

**Question 38.** At Administration request, the United States and other nations have spent heavily during the current fiscal year on the Preparatory Commission in The Hague for the Chemical Weapons Convention. A total of about $8 million was appropriated for fiscal year 1994 to pay the U.S. share. For fiscal year 1995 ACDA sought $14 million as the U.S. share and requested $17 million in FY97. Why was it decided to engage in such spending before the Senate had an opportunity to decide whether it favored ratification of the treaty?

**Answer.** The signatories to the CWC collectively approved the "Text on the Establishment of a Preparatory Commission," which established the CWC Preparatory Commission (Prep Com) for the OPCW and provided for the Prep Com to be convened not later than 30 days after the Convention was signed by 50 States. The purpose of the Commission is to prepare for the effective implementation of the Convention and to prepare for the first session of the Conference of the States Parties.
The Bush Administration endorsed this approach when it signed the CWC in January 1993, recognizing the necessity of such preparatory work to bring the CWC into force with an effective verification regime.

The "Text on the Establishment of the Preparatory Commission" provides that the expenses of the Commission will be met by the signatories to the Convention in accordance with the United Nations scale of assessment, adjusted to take into account differences between the United Nations membership and the signatories of the Convention. Senators and Members of Congress, including the Senate and House Arms Control Observers Groups, have overseen the development of the CWC provisions through visits to the negotiations in Geneva, consultations in Washington, and ACDA progress reports, and have overseen the work of the Preparatory Commission in The Hague. The funding for the Preparatory Commission has been approved by Congress since 1993. (Please note: The ACDA request for $17 million applied to FY96, not FY97.)

**Question 39.** What is the current status of Russia's efforts to develop a chemical weapons destruction program?

Answer. Last year the Russian Government took a number of steps to facilitate its CW destruction program. President Yeltsin signed a decree which directed that CW destruction would occur within the republics in which the weapons are stored, established an interagency commission for chemical weapons destruction headed by the President's national security adviser; designated the President's Committee as executive agent for CW destruction, selected Shchuch'ye as the location for Russia's first nerve-agent destruction facility, and selected the Moscow State Scientific Research Institute for Organic Chemistry and Technology as the location for the Central Analytic Laboratory. Also in 1995, the Duma completed its first reading of the draft law on chemical weapons destruction.

In March 1996, the Russian Government approved a CW destruction program which calls for destruction to begin in 1996 and to be completed by 2005. The Russians have reportedly selected a destruction technology for blister agent and are in the final stages (in cooperation with the United States) of testing a two-step process for destroying weaponized nerve agents.

Further, Russia and the United States are proceeding with plans for the design and construction near Shchuch'ye of a pilot-scale destruction plant which will serve as the basis for a full-scale facility when the destruction process has been proven. This design will likely serve as the model for the remaining Russian nerve agent destruction plants. Germany, Finland, the Netherlands, and Sweden are in various stages of discussing and providing additional financial and technical assistance for other aspects of the Russian CW destruction program.

**Question 40.** Should the United States be concerned that Russia intends to destroy all of its bulk agent first, leaving the weaponized stocks for later destruction?

Answer. To date, the Russian Federation has indicated plans to destroy their bulk stocks of standard chemical agents and weaponized agents first. Stored in bulk containers at Kambarka and Gorny, these stocks are old and their storage vessels are reportedly deteriorating. In their current condition, these bulk stocks constitute a potential environmental hazard. The destruction of bulk stocks also makes practical sense, in that it is somewhat simpler and provides them an ability to quickly destroy large amounts of chemical agent to meet the initial destruction requirements of the CWC. Such a plan, permitted under the CWC for all States Parties, would leave the remainder of the stockpile to be destroyed subsequently. It should be noted that the U.S. also intends to destroy its most modern chemical weapons toward the end of the CWC-mandated destruction period.

**Question 41.** What agencies and individuals are assuming responsibilities for the CW destruction program within Russia?

Answer. According to a March 1995 Presidential decree, the Russian Ministry of Defense (MOD) is primarily responsible for development and implementation of the CW destruction program. The MOD is also responsible for ensuring the safe and secure storage of the CW stockpile prior to its destruction and for selecting CW destruction technologies and sites. The MOD will also construct the CW destruction facilities and make regional infrastructure improvements.

Several other agencies and ministries have supporting roles:

Together with the MOD and the Federation State Committee on Defense Industries, the Chemical and Petrochemical Industry Committee will operate, maintain, and staff CW destruction facilities. Along with the MOD the Chemical and Petrochemical Industry Committee will develop technologies and equipment to destroy CW, and upon orders from the MOD, will create CW protection and monitoring equipment customized for the CW destruction facilities. In conjunction with the Federation State Committee on Defense In-
...dustries, they will design destruction equipment and ensure quality control during chemical weapons destruction facility construction.

—The Federation State Committee on the Defense Industries shares responsibilities with the MOD and the Chemical and Petrochemical Committee to operate, maintain, and staff CW destruction facilities. With the Chemical and Petrochemical Committee, they are to design CW destruction equipment and ensure quality control of chemical weapons destruction facility construction. They will also participate in destruction technology selection, and will develop and manufacture equipment to dismantle, destroy and recover component elements of CW.

—The Russian Federation Ministry of Environmental Protection and Natural Resources will examine chemical weapons destruction facility plans, develop and approve emission and discharge standards, determine appropriate waste sites, and implement environmental monitoring during the destruction process.

—The Russian Federation State Committee for Sanitary Epidemiological Oversight will create public health and hygiene standards and rules for areas around CW storage and destruction facilities, and monitor regions near CW storage and destruction facilities.

—The Russian Federation Ministry of Health Care and Medical industry will provide public health oversight of CW destruction facilities, develop health standards and rules related to destruction activities, develop instructions on how to deal with CW accidents, and provide medical support during CW destruction, including health services at CW destruction facilities and regions nearby.

—The Russian Federation Committee of Special Construction will construct facilities for the destruction program.

**Question 42.** Have any of these individuals, or any other key Russian officials, been assessed to be proponents of Russia's maintaining a chemical weapons program? If so, who?

**Answer.** [Classified.]

**Question 43.** Given the political and economic turmoil in Russia, is there sufficient administrative stability to get a CW destruction program functioning to meet the CWC's interim destruction timetable?

**Answer.** [Classified.]

**Question 44.** Both the U.S. and Russian government assessments have been skeptical of Russia's ability to meet the CWC's overall destruction time-line, even with the treaty-permitted five-year extension. What is the current assessment of the time-line required by Russia to destroy all of its chemical weapons?

**Answer.** [Classified.]

**Question 45.** What assistance, financial and otherwise, has the United States already provided to Russia to facilitate destruction of its chemical weapons? Answer. The Cooperative Threat Reduction (CTR) program was initiated by the U.S. Congress in late 1991 to address the uncertainties and dangers attending the disintegration of the Soviet Union and seeming inability of the successor states to meet their arms control commitments expeditiously and maintain effective control over nuclear and other WMD, related materials and expertise. The dangers inherent in the Russian CW stockpile and the challenges in destroying it have made CTR efforts to assist Russia's CW destruction program an integral part of the CTR program. U.S. support is targeted at the nerve agent stocks because they are fully weaponized and comprise over 80 percent of the entire Russian CW stockpile on an agent tonnage basis. The Implementing Agreement for initial U.S. assistance was signed in July 1992 by representatives of the Department of Defense (DOD) and the President's Committee on Conventional Problems of Chemical and Biological Weapons of the Russian Federation, and authorized up to $25 million of assistance. The agreement was amended and the assistance funding level was increased to $55 million in March 1994. FY96 funding, when available, will increase the total to $88 million. This program currently has five distinct projects: Chemical Weapons Destruction Support Office (CWDSO), Comprehensive Implementation Plan (CIP), Joint Evaluation/Optimization (JE) Project, Central CW Destruction Analytical Laboratory (CAL) and the CW Destruction Facility (CWDF).

The CWDSO serves as the in-country technical and management focal point for U.S. support to the Russian CW destruction support program. Established in Moscow in June 1993, the CWDSO interacts with the President's Committee and the Ministry of Defense. We anticipate that as the Russian Program requirements mature, the CWDSO will convert to a Joint Program Office manned by the Russian Federation, the U.S. government and contractor organizations.
The CIP has transitioned into a site specific planning document for the Russian pilot CW destruction facility to be built at Shchuch'ye, Kurgan Oblast. Now known as the Shchuch'ye Implementation Plan (SIP), it will continue to be expanded to include baseline data, engineering survey data, site feasibility study, environmental impact assessment, and an emergency preparedness plan. The original $7 million CIP contract was awarded to Bechtel National Incorporated (BNI) in May 1994.

The JE Project, conducting a technical evaluation of the Russian two-step (neutralization/biokatalysis) chemical destruction process, will provide the technical basis for determining the feasibility and implementation of the pilot CW destruction project at Shchuch'ye. The first phase was successfully completed at the U.S. Army CBDCOM in Edgewood, MD using U.S. nerve agent. The second phase, using Russian munitions grade nerve agents, concluded in November 1995 at the Saratov Higher Military Engineering School of Chemical Defense, Saratov, Russia. Follow-on analytical work was performed at the Moscow State University in December 1995. Results indicate agent destruction levels of 99.999%. A jointly developed final test report was completed in March 1996. A follow-on optimization project will entail additional laboratory scale tests to refine and define the operating conditions to be used to design the bench scale reactor system.

The CAL Project will provide the Russian Federation with a multi-laboratory system to support the Russian CW destruction program. The CAL consists of two components: renovation of a fixed laboratory at the Moscow Research Institute of Organic Chemistry and Technology, and procurement of three mobile laboratories. Concept design of the fixed lab is underway and a construction contract is expected to be awarded in August 1996. Following the laboratory renovation, equipment and analytical instrumentation will be procured and installed. The three mobile laboratories have been procured and are scheduled for delivery to Russia in July 1996.

The CWDF Project is the centerpiece of the CTR Program to assist the Russian CW destruction program and involves the design and construction of a pilot CW destruction facility for nerve agent-filled projectiles at Shchuch'ye. The project will be executed in two phases: Phase I includes bench scale testing of the destruction process, munitions machine development, other technical studies, and the facility design work. Phase II includes facility construction, equipment acquisition and installation, operator training and systemization. DOD-MOD meetings, called Senior Implementation Group or CHEMSIG, are being utilized to define the requirements and schedule for the CWDF.

**Question 46.** Is it realistic to assume that Russia will request additional funds from the United States to keep its destruction program on pace? How much is Russia anticipated to request?

**Answer.** On April 4, 1996, Russia provided the United States its approved Federal Program for chemical weapons destruction. We expect to learn quite a bit about Russia's plans for its overall chemical demilitarization program from this document. This very positive step by the Russians will be useful not only for the U.S. but also for other nations such as Germany and The Netherlands, which are contributing to Russian CW destruction. Any decisions regarding future assistance to the Russian CW destruction program will be taken in consultation with and subject to the approval of the Congress.

**Question 47.** Will the U.S. seek to allow the Russians to convert former chemical weapons production facilities to other uses?

**Answer.** Under the CWC, a State Party may request, in exceptional cases of compelling need, permission to convert a chemical weapons production facility (CWPF) for purposes not prohibited under the Convention. If the CWC organization approves a State Party's request to convert a CWPF, the facility must be converted in accordance with the CWC requirements and, once its conversion has been certified by the CWC organization, will be restricted in its chemical activities and subject to systematic verification. In our ongoing dialogue with Russia, we have made it clear that any conversion of Russian CWPFs must be in strict accordance with the CWC. This view has been echoed forcefully by other signatories in the multilateral CWC Preparatory Commission in The Hague.

**Question 48.** Please explain the precise relationship between the CWC and the U.S.-Russian bilateral destruction agreement (BDA).

**Answer.** The June 1990 "Agreement on Destruction and Non-Production of Chemical Weapons and on Measures to Facilitate the Multilateral Convention on Banning Chemical Weapons" (known as the Bilateral Destruction Agreement or BDA) was intended to set an agreement with the then-Soviet Union, as early as possible, on the objective of CW destruction and to facilitate progress on the CWC. We believe those objectives have been achieved. Nevertheless, we believe the BDA is of mutual
benefit to the U.S. and Russia and are pressing forward to have it in place when the CWC enters into force.

For its part, the CWC specifically envisions bilateral agreements operating in conjunction with CWC requirements, subject to approval by the Executive Council and as long as such bilateral agreements are consistent with the CWC. The BDA is expected to meet these criteria. Accordingly, the U.S. and the Russian Federation would inspect each other's destruction efforts, pursuant to the BDA, with general oversight by the international inspectorate.

It is important to remember that the BDA does not require total destruction of CW stocks nor does it provide a multilateral framework (including challenge inspections) for addressing compliance concerns. Moreover, the CWC will apply to a broad range of countries whose potential acquisition and use of chemical weapons is of security concern to the U.S., while the BDA obligations would apply only to Russia.

The Administration is very concerned about the acquisition and potential use of CW by countries other than Russia. Therefore, the Administration strongly supports ratification of the CWC even if the Bilateral Destruction Agreement is not yet in force.

Question 49. Almost six years have passed since the signing of the BDA. What has been accomplished in respect to the BDA since the Administration testified before the Committee in 1994? What issues remain and why are they still unresolved?

Answer. We are pressing hard to resolve outstanding issues regarding our bilateral CW agreements with Russia. These issues have the attention of senior officials on both sides.

Since their 1994 summit, when Presidents Clinton and Yeltsin addressed bilateral CW issues, both expert and senior political level talks have taken place and progress has occurred. Vice President Gore and Prime Minister Chernomyrdin addressed CW issues at their January meeting this year. These talks have made some progress as a result of additional information provided by Russia in 1995 under the Wyoming MOU and efforts by each side to clarify our respective concerns. However, there is still work to do. We and the Russians have different interpretations of obligations regarding verification and conversion of chemical weapons production facilities and declaration of chemical weapons development facilities. There are also outstanding questions regarding past binary chemical weapons activities. At the January meeting, senior U.S. and Russian officials committed to working together to resolve the outstanding bilateral CW issues.

Question 50. What are the prospects for implementing the BDA before entry-into-force of the CWC? Will the BDA be withdrawn at some point?

Answer. The Administration believes the BDA would be of mutual benefit to the U.S. and Russia and is pressing forward to have it in place when the CWC enters into force. Senior U.S. and Russian officials are committed to working together to resolve the outstanding bilateral CW issues, resolution of which will facilitate BDA implementation.

Question 51. What will be the effect upon the United States in terms of costs, inspection-team compositions, and verifiability of Russian chemical weapons eliminations if the BDA does not enter into force while the CWC does?

Answer. The provisions of the CWC are similar to but in some cases more stringent than those of the BDA. If the BDA is not in force when the CWC is implemented, the OPCW would need to hire inspectors and acquire additional equipment to support systematic inspections at CW destruction facilities and conduct periodic inspections at CW storage and production facilities. This would require increases in the Prep Com ramp-up budget and in the OPCW budget. Under the CWC, as a CW possessor, the U.S. would be required to reimburse the OPCW for the inspections in the U.S. and to pay its share of OPCW expenses, unless the Executive Council decides otherwise. There would be no impact on the verifiability of Russian chemical weapons elimination because it is subject to systematic verification under both the CWC and the BDA, which would be performed by the OPCW or the U.S., respectively.

Question 52. Is it correct that if the CWC were to enter into force without the BDA, the U.S. would have to pay the costs of the CWC inspectors at each of its facilities?

Answer. CWC Article IV specifies that the inspected State Party shall meet the cost of verification of CW storage and CW destruction unless the Executive Council decides otherwise.

Question 53. Is the Administration satisfied that the Russian Federation has indeed ceased the development and/or production of offensive chemical agents?

Answer. [Classified.]

Question 54. Dr. Vitaly Mirzayanov, former chief of counterintelligence at the State Union Scientific Research Institute for Organic Chemistry and Technology, has al-
leged that Russia has developed, tested, and produced a new class of binary nerve agents five to eight times more lethal than any other known chemical agent. Are these agents and their binary components captured on the CWC’s schedules?

**Answer.** (Classified.)

**Question 55.** What steps has the Russian Federation taken to reassure the United States and other CWC signatories that they are abiding by the terms and spirit of the CWC?

**Answer.** The Russian leadership has taken a number of steps demonstrating its commitment to comply with the CWC, which is not yet in force. Russia was an original signatory of the CWC and is in the process of pursuing ratification of the Convention. It has developed a program for destroying its chemical weapons stockpile and has worked with the U.S. to jointly evaluate new chemical weapons destruction technology. Russia met its obligations to participate in Wyoming MOU inspections and data exchanges, although questions remain on certain aspects of the Russian data. Senior Russian and U.S. officials are working together to resolve these questions. Finally, Russia has maintained an active CWC delegation in The Hague, where it has worked with the U.S. and other Prep Com delegations to secure agreement on several key chemical weapons issues.

Under customary international law as codified in the Vienna Convention on the Law of Treaties, Russia is obligated to refrain from actions during the period between signing an international obligation and its entry into force that would preclude it from fulfilling the object and purpose of the agreement once it is in force for Russia. We know of no such Russian actions with respect to the CWC.

**Question 56.** Does the Administration believe the Russians have declared all of their chemical weapons stocks? If Russia ratifies the CWC and provides a data declaration to the OPCW which mirrors that provided to the United States under the Wyoming Memorandum of Understanding, is the Administration prepared to challenge immediately the veracity of Russian reporting under the CWC?

**Answer.** Russia has reported as part of the 1989 Wyoming MOU a stockpile of some 40,000 tons of lethal chemical agent. We have inspected the declared Russian storage facilities, and believe the inventories of those facilities are accurately reflected in the Russian declaration. Various sources, including open literature, however, have alleged that Russia continued chemical weapons production after then-Premier Gorbachev’s statement in 1987 that the Soviet Union had ceased chemical weapons production. We have no direct knowledge of such production, nor whether any such production is included in the Russian inventory declaration.

The Administration is prepared to actively pursue serious concerns regarding the veracity of any State Party’s reporting under the CWC, since the provision of accurate declaration information is a fundamental obligation essential to the effective implementation of the Convention.

**Question 57.** Does the Administration believe that Russia intends to forgo its chemical weapons capability if it ratifies the Chemical Weapons Convention?

**Answer.** Presidents Yeltsin and Clinton agreed at their 1994 Summit on the need for universal adherence to and application of CWC provisions, and both have since reaffirmed that commitment.

The CWC provides a transparent and orderly mechanism by which Russia and other countries will eliminate their chemical weapons stockpiles and assure themselves that others are doing the same. It offers unique new information and verification tools to put the activities of all Parties, including Russia, under international scrutiny. And as a legally binding instrument, it offers a basis for punitive measures or sanctions in response to noncompliance. We will expect all States Parties, including Russia, to abide by their obligation to forgo a chemical weapons capability.

**Question 58.** Is the United States pressing to reopen negotiations on the Biological and Toxin Weapons Convention of 1972 in order to establish a verification regime for the Convention? Will such a verification regime be modeled on that of the CWC?

**Answer.** The United States is currently actively engaged in efforts to strengthen the effectiveness and improve the implementation of the Biological Weapons Convention (BWC). These efforts include participating in an Ad Hoc Group mandated by a 1994 Special Conference of BWC States Parties. The objective of this Ad Hoc Group is to consider appropriate measures to strengthen the Convention, including possible verification measures, and to draft a legally binding protocol. The Ad Hoc Group is not reopening negotiations on the BWC, nor is it the expressed intent of the participants (some 80 countries) to negotiate in the Ad Hoc Group to duplicate the Chemical Weapons Convention, recognizing there are inherent differences between these two kinds of weapons of mass destruction.
RESPONSES OF CHAIRMAN SHALIKASHVILI TO QUESTIONS ASKED BY CHAIRMAN HELMS

Question 59. In 1975, while renouncing first use, the Administration explicitly retained the right to retaliate with chemical weapons in war. What has changed in the last four years to justify the Administration's willingness to renounce all use of chemical weapons in war?

Answer. The decision to abandon the retaliatory option was arrived at only after an extensive, high-level U.S. policy review. During the Gulf War, the threat of Iraqi use of chemical weapons highlighted the importance of the CW issue and the benefits to be gained by completing the long-standing negotiations aimed at banning chemical weapons. Accordingly, in April 1991, senior Bush Administration officials began to consider the possibility of the U.S. abandoning its position on retaliation as part of a broader Presidential initiative on chemical weapons.

At that point, it became increasingly apparent that the U.S. retaliatory option, which previously had provided the U.S. with some leverage over states of concern who might otherwise be reluctant to become parties to the CWC, was instead becoming a diplomatic liability in the drive to conclude the Convention. Additionally, it was judged that the residual CW stockpile would have limited military or deterrent value against a major adversary such as the Soviet Union or China. At the same time, the experience of Desert Storm suggested that U.S. ability to effectively deter CW use against its troops through other means (i.e., overwhelming conventional retaliation) obviated the need for CW deterrence against lesser adversaries. Political and logistical realities also suggested that it would be very difficult, if not impossible, for a President to authorize the use of CW for any reason.

The proposed Presidential initiative was discussed by senior Bush Administration officials in April 1991. These officials agreed that a Presidential initiative to forewarn any CW retaliatory option after entry into force of the CWC would generate renewed momentum in Geneva and could place the U.S. in a position where it could facilitate reaching an end to the negotiations.

The Bush Administration concluded that the U.S. should take advantage of the dramatic victory in the Gulf War to launch a CW initiative aimed at a rapid and successful conclusion of the CW talks in Geneva. Accordingly, President Bush approved last summer to just changes on a number of issues including retaliation in kind, retention of a residual CW stockpile, and CWC challenge inspections. These policy changes were announced in a statement released to the press on May 13, 1991, which included the following pledge: "To demonstrate the United States commitment to banning chemical weapons, we are formally forswearing the use of chemical weapons for any reason, including retaliation, against any state, effective when the convention enters into force, and will propose that all states follow suit."

Question 60. Given the fact that a number of chemical weapons possessor states have not signed or ratified the Convention, why should the United States forgo a chemical weapons deterrent?

Answer. As General Shalikashvili, Chairman of the Joint Chiefs of Staff, has testified previously "Desert Storm proved that retaliation in kind is not required to deter the use of chemical weapons." As he has explained, "the U.S. military's ability to deter chemical weapons in a post CW world will be predicated on both a robust chemical weapons defense capability, and the ability to rapidly bring to bear superior and overwhelming military force in retaliation against a chemical attack."

The CWC prohibits all CW use, including retaliation in kind. However, the CWC allows Parties to maintain CW defensive programs and does not constrain non-CW military responses to CW attack. The United States' superior individual protection and training program, detection capabilities, and medical support further reduce both the effectiveness of a CW attack and an aggressor's incentive to use chemical weapons against U.S. forces.

Question 61. In the Persian Gulf War, it was clear that Iraqi forces had the ability to attack the United States and its allies with chemical weapons. Why did they not do so? Does the Administration expect future aggressors to utilize the same cost-benefit calculus as did Saddam Hussein? How might possession of chemical weapons by the U.S. alter this calculus?

Answer. As General Shalikashvili stated during his testimony before the Senate Armed Services Committee on August 11, 1994, the Iraqis may not have been sure what type of force would have been used in retaliation to their use of chemical weapons. Only Saddam Husseinn can tell why he chose not to use chemical weapons. However, it is generally believed that the biggest reason was the fear of massive retaliation by coalition forces.

Anyone who considers using chemical weapons against the United States must be prepared to face all the superior and overwhelming military force that the U.S. can bring to bear. As General Shalikashvili has stated, countries that possess chemical
weapons are best deterred by two complementary capabilities. First, our ability to protect our forces reduces any military advantage an opponent might hope to achieve. Second, the certainty of a punishing response to chemical use increases the cost factor in an opponent’s equation and precludes the need for CW in the U.S. weapons inventory.

Of course, there can be no guarantee that our combined defensive and offensive capabilities will be sufficient to deter chemical weapons use in all situations. If, in spite of our proven capabilities an opponent decides to use chemical weapons, the U.S. military is prepared to fight in a chemical environment and we are working to improve our defensive capabilities.

Question 62. How does the Administration interpret the Chemical Weapons Convention’s prohibition on the use of riot-control agents as a “method of warfare”? How will this interpretation alter current military practice with regard to riot-control agents? Is there any concern whatsoever among the Joint Chiefs or the staff as to this interpretation?

Answer. As General Shalikashvili has testified to in the past, Article I(5) of the CWC prohibits Parties from using riot control agents (RCA’s) as a “method of warfare.” During the CWC negotiations, the U.S. attempted to secure a statement in Geneva for an understanding that the phrase “method of warfare” could be interpreted as permitting all four uses of RCA’s outlined in Executive Order 11850. However, due to strong opposition from many other states, including key U.S. allies, it proved impossible to secure a statement to this effect in the negotiating record.

Although the phrase “method of warfare” is not defined in the CWC, the United States interprets it to mean that the ban applies only to the use of RCA’s in international or national armed conflict. This interpretation leads to some important conclusions concerning the impact of the CWC on current U.S. RCA policy, as outlined in Executive Order 11850.

First, the CWC does not restrict peacetime uses of RCA’s, such as normal peacekeeping operations, law enforcement operations, humanitarian and disaster relief operations, counter-terrorist and hostage rescue operations, and non-combatant rescue operations conducted outside international or internal armed conflicts.

Second, the CWC does not apply to all uses of RCA’s in time of armed conflict. Use of RCA’s solely against noncombatants for law enforcement, riot control, or other noncombat purposes would not be considered a “method of warfare” and are therefore permitted.

Accordingly, two of the four scenarios described in EO 11850 remain available because they involve the use of RCA’s against noncombatants where combatants are not present: in riot control situations in areas under direct and distinct U.S. military control, including control of rioting prisoners of war; and to protect convoys from civilian disturbances or attacks by terrorist and paramilitary organizations in rear-echelon areas outside the zone of immediate combat.

Third, the CWC does prohibit the use of RCA’s solely against combatants. Moreover, according to the current international understanding of the term “method of warfare,” the CWC prohibits the use of RCA’s even for humanitarian purposes in situations where combatants and noncombatants are intermingled. As a result, the two situations in which RCA’s could not be used involve the rescue of downed aircraft crew, passengers, and escaping prisoners, and where civilians are being used to mask or screen attacks. Were the international understanding of “method of warfare” to change, however, the United States would not consider itself bound by this position.

The Joint Chiefs, along with General Shalikashvili, believe that several arguments can be made for RCA use in these two cases. However, we also recognize that a unilateral U.S. decision to adopt this position could cause serious divisions with key allies whose cooperation is essential to the CWC.

Accordingly, on balance, the Joint Chiefs decided that the benefits of the CWC outweighed the importance of preserving the ability to use RCA’s in these cases and that they would support the consensus reached within the Administration on the RCA issue. The CINC’s were informed of this decision.

As stated during previous testimony, DOD is working to develop non-chemical, non-lethal alternatives to RCA’s that could be used in situations where RCA’s would be prohibited.

Question 63. Will the Administration’s policy restricting the use of riot control agents have an appreciable effect upon U.S. military capabilities? If so, under what circumstances?

Answer. While the Administration’s policy restricting the use of riot control agents will have some limited effects on how the U.S. military operates, steps are being taken to address this. As directed by the President, the Department of Defense has accelerated efforts to field non-chemical, non-lethal alternatives to RCA’s for use in
situations where RCA’s would be prohibited. In the meantime, the ability of the U.S. military to accomplish its mission will not diminish.

Question 64. There is concern among some that if the CWC comes into effect, funding for defensive chemical weapons research, training, and equipment will dry up. Given that maintaining a robust defensive chemical weapons posture would serve to encourage CWC compliance and to deter chemical weapons use by nonsignatories, what steps is the Administration taking to ensure that U.S. armed forces are adequately trained and equipped?

Answer. The U.S. military is well aware that it may be called upon to operate in a hostile environment in which chemical weapons may be used or threatened to be used. Though U.S. chemical equipment is second to none, we understand the need to continually improve our capabilities. Through the Defense Acquisition Board process, the military is taking steps to ensure these improvements continue. Efforts being pursued include the following:

- Improve stand-off CW detection.
- Make individual protective equipment lighter and more comfortable.
- Consolidate the CW defense efforts to the military services.
- Make decontamination less reliant on water and less labor intensive.
- Enhance medical treatment and pre-treatment.

Question 65. How will the closure of Ft. McClellan affect the ability of U.S. soldiers to prepare for combat in a chemical weapons environment?

Answer. Though Ft. McClellan is scheduled for closure as a result of a decision of the Base Realignment and Closure (BRAC) Committee, the mission of the U.S. Army Chemical School is not being abandoned. The Chemical School is being moved to Ft. Leonard Wood and will maintain the same mission capabilities found at Ft. McClellan. In fact, the closure of Ft. McClellan has been delayed to ensure that everything is in place at Ft. Leonard Wood, so as to provide uninterrupted mission capabilities.

Question 66. Does the Administration assess the United States as currently maintaining a reasonable defensive capability to protect against the threat of chemical weapons? What are the key aspects of an adequate defensive program? What constitutes, in the Administration's judgment, an acceptable level of funding for chemical weapons defenses?

Answer. We believe U.S. chemical equipment is adequate to meet the current threat. Given this equipment, the key to our defensive program is ensuring all combat troops operating in a potential CW environment are fully trained and equipped for CW defense. This is the case. Most, if not all, combat support and service support personnel are also trained and equipped to operate in a CW environment. The National Defense Authorization Act for FY 94 (Public Law 103-160), Title XVII, Chemical and Biological Weapons Defense, has led to the formation of the Joint Nuclear Biological and Chemical (NBC) Defense Board, the Joint Services Integration Group and the Joint Services Material Group. These boards, which have representatives from the Services, Joint Staff and OSD, work to identify the needs of the military for chemical/biological defense and provide input to the Defense Acquisition Board process through the Secretary of Defense.

The current budget of $501M represents an acceptable balance among competing priorities. Articulated requirements for the broad range of counter-proliferation programs is a priority which must be balanced against a number of competing needs. As these chemical defense priorities change based upon mission requirements, this balance may also change, reflecting an increase in chemical weapons defense program funding.

RESPONSES OF SECRETARY PERRY TO QUESTIONS ASKED BY CHAIRMAN HELMS

Question 67. What man-portable point detection system is now being used in Bosnia to warn U.S. Army outposts and patrols that chemical warfare agents may be in the area?

Answer. Army forces in Bosnia are equipped with M8A1 Chemical Automatic Alarms, Chemical Agent Monitors (CAMs), M256A1 Chemical Detector Kits, M9 Detector Paper, and M8 Detector Paper. Use of any or all of these detectors is determined by unit Standing Operating Procedures (SOP) and/or command decisions based on the expected threat.

Question 68. The United States Air Force and the U.S. Army technical escort unit (TEU) currently have an M90 detection system that is state-of-the-art equipment which will simultaneously detect a variety of nerve and mustard gases. Is it correct that this equipment is deployed in the Pacific (Korea) and the Middle East (Tur-
key? Is it currently in use in Bosnia? If not, what is the rationale for not deploying the system in that region?

Answer. Except for the U.S. Army Technical Escort Unit (TEU) which is responsible for recovering, exploiting, escorting and disposing of chemical and biological munitions and materials worldwide, the Army has no fielded M90 Detection Systems. The TEU has different detection requirements than the Army as a whole and has procured a limited number of M90s to meet those requirements. The M90 is one of many state-of-the-art chemical detectors potentially available for procurement. The M90 is currently one of three remaining candidates in the Joint NBC Defense Program's Advanced Chemical Agent Detector/Alarm (ACADA) Program. None of the final selection candidates, including the M90, passed our Joint requirement tests well enough to make a final selection possible. We are currently conducting a third round of tests on the manufacturer's last submissions and expect the results to allow a final selection and full scale production of a single system by 4th Quarter FY 97. Five ACADAs will be allocated to each Army Company, replacing the M8A1 Chemical Agent Detector.

The "Fox" NBC Reconnaissance Vehicle, which contains, among other CW detectors, a mass spectrometer capable of detecting and identifying all known chemical agents, is currently deployed with the 1st Armored Division in Bosnia.

Question 69. The Technical Escort Unit utilizes the M90 Detection System to monitor the environment as it transports chemicals throughout the United States. Given this fact, would the system also be suitable for use in Bosnia?

Answer. See answer 68.

Question 70. Do the rules of engagement (ROE) for U.S. forces in the Bosnian theater call for the use of riot control agents? If so, under what circumstances?

Answer. [Classified.]

Question 71. Do the Bosnian ROE currently contemplate the use of riot control agents under any circumstances which would be prohibited by the CWC?

Answer. [Classified.]

Question 72. During your testimony before the Committee on March 28, 1996, you stated the following when questioned about whether the U.S. might respond with nuclear weapons to an attack on its forces with chemical weapons: "The whole range would be considered; that is correct." Is this statement at odds with declared Administration policy not to specify in advance what response we would make to CW use against the United States, its forces or its allies and that our response would be absolutely overwhelming and devastating. This statement and others made by President Reagan, Bush and Clinton (most recently, in April 1995).

Secretary Perry's March 28 testimony is also consistent with long-standing U.S. policy on negative security assurances (NSAs) dating back to the Carter Administration and subsequently affirmed by Presidents Reagan, Bush and Clinton (most recently, in April 1995).

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Question 73. Director Holum stated to the Conference on Disarmament in Geneva on August 4, 1994, that 'Our unilateral commitment stresses that assurances will be provided to non-nuclear states that are parties to the NPT or any comparable internationally binding commitment not to acquire nuclear explosive devices, such as the Tlatelolco Treaty, unless the U.S. is attacked by that non-nuclear weapon state in alliance with a nuclear weapon state.' This statement simply reaffirmed U.S. policy on negative security assurances (NSAs) dating back to the Carter Administration and subsequently affirmed by Presidents Reagan, Bush and Clinton (most recently, in April 1995).

Secretary Perry's March 28 testimony is also consistent with long-standing U.S. policy not to specify in advance what response we would make to CW use against the United States, its forces or its allies; however, we would consider all options and our response would be absolutely overwhelming and devastating.

Question 74. Director Holum stated to the Conference on Disarmament in Geneva on August 4, 1994, that "Our unilateral commitment stresses that assurances will be provided to non-nuclear states that are parties to the NPT or any comparable internationally binding commitment not to acquire nuclear explosive devices, such as the Tlatelolco Treaty, unless the United States is attacked by that non-nuclear weapon state in alliance with a nuclear weapon state." Given this statement, does your response on March 28 represent a change in Administration policy regarding negative security assurances? If not, why not?

Answer. There has been no change in U.S. policy on negative security assurances (NSAs). As noted in the answer to Question 72, our NSA policy dating back to 1978 remains unchanged. Secretary Perry's March 28 statement simply reaffirmed that the United States would consider all options in response to a CW attack against the United States, its forces or its allies and that our response would be absolutely overwhelming and devastating. This statement and others made by Administration witnesses during testimony in support of the CWC ratification was meant to make clear that U.S. renunciation of chemical weapons does not diminish our ability to deliver a devastating response to the use of chemical weapons against the United States, its forces, or allies.
Question 74. If Iran, currently a signatory to the NPT, were to attack U.S. forces with chemical weapons and, at the time of attack, was not allied with a nuclear power, would U.S. policy allow a nuclear response? If so, why?

Answer. The U.S. will not specify in advance what response we would make to CW use. However, as the Secretary of Defense testified on March 28, we would consider all options and our response would be absolutely overwhelming and devastating.

Question 75. If the United States is to rely upon a combination of conventional or nuclear-weapons responses for deterrence purposes, should the U.S. reevaluate its solicitation for negative security assurances?

Answer. There is no need to reevaluate the U.S. negative security assurance as it does not detract from the ability of the United States to deter CW use by an adversary through the threat of an overwhelming and devastating response.

RESPONSES OF DR. KATHLEEN BAILEY TO QUESTIONS ASKED BY CHAIRMAN HELMS

Question. Although the Chemical Weapons Convention (CWC) is not 100% verifiable, isn't significant cheating likely to be detected?

Answer. No. The CWC is not even minimally verifiable. The inability to find hidden chemical weapons or facilities has been clearly demonstrated in the case of Iraq. The UN Special Commission on Iraq—which operates on anytime-anywhere rules that are much more intrusive than the CWC inspections would—has stated that inspectors can't be sure Iraq has not hidden chemical weapons, or even hidden production equipment and chemicals. Inspections just can't find things that are small and have no emissions or other telltale attributes.

Question. Why will it be so easy to cheat without being caught under the CWC?

Answer. Chemical weapons can be manufactured in very small facilities underground, amidst industrial activity, or at any unlikely place. A small rhodogene plant, for example, could fit in a space only 40 ft. by 40 ft. The cost of a small plant can be only a few million dollars. There need be no observable features or emissions that would trigger suspicion. Alternatively, a cheater could simply manufacture chemicals that are usable in weapons as well as industry, and store them until needed.

Question. Will all chemicals usable in or as weapons be covered by the CWC?

Answer. No, only those known compounds associated with "traditional" chemical weapons will be covered. Russia reportedly has developed chemical weapons that do not rely on the known compounds. Such novel agents will not be on the inspectors' lists of what to look for during CWC inspections.

Question. Does Russia still have a chemical weapons program?

Answer. Following revelations by a Russian defector, President Yeltsin admitted that Russia maintained a chemical weapons program long after it had agreed to give up such weapons. Furthermore, Russia is reported to have developed weapons more lethal than known. Therefore, absent accurate human-source intelligence, there is no way of knowing whether the Russian program continues.

Question. Libya, North Korea, and others have indicated they will not be party to the CWC. Why doesn't this pose a risk?

Answer. It does. These countries are unlikely to give up their chemical weapons. The only U.S. deterrents would be nuclear or conventional retaliation. Nuclear use may be considered too escalatory. Conventional response could result in chemical attacks against any U.S. troops that enter the region.

Question. Wouldn't the CWC have enabled early discovery of the chemical weapons used by the Japanese religious cult, Aum Shinrikyo?

Answer. On the contrary, the Aum Shinrikyo incident proves the inability to find hidden, small chemical production facilities. The site was ultimately found because Japanese police acquired information about its location from cult members. The point is that finding a clandestine chemical facility will depend on human-source information, which is serendipitous.

Question. Is the CWC likely to be costly financially?

Answer. Yes. U.S. costs are likely to exceed $70 million per year. The international organization responsible for CWC inspections will cost approximately $100 million per year, of which the United States must pay 25%. Additionally, there are the costs of national implementation—the compilation of reports from over 6,000 chemical firms, handling of inspections, etc. Although U.S. officials have declined to publicly state the costs of such implementation to the United States, it is certain to be higher than such costs for Russia. (Russia has officially stated that its national implementation costs will be $45 million per year.) These costs do not take into consideration the $10 billion that will be required for destruction of U.S. chemical weapons.
Question. President Bush, a Republican, put the CWC forward and now President Clinton wants to see it ratified. Why not support a "bipartisan" treaty?

Answer. The CWC is not verifiable, is costly, and will lull U.S. citizens into thinking that the chemical weapons threat is diminished. In fact, the threat is likely to grow because of the ease and low cost of producing chemical weapons clandestinely.

Question. Won't U.S. chemical trade be hurt if the U.S. doesn't ratify the CWC?

Answer. There will be minimal impact on U.S. chemical trade if the CWC is not ratified. The reason is simple, but requires a bit of knowledge about the treaty. There are three lists, or Schedules, of chemicals subject to different levels of control. Schedule 1 chemicals, the really dangerous ones, are not traded by U.S. companies anyway. The Schedule 2 chemicals—weapons-useable chemicals not produced in large commercial quantities—will be restricted for any state not party to the treaty. However, exports of these chemicals are already controlled by the U.S. Government and the U.S. imports of these chemicals are insignificant or nonexistent. In short, U.S. exports of Schedule 2 chemicals are already very limited, so nonratification will have little effect. The vast majority of U.S. chemical exports are Schedule 3—common commercial chemicals—and their trade will remain unrestricted regardless of whether the United States ratifies the CWC.

Question. If the U.S. doesn't ratify soon, won't it be excluded from the CWC Executive Council?

Answer. This is untrue. There is nothing in the CWC that would restrict the U.S. from the Executive Council should it later choose to ratify the treaty. This raises an important point, however. Even though the United States has the world's largest chemical industry and would be paying most of the CWC's bills (25%), the treaty does not reserve for such a state a permanent seat on the Executive Council. The Council shall consist of 41 nations elected for 2-year terms. 31 of the seats are reserved for the nations of Africa, Asia, Latin America, and Eastern Europe. The remaining 10 seats shall be divided among Western European and other states.

Question. But shouldn't the U.S. ratify so that it can help shape the CWC in the future?

Answer. U.S. participation will not make the treaty any more verifiable, which is the central issue. Unless technology is discovered that would make the treaty truly effectively verifiable, there is little sense in continuing U.S. participation.

Question. Isn't verification more than CWC treaty inspections? Isn't it a mosaic of information from a variety of inputs, including national technical means?

Answer. National technical means do not play a role in CWC verification, although they may be the reason behind a nation's request for a challenge inspection. CWC verification is, according to the treaty, based on routine and challenge inspections. And, for reasons mentioned, inspections are unlikely to be effective in detecting cheating.

Question. Are there any reasons why the U.S. would want to retain chemical weapons?

Answer. There are more than twenty nations that reportedly have chemical weapons and it is very likely that the United States will face chemical threats in the future. Deterrence of chemical threats in the past has been accomplished with U.S. chemical weapons. The United States should reserve its current capability until an effective deterrence policy is articulated.

Responses of Secretary Christopher to Questions Asked by Senator Robb

Question. Why has Taiwan not yet signed or ratified the CWC?

Answer. Under the terms of the CWC, only States are eligible to sign and ratify it. Taiwan becoming party to the Convention. Taiwan is not recognized as a State by most of the international community, including the United Nations. Therefore, Taiwan is not eligible to sign or become a party to the CWC. We would, however, look to Taiwan to observe the terms of such an important agreement, notwithstanding that they are legally precluded from becoming a party.

Responses of Mr. Holum to Questions Asked by Senators Pell and Feingold

Question. How will this Convention help avoid terrorism attacks involving chemicals, such as we saw in the March, 1995 sarin attack in the Tokyo subways?

Answer. The Chemical Weapons Convention (CWC) is both an arms control and nonproliferation treaty. The CWC bans the development, production, acquisition, stockpiling, retention, transfer and use of chemical weapons. Although the CWC was not designed to prevent chemical terrorism, certain aspects of the Convention, in-
cluding its law enforcement requirements and nonproliferation provisions, will strengthen existing efforts to fight chemical terrorism.

**LAW ENFORCEMENT BENEFITS**

Implementing legislation required by the CWC will strengthen legal authority to investigate and prosecute persons who commit acts prohibited by the treaty. It will also make the public more aware of the threat of chemical weapons and of the fact that the acquisition of such weapons is illegal.

*Investigation.* The proposed U.S. implementing legislation contains the clearest, most comprehensive and internationally recognized definition of a chemical weapon available. It is far more precise than the term “poison gas,” contained in Title 18 of the Criminal Code. The definition contained in the implementing legislation will enable an investigator to request a search warrant on the basis of reasonable suspicion of illegal chemical weapons activity (such as production of chemical weapons agent), rather than suspicion of an attempt or conspiracy to use a weapon of mass destruction, as under current U.S. law. By providing law enforcement officials and prosecutors an actionable legal basis for investigating the development, production, transfer or acquisition of chemical weapons, CWC implementing legislation improves prospects for detection, early prosecution and possibly even prevention of chemical terrorism in the U.S.

*Prosecution.* The proposed U.S. implementing legislation will also aid prosecution. Because possession of a chemical weapon (whether or not it is intended to be used) would be prohibited under the Convention, it would also be illegal under the CWC implementing legislation and thus a sufficient basis for prosecution. In contrast, under existing U.S. legislation, possession of a chemical device that could produce poison gas without the use of explosives or a detonator might not offer sufficient grounds for prosecution. Currently, prosecutors must rely on legislation intended for other purposes, such as a law against conspiracy to use a weapon of mass destruction.

*Penalties.* Under the proposed U.S. implementing legislation, any person who knowingly engages in prohibited CW-related activities far short of actual use of a chemical weapon could be subject to the maximum punishment of life in prison or any term of years. In contrast, under existing U.S. legislation equivalent penalties require proof of use or an attempt or conspiracy to use “poison gas.” Thus, it would be difficult under current law for prosecutors to prove that a violation of the law has occurred unless a scheme to use chemical weapons is well advanced.

*Trade Controls.* Proposed U.S. implementing legislation would also supplement existing export/import control laws and regulations by strictly controlling the import and export of those chemicals posing the greatest risk (listed in Schedule 1 of the CWC) and also regulating the production, acquisition, retention, transfer or use of such chemicals within the U.S. Fines of up to $50,000 could be imposed for unlawful production, acquisition, transfer, etc. of such chemicals.

*Emergency Authority.* The proposed U.S. implementing legislation contains authority to seize, forfeit and destroy chemical weapons. This important provision protects the constitutional rights of property owners while allowing law enforcement officials to seize and destroy a chemical weapon under exigent circumstances (i.e. where harm is imminent or likely). This provides additional authority to prevent a potential catastrophe and save lives.

*Public Awareness.* Finally, tips by concerned private citizens are the lifeblood of successful police investigations. Ratification of the CWC and enactment of its implementing legislation will ensure, due to reporting and inspection requirements and penalties for violations, that private companies and concerned citizens are more alert to and more likely to report any suspected chemical weapons-related activities.

**NONPROLIFERATION BENEFITS**

Nonproliferation provisions of the CWC will deny terrorists easy access to chemical weapons by requiring Parties to eliminate national stockpiles and by controlling transfers of certain chemicals than can be used to make chemical weapons. In particular, the CWC requires Parties to cease transfers of certain CW agents and CW precursor chemicals to non-Parties and restrict such transfers to Parties. In addition, reporting is required on anticipated production levels of all listed chemicals and anticipated imports and exports of Schedule 1 and 2 chemicals. These measures will help restrict access to key chemicals, while also helping to alert law enforcement and other government officials to suspicious activities.
RESPONSES OF SECRETARY CHRISTOPHER TO QUESTIONS ASKED BY SENATORS PELL AND FEINGOLD

**Question.** Secretary Christopher, three years ago you noted that some Middle East countries were reluctant to ratify this Convention and you said then that the Administration would use its diplomacy and persuasion to change that. How is that effort proceeding?

**Answer.** In the period before the CWC was opened for signature in January 1993, many Middle East countries appeared reluctant to sign the CWC. Since then, 160 countries around the world have signed the CWC and 49 have deposited their instruments of ratification. Notwithstanding some initial reluctance, eleven Middle East countries have now signed the CWC and three have deposited instruments of ratification, underscoring their growing recognition that ratifying the CWC and joining the global fight against the spread of weapons of mass destruction is an important step toward greater regional security and stability.

Once the U.S. has ratified the CWC, we will be in an even better position to press other countries to follow suit. The U.S. will continue to work actively to encourage and promote ratification by Middle Eastern countries, as part of our overall effort to establish universal membership and adherence to the CWC.

RESPONSES OF GENERAL CLARK TO QUESTIONS ASKED BY SENATORS PELL AND FEINGOLD

**Question.** None of the prominent Veterans organizations, such as the VFW, have taken a position on the CWC. I know the CWC does not directly address herbicides such as Agent Orange or the issue of Gulf War Syndrome, but it is our men and women in uniform who would be most likely affected by this treaty. I wonder, General Clark, have you received any feedback from veterans on the efficacy of this treaty?

**Answer.** No, I am not aware of any veteran's organization having submitted any views on the efficacy of the CWC. However, a number of former military officers, including General Brent Scowcroft (USA ret. and National Security Adviser to President George Bush) have expressed support for the CWC. In an October 16, 1995 statement, General Scowcroft said, “Success in rolling back the threat of chemical weapons proliferation requires well-equipped U.S. military forces and defense preparedness. However, the clear international norms against chemical weapons, the legal framework, and the challenge embodied in the Chemical Weapons Convention are also needed. The time has come for the Senate to uphold U.S. leadership in combating the proliferation of weapons of mass destruction by providing its advice and consent to the Convention.”

RESPONSES OF SECRETARY CHRISTOPHER TO QUESTIONS ASKED BY SENATOR BIDEN

**Question.** I would like to explore with you the consequences of the CWC entering into force without the United States as a State Party.

- a) Would U.S. failure to ratify the CWC result in any economic costs to U.S. industry?

- b) Would there be any diplomatic consequences associated with the United States staying out of the CWC, and being placed in the same category as non-parties such as Libya, Iraq, North Korea, and Syria?

- c) If we tried to avoid these economic and diplomatic costs by actively seeking to torpedo the very treaty that we took the lead in negotiating for a quarter of a century, what would that do to our diplomatic standing and to our future ability to negotiate arms control and non-proliferation treaties?

**Answer.** a) Yes. If the U.S. is not a State Party, we will be subject to trade restrictions levied by States Parties against non-States Parties. This could have significant economic consequences for U.S. industry.

According to Fred Webber, President and CEO of the Chemical Manufacturer's Association (CMA), who testified in strong support of CWC ratification before the Senate Foreign Relations Committee on March 21, 1996, "**our industry will suffer the greatest impact if the United States does not ratify the Convention. Chemical manufacturers are America's single largest exporting sector. We exported over $60 billion in products and technology last year, with a $20 billion trade surplus. It is no exaggeration to say that our industry is the world's preferred chemical supplier.**
"If the U.S. does not ratify the treaty, that status will change. Our largest trading partners are also party to the Convention, and will be forced to apply trade restrictions to chemicals that originate here, or that are being shipped here.

Even if the restrictions only apply to a small portion of the overall chemicals trade, our customers have an incentive to make life as easy as possible. They'll shop where there are no limits. The result? Potentially hundreds of millions of dollars of lost sales, for no other reason than that the U.S. is not part of the CWC."

b) Yes. If the U.S. does not ratify the CWC and instead isolates itself among a group of non-States Parties, the U.S. would risk a loss of credibility in the fight against the spread of chemical weapons. U.S. efforts to promote international support for sanctions against rogue states who pursue chemical weapons would be more difficult to justify, even to our allies, if the U.S. does not join the group of countries that have ratified the CWC. In addition, some countries, including those who may be seeking chemical weapons, could be expected to depict a U.S. decision not to ratify the treaty as an indication of unwillingness to give up a CW capability. They could further be expected to use this to resist U.S. or other international diplomatic pressures to desist from CW-related activities. Consequently, the effectiveness of U.S. efforts to block CW proliferation would be reduced.

c) The success of U.S. CW nonproliferation efforts rests to a large degree on our credibility as a leader in the fight against the spread of weapons of mass destruction. Active U.S. leadership has been crucial in negotiating and implementing numerous arms control and nonproliferation treaties that significantly enhance U.S. security and promote global stability, including the Chemical Weapons Convention. Recent examples of successful U.S. leadership are the decision for indefinite and unconditional extension of the Nuclear Non-Proliferation Treaty (NPT), the shutdown of North Korea's nuclear program and ratification of the START II treaty. In addition to ratification of the CWC, current goals include conclusion this year of a CTBT and ongoing efforts to strengthen the Biological Weapons Convention (BWC). These kinds of diplomatic goals would be far more difficult to achieve if we were to remain outside the CWC because of the resulting uncertainty about the strength of the U.S. commitment in the fight against weapons of mass destruction.

Question. Some of the opponents of the CWC have argued that the Senate should reject the Convention because rogue states such as North Korea, Libya, Iraq and Syria are not signatories and will not have to comply with CWC provisions. Libya's continued program to develop chemical weapons seems to be a particularly dangerous development.

a) Does the Libyan chemical weapons program violate any existing international agreements?

b) Could the CWC slow down or halt chemical weapons programs such as Libya's, which today are perfectly legitimate under international law? If so, then how?

Answer. a) No, the existing international agreement to which Libya is a State Party, the 1925 Geneva Protocol, bans only the use of chemical weapons in war.

b) Yes. The CWC will have a deterrent effect on CW proliferation and put new pressures on countries that remain outside the treaty. A country like Libya that requires foreign assistance to begin or further develop a CW program would find it more difficult since States Parties will be prohibited from assisting anyone in activities banned by the CWC and will also be required to ban trade with non-States Parties in certain chemicals that could be used to make chemical weapons.

In addition, the CWC will establish an unprecedented international norm against virtually every aspect of an offensive CW program, providing a basis for international action against proliferators and enhancing political pressure against countries that continue to engage in such programs. Those outside the CWC will be subject to political isolation and intensified scrutiny for signs of CW activity.

Finally, the CWC will afford better information on rogue states' efforts to acquire chemical weapons. It will increase our access to information about clandestine chemical weapons programs even in countries that do not join; the declaration and verification provisions of the CWC require unprecedented transparency regarding CW-relevant activities and provide the U.S. with otherwise unavailable information that will facilitate U.S. detection and monitoring of illicit CW activities.

RESPONSES OF ADMINISTRATION WITNESSES TO QUESTIONS ASKED BY SENATOR BIDEN

Question. Even if the U.S. rejects the CWC, then we will still face the problem of chemical weapons proliferation. Are we better off with or without the CWC?
The Convention provides the following security benefits:

**Others must destroy chemical weapons as well.** During the Bush Administration, the U.S. decided to cease its binary CW program. U.S. law requires the destruction of U.S. unitary chemical weapons (the vast majority of its CW stockpile). The CWC will require other countries to destroy chemical weapons, as the U.S. is already doing, under strict verification measures.

**U.S. troops are less likely to face CW threats in future wars.** General Shalikashvili, Chairman of the Joint Chiefs of Staff, has testified that once the Convention is implemented, our troops will be less likely to face CW threats. He made it clear the U.S. does not need the option to retaliate in kind to a chemical weapons attack; Desert Storm proved that retaliation in kind is not required to deter the use of chemical weapons. He indicated that, should deterrence fail, a chemical attack against U.S. forces would be regarded as an extremely grave act, subject to an appropriate non-chemical response. As Secretary Cheney said during the Gulf War, the U.S. response to a chemical weapons attack would be “absolutely overwhelming” and “devastating.”

The CWC makes chemical weapons illegal under international law, which they are not today, under the Geneva Protocol. In addition to banning the use of chemical weapons, the CWC bans their development, production, acquisition, stockpiling, retention and direct or indirect transfer to anyone. The new international norm established by the CWC will serve as a basis for international action against those who possess, or who are attempting to acquire chemical weapons. And, unlike the Geneva Protocol, the CWC includes routine and challenge inspections, bans export of certain dual-use chemicals to non-States Parties, bans assistance for activities prohibited by the Convention, and requires that each State Party pass penal legislation that prohibits all individuals, businesses and other nongovernmental entities on its territory or under its control, and all its nationals, wherever they are located, from engaging in activities prohibited to States Parties. Finally, the CWC contains mechanisms for recommending multilateral sanctions, including recourse to the U.N. Security Council.

**Prospects improve for detecting and deterring non-compliance.** States Parties that have acquired or are seeking to acquire CW cannot be sure they will evade detection and avoid punitive measures or sanctions for violations. CWC declaration information that is inconsistent with U.S. intelligence could flag or help substantiate concerns about questionable activities, which can then be pursued through CWC mechanisms such as consultative procedures or challenge inspection.

**Affords better information on rogue states’ efforts to acquire chemical weapons.** The CWC will increase our access to information about clandestine chemical weapons programs even in countries that do not join; the declaration and verification provisions of the CWC require unprecedented transparency regarding CW-relevant activities and provide the U.S. with otherwise unavailable information that will facilitate U.S. detection and monitoring of illicit CW activities.

**Establishes constraints on rogue states’ efforts to acquire certain CW-relevant chemicals.** The provisions of the CWC impose costs on countries that refuse to join the regime by prohibiting States Parties from trading in certain dual-use chemicals with non-Parties. These trade constraints make it more difficult for proliferators to acquire chemicals needed for CW production and also deny them access to certain chemicals that are also useful for peaceful industrial purposes, strengthening incentives for holdouts to join the regime.

**Bolsters existing efforts to fight chemical terrorism.** Although the CWC was not designed to prevent chemical terrorism, certain aspects of the Convention, including its law enforcement requirements and nonproliferation provisions, will strengthen existing efforts to fight the acquisition or use of chemical weapons by terrorist organizations. The CWC’s nonproliferation provisions will deny terrorists easy access to chemical weapons by requiring Parties to eliminate national stockpiles and to control transfers of certain chemicals that can be used to make chemical weapons. Implementing legislation, required by the CWC, will criminalize the development, production, transfer and use of chemical weapons, thus enhancing the ability of law enforcement officials to detect, prosecute and even prevent chemical terrorism.

**New chemicals of concern and novel agents are covered under the CWC.** The CWC captures new chemicals of concern and novel CW agents under the definition of a “chemical weapon,” which is based on a general purpose criterion covering all toxic chemicals and their precursors “except where intended for purposes not prohibited under this Convention, as long as the types and quantities are consistent with such purposes.” The CWC also includes provisions to expand the lists of chemicals subject to declaration and verification as new CW agents are identified and to improve ver-
...ification procedures and equipment as new technology emerges and experience is gained.

**Question.** Opponents argue that we should reject the Convention because it is not 100% verifiable. This argument has been used in the past against arms control treaties such as INF. In your view, is it worth sacrificing the benefits of a treaty such as the CWC simply because its verification provisions may not be air-tight?

**Answer.** No. No treaty is 100% verifiable. However, the CWC is effectively verifiable. Its declaration and verification provisions will put us in a better position to detect and deter clandestine CW activities. Two successive Administrations have concluded that the CWC strikes the right balance between our need to protect sensitive non-CW national security and proprietary information and constitutional rights, and our desire for the access necessary to ensure effective verification and detection.

The Intelligence Community, while noting certain monitoring limitations, has stated that the U.S. is better off with the information and access provided by the CWC than without it. In fact, the CWC will improve the U.S. ability to obtain information about other countries' CW efforts. The CWC will aid and facilitate U.S. monitoring and detection of clandestine activities by providing the U.S. access to certain information from States Parties declarations of CW production facilities and storage sites and relevant chemical industry facilities and activities. The U.S. will also have access to certain information from routine inspections of declared facilities and challenge inspections of declared and undeclared facilities and locations. Information can build confidence or serve to flag or confirm suspicious activities. We can then pursue any concerns through CWC mechanisms such as consultative procedures and challenge inspection.

The CWC contains the most comprehensive and intrusive verification regime ever negotiated in an arms control treaty. The declaration and inspection provisions cover virtually every aspect of a chemical weapons program. The provisions require detailed initial and annual declarations as well as the provision of access to both declared and undeclared facilities and locations through routine and challenge inspections. Information to which we have access from these declarations and inspections will supplement our national intelligence resources and place us in a better position than we are now to detect clandestine chemical weapons programs.

The CWC also requires suspected violators to undertake measures to satisfy concerns about their compliance or face punitive measures. The Conference of the States Parties can recommend to States Parties that they impose collective sanctions in the event of serious cases of non-compliance and must bring cases of particular gravity to the attention of the UN General Assembly and Security Council.

**Question.** It seems that once the CWC enter into force, the ever present threat of intrusive inspections will make it more difficult and costly for a country with chemical weapons ambitions to maintain or set up a clandestine program. Do you agree with this assessment?

**Answer.** Yes. The CWC contains the most comprehensive and intrusive verification regime ever negotiated, covering virtually every aspect of a CW program, from development through production and stockpiling. The Convention's provisions provide access to declared and undeclared facilities, thus making clandestine CW production and stockpiling more difficult, risky and expensive.

The CWC will increase the risk that violations will be detected, raising the political price of noncompliance. Routine inspections will enhance deterrence and detection of illicit production by monitoring activities at chemical industry facilities. These inspections will force violators to consider abandoning their CW programs or going to the effort and cost of trying to relocate them to clandestine sites. Challenge inspections will further enhance deterrence and detection of prohibited activities by allowing Parties to request an inspection to resolve a compliance concern. The greater the scope and size of an illicit program, the more likely it will be detected. Similarly, the more effort a violator undertakes to circumvent the treaty, the higher the probability of detection of that violation.

**Question.** Without the CWC, we will have to rely exclusively on national technical means to gain information about the chemical weapons activities of other countries. Will the data declarations and inspections improve our ability to find out about the activities of potential chemical weapons developers and proliferators?

**Answer.** Yes. The CWC will strengthen our ability to deal with a problem that we confront anyway, with or without the treaty—discovering which states are developing and producing CW and so might threaten our forces or their neighbors. The declaration and inspection provisions of the CWC demand unprecedented transparency, providing otherwise unavailable information that will improve our ability to detect clandestine CW programs.
RESPONSES OF SECRETARY PERRY AND GENERAL CLARK TO QUESTIONS ASKED BY SENATOR BIDEN

Question. Opponents of the CWC say that the United States should retain the ability to respond in-kind to a chemical attack. My understanding is that our military leadership, going back at least to President Bush's Administration, has made the determination that the best way to deal with the threat of chemical weapons is to have effective countermeasures and to possess overwhelming conventional military superiority.

* Has this judgment changed?
* Is there any likely scenario in which you could envisage United States armed forces requiring the use of chemical weapons?

Answer. No, this position has not changed. Anyone who considers using chemical weapons must be prepared to face all the superior and overwhelming military force that the U.S. can bring to bear. As the Chairman of the Joint Chiefs of Staff, General John S. Shalikashvili told the Senate in 1994, countries that possess chemical weapons are best deterred by two complementary capabilities. First, our ability to protect our forces reduces any military advantage an opponent might hope to achieve. Second, the certainty of a punishing response to chemical use increases the cost factor in an opponent's equation. It is important to note that the nature of a response would be predicated on the situation. To speculate or prematurely rule out or affirm a specific response to particular situation would simplify an aggressor's decision process.

A chemical attack against United States forces would be regarded as an extremely grave action, subject to an appropriate non-chemical response of our choosing. Any response on the part of the United States would be absolutely overwhelming and devastating. There is no likely scenario in which we could envisage CW use by U.S. forces. As Chairman Shalikashvili stated to the Senate in 1994, "Desert Storm proved that retaliation in kind is not required to deter the use of chemical weapons."

Question. Opponents of the CWC say that it provides a false sense of security and will cause us to become lax in developing effective countermeasures to chemical weapons, leaving our soldiers vulnerable on the battlefield.

* If the CWC enters into force, will the maintenance of effective countermeasures remain a high priority in our defense planning?

Answer. The Department of Defense will maintain a robust chemical weapons defensive capability supported by aggressive intelligence collection efforts. This commitment to protecting our forces, combined with an ability rapidly to bring to bear the overwhelming power of our military capabilities, will form the backbone of military deterrence against any aggressor in the CWC world. Nothing in the treaty restricts our activities in this regard.

The treaty permits Parties to the Convention to continue with chemical weapons defensive programs. The Convention also subjects these programs to monitoring and verification which helps ensure that such activities cannot be used to hide offensive programs.

Question. Some have alleged that the removal of chemical weapons from the menu of U.S. military options would increase our reliance on nuclear weapons.

* What do you make of this argument?

Answer. It is important to note that the nature of a response would be predicated on the situation. To speculate or prematurely rule out or affirm a specific response to a particular situation would simplify an aggressor's decision process. However, anyone who considers using chemical weapons must be prepared to face all the superior and overwhelming military force that the U.S. can bring to bear. As Chairman Shalikashvii has testified, countries that possess chemical weapons are best deterred from using them by two complementary capabilities. First our ability to protect our forces reduces any military advantage an opponent might hope to achieve. Second the certainty of a punishing response to chemical use increases the cost factor in an opponent's equation. Indeed, the Chairman stated to the Senate in 1994, "Desert Storm proved that retaliation in kind is not required to deter the use of chemical weapons."
There has been some controversy as to the status of riot control agents under the Chemical Weapons Convention. In fact, however, the status of these agents is clear from the Convention's text. Every "riot control agent," as defined in Art. II(7), is also a "toxic chemical," as defined in Art. II(2). Thus, riot control agents are subject to the General Purpose Criterion of Article II(1)(a), which applies by its terms to "toxic chemicals." Under that provision, riot control agents are "chemical weapons" "except where intended for purposes not prohibited under [the] Convention, as long as the types and quantities are consistent with such purposes." The definition of "purposes not prohibited under [the] Convention" appears in Art. II(9); it includes both II(9)(c), "military purposes not connected with the use of chemical weapons and not dependent on the use of the toxic properties of chemicals as a method of warfare," and Art. II(9)(d), "law enforcement purposes including domestic riot control." If toxic chemicals, including riot control agents, are produced, held or transferred for purposes other than these permitted purposes, or in types or quantities inconsistent with those purposes, then they are "chemical weapons" and are subject to the Convention's declaration and destruction requirements. For instance, a stockpile of 105mm howitzer shells loaded with a riot control agent would be a "chemical weapon" and be subject to the Convention's restrictions. But, although riot control agents can be chemical weapons under certain circumstances, virtually all presently intended United States uses of riot control agents are permitted by the Convention.

A number of questions of interpretation may arise with respect to the Convention's provisions on riot control agents and other toxic chemicals. The following statements are intended as guidelines to help resolve such problems.

1. The term "law enforcement" in Art. II(9)(d) means actions taken within the scope of a nation's "jurisdiction to enforce" its national law, as that term is understood in international law. When such actions are taken in the context of law enforcement or riot control functions under the authority of the United Nations, they must be specifically authorized by that organization. No act is one of "law enforcement" if it otherwise would be prohibited as a "method of warfare" under Art. II(9)(c).

2. The uses of toxic chemicals prohibited as "methods of warfare" include any use of toxic chemicals by virtue of their toxic properties against enemy combatants (whether regulars or irregulars), and any use of toxic chemicals by virtue of their toxic properties against noncombatants if designed to advance a specific military objective in war.

3. A toxic chemical used by virtue of its toxic properties is only of a type consistent with the purpose of law enforcement, in the sense of Article II(1)(a), if it meets the Convention's definition of a "riot control agent" in Article II(7). Thus, such chemicals must be "not listed in a Schedule" and must "produce rapidly in humans sensory irritation or disabling physical effects which disappear within a short time following termination of exposure." However, any chemical not on Schedule I may be used in carrying out the sentence of a duly constituted tribunal against a natural person.

**ANALYSIS**

**I. Applicability of the General Purpose Criterion to Riot Control Agents**

Some officials have suggested that the Convention's only restriction on "riot control agents" is that they not be used as a "method of warfare," Art. I(5). If this claim were correct, a state could develop, produce, retain, and transfer riot control agents in any form and in any quantity, so long as it did not actually use them as a method of warfare. A large class of toxic chemicals would be exempted from the Convention's controls by this interpretation: in the words of Art. II(7), it would in-

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1 Felix Frankfurter Professor of Law, Emeritus, Harvard Law School.
2 Thomas Dudley Cabot Professor of Natural Sciences, Harvard University.
3 J.D., Harvard Law School.
4 See Statement for the Record by Ambassador Stephen J. Ledogar, U.S. Representative to the Council on Disarmament, for the Senate Committee on Foreign Relations, April 13, 1994, at 8 ("RCA's are defined in a section separate from chemical weapons to indicate that while the Convention prohibits their use as a method of warfare, they themselves are not considered chemical weapons.")
clude all chemicals "not listed in a Schedule, which can produce rapidly in humans sensory irritation or disabling physical effects which disappear within a short time following exposure." With respect to this group of chemicals, the situation would be little changed from that which existed under the majority interpretation of the 1925 Geneva Protocol, which similarly barred the use of chemical weapons but did not prohibit their development, production, and transfer. For example, this interpretation would permit a State to produce, maintain and test a large stockpile of howitzer shells or bombs loaded with a riot control agent, even though riot control agents of such a type (howitzer shells or bombs) and in such a quantity (a stockpile) would have no application other than as a method of warfare.

The claim underlying this interpretation derives in part from Article I(5) of the Convention, which obliges states "not to use riot control agents as a method of warfare." The only explanation for this provision, it is claimed, is that use of riot control agents as a method of warfare is not barred by any other provision of the Convention.

This explanation is incorrect both as a matter of history and as a matter of treaty interpretation. As a matter of history, there is a better explanation of Article I(5). The provision's authors almost certainly intended it to resolve the question of the international legal status of "the use of riot control agents in warfare," a question raised by the position of the United States that the use of such agents in warfare was entirely outside the 1925 Geneva Protocol. In order to ensure that a similar question did not arise with respect to the Chemical Weapons Convention, the Convention's authors reiterated a rule that was already implicit in the Convention's text.

As a matter of treaty interpretation, this claim would exempt riot control agents from the Convention's central provision, the "general purpose criterion" of Article II(1)(a). That provision defines as "chemical weapons" subject to the Convention's restrictions "toxic chemicals and their precursors, except where intended for purposes not prohibited under this Convention, as long as the types and quantities are consistent with such purposes." The Convention also includes, in Article II(9), a specific and exclusive listing of "purposes not prohibited under this Convention," which includes, for example, agricultural, industrial, and medical purposes.

Given the General Purpose Criterion's central role in the Convention, it would be surprising to find that the Convention exempted certain categories of toxic chemicals from its terms altogether. And, in fact, it did not. The General Purpose Criterion states clearly that it applies to all "toxic chemicals." The Convention's definition of "toxic chemicals," in turn, specifically includes chemicals that cause "temporary incapacitation." Compare this to the definition of "riot control agents" in Article II(7): "any chemical not listed in a Schedule, which can produce rapidly in humans sensory irritation or disabling physical effects which disappear within a short time following termination of exposure." All chemicals that produce "sensory irritation or disabling physical effects" necessarily produce "temporary incapacitation." Thus, "riot control agents" are by definition a subset of "toxic chemicals," and so are subject to the General Purpose Criterion, including its restrictions as to types and quantities of chemicals. The specific inclusion of "law enforcement and domestic riot control purposes" (emphasis added) in Article II(9)'s list of "purposes not prohibited by the Convention" further underscores the fact that riot control agents are subject to the General Purpose Criterion.

An interpretation of the Convention that excluded riot control agents from the "types and quantities" restrictions of the General Purpose Criterion would also be deeply inconsistent with the purposes of the Convention. As a matter of treaty interpretation, this inconsistency weighs strongly against the validity of the proposed interpretation. As observed above, the proposed interpretation would exempt riot control agents from the Convention's restrictions on development, production, acquisition, stockpiling, retention and transfer, as well as its restrictions as to "types and quantities." Moreover, because "riot control agents" could never be "chemical weap-
ons," they would be exempted from most of the Convention's declaration requirements, which are framed in terms of chemical weapons (Art. III (1)(a)-(d)).

Because this interpretation exempts riot control agents from so many of the Convention's core provisions, it poses the danger of a partial return to the mutual suspicion and security dilemmas that drove chemical weapons acquisition before the Convention. By eroding the norm against the possession of toxic agents for use in warfare, and by encouraging national military establishments to include the use of toxic chemicals in their training and doctrines, this situation might in turn permit a gradual return to the development and production of a broader range of toxic chemicals for military purposes.

To illustrate the application of the Convention's provisions on riot control agents, consider the example, introduced above, of a stockpile of howitzer shells loaded with a toxic chemical meeting Art. II(7)'s definition of a riot control agent. Because a riot control agent causes temporary incapacitation, it is a "toxic chemical" in the sense of Art. II(2). Thus, by the terms of Art. II(1)(a), it is subject to the general purpose criterion articulated in that section. Under the general purpose criterion, a toxic chemical is a "chemical weapon" unless it is "intended for a purpose not prohibited under this Convention, as long as the types and quantities are consistent with such purposes." Turning to the listing of purposes not prohibited by the Convention in Art. II(9), we may proceed through the four purposes not prohibited by the Convention.

The first, "industrial, agricultural, research, medical, pharmaceutical or other peaceful purposes," does not appear to encompass a stockpile of howitzer shells. The second, "protective purposes, namely those purposes directly related to protection against toxic chemicals and to protection against chemical weapons," might conceivably permit a small number of howitzer shells intended for use in training troops to operate in an environment containing toxic chemicals, but would not permit a stockpile of such shells. The third, "military purposes not connected with the use of chemical weapons and not dependent on the use of the toxic properties of chemicals as a method of warfare," appears to be inapplicable. Training, as discussed above, would not require a stockpile of shells, and there is no obvious other military application for a stockpile of howitzer shells that would not amount to use as a method of warfare. Finally, there appears to be no legitimate application of howitzer shells for "law enforcement including domestic riot control purposes," the last of the purposes not prohibited under the Convention.

Thus, a state possessing a stockpile of shells of this type would be required to treat them as chemical weapons, and they would be subject to the Convention's prohibitions on production, acquisition, retention, use, and transfer, and to the Convention's provisions on declaration and destruction, if still in existence when the Convention enters into force.

II. "Law Enforcement": What Law, Where Enforced?

The Convention does not state clearly what law States may enforce when they invoke the Convention's law enforcement provisions, or where and under what circumstances they may enforce that law. This creates considerable scope for confusion. For instance, may a State use toxic chemicals in enforcing its national law in the territory of another State, without the latter State's consent? May it invoke this provision whenever it judges international law has been violated? Further, the Convention does not clarify the relationship between its limited exception for military purposes and its exception for law enforcement purposes. Might an activity that would be barred if considered under the military purposes exception qualify as law enforcement, and so be permitted? For instance, could a State use riot control agents in fighting a civil war, claiming that enemy forces were violating its national law, international law, or both? Paragraph 1 of the proposed guidelines attempts to address these questions by providing reasonably clear standards for when and where States may claim to be engaging in law enforcement. It provides:

The term "law enforcement" in Art. II(9)(d) means actions taken within the scope of a nation's "jurisdiction to enforce" its national law, as that term is understood in international law. When such actions are taken in the context of law enforcement or riot control functions under the authority of the United Nations, they must be specifically authorized by that organization. No act is one of "law enforcement" if it otherwise would be prohibited as a "method of warfare" under Art. II(9)(c).

7The only declaration requirement applicable to riot control agents, Art. III(I)(4), only requires that States specify the chemical identity of chemicals that they hold "for riot control purposes."
A. Enforcement of National Law. The proposed guidelines for the enforcement of national law are derived from background rules of international law. "Enforcement" of national law is a term of art in international law; there are reasonably well-defined rules as to the circumstances in which a state has jurisdiction to enforce its national law. Therefore, according to the rules of treaty interpretation, the Convention's references to law "enforcement" should be interpreted in light of this international standard. For example, international law provides that a state may enforce its own law within its own territory or against its own citizens, but that it may not enforce its national law in the territory of another state without that state's consent. The proposed guidelines make clear that the same rules apply to the use of toxic chemicals in law enforcement.

International legal rules also govern States' authority to enforce their laws in areas beyond any State's territorial jurisdiction, as on the high seas, in contested areas, and in the air. For instance, the only State that may ordinarily enforce its laws against a vessel is that vessel's flag State. Again, the same rule applies to the use of toxic chemicals in law enforcement. In a small number of instances, the precise international legal rules governing nations' jurisdiction to enforce national law in areas outside any state's territorial jurisdiction are in some dispute. In those cases, the rules governing nations' ability to use toxic chemicals in law enforcement will be clarified as broader questions as to the scope of national enforcement jurisdiction are resolved.

B. Enforcement of International Law. The Convention also does not state explicitly what sources of law States may enforce in invoking Art. II(9)(c). It seems possible, therefore, that States might wish to invoke international law to justify their "law enforcement" activities. The purposes of the Convention and background norms of international law itself demonstrate that such claims should be permitted in only the narrowest of circumstances. Permitting States to judge and enforce violations of international law themselves, without the consent of the world community, would be an invitation to anarchy. Moreover, States are prohibited by the United Nations Charter from unilaterally using force except in cases of self-defense against an armed attack. The Charter bars states from pursuing international disputes in a manner which "endanger[s] the maintenance of international peace and security," and instead requires them to settle their disputes by "peaceful means." Instead, the Charter provides that both the Security Council and the General Assembly shall have a role in the settlement of international legal disputes. Although the Charter reserves to States the right to use force in self-defense, acts of self-defense are not acts taken to enforce international law. Instead, they are acts of warfare, and are regulated by the Convention's provision on "military purposes not connected with

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10 See Vienna Convention on the Law of Treaties, Art. 31(2)(c) (directing that treaties be interpreted in light of "any relevant rules of international law applicable in the relations between the parties").  
11 See Brownlie, supra, at 300; see also American Law Institute, Restatement of Foreign Relations Third, § 432(1).  
12 See Brownlie, supra, at 303.  
13 See Brownlie, supra, at 307 ("The governing principle is that a state cannot take measures on the territory of another state by way of enforcement of national laws without the consent of the latter"); see also American Law Institute, Restatement of Foreign Relations Third, § 432(2) ("A state's law enforcement officers may exercise their functions in the territory of another state only with the consent of that state, given by duly authorized officials of that state.").  
15 See United Nations Charter, art. 2(3) ("All Members shall settle their international disputes by peaceful means in such a manner that international peace and security, and justice, are not endangered"); art. 2(4) ("All Members shall refrain in their international relations from the threat or use of force against the territorial integrity or political independence of any state, or in any other manner inconsistent with the Purposes of the United Nations.").  
16 See United Nations Charter, art. 11 (authorizing the General Assembly to consider questions relating to the maintenance of international peace and security and to make recommendations); art. 34 (authorizing the Security Council to investigate disputes), art. 35 (authorizing the Security Council and General Assembly to consider disputes brought to their attention by any Member), art. 36, 37, 38 (authorizing the Security Council to make recommendations as to the settlement of disputes), art. 39-51 (authorizing the Security Council to call for economic sanctions, other measures, and the use of force in response to a "threat to the peace, breach of the peace, or act of aggression").
the use of chemical weapons and not dependent on the use of the toxic properties of chemicals as a method of warfare."

Thus, the proposed guidelines contain only a very narrow provision on enforcement of international law. This provision applies only to States acting in the context of "law enforcement or riot control operations under the authority of the United Nations," and, in recognition of the United Nations' ultimate authority over such operations, requires that the United Nations grant "specific" approval for the use of toxic chemicals. The requirement that the approval be "specific" is intended to prevent States from invoking broad statements appearing in a resolution of a United Nations body, such as "all necessary means," as permission to act under this provision.

C. Relationship between "Law Enforcement" and "Methods of Warfare." Article II(9Xc) of the Convention defines the circumstances in which the use of toxic chemicals for military purposes is not prohibited as "military purposes not connected with the use of chemical weapons and not dependent on the use of the toxic properties of chemicals as a method of warfare" (emphasis added). It seems clear that the restriction on using the toxic properties of chemicals as a method of warfare applies with equal force to actions under Art. II(9Xd), the "law enforcement" provision. If it did not, States could circumvent the restriction on using the toxic properties of chemicals as a method of warfare by merely asserting that they were enforcing their national law, for instance in fighting a war on their own territory. Such an outcome would be entirely inconsistent with the purposes of the Convention. For this reason, the proposed guidelines state that "no act is one of 'law enforcement' if it otherwise would be prohibited as a 'method of warfare' under Art. II(9Xc)."

III. The Uses of Toxic Chemicals That Constitute "Methods of Warfare"

The Convention does not prohibit the use of toxic chemicals for "military purposes not connected with the use of chemical weapons and not dependent on the use of the toxic properties of chemicals as a method of warfare." States might claim that they should be permitted to use toxic chemicals, particularly riot control agents, in a range of situations under this provision. The most prominent examples of such applications, are, in the words of United States Executive Order 11850, use "in defensive military modes to save lives." It is not immediately clear when uses justified in such terms would amount to use as a "method of warfare."

The proposed guidelines attempt to answer this question, or at least to clarify the Convention's standard. They provide that:

*The uses of toxic chemicals prohibited as "methods of warfare" include any use of toxic chemicals by virtue of their toxic properties against enemy combatants (whether regulars or irregulars), and any use of toxic chemicals by virtue of their toxic properties against noncombatants if designed to advance a specific military objective in war.*

This guideline applies different standards to uses of toxic chemicals on combatants and on noncombatants. Uses on enemy combatants are barred outright, irrespective of purpose; uses on noncombatants are barred when they are "designed to advance a specific military objective in war." The standard for uses on noncombatants merely recasts the Convention's "method of warfare" language in terms of the purpose for which the toxic chemicals are used, an approach that occurs throughout the Convention.

Uses on enemy combatants are, however, barred irrespective of purpose. This is so because uses of toxic chemicals on enemy combatants will virtually always be designed to advance some military objective. Even if the State using toxic chemicals intends in part to save the lives of enemy combatants, it also intends to harass or immobilize them, a military objective, and so is using the toxic properties of chemicals as a method of warfare. As to the vanishingly small class of cases in which the objective of harassment might be absent, it is appropriate to set aside these cases in order to avoid encouraging States to make self-serving claims about their intentions towards enemy combatants. It may seem paradoxical that uses on combatants should be held to a higher standard than uses on civilians. In fact, such a difference in standards is not especially anomalous; for instance, states are held to a higher standard in a number of respects in their treatment of prisoners of war than of their own civilians. Note that the distinction between combatants and noncombatants is
neither unusually difficult to apply nor new to international law. It is drawn from the First and Second Protocols Additional to the Geneva Conventions.  

Since Executive Order 11850's promulgation in 1974, much of the controversy on these questions has focused on the particular situations it cites as permissible military uses of riot control agents. Thus, it is useful to consider the way in which § 12 of the proposed guidelines would apply in those situations.

A. "Use of riot control agents in riot control situations in areas under direct and distinct (national) military control, to include controlling rioting prisoners of war."

Such uses of riot control agents would generally be permitted under the Convention and proposed guidelines. First, it should be noted that, as discussed in § I above, this use of riot control agents is subject to the General Purpose Criterion, and so must be for one of the purposes listed in Art. II(9). In fact, two of II(9)'s clauses apply. Art. II(9)(c) and II(9)(d)'s "military purposes" provision applies directly. The prisoners of war are noncombatants, and so the use of riot control agents on them is permissible under § 12 of the proposed guidelines unless it is "designed to advance a specific military objective in war." The military objective at stake in controlling rioting prisoners of war is, at best, highly attenuated, so this use is permissible.

Alternately, this use of riot control agents might be justified under Art. II(9)(d)'s "law enforcement" provision. Assuming that the State using riot control agents is operating on its own territory, or is an occupying power, or has secured the consent of the State in whose territory it is operating, it has jurisdiction to enforce its national law. Of course, it may not do so in a way that would amount to use as a "method of warfare" (which, as discussed above, this application does not).

B. "Use of riot control agents in situations in which civilians are used to mask or screen attacks, in the hope of reducing or avoiding civilian casualties."

Such uses of riot control agents would be prohibited. The proposed guidelines very clearly bar the use of all toxic chemicals, including riot control agents, on enemy combatants. Removing civilian cover from military forces, whether or not done for humanitarian reasons, serves a military objective, just as would denying the enemy another form of cover or a tactical advantage.

Situations of the type described above are very rare in any case. Civilians ordinarily avoid combat situations when possible. Moreover, civilians disabled by toxic chemicals will have difficulty finding shelter or otherwise protecting themselves from fire, calling into question the humanitarian benefits of this policy. Finally, a right to use toxic chemicals for "humanitarian" purposes may be misused, either deliberately or inadvertently (thanks to the "fog of war"), posing a significant danger of escalation.

C. "Use of riot control agents in rescue missions in remotely isolated areas, to rescue downed aircrews and passengers or escaping prisoners."

Such action is permitted in some situations and prohibited in others. Again, there is a separate analysis for "law enforcement" and for "military purposes." To begin with "law enforcement," if the "remotely isolated areas" are within the territorial jurisdiction of the State using riot control agents, or within the jurisdiction of a consenting State, then the conditions of § 1 of the proposed guidelines are satisfied. Of course, the enforcement action may not depend on the use of the toxic properties of chemicals as a method of warfare, as defined further in § 2.

If the "remotely isolated areas" are within the jurisdiction of an unconsenting State, then it is possible that limited use of riot control agents might be permitted.

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16 See The definition of Protocol I Additional to the Geneva Conventions is:

1. The armed forces of a Party shall consist of organized armed forces, groups and units which are under a command responsible to that Party for the conduct of its subordinates, even if that Party is represented by a government or an authority not recognized by an adverse Party. Such armed forces shall be subject to an internal disciplinary system which, inter alia, shall enforce compliance with the rules of international law applicable in armed conflict.

2. Members of the armed forces of a Party to a conflict * * * are combatants, that is to say, they have a right to participate directly in hostilities."

Protocol Additional to the Geneva Conventions of 12 August 1949, And Relating to the Protection of Victims of International Armed Conflicts (Protocol I), Art. 43, opened for signature Dec. 12, 1977, 16 I.L.M. 1391. A similar definition, emphasizing effective internal discipline, appears in Protocol II Additional to the Geneva Conventions, Article 1, which states that the Protocol shall "apply to all armed conflicts which are not covered by Article 1 of the Protocol Additional to the Geneva Conventions of 12 August 1949 (Protocol I) and which take place in the territory of a High Contracting Party between its armed forces and dissident armed forces or other organized armed groups which, under responsible command, exercise such control over part of its territory as to enable them to carry out sustained and concerted military operations and to implement this Protocol." Protocol Additional to the Geneva Conventions of 12 August 1949, And Relating to the Protection of Victims of Non-International Armed Conflicts (Protocol II), Art. 1, opened for signature Dec. 12, 1977, 16 I.L.M. 1391.
under the "military purpose" provision, Art. II(9)c). Resisting downed aircrews and passengers and recapturing escaping prisoners by using riot control agents on noncombatants has a broad "military purpose," but is not "designed to advance" any more concrete "military objective." Provided that no riot control agents are used against enemy combatants, their use against noncombatants in such situations may be permitted by the Convention.

D. "Use of riot control agents in rear echelon areas outside the zone of immediate combat to protect convoys from civil disturbances, terrorists, and paramilitary organizations." Once again, addressing the legality of this use requires an investigation of both the "military purposes" and the "law enforcement" provisions. Each exception seems likely to permit such use in some circumstances. The "law enforcement" exception applies, as in Sec. I, when the act of enforcement is taken within the nation's jurisdiction to enforce, and when the act does not constitute a "method of warfare." Under either the "law enforcement" or the "military purposes" provision, we then conduct an inquiry into whether the act involved constitutes a "method of warfare." If the terrorists or paramilitary forces involved are acting as part of a "war," either civil or between States, then they are "combatants," and any use of riot control agents in this manner is prohibited. (It is difficult to define a "war" precisely, but the term generally refers to hostilities on a comparatively large scale between forces with at least some internal organization or discipline.) Otherwise, they are noncombatants, and we must ask whether the use of riot control agents in question is "designed to advance a specific military objective in war." In the case at hand, protecting convoys does have a military objective (maintaining supply lines), but it is sufficiently attenuated to render this use of riot control agents permissible.

IV. Types of Toxic Chemicals Permissible for "Law Enforcement"

Although Art. II(9)d) states that "law enforcement, including domestic riot control" is a "purpose not prohibited by the Convention," it does not state in detail which "toxic chemicals" may be used for this purpose. The Convention does provide one explicit restriction: the exclusion of "law enforcement" purposes from the list of permitted applications of Schedule I chemicals in Verification Annex VIAX2) implies that Schedule I chemicals may not be used for "law enforcement" purposes. However, States might assert that the Convention's lack of other restrictions permitted them to develop, produce, acquire, transfer and use for anti-personnel purposes any other toxic chemicals, including chemicals listed on one of the other Schedules, provided that they could claim that they were doing so for "law enforcement purposes."

This claim would be both harmful and incorrect. It would be harmful because it is difficult to monitor States' invocation of the Convention's provision on "law enforcement purposes." The Convention's section on declarations imposes only the weakest of requirements on chemicals intended for law enforcement purposes. Under Article III(1)c), states must declare the chemical identity of all toxic chemicals that they hold "for riot control purposes." If a State decides that it intends to use a toxic chemical for law enforcement purposes, but not for purposes of riot control, it need not make any declarations with respect to that chemical at all.

The threat of this apparent loophole is particularly acute because a number of States currently have active development programs directed at producing new, technologically advanced disabling chemicals, many of which might be claimed to be intended for law enforcement purposes, but not for riot control. These chemicals are unlikely to be listed on a Schedule; thus, the general purpose criterion is the principal restriction on their development, production, ownership and use. Because States need not disclose the identity of these chemicals, however, it is likely to be difficult or impossible to subject States' claims as to their "purposes" to international scrutiny. States will inevitably assume that other States' claims as to their "purposes" are self-serving and question their sincerity, giving rise to precisely the sort of self-reinforcing cycle of mutual suspicion that the Convention was intended to eliminate. Further, developing countries, many of which may find these technologically advanced chemicals out of their reach, are likely to see the Convention's failure to regulate them as evidence of an unfair double standard, harming the legitimacy of the Convention in their eyes.

Yet these harmful consequences all flow from an incorrect interpretation of the Convention. Certainly, it cannot be the case that every state is permitted to judge for itself whether a particular "purpose" is one "not prohibited by the Convention." If that were so, the general purpose criterion would have little force: States could construe medical, industrial, or law enforcement purposes very broadly, and so evade the Convention's restrictions altogether. Rather, as the General Purpose Criterion states, toxic chemicals "intended for purposes not prohibited under [the] Con-
vention" are not chemical weapons only "as long as the types and quantities are consistent with such purposes." Paragraph 3 of the proposed guidelines attempts to provide a focus for discussions that might resolve this problem. It reads:

A toxic chemical used by virtue of its toxic properties is only of a type consistent with the purpose of law enforcement, in the sense of Article II(1)(a), if it meets the Convention's definition of a "riot control agent" in Article II(7). Thus, such chemicals must be "not listed in a Schedule" and "produce rapidly in humans sensory irritation or disabling physical effects which disappear within a short time following termination of exposure." However, any chemical not on Schedule I may be used in carrying out the sentence of a duly constituted tribunal against a natural person.

Under this proposed guideline, an irritant or paralytic chemical with effects that do not endure beyond a short time would be of a "type" suited to law enforcement purposes, but sarin (which is listed in a Schedule) or any paralytic chemical with long-term side effects would not. Any chemical not on Schedule I could be used to carry out a death sentence imposed by a duly constituted tribunal. The requirement that the sentence of the tribunal be imposed on a natural person bars invocation of this provision to justify the use of toxic chemicals against a national group or ethnic minority.

This interpretation is derived from the purposes of the Convention and from international human rights standards, both recognized instruments of treaty interpretation. Most importantly, the Convention's purposes clearly require that States be precluded from retaining large quantities of toxic chemicals with enduring toxic effects with no other justification than asserted law enforcement purposes, particularly if the chemical identities of these toxic chemicals are unknown to the other parties to the Convention.

Further, applicable human rights standards support the interpretation in § 3 of the proposed guidelines. Customary international law rules prohibit the use of chemicals with long-term effects by states on civilian populations, whether or not such use is characterized as "law enforcement," except when such use is in accordance with the decision of a duly constituted tribunal. More generally, the Universal Declaration of Human Rights and Covenant on Civil and Political Rights both bar governments from depriving citizens of their liberty other than after a full and fair trial. The Universal Declaration of Human Rights is widely agreed to have been interpreted to apply to "national groups and ethnic minorities" under international customary law rules. In light of these international human rights standards, the Chemical Weapons Convention's references to "law enforcement" must be understood as entailing some minimal guarantees of fair process. Accordingly, the proposed guidelines embody such a standard.

9 June 1994

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17 As already noted, the Vienna Convention on Treaties requires that relevant rules of international law be taken into account in interpreting treaty provisions. See Vienna Convention on Treaties, Art. 31(3)(c).


19 See Universal Declaration of Human Rights, Dec. 10, 1948, U.N. G.A. Res. 217 (III 1948), art. 5 ("No one shall be subjected to torture or to cruel, inhuman or degrading treatment or punishment"), art. 10 ("Everyone is entitled in full equality to a fair and public hearing by an independent and impartial tribunal in the determination of his rights and obligations and of any criminal charge against him."); art. 11(1) ("Everyone charged with a penal offense has the right to be presumed innocent until proved guilty according to law in a public trial at which he has had all the guarantees necessary for his defense."); International Covenant on Civil and Political Rights, Dec. 16, 1966, 999 U.N.T.S. 171, art. 6(1) ("Every human being has the inherent right to life. This right shall be protected by law. No one shall be arbitrarily deprived of his life."); art. 6(2) ("The sentence of death can only be carried out pursuant to a final judgment rendered by a competent court."); art. 7 ("No one shall be subjected to torture or to cruel, inhuman or degrading treatment or punishment"), art. 9 ("Everyone has the right to liberty and security of person * * * No one shall be deprived of his liberty except on such grounds and in accordance with such procedure as are established by law.").