

STRATEGIC IMPLICATIONS OF CHEMICAL AND BIOLOGICAL WARFARE

HEARING
BEFORE THE
SUBCOMMITTEES ON INTERNATIONAL SECURITY
AND SCIENTIFIC AFFAIRS
AND ON
ASIAN AND PACIFIC AFFAIRS
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Thank you very much, Mr. Chairman. I would like to say that we are now ready to answer any questions on the subject.

Chairman ZABLOCKI. Thank you, Admiral Davies.

I realize, Secretary Nimetz and Admiral, you would prefer that questions be asked of you two first. Professor Meselson, however, has a very brief statement, in the interest of time and so that questions will not be repeated, we will have him give his statement and the questions will be posed to all three of you as a team.

Mr. NIMETZ. Mr. Chairman, let me just make the point that we are honored to be working with Dr. Meselson in many ways and I would be honored to be on a panel with him, but we have an executive branch practice of not testifying on panels with persons who are not members of the executive branch. That is why, when we came up this morning and found that this was the proposed procedure, we asked that at least in the question-and-answer period you direct your questions and answers to Admiral Davies and myself and, when we are completed, direct them to Professor Meselson.

Chairman ZABLOCKI. I was unaware there was that kind of a ruling on the part of the executive branch. I vividly remember that in the past we have had executive branch witnesses and witnesses from academia at the same time. I yield to my cochairman.

Mr. WOLFF. Mr. Chairman, would that mean that after Professor Meselson has made his dissertation or statement, that we could not ask you for answers to some of the statements that he might make?

Mr. NIMETZ. Not at all, Mr. Chairman, we can stay as long as you like. It is a matter of practice, not appearing on a panel which looks more a debate.

Chairman ZABLOCKI. Would you feel more comfortable if you left the table and then come back when we ask the questions? [Laughter.]

Mr. NIMETZ. That would be more in keeping with the practice. As I said, it has nothing to do with the circumstances of this hearing or Professor Meselson. It is just our normal practice which we have followed in the past.

Chairman ZABLOCKI. Just move your chair a little bit. [Laughter.]
Dr. Meselson?

STATEMENT OF MATTHEW MESELSON, PH. D. PROFESSOR, DEPARTMENT OF BIOCHEMISTRY AND MOLECULAR BIOLOGY, HARVARD UNIVERSITY

Mr. MESELSON. Thank you, Mr. Chairman.

My statement is not long. I would like to read it.

It is a privilege to appear before you today to take part in your considerations bearing upon an important area of U.S. security policy—the area of chemical weapons and chemical arms control.

Let me first say something about my background in these matters. My professional training is in chemistry and biology. I am presently professor of biochemistry and molecular biology at Harvard University. My interest in chemical weapons stems from service as consultant to the U.S. Arms Control and Disarmament Agency during the period from 1963 to 1973.

I continue to take an active interest in this subject and in this regard I would like to submit for the record a recent article entitled, "Chemi-

cal Weapons and Chemical Disarmament," written in collaboration with Julian Perry Robinson of the University of Sussex, England, and published in the April 1980 issue of Scientific American magazine.¹

Our longstanding national policy places chemical weapons in a special category. The United States has renounced, as have all other major nations, any first use in war of lethal and incapacitating chemical weapons. In addition, we are actively seeking an effective and verifiable international agreement banning the development, production, and stockpiling of such weapons. These policies for chemical weapons reflect more than the widespread repugnance felt toward the use of poison in combat. Placing chemical weapons in a special category, joining in the international renunciation of their first use and seeking effective chemical disarmament, these are policies dictated by careful consideration and analysis of our national security interests. It is important to keep this clearly in mind when attempting to formulate sound policy on a day-to-day basis.

Today, there are three principal policy issues related to chemical weapons. They are:

First: What chemical warfare capabilities, both protective and offensive, should we maintain in the present situation?

Second: What should be our negotiating position in seeking an effective international agreement to ban chemical weapons?

Third: How should we respond to the immediate situation in which, as Secretary of Defense Harold Brown stated earlier this month in Los Angeles, "There is mounting evidence that the Soviets are using incapacitating gas—and some reports they may be using lethal gas—in the Afghan countryside."

In the context of today's hearing I would like to begin with the last of these three issues, although I will be glad to respond to questions regarding the first two as well.

Secretary Brown's recent statement, like other official statements made over the past 3 months, makes it clear that we have no definite confirmation of the use of gas in Afghanistan, and that if gas is being used, it may be of a nonlethal type. There is a similar—though not identical—lack of hard evidence regarding reports of the use of chemical weapons by Laotian Government forces against indigenous tribespeople in that country, although in this case the number of persons—at least 50—from whom we have reports claiming to have seen chemical attacks is greater than in the case of Afghanistan.

This protracted uncertainty presents us with a serious dilemma. If poison gas has actually been used, it is important to obtain evidence of a quality sufficient to convince other governments and world opinion, if we are to have any dissuasive effect on Soviet or Laotian actions. Moreover, if we wish to deter nations that might at other times and in other conflicts contemplate the use of such weapons, we must demonstrate an ability to obtain such evidence and to present it convincingly.

If, however, gas is not being used, or if it is only harassing or irritant gas such as that used on a large scale by U.S. forces in Vietnam then, making accusations of illegal chemical warfare can erode confidence in our credibility as leader of the Western Alliance and can risk encouraging other states, including adversaries, to make allegations of

¹ See appendix 3, p. 54.

this nature carelessly or maliciously. Such a climate would threaten the very constraints against poison gas warfare that we wish to strengthen and would have destabilizing effects on international relations generally.

Moreover, the manner in which the United States deals with reports of possible violations of international agreements, such as the agreements prohibiting gas and germ warfare, sets important precedents which can influence our future effectiveness in obtaining international agreements for enhancing our national security. Our success in obtaining such agreements and their stable and satisfactory operation will be conditioned by precedents our Government sets in the handling of allegations such as those we are discussing today.

What we have in the present situation is the worst of both worlds. If the unconfirmed allegations of the use of poison gas are false, continued doubt serves only to erode the existing restraints against chemical warfare and to undermine the basis for effective arms control. If the allegations are true, our inability to document them prevents us from having much impact on the actual course of events.

This uncertain situation has existed for nearly 4 months in the case of Afghanistan and for several years in the case of Laos. Its prolongation is clearly harmful to our long-term interests. What can be done?

There is one range of options, that involving both remote and on-site intelligence gathering which I am not qualified to discuss, although it seems clear that so far such means have produced no decisive results. There is, however, an additional range of possibilities which should be considered even outside the context of current military operations in Afghanistan and Southeast Asia.

International procedures could be established for dealing with allegations regarding prohibited uses of chemical weapons. Various international organizations could be considered for this purpose, including the International Committee of the Red Cross, the United Nations General Assembly, or some other U.N. body.

Alternatively, procedures could be established under the auspices of the parties to the appropriate international agreement, such as the Geneva Protocol of 1925. Such procedures could include the formation of an international group qualified to seek and evaluate relevant statements from individuals and from Governments.

It should include persons with pertinent scientific knowledge, and provisions for appropriate medical examination of individuals claiming to be victims.

Verbatim transcripts and proceedings could be published, along with evaluations, commentary, and relevant background information. The very existence of such a body or of provisions could have a deterrent effect on potential violators. It could also discourage the making of ill-founded or malicious allegations.

Thorough study and deliberation is required in order to decide whether such an approach would be feasible and effective. It should, however, be given serious consideration for possible use in the present situation and for future contingencies.

I should add that I find it encouraging that considerations of this nature are indeed being made by our Government.

This concludes my formal statement. I again thank the subcommittees for the opportunity to speak and welcome the opportunity to try to answer any questions you may have.

Chairman ZABLOCKI. Thank you, Dr. Meselson.

You see, Mr. Secretary that was not too painful, and it probably is very necessary that there be some dialog between the executive branch, Congress, and academia. We have to learn why they sometimes are on cloud 9 once in a while and it is very good for Dr. Meselson to hear the actions that have been taken. As he noted in closing his statement, he was very pleased that at least some of the things he had suggested are already being undertaken and pursued by Government even before he testified.

It must, therefore, be comforting to you that Dr. Meselson does not disagree with your efforts.

One of the most serious concerns and questions we have in Congress concerns the alleged use of chemical or biological lethal agents in the regions mentioned in your testimony today, particularly in Afghanistan. As you have stated, Mr. Secretary, on page 14 of your statement, the Soviet Union, a signatory to the 1925 Protocol, had included a reservation to the Protocol which would not apply to countries which had not ratified the Protocol. Afghanistan has yet to ratify the Protocol.

It is my understanding, however, that since the Soviets signed the Protocol—and I believe Admiral Davies referred to this—the prohibition on first use of chemical weapons has become a part of customary international law which is in force for all states.

Mr. NIMETZ. Yes, Mr. Chairman.

Chairman ZABLOCKI. If so, that means that if the Soviets used nerve agents and lethal gas in Afghanistan that it is illegal and a violation of international law. In discussing this issue with the Soviets, Mr. Secretary or Admiral Davies, what has been their response? Have they even acknowledged this as a fact?

Mr. NIMETZ. The response at the time we discussed this type of use with the Soviet Union has been to deny any knowledge of the use of any chemical agents. So, therefore, the legal question, to my knowledge, has not arisen.

I would confirm your statement that we believe that the first use of lethal or incapacitating chemical agents is a part of customary international law and binds all states. The use of these types of CW agents against civilians is also a violation of international law.

Chairman ZABLOCKI. Do they accept that?

Mr. NIMETZ. Well, we believe—

Chairman ZABLOCKI. Not what we believe, but what do they believe?

Mr. NIMETZ. I am not aware of what the Soviet view is.

Chairman ZABLOCKI. I think it is very important to get their perception, and I think it is very important to have on the record how and to what degree they even referred to the reservation that they had once placed in the Protocol.

Mr. NIMETZ. Mr. Chairman, in 1971 the Soviet representative to the Geneva Conference of the Committee on Disarmament stated—and this is a quotation—“The Socialist countries base themselves on the premise, and this view is widely supported throughout the world

that the Protocol"—that is the Geneva Protocol—"has established a generally recognized rule of international law on the prohibition of the use of chemical and bacteriological weapons." So, this statement in 1971 of the Soviet view confirms our view that the Protocol does establish a recognized rule of international law.

Chairman ZABLOCKI. What about the reservation? Is there any reference to that by the Soviets?

Admiral DAVIES. The reservation was made at the time of their ratifying the Geneva Protocol.

Chairman ZABLOCKI. But when allegations were made to the Soviets, did they refer to the reservation?

Admiral DAVIES. No, sir. Their position is one of denial that this happened. They did not attempt to assert any reservation at all.

Chairman ZABLOCKI. On another area, Mr. Secretary, I would appreciate further amplification on page 5 of your sentence, "There is a possibility as well, however, that the irritants involved come from captured U.S. stocks." Was it tear gas? I was not aware that there were tremendous stocks of tear gas, or any other chemical agents that were left in that area after we departed.

Mr. NIMETZ. We are trying to be careful here, Mr. Chairman. In the case of irritants, that is CS or tear gas, there is a possibility that some of it might be from captured U.S. stocks. I will be glad to amplify the record for you.

Mr. WOLFF. Would the gentleman yield at that point?

Chairman ZABLOCKI. Yes.

Mr. WOLFF. During the hearings that we had in December we asked that specific question, as to whether or not any of the lethal agents that were suspected could possibly be captured U.S. stocks, and the answer was a categorical "no."

Chairman ZABLOCKI. That is my understanding as well. So, I want to clarify that point because possible ambiguity in your statement could lead to misinterpretations.

Mr. NIMETZ. Let me just make it clear that I said we know of no lethal or incapacitating agents being produced in Southeast Asia—that is lethal and incapacitating agents. Therefore, the question of supply comes in.

With respect to irritants, that is a riot-control gas that very simply has a momentary effect. With respect just to irritants, there is a possibility that some captured U.S. stocks might be involved. In my statement, in a footnote on page 6, I tried to describe the difference between what we call incapacitants and irritants, or riot-control agents. As you know, riot-control agents are used by police and their effects wear off very quickly once exposure ceases. The effects of incapacitants can last for days or weeks and be much more permanent and deleterious.

Chairman ZABLOCKI. Dr. Meselson, in your presentation you have outlined some of the international procedures and activities that our Government should take. You also suggested that persons with pertinent scientific knowledge be involved in a factfinding effort to determine the usage of such chemical weapons. What is the inherent military strength or weakness in using lethal chemical agents in warfare? I presume you have had, or hope you have had, an opportunity to meet with some of your Soviet scientist counterparts.

Do your Soviet counterparts have a similar or different perspective from yours?

Mr. MESELSON. Mr. Chairman, let me start with your last question. I do not know if I have any Soviet counterparts. I have talked at meetings with Soviet scientists who have been designated as experts on chemical weapons matters, but I have never had discussions with them about weapons effectiveness. I do have some acquaintances in the U.S. military who may have had such discussions with their military counterparts in the Soviet Union, and I think that is an interesting subject to follow up.

As to the question of the effectiveness and utility of lethal chemical weapons, I presume you are talking about lethal chemical weapons in the possession of the United States and its allies, or in the possession of the Soviet Union?

Chairman ZABLOCKI. In the possession of any nation.

Mr. MESELSON. Well, the general situation is that chemical weapons can be very effective against unprepared personnel. If, on the other hand, an individual is wearing a gas mask and, if skin-attacking agents like mustard or VX nerve agent are in use, also protective clothing, that individual is almost invulnerable to the casualty-producing effects of chemical weapons.

This distinguishes chemical weapons uniquely from high explosive and flame weapons in that you can effectively protect a man against chemicals. The military effectiveness of lethal chemical weapons against sophisticated forces, such as those of the United States and our allies, or those of the Soviet Union, would be largely not direct casualty production; not the kinds of effects you get with high explosive or flame weapons, but would be in the degradation of combat capability through wearing such equipment.

It is important to realize that defensive equipment is improving rapidly. I have brought with me the current U.S. protective jacket, which is not much heavier than an ordinary jacket. In hot weather, above 75° to 80° F, there will be some heat degradation and periods of strenuous exertion must be alternated with periods of lesser activity. In the range of temperature that is standard in Central Europe, the current protective equipment imposes very little burden on the man wearing it.

The equipment has been steadily improving and there is room for more improvement.

Chairman ZABLOCKI. But the Afghan rebels do not have this kind of equipment.

Mr. MESELSON. No, they do not have it.

My answer to your question is that I do not think that against sophisticated forces lethal chemical weapons would be very effective as compared with alternative conventional weapons. This is an arguable issue, but I think there are strong arguments to be made that lethal chemical weapons do not offer major military opportunities in combat between sophisticated forces.

Chairman ZABLOCKI. If I just may turn to another point, with the permission of my cochairman. As a scientist, I am sure you have been following the Sverdlovsk incident. Was there a high level of biological agents involved?

Mr. MESELSON. May I combine in my answer to your question, Mr. Chairman, some comments as well about Southeast Asia and Afghanistan?

Chairman ZABLOCKI. Yes.

Mr. MESELSON. Starting with Sverdlovsk, there is a very troubling series of reports from alleged eyewitness observers, according to articles published in West Germany and in Israel. However, the reports leave many questions. I have no current access to classified information of this subject and therefore, what I say to you will be incomplete.

Nevertheless, I am left with serious doubts as to whether there was indeed a violation of the Biological Weapons Convention in Sverdlovsk. I think that the tone of the statements made by U.S. Ambassador Floweree in Geneva regarding the possibility that there may have been such violations, his moderate and constructive tone is the right one to strike. My questions in this case involve several concrete issues.

First of all, anthrax, if that is indeed what it was, is a major problem in the Soviet Union. This is mainly the cutaneous form, not the intestinal or respiratory form of anthrax. About 2 million people are inoculated every year against anthrax in the Soviet Union. I would not be surprised, therefore, if there are research institutes, including military ones, working with anthrax.

There are differences in the reports. The Israeli newspaper report cites a total of some hundreds of people, possibly 300, who became ill, but many fewer who died. The West German newspaper reports cite hundreds who died.

I think there are serious questions as to the diagnosis of respiratory anthrax in this case. The clinical diagnosis of respiratory anthrax is difficult. It can easily be confused with other diseases. Bacteriological testing or autopsy are required for reliable diagnosis. There are also serious questions regarding the period of time over which new cases continued to appear. It puzzles me that new cases are said to have appeared steadily over a period of more than a month. If this was an airborne incident as alleged, the primary cloud of spores would have passed by and dispersed quickly, like smoke. Only a small fraction should be deposited on the ground and of that only a tiny fraction can become airborne again. Even that will be made up mainly of particles too large to reach the depth of the lungs where infection can occur; so, as each day passes, the dose should drop precipitously. I do not understand since the incubation period, if only a few days, and human contagion is not known to occur with respiratory anthrax, I do not understand how there could be continuing cases every day for a month or more, of approximately equal frequency, if it was respiratory anthrax. It sounds like the source of infection was continuous, not like an aerosol cloud.

So, there are a lot of questions about that in my mind. On the other hand, I cannot understand the Soviet explanation, which is that it was intestinal anthrax, caused by infected meat, if indeed there was widespread respiratory disease. The accurate diagnosis of respiratory anthrax is a key question. It is to be hoped that the Soviets will provide more information than they have so far. In a matter of this degree of

importance and where a treaty obligation is involved, we have every right to seek more information from them.

Chairman ZABLOCKI. I don't believe the beef theory since there is so little beef there.

Mr. MESELSON. Now, as far as Laos goes, I do not agree with the conclusion that there is convincing evidence that lethal agents were used. My understanding is that there exists no medical examination of victims that would support that. Instead, there exist claims by refugees.

The Government has conducted, and then subsequently the National Academy of Sciences has conducted, and I, myself, have conducted extensive interviews in Vietnam, both in the Highlands and in the regions populated by ethnic Vietnamese, asking if there were human deaths and human illness caused by herbicides and the irritant agent CS, which U.S. forces used widely during the Vietnamese war.

The National Academy reported, and we reported also, that there was a striking difference in the testimony given by ethnic Vietnamese and by Montagnards. There were a few claims of death among ethnic Vietnamese but they were rare.

Among the Montagnards the situation was different. The National Academy report presents a table of villages in each of which numerous deaths were claimed. Why that is, I do not know. We had the same experience in our interview. The Montagnards said lots of people died of "medicine from the sky." I do not think that the herbicide or CS gas we sprayed would kill people. I cannot understand it. Yet, you have people who seem to be innocent, simple people, who are telling you these stories. So, I am puzzled by this and I do not accept that there necessarily was a lethal gas used in Laos, although I cannot exclude the possibility. In the absence of any physical or medical evidence or other hard evidence, it is not possible to be certain.

The symptoms claimed by the refugees cited by the U.S. Army medical team as possibly indicating nerve gas, do not include some of the most characteristic symptoms of nerve-gas poisoning, so I think we have to reserve judgment on that.

As you know, the actual hard evidence that we have sought has turned out negative. The chemical analysis of samples turned out negative, and so far as I know, we have not found any individuals in whom we can identify symptoms.

Regarding Afghanistan, there too, as Under Secretary Nimetz has pointed out, there is a situation of great uncertainty. There are many reports of military action coming out of Afghanistan and there is much flow of people across the Pakistan-Afghanistan frontier. Yet, we have only a few reports of the use of poison gas. To me, it does not sound like the way the Russians operate. My understanding of the Russian military is that if they do something, they do a lot of it.

The reports that we have been getting from Afghans include one man saying it was lethal, and another man in the presence of the first saying, "No, it was merely debilitating." So far as I know, there is no solid evidence for any use of poison gas in Afghanistan. In particular, the symptoms cited in newspaper reports do not match up with those of nerve gas.

Chairman ZABLOCKI. Of course, you will not disagree that the military units of the Soviet Union are equipped with gas masks and prepared for chemical defense.

Mr. MESELSON. We know that they are well prepared for chemical defense. Their own Russian literature for years has shown their defensive equipment. Their soldiers' training, their training documents indicate the high emphasis they place on being protected against chemical weapons.

Chairman ZABLOCKI. And would they expect the rebels to have chemical weapons to use against them?

Mr. MESELSON. I would not expect it; however, we have not observed, so far as I know, Soviet soldiers wearing gas masks, nor have we observed any chemical decontamination equipment in the countryside. The TMS-65 decontamination vehicle has been seen in the city of Kabul. It is important to understand what that may or may not be. That is a turbojet engine bolted down to a truck, first seen by Western observers, so far as I know, in 1965. It can be used for decontaminating equipment like tanks which may have been contaminated with chemicals.

As Under Secretary Nimetz has pointed out, the TMS-65 is organic to Soviet divisions; it goes where they go.

The TMS-65 has also been seen melting ice on roads and airfield runways; it has been seen spraying insecticides. It is a multipurpose piece of equipment. We cannot conclude very much from the presence of that equipment in Afghanistan.

My view is that the United States should be militarily prepared in a way that does not depend on the day-to-day fluctuations of what you read in the newspapers, or the day-to-day fluctuations in our international relations with the Soviet Union. Our forces should be highly protected against chemical weapons regardless of what you read in the newspapers; they just should be. The present emphasis on defending our soldiers against chemical attack is long overdue although now there is, as you know, high priority given to that. The annual budget for chemical protective equipment has gone up from \$20 million to about \$100 million in constant dollars, starting in 1977.

I think our policy, as much as possible, should not be tied to being at the mercy of the kinds of things you read in the newspapers one day or the next day. It should be tied to the sound evaluation of the capabilities of the weapons and the capabilities of the protective equipment against them.

Chairman ZABLOCKI. I fully agree, Dr. Meselson. I want to thank you for your answers. Certainly, you will agree with me, however, that where there is smoke there is fire and we should continue the investigation.

Mr. MESELSON. We must continue it most carefully.

Chairman ZABLOCKI. Mr. Wolff.

Mr. WOLFF. I am thankful to the chairman, as I said at the outset, for conducting this hearing because I think one of the problems that is involved in all of this is, on the one hand, the infusion into the political arena of some of the scientists and, on the other, the infusion of some of the military and some of the political people into the scientific and military arena.

I would like to separate them out for a moment. I think the response to the chairman's remarks relative to whether or not the Soviets possess the capability was fairly positive on your part, Dr. Meselson.

I think that has been borne out in past testimony that we have had. Now, I should just like to pursue some of the things that have been coming across our desk. No. 1, the statements that you have made, Dr. Meselson, refer to those known agents that exist today, or are known to you.

Is it possible that the Soviets have achieved, or someone else has achieved, a major breakthrough in a new type of bacteriological or gas weapon that is unknown to us, and dissipates very quickly, and that, therefore, the evidence is not conclusive?

I am talking about the substance allegedly used in Laos, of the possibility of its being used in Laos. We find only very small samples of material are obtainable. Not being a scientist, I do not want to get into your field and make a determination as to the dissipation rate of these materials. But the possibility does exist that there is a new type of substance that we are not too familiar with, am I correct?

Mr. MESELSON. It is possible. But it seems to me unlikely. The United States and Britain, and some other of our allies, have spent a great deal of effort screening compounds. And of course there has been even more research that is relevant done quite outside of any military effort. We know quite a bit about pharmacology. It is possible, but unlikely that the Russians have an agent we don't know anything about.

But perhaps more to the point, there are already well-known standard chemical warfare agents which dissipate quickly, that is no great restriction on a chemical warfare agent. It is asking more for the symptoms to disappear quickly—but even that is possible, if you do not test in a very sophisticated way. For example, a person could be exposed to a sublethal dose of nerve agent and if he does not reach an examiner for 3 months, it would not be obvious except possibly if rather sophisticated tests were done on him.

Mr. WOLFF. Mr. Nimetz, a story in the Times on February 21 stated that whether or not the reports from Afghanistan are true, Defense Department experts say that there are many confirmations that the Russians are both ready and willing to wage chemical warfare. Does the Department of State agree with that assessment?

Mr. NIMETZ. We do know their capabilities and, as we pointed out in my testimony and as was elicited in the chairman's questions, Soviet forces traditionally and, I think, uniformly, have chemical equipment.

Mr. WOLFF. How about their willingness to use it?

Mr. NIMETZ. Willingness is a question. Since World War I, there has been no real use of chemical warfare, and that is one of the reasons why these reports are particularly troubling to us.

Mr. WOLFF. We wrote a letter to Secretary Brown regarding U.S. chemical warfare preparation. I have a copy of that letter here. It says:

The Department of Defense supports efforts to reach an acceptable international agreement to limit chemical weapons. However, these efforts have moved very slowly because of the lack of agreement on the necessary verification efforts. Without an international agreement, eliminating the threat of chemical warfare, the United States must maintain a chemical capability to support national policy. Your concern regarding allied views on the influence and maintenance of retaliatory capability are being fully considered in our negotiations.

It goes on to say that the development of binary munitions is not the evolution of a new, more lethal or more toxic agent, it is the development of a technique for packaging the same chemical warfare agents that have been in the inventory for years. The binary concept will result in the munitions being safer handled and deployed, and will be easier disposed of when the usefulness has expired.

I am just wondering whether proceeding with the production of lethal weapons of this sort is a political decision, or is it a military decision? What role do you have, or what role does Admiral Davies have in the final determination of this?

Mr. NIMETZ. I think ultimately it is a decision for the President and, therefore, in the best sense of the word, a political decision.

As you know, on the defensive side, we are making major efforts to enhance our capability.

Mr. WOLFF. In other words, are we producing weaponry?

Mr. NIMETZ. These efforts are on gas masks, and other methods of protecting our people. On the question of retaliatory capability, this is more complicated and, as you know, when our negotiations began in 1977 on the Chemical Warfare Convention, we held off any improvements in this area. This decision is under continuing review. Admiral Davies may want to comment as well on that.

Admiral DAVIES. I think that is perfectly precise. The President makes the decision. He does get advice from us and from the State Department, as well as the Department of Defense.

Mr. WOLFF. Are we improving our retaliatory capability?

Mr. NIMETZ. I believe right now that no major decision has been made on retaliatory capability.

Admiral DAVIES. I think I might just modify that slightly. You must remember the so-called defensive capability. Where we are doing things in improving our equipment, it does contribute to the retaliatory capability because you must be able to protect your own troops. That is one of the crucial things. So, in a sense we are improving it.

Mr. WOLFF. Admiral Davies, is it true that in 1976 the ACDA request for an NSC study of Soviet biological warfare nerve gas was denied?

Admiral DAVIES. I do not recall any such request.

Mr. WOLFF. You have not made any request?

Admiral DAVIES. In 1976?

Mr. WOLFF. How about more recently than that? We have information that there is the possibility that a request was made by ACDA and was denied.

Admiral DAVIES. Let me check the record for that, my memory may have failed me. At the moment I cannot recall any request we have made for a study that has been denied.

Mr. WOLFF. Well, have you made any request recently for a study?

Admiral DAVIES. On CW? We have requested, for example, intelligence community assessments, and things like that. We do that regularly and it has never been denied as far as I know.

Mr. WOLFF. In view of the present circumstances of the charges that are being made, is it not almost mandatory that you be apprised of the exact situation that exists, so that we are not either left defenseless, or we are not overexaggerating the threat that might exist?

Admiral DAVIES. Absolutely. We believe that we are apprised of the exact situation. We work on this strenuously every day.

Mr. WOLFF. Well, since you are apprised of the exact situation, you can clarify everything that we have spoken of here today. [Laughter.]

Admiral DAVIES. The exact situation that we know. I mean, exact situation of our knowledge, which is not complete, obviously.

Mr. WOLFF. Do you feel that the situation that we have been apprised of represents a threat at the present time?

Admiral DAVIES. You are referring to the CW—

Mr. WOLFF. The reports we have had from Sverdlovsk; do you believe that they represent to us a threat and a possible violation of the agreements that have been signed by the United States and by the Soviet Union?

Admiral DAVIES. Well, I think they represent a need for further investigation, and that is what we are attempting to do, focusing international attention on this. But as to a threat, in the case of BW, for example, biological warfare, we concluded long before there was a BW Convention that it was not a useful weapon, it is counterproductive. So, if someone else has it, I think we would still be of the same opinion. As far as CW is concerned, we are already in a state where we have, certainly, a pretty substantial capability. Whether these reports would make any difference to that or not, I think, would have to be analyzed in detail. My guess would be that they are not significant, so, therefore, they would not constitute a military threat in that sense.

As to violation of agreements, that is another matter, and that gets back to the fact that we simply must look for more information and try to clarify and understand what really is happening.

Mr. WOLFF. On final analysis of Sverdlovsk, if the United States is convinced that the incident can only be explained as a biological warfare incident, what will the United States do, what will be the procedure?

Admiral DAVIES. Well, first of all, the United States is convinced that there is enough information that has reached us that there could be a violation of the Biological Warfare Convention. What we are doing is consulting with the Soviet Union under article V of the Convention, which is exactly what is required to do. We have asked them for information, they have supplied some information that has appeared in the press. We have gone back and asked for more information and consultation.

Mr. WOLFF. Dr. Meselson has fairly well concluded that the Soviet information is not that correct. How reliable is it?

Mr. MESELSON. I would say that it leaves me with as many questions as what I have read in the Western press.

Mr. WOLFF. How would you go about believing what they told you?

Admiral DAVIES. Well, you go about believing them to the degree you can verify; generally speaking, you simply acquire a large amount of data, all of which must cross-check and correlate.

Mr. WOLFF. Suppose you then find out, what will be your further procedure?

Admiral DAVIES. We find out there has been a BW violation?

Mr. WOLFF. Yes.

Admiral DAVIES. Well, the next step would be under article VI, which calls for going to the Security Council of the United Nations and filing a complaint, or a protest, there.

Mr. WOLFF. Inasmuch as this is an operation that is not directed against the United States, why have not other nations done the same thing?

Admiral DAVIES. Asked for consultations?

Mr. WOLFF. Yes.

Admiral DAVIES. Well, it is hard to explain the motives of other people, let alone other nations.

Mr. WOLFF. They could be subject to the same type of thing that we are.

Admiral DAVIES. It may be that they interpret the information differently, or that they do not have the same information that we have.

Mr. WOLFF. Thank you.

Chairman ZABLOCKI. Mr. Winn.

Mr. WINN. Thank you, Mr. Chairman.

Mr. NIMETZ. on a broader basis I am trying to find out what cooperation we are receiving from our allies and friends, or those who should be our friends. For instance, what cooperation have we received from Pakistan that has been extended to us with regard to determining whether or not these lethal agents have been used in Afghanistan?

Mr. NIMETZ. Mr. Winn, as you know, we interview refugees in both Pakistan and Thailand. We obviously could not interview them if we were forbidden from interviewing them by the governments involved.

I should say that chemical warfare is a highly sophisticated subject, and there are not many governments in the world that have any capability to research, to examine, to consider this, especially countries that have many more pressing matters on their minds. For this reason we have done most of these things ourselves. We have consulted with a number of friendly governments. A number of them have made statements in international fora; have made demarches to countries involved, and I think there is an interest among many countries in the problem. But I think it is fair to say that we have pursued this more or less independently for the most part up to now.

Mr. WINN. It is my understanding that people can walk back and forth across the borders of Afghanistan and Pakistan. Have any of the Pakistanis, for instance—whatever their title might be—brought back canisters of any type, samples of any type?

Mr. NIMETZ. Mr. Winn, I would prefer not to comment on particular techniques of seeking to gather information, or lines of inquiry we are making. We are looking for any type of evidence we can. As you know, these reports come from fairly remote areas, mountainous areas, from people who are fighting with rather rudimentary weapons. The first thing on their mind is not to pick up samples and scientifically seal them, which is what one would like, and rush them to the nearest laboratory. These people in Laos, or in valleys and mountains of Afghanistan, are people involved in day-to-day fighting. For these reasons it is very hard to get the type of evidence that would be conclusive.

I do not believe it is our burden. I do not believe we have a burden of proving beyond a reasonable doubt that chemical warfare has been used. I think it is our responsibility to call this to the attention of the international community, to have established the proper investigatory committee, or agency, or organization which will then bear that burden, to which people can bring evidence which would be examined in controlled circumstances by impartial observers to whom refugees could go with their stories. I think that would be the ideal solution, so we are not in the process of being accused of being prosecutor, investigator, judge, and jury.

Mr. WINN. I understand that. What I am talking about are plain, simple facts of life. An Afghan farmer, if he finds a canister or something similar, is going to know the difference between that and a watermelon and a potato. He is not going to take it to a laboratory, that is for sure. But he might come back to Pakistan or somewhere else and say, "Look at this thing I found over there." He could have a village huddle and try to figure out what it is.

Mr. NIMETZ. Well, that is certainly something we would be interested in, if canisters came to our attention. Obviously, we would certainly be interested in getting any information we can.

Mr. WINN. Well, what have our more sophisticated allies and friends done in determining whether or not lethal agents are being used in Afghanistan? Most of our allies and friends have carried newspaper articles. I have seen a few, although certainly not all of them. What are they doing. You talk about Pakistan and Afghanistan not being sophisticated in chemical warfare. Some of the other countries certainly are.

Mr. NIMETZ. Well, a number of them have raised this issue in meetings of the Human Rights Commission and others. We have been consulting with a number of them about our information, what other information they might have, or what analytical skills they might have. But their capabilities, however sophisticated they are, are not very helpful in getting the types of evidence that you and I would like, to be able to say, "I feel conclusively what is being used."

Mr. WINN. All right, then, would you recommend some covert activities to better ascertain whether or not lethal agents are being used in Afghanistan? If we must furnish all these world bodies and organizations proof positive before they start making an investigation—and I think that is probably what we are going to have to do—then how do we do it, other than through an accidental farmer who brings some proof in, rather than through covert activities?

Mr. NIMETZ. Well, Mr. Winn, I do not think this is the time and place for me to comment on different sources and methods and ways one could get information, except to say that we are seriously engaged in the process of trying to achieve documentation, if such there be, of any use of chemical warfare.

I should mention one other factor. One of our long-term goals is to discourage the use of chemical warfare. Speaking personally, if all use of chemical warfare stopped today and any allegations stopped today, I would be rather pleased about the state of the world, even though we could never prove its use in the past. Therefore, I would prefer not to have widespread use of chemical warfare just because our chances of documentation would be better. I think

the attention we bring, if it succeeds in getting any use eliminated, would be in itself a success.

Mr. WINN. Well, I know what you mean, but I think you are dreaming a little. When I was up at the U.N. the Russians were the ones who talked about chemical warfare; they were the ones who encouraged several countries in demanding more and more action. Now, who in the world is suspected of using chemical warfare? The Russians. So, I think we are just kidding ourselves.

Thank you, Mr. Chairman.

Chairman ZABLOCKI. Mr. Bingham.

Mr. BINGHAM. Thank you, Mr. Chairman.

I find it difficult, Mr. Nimetz, to understand what you mean when you say the chances are about even that the Soviets have used lethal chemical agents in Afghanistan. I do not understand what you mean. Are you saying that the evidence they have not is equal to the evidence that they have? Just what do you mean by that?

Mr. NIMETZ. Well, Mr. Bingham, we have to give you our best judgment of what the situation is. We were asked to testify, and you want to have some sense of our judgment on this question on the basis of the information available today, which has not been in very great volume. Based mostly on refugee accounts, we have to make some type of judgment about what the chances are. Our best judgment right now is no more than 50-50 that a lethal type agent has been used.

We do feel it likely that it is more than 50 percent that an irritant agent has been used, but on lethal agents, that is our judgment. I do not know how else to express it.

You take information that you have and try to make some sort of a judgment. You have all the experts look at it. We have experts in this area, and their considered judgment, after assessing all the facts, is that we now feel there is a 50-50 chance that this type of agent has been used.

Mr. BINGHAM. I must say, I am somewhat skeptical, based on what we seem to know. It is clear, is it not, that the rebel forces that have made these charges are aware that it will be helpful to their cause to have us believe that lethal chemical agents have been used? That is clear, is it not?

Mr. NIMETZ. Yes, I think so.

Mr. BINGHAM. Well, that being the case, and if there have been deaths from these agents as they charge, many deaths, it seems to me that they would also have had the capacity and the intelligence to produce bodies which could have been subjected to tests which could conclusively prove that they had died as a result of chemical agents.

Mr. NIMETZ. Let me comment on the credibility question. We do not take every refugee account at face value; we do not take all accounts at face value. As I mentioned in my statement, with respect to charges by the Pol Pot forces in Kampuchea, we require that there be a heavy burden on any sustaining proof there because we know that they are engaged in propaganda. So, with respect to the Afghan refugees, or some Lao, we do not rely just on informal conversation or gossip. We have highly trained people who know what questions to ask. We have given instructions to our people and questionnaires, to try to get dates, try to get localities; we try to fit it in with other

information that we receive. There are other types of intelligence that sometimes can be used to confirm some items that the refugees are telling us. We also find refugees who are telling us there are no lethal agents. I mentioned one in my testimony. They said there were some injuries, there were some effects, but there were no deaths.

So, you often get refugees who do not overstate their reports. It does require the taking of evidence and the taking of information, and making some judgment about the accuracy of it, cross-checking it with others, and that is what our intelligence process is all about. That is why, given what we have, I have tried to give a measured response of our considered opinion at this time.

Mr. BINGHAM. Well, I do not think you really answered my question. Let me ask it this way: If someone had produced a couple of bodies, then, presumably, there would be developed conclusive evidence that in fact they had died from lethal chemical agents. We would not then be saying that there is not conclusive evidence.

Mr. NIMETZ. Let me comment on that. First of all, it is not clear that having a body after several months would necessarily reveal the cause of death. It might, and it might not; it depends on the agent and other factors.

Second, we are dealing—let me take Laos—with very mountainous areas far away from Thailand, and very often, in both countries, hot weather. Now, these people who are fighting are hill people. These are hill people, taking a body, traveling 500 or 600 miles with it in order to have an autopsy, very often not arriving at the Pakistani border or the Thai border for months. Carrying a body under those weather conditions, without preservatives, would be something that no one could do.

You also get into the religious factor of whether people from those civilizations even consider the possibility of an autopsy or an examination of a dead body. You know, in many religions—and I am not expert in this—bodies have to be buried in a certain amount of time and it is not allowed to perform autopsies or to tamper with bodies.

Therefore, it is not a very easy thing to expect people to do, especially if you are talking about a wartime situation where these people are being attacked with lethal weapons. Their first instinct is to flee with what they have on them and their rifles, probably.

Mr. BINGHAM. Could I ask you, Admiral Davies, to give us a brief outline of where we stand in international negotiations in the Disarmament Committee? My understanding is, for a long time these negotiations have been held up on the issue of whether or not nonlethal gas should be included in the prohibition: is that correct?

Admiral DAVIES. Well, there have been long consultations and discussions on toxicity and the level of toxicity to be banned and what not. I think we are pretty well in agreement on that now. The outstanding issues at the moment are really verification related. There has been slight movement in that area in the last few months, but there is still a lot to be done there.

Mr. BINGHAM. Admiral, do you remember—I think Mr. Nimetz is too young to comment on this—the charges that were made against us in North Korea about bacteriological warfare? I recall that the prisoners from the Pueblo were put under great pressure to confess that the United States had been using bacteriological warfare in Korea. I

wonder if you can recall that to us in any way that would be significant in terms of tactics that were used by the North Koreans and the Chinese at that time.

Admiral DAVIES. I do not recall a specific case except, I have the same vague impression that you have, that they did try to get us to confess to BW.

Mr. BINGHAM. The charge was made, was it not, by the North Koreans? Dr. Meselson, maybe you have some information.

Mr. MESELSON. The charges went on and on, and there were international groups coming from England and other places, and the North Koreans and Chinese produced photographs of alleged biological munitions. There was a massive series of accusations. There is an individual, an American, who is writing a book about it now; I have just read the manuscript. It is not that I am any older than the Under Secretary. [Laughter.]

Mr. BINGHAM. Do you think that is significant in any way in relation to the current problems we have?

Mr. MESELSON. If you look through the history of allegation of the use of poison in war, going back to the time since World War I, there have been about 2 dozen. Most of them have been unresolved, a few have been. The Italian Air Force clearly used mustard gas in Ethiopia.

But most of the cases have gone unverified. It has been a constant source of propaganda, whether true or not, but propaganda usually in the sense of obscure groups, seeking support, maybe deserving it as well; it is hard to tell.

You asked whether we are having difficulty over the definition of what kinds of agents ought to be prohibited. As you know, it is current U.S. administration policy that the Geneva Protocol does not prohibit the use of irritant type chemical agents, like CS. Most other countries have expressed the opposite view, saying irritants are prohibited in war like other gases.

The United States is in a peculiar, an anomalous position in this regard because there is an Executive order prohibiting our forces from using chemical irritants in combat. We are, therefore, in the position of saying to the rest of the world, "It is definitely all right for you to use chemical irritants any time you want to, it is legal; but our hands are tied, we cannot."

This is a case of cutting off your nose to spite your face, and that is one reason why, in my opinion, we ought not to try to draw a line on what is essentially a continuum of chemicals. Today we see a more important reason. That reason is, if it were illegal and agreed to be illegal, we would not have this issue as to whether a gas used far away is lethal or not. All gas warfare would be under clear-cut prohibition.

We cannot draw exact lines between one chemical and another in war. You cannot do that reliably.

Mr. BINGHAM. But we do use nonlethal, CS-type gas in crime control.

Mr. MESELSON. Yes, and that is perfectly all right. There has never been any serious dilemma there, in my opinion. What is prohibited in war is one thing. What is prohibited domestically is a different thing. I do not see any real conflict there at all.

Mr. WOLFF. Would the gentleman yield on that point?

Mr. BINGHAM. Certainly.

Mr. WOLFF. That is one of the claims that we have in areas of human rights, that people are being gassed, that nonlethal weapons are used to control them in some way.

Mr. MESELSON. I see no legal difficulty in having a rule, which in fact most parties to the Geneva Protocol do believe in, that all gas is prohibited in war. There are many legal precedents for prohibiting activities as between states, which are not regulated by international law within states. No state has argued that it is illegal under the Protocol to use tear gas in war, and also illegal to use it domestically.

The general opinion of governments on this issue has been—including our Government at one time in the 1930's—that there should be no difficulty in distinguishing between what is prohibited as between nations in a state of war and what those governments do at home.

Mr. BINGHAM. Well, it does seem rather remarkable that we should be in a way more lenient in terms of what is considered permissible in domestic riot control or crime control than in terms of international conflicts.

Mr. MESELSON. It is prohibited to execute a captured enemy soldier if he is wearing a uniform, even if he has just slaughtered a platoon of your men, but if in peacetime you consider a citizen of your country who has killed a fellow citizen—

Admiral DAVIES. Or not even a citizen of your country.

Mr. MESELSON [continuing]. Or not even a citizen of your country, there is no difficulty at all in saying that he may be subjected to that capital punishment. I do not see the difficulty.

Mr. BINGHAM. It is also the case, at least in some States, capital punishment is carried out in effect by chemical means.

Mr. MESELSON. There is that, too. I think we are trying to draw a line where you cannot. Our long-term interest is in preventing chemical warfare of any kind.

Mr. BINGHAM. Thank you, Mr. Chairman.

Chairman ZABLOCKI. Mr. Lagomarsino.

Mr. LAGOMARSINO. Thank you, Mr. Chairman.

Admiral Davies, you mentioned the U.N. Human Rights Commission being asked to support us in this investigation, and I understand they did not agree with that. Can you tell us why they did not agree?

Admiral DAVIES. They took no conclusive action. What we asked them to do was establish a subgroup of some sort of that Commission, with the objective of that subgroup performing this investigation, which is what we wanted. It is a group in which most of the action is debate, anyway, and they just never established a group. We were unable to persuade them to do it.

Mr. LAGOMARSINO. It seems rather inconceivable to me that here there is a very serious allegation, or at least the allegation of possibility of a violation of international law and treaties, whereas they seem to be quite ready to investigate other allegations, human rights violations on the part of friendly countries. Have we exerted, in your opinion, enough pressure on them?

Admiral DAVIES. We will continue to go back to them. We are continuing to request our allies to reinforce us in every one of these fora; we will continue. At the moment they simply have not taken action on it.

Mr. LAGOMARSINO. Mr. Nimetz, does the State Department have any opinion on whether or not the alleged Kerala massacre occurred, as it has been described?

Mr. NIMETZ. That is the incident before the actual invasion?

Mr. LAGOMARSINO. Yes; I guess it was before the invasion. The Soviets were alleged to have taken part in it.

Mr. NIMETZ. We have those reports. I am not well enough briefed to be able to tell you, at least in an open hearing, what our conclusions are. I will be glad to submit to the committee a report on our information on that event.

Mr. LAGOMARSINO. From what you say, if it is true that occurred, and some of the other atrocities that have been alleged in the last several months, then I find it not very difficult to believe that the Russians would use the kinds of lethal agents that they have been alleged to have used.

What would be your assessment of the chances that toxic agents were used in Laos? You said 50-50?

Mr. NIMETZ. We think there is a higher degree of probability in Laos that toxic or incapacitating agents were used, based on our interviews. I realize we do not have, even there, anything conclusive. But based on a lot of interviews and cross-checking, and other intelligence, we feel that there is a strong likelihood that lethal incapacitating agents were used in Laos.

Mr. LAGOMARSINO. Do you base that on the number and the quality of the interviews?

Mr. NIMETZ. The quality of the interviews, the number, and also other intelligence that is available gives us reason to give credibility to those reports.

Mr. LAGOMARSINO. I gather from your testimony that you feel, the Department feels, the likelihood is that those gases did come from the Soviet Union.

Mr. NIMETZ. Well, what I said was, we know of no place in Southeast Asia that manufactures those. The Soviet Union is a supplier of military equipment to Vietnam and Laos, and one naturally has questions in that regard.

Mr. LAGOMARSINO. I gather, also, that you do not feel much doubt that the Soviets have used some kind of gas in Afghanistan.

Mr. NIMETZ. We think there is a high likelihood that some form of gas has been used.

Mr. LAGOMARSINO. They have denied it?

Mr. NIMETZ. They have denied, to my knowledge, any knowledge of the use of gas in Afghanistan.

Mr. LAGOMARSINO. Any kind of gas.

Mr. NIMETZ. I think that is true.

Mr. LAGOMARSINO. Dr. Meselson, the testimony we heard earlier, in our December hearing, and the interviews that we have read about since, indicated that in many cases they alleged people died, and you gave your opinion that perhaps that was the same as happened in Vietnam. But in some cases they said that all of the animals died. Is there any kind of riot-control gas, or irritant gas, that would have that kind of effect?

Mr. MESELSON. Yes; that is conceivable.

Judging from the reports I have read from Loas and from our interviews in 1970 in Vietnam, I tend to believe that the Laotian Montagnards are telling the truth when they say they have been attacked with some sort of chemicals.

But I am not convinced they have been attacked with lethal chemicals. There were stocks of U.S. irritant chemical munitions left behind.

Mr. LAGOMARSINO. As I recall, most of the interviews related that rockets were used. In fact, they said there were four rockets used in each airplane. Maybe there were some artillery shells, too.

Mr. MESELSON. I do not recall any U.S. rocket munitions containing CS. We did have CS artillery projectiles, mortar cartridges and cluster-bomb units, and you can, of course, easily empty the CS out. We also used bulk agent and left a lot there, I presume. It could be put in rockets.

Mr. LAGOMARSINO. Admiral, I understand that U.S. policy is not to transfer chemical weapons to other states. Do you know what the Soviet position on transfers to other states is?

Admiral DAVIES. No, sir, I do not believe they have ever expressed themselves, certainly not in the chemical area. That is something that has come up in very recent talks on conventional arms transfers, and that sort of thing. The discussions on the 1925 protocol never had that sort of refinement in them.

Mr. LAGOMARSINO. Secretary Nimetz, this might call for intelligence information. If it does, we cannot pursue it further, perhaps. Do we have any information as to training of Soviet troops with toxic chemical agents? Have there been any cases where they have engaged in battleground simulated training, using those kinds of agents?

Mr. NIMETZ. Mr. Lagomarsino, that does get into intelligence information, but we would be glad to discuss that with you.

Mr. WOLFF. Would the gentleman yield on one point?

Mr. LAGOMARSINO. Yes.

Mr. WOLFF. Dr. Meselson, one point you made is the fact that there is a group of chemical agents that would affect animals and not be lethal to man. Now, do you see any connection with the Sverdlovsk incident there? Here we have talked about a decimation of a herd. Does that not cause you to have thoughts about the authenticity of some of the rumors that there were agents used that were perhaps toxic to the animal population there?

Mr. MESELSON. In the case of Sverdlovsk there are serious biological and technical uncertainties. You have to multiply that by a large additional uncertainty factor when it comes to assessing what occurred in Sverdlovsk, to which we have no direct access.

Mr. WOLFF. Thank you.

Mr. ZABLOCKI. We are pleased to have with us Congressman Leach of Iowa. The Chair will call upon him now for any questions he may have.¹

Mr. LEACH. First, I would like to thank the two Chairs for allowing me to sit in on this meeting. I appreciate it very much.

I would like to make a few brief but strongly held comments.

It was with terrific disappointment that I read your statement, Secretary Nimetz, and yours too, Admiral. Your description of the

¹ Hon. Jim Leach, a Representative in Congress from the State of Iowa.

CW attacks are forthcoming, but your conclusions are unconscionable, and I stress this.

You said, Secretary Nimetz, that we are not in a position either to confirm or to disprove conclusively the reports on the use of chemical weapons in remote areas where the U.S. Government has no presence.

Admiral, you said that you have unconfirmed refugee reports, suggesting that CW has been used in Southeast Asia.

I personally interviewed these refugees. I personally read at great length reports that the Department of State and the Department of Defense prepared. These reports are so numerous and so persuasive that they cannot be denied.

Beyond that, it is clear that when you have a body you do not always need a smoking gun. We have a lot of bodies. There is intelligence-based corroboratory information, that is at your disposal, that leads me to think you cannot possibly conclude anything except that CW has been used at least in Laos.

I have to think that what we have is a situation somewhat reminiscent of World War II. No one in the State Department and no one in the White House ever saw a person being gased in Auschwitz; but we know it occurred.

I think this administration has a moral responsibility to tell the people of the world what is happening. If you do not, your whole human rights policy is brought into great question.

I do not accept whatsoever, Secretary Nimetz, your assessment that the United States does not have a burden to prove what is happening. Any civilized person with the capacity to prove must prove, and you, representing the U.S. Government, have that capacity.

Finally, I would like to comment on your statement, Dr. Meselson, because I find it equally disturbing. I think there is a very important place in academia for scientific skepticism, but sometimes skepticism can be blinding. Sir Isaac Newton may have been the first person to develop a persuasive theory of gravity, but he was not the first person to have an apple fall on his head. The medieval peasant knew just as well as Newton did that apples fall down, he just did not know why. The Hmong tribespeople in Laos know what is happening to their families, they just do not know why.

I would strongly suggest, for your bedtime reading and for everyone's in this room, that you read the reports the State Department has developed, and if you can go to bed skeptical that CW has been used, you are much stronger than I am.

Finally, I would like to make a couple of comments about some parts of the testimony. On page 14, Secretary Nimetz, you refer to the fact that Kampuchea, Laos, and Afghanistan are not parties to the Geneva Protocol. I recognize that customary international law is probably persuasive in any event. But I might say that Afghanistan, Laos and Cambodia are parties to the Biological Weapons Convention. In the Preamble to that Convention there is a statement reaffirming the parties adherence to the principles and objectives of the Geneva Protocol, and calling upon all States to comply strictly with them.

In the negotiations on this treaty, there was a definitive effort to tie the Biological Weapons Convention to previous chemical weapons treaties. As one of the individuals in Geneva who helped to draft that

Convention, I can say to you very strongly that the BW Convention was not intended to be a convention about BW strictly and utterly alone.

Article VI of the BW Convention allows for a complaint to be taken to the U.N. Security Council. This raises the possibility that Sverdlovsk should be drawn to the Security Council, which I would recommend.

It also raises the possibility that the chemical weapons issue might be drawn to the attention of the Security Council, and I stress this because the Geneva Protocol, as you all know, does not have a mechanism for which complaints can be raised.

I would hope that the administration could be very specific and not simply general in its discussion of the Sverdlovsk incident as well as the CW incidents. And I would suggest that you specifically and publicly approach the Government of France, as the depository state for the Geneva Protocol, to call a meeting of all parties to investigate this matter.

I would also suggest that a very high priority be given to this fact that chemical weapons are being used in the world. It strikes me that this administration has given proper, but perhaps undue, attention to the prohibition of nuclear weapons. But no one is currently using nuclear weapons while they are using chemical weapons. I think we should go forward with the CW Convention.

I also think we have the power to offer some quid pro quos, and I would like to raise one. It is always difficult to develop the right response to major international issues. The grain embargo was probably an improper response to the Soviet invasion of Afghanistan. We, as a country, should be seeking ways to reverse poor decisions. An appropriate approach might be, as a quid pro quo to a Soviet signing of a Chemical Weapons Convention that we can approve and verify, the withdrawal of the grain embargo. I think that would be a very proper tradeoff and I hope you would consider it.

Finally, many of us concerned with the chemical warfare have been curious about the issue of motivation. Is there a lot of concern in this area simply because the Members of Congress or the Department of Defense want to go forward with the development of binary weapons. As one Member of Congress. I believe firmly that it would be a great tragedy if this country had to develop binary weapons, and I do not see any great motivation in the Congress in this direction.

It should be clear to everyone that the most effective answer to the usage of these weapons which we have seen in the last year or year and a half would be development of a verifiable, persuasive convention to limit the possibility of their development, production, stockpiling, and transfer, and that as a highest priority this administration should go forth in that direction.

With that, I would just like to thank you for allowing me to sit in. Chairman ZABLOCKI. Are there any other questions?

If not, Secretary Nimetz, Admiral Davies, and Dr. Meselson, we thank you for appearing before the subcommittees this morning. We realize that this is a difficult issue, but we have to pursue it. Thank you.

The subcommittees stand adjourned.

[Whereupon, at 12:10 p.m., the subcommittees adjourned, to reconvene at the call of the Chair.]