The Chemical Corps is concerned with the job of developing the wherewithal by which this country could defend itself successfully against a chemical and biological attack by an aggressor. Along with defense we must develop the means by which we can carry the battle to the aggressor.

I shall not attempt to talk to you about ordinance and the many allied subjects that are tied up with ordnance, for I know your interests go much beyond hardware, equipment and supplies.

I do want to talk to you about attitudes and ideas. Attitudes toward the entire field of chemical and biological warfare are one of our greatest problems. Many of these are a full swing of the compass from reality. Many of these are based on misconceptions, foreign propaganda, and unfortunately, some have been carried over from World War I. Time has moved on since then and if we hang on to old ideas we are doing ourselves a great disservice.

We are very much like the Australian aborigine who made himself a new boomerang. The new one worked fine but he went crazy trying to throw the old one one away.

It is imperative that we get rid of our old boomerang somehow, but without going crazy.

A lot of water has gone over the dam since the chemical warfare of World War I. We must realize that technology has been at work just as busily in this area as in other means of warfare.
Many people don't like to think about the facts of chemical and biological warfare. With such an attitude it is very difficult to make the facts have any real meaning. These aren't pleasant, any more than those pertaining to any other form of warfare. No part of war is pleasant, but if we are going to survive as a nation and as a democracy, we must view chemical and biological warfare in its proper perspective, and we should do something about it. Ugly truths will not disappear if we just turn our backs on them.

Here is a simple truth which we must recognize and stand up to. If there should be another war we may be confronted with attack by chemical and biological methods as well as those of the nuclear variety. The same vehicles that can deliver nuclear weapons—submarines, planes and missiles, can also deliver chemical and biological weapons. An enemy that could deliver a nuclear bomb on a city could also cover the same city with a cloud of chemical and/or biological agents.

The question arises, of course, as to why an enemy would bother with chemical and biological weapons if he could deliver a nuclear bomb over the same area and achieve greater damage. I will answer that by saying, first of all, that chemical and biological weapons are not in competition with nuclear bombs. One achieves one type of effect and the other achieves another type. But the two can be complementary. Used in conjunction with nuclear attack, the CW and BW weapons could multiply the effect. For example, biological agents could be used in advance of an attack to soften up defenses. Delivered along with nuclear bombs the biological agents could greatly extend the total damage. If the enemy elected to use chemical agents
along with nuclear weapons, even those who found shelter would not escape, for presently conceived shelters could easily become death traps. Gas can flow along the ground and penetrate shelters which have not been specially constructed and equipped with filtering devices to screen it out.

We must anticipate what these materials can do and to propose and follow through on those actions that will result in the preparation of the military forces of this nation to withstand successfully the enemy use of these materials against us. We must also be aware that knowledge by potential enemies that we can return better than is sent, may be a powerful deterrent to its use.

In any consideration of BW and CW warfare, we must take our cue from the Soviets. Their leaders have evidenced more than a passing interest in DBR warfare and have so stated. Typical is a statement by a senior Soviet Admiral, and I quote: "... a future war will be distinguished from all past wars in connection with the mass employment of military air forces, diverse rocket weapons and various names of destruction such as atomic, hydrogen, chemical and bacteriological weapons." Such statements, of course, would have very little substance without evidence of military capability. We have good reason to believe that the Soviets have a strong capability.

While reliable information from the Soviet Union is not easy to find, we have learned enough about their interests and capabilities in chemical and biological warfare to know that we must build a CBR defense second to none.

What do we know about their CBR capabilities?
The Sino-Soviet bloc now has a military force of over 8,000,000 men. This includes 400 ground divisions and the Soviets alone could expand their present force by 300 divisions in 30 days and 500 divisions within a year.

Within each of these divisions is a specific organization devoted to the field of chemical warfare. Chemical troops are assigned to all echelons down to battalion.

Soviet chemical weapons are modern and effective and probably include all types of chemical munitions known to the West as well as devices exclusive to themselves. They have an excellent variety of protective equipment and are capable of participating in large-scale gas warfare.

Much of their hardware, such as conventional artillery shells, incendiary bombs and rotational scattering aircraft bombs, are multipurpose and can be readily converted for chemical warfare purposes.

Medical and technical reports which have been published indicate that they are equally well versed in biological warfare. Soviet microbiologists have conducted BW tests over a long period of time.

Their drug manufacturing plants and related industries are capable of producing a variety of agents and they could initiate large-scale production of these agents on short order. Their interest is not just concerned with lethal agents but also incapacitating agents which disrupt mental and bodily processes without permanent injury.

Major General Yu V. Drugov of the Military Medical Service, Red Army, has stated that "Special interest attaches itself to the so-called 'psychic' poisons (mescaline, methedrine, lysergic acid derivatives) which are now used for simulation of mental disease."
These psychic poisons, or psychochemicals as we call them, could have a far-reaching effect if used against us. They are capable of so upsetting mental processes that sound decisions cannot be made or rational thinking pursued. Persons under the influence of these agents do not always realize that they have been affected and fail to recognize that the same condition might be affecting others. Imagine what might happen in our country if the people responsible for making major decisions and policies were subjected to covert attack with these psychochemicals. Only small quantities would be required for this purpose.

This opens an entirely new door in concepts of warfare. Since we know the Soviets are thinking about such methods of waging war, we must find the means to cope with it. It offers endless and insidious possibilities.

Knowing that the Communists are investigating these psychochemical agents, the Army Chemical Corps has, of course, been conducting investigation of its own. I cannot tell you all that they have learned, but I can say that these chemicals can be extremely effective in taking from a man his ability and will to fight without doing him permanent damage. For example, certain types can confuse his thinking so that he is unable to give or carry out orders effectively. They can incapacitate his body so that, while he may have the will to fight, he cannot make his body obey. Broad-scale dissemination of these substances would not be necessary. The course of a war might be considerably changed merely by disrupting key points of command and communications.

To go back to Drugovë, he further stated that "Many of our scientists . . . regard research on the actions of poisons and
on the development of antidotes to be their patriotic duty..."

Please bear this statement in mind as I shall make further reference to it later.

The wholehearted support that the USSR demands of its people extends also to civil defense, including defense against CBR attack. While we in America content ourselves with half-hearted infrequent passive participation in air-raid drills, the Soviet Union has many millions of its citizens of both sexes organized into well-trained groups for civil defense. This vast system embraces the entire country and extends into every hamlet. Known as DOSAAF, this organization at its February 1958 convention resolved that its most important task was to train the entire population for defense against atomic, biological and chemical attack. DOSAAF strives to make all citizens eligible to wear the qualification badge they issue by giving them 20 hours of CBR classroom training and outdoor training in decontamination, first-aid, use of the protective mask and protective clothing. Protective masks are sold by DOSAAF stores everywhere in the USSR and protective equipment is maintained in office buildings, factories, and key installations.

What I have described about Soviet CBR capabilities and interest, to me, is only a part of the story. What about the other part of the story—our own defensive CBR posture?

The first big step, as I see it, is to get our people to understand that equipment and wherewithal to establish a CBR defensive is not enough. Unless the public accepts the fact that we must be prepared to use these weapons, we will not achieve a balanced weapons system. Can we afford to omit CW and BW weapons from our arsenal?