PREPARED STATEMENT AMBASSADOR ROBERT JOSEPH DIRECTOR, COUNTERPROLIFERATION CENTER NATIONAL DEFENSE UNIVERSITY

Mr. Chairman, distinguished Members, thank you for the opportunity to present testimony on a class of emerging threats that have profound implications for the way we think about and ensure our security. It is both a pleasure and honor to be here today.

I intend to provide an overview of the growing threats stemming from the proliferation of nuclear, biological and chemical (NBC) weapons. I will do so by outlining, in very brief form, five conclusions based on a series of studies we have conducted at the National Defense University.

I should emphasize that my comments are personal and do not necessarily reflect the views of the University, the Department of Defense or any agency of the U.S. government.

My starting point, and first conclusion, is that nuclear, biological and chemical weapons are a permanent feature of the international environment. These weapons are not going to go away; they cannot be disinvented. The knowledge and the technology to build them will spread even further.

In fact, despite the efforts of the international community to establish norms against such weapons, the barriers to both acquisition and use have actually eroded in recent years. On the nuclear side, the tests in India and Pakistan and the covert programs of North Korea and Iran make all too clear that we live in a world in which additional states will seek these weapons. Experience suggests that they will be successful.

On the biological and chemical side, the most cited estimate is that approximately 25 states have or are seeking such weapons. The alarming size and scope of the Iraqi NBC programs, revealed only after its defeat in war, reflect the value ascribed to these weapons by rogue states.

Beyond state programs, the diffusion of sensitive technologies and expertise is eroding obstacles to acquisition and use of these weapons by terrorists and other transnational groups. The Aum cult in Japan, which tried to

disseminate anthrax and which did use sarin in the Tokyo subway, provides the most chilling indication of a fundamental change in the terrorist threat. Both motives and means are changing as a growing number of groups – foreign and domestic – are seeking NBC weapons to use as weapons of mass destruction, that is to kill large numbers of people.

The second conclusion is that NBC weapons have substantial utility. They are seen as valuable tools by state and non-state actors alike. For rogue states, these are usable weapons that are not viewed solely as weapons of last resort. This is fundamentally different from the way we viewed these weapons in the past. In the contemporary setting, NBC weapons are perceived as effective instruments to overcome the conventional superiority of the United States against which these countries simply cannot compete.

For state adversaries, NBC weapons are also valued as a means to deter our intervention into their region, making it safe for them to pursue their own aggressive designs against their neighbors. If threats fail, these weapons are seen to provide the means to raise the level of casualties so that the United States will be forced to withdraw.

As a corollary to this second conclusion, I would add that biological weapons appear to be emerging as the weapon of choice – no longer just the poor man's atomic bomb. As biotechnology advances, the attributes of being comparatively cheap and easy to produce will become even more pronounced. In addition, biological weapons have other advantages for rogue states that complicate both our defense and response. These include extraordinary lethality and relative ease of delivery, as well as ease of concealment that makes it difficult to detect and identify before and after use.

For terrorists and criminals, available evidence suggests a dramatic increase in interest in biological agents. In the past, political and moral constraints kept most such groups from resorting to mass murder. Today, only the technical challenges associated with effective aerosolization of agents appear to inhibit their use.

We know that state programs, such as in Iraq, have overcome such technical challenges. For this reason, access by terrorists to state programs -- or to key individuals from such programs -- should be of greatest concern. Most disturbing, there is evidence that all of the countries identified by the State

Department as sponsors of terrorism are assessed to have biological weapons programs.

The third conclusion is that old models of deterrence are not likely to be successful. In a situation involving a regional adversary armed with nuclear, chemical or biological weapons, deterrence will be less stable and more likely to fail than deterrence as we knew it in the East-West context. The conditions that we valued in our deterrent relationship with the Soviet Union -- such as mutual understandings, effective communications and symmetrical interest and risks -- simply do not pertain with states like North Korea. Moreover, such countries are much more prone to risk taking than was the Soviet leadership, especially following Khrushchev.

As a consequence, the threat of retaliation or punishment that formed the basis for our deterrent policy in the Cold War is not likely to be sufficient. Therefore, it is essential that the United States acquire the capabilities to deny an enemy the benefits of these weapons. These capabilities – including passive and active defenses as well as improved counterforce means such as the ability to destroy mobile missiles – offer the best chance to strengthen deterrence, and provide the best hedge against deterrence failure.

A further dimension of the NBC threat that undercuts deterrence is the growing ability of adversaries to deliver such weapons against the United States homeland, including against our cities. This is most visible with the North Korean long-range missile program but also includes the potential for unconventional delivery, especially of biological agents.

For rogue states, acquiring the capability to strike our population centers denies us the convenience and simplicity of thinking in terms of fighting a purely theater war, and makes essential our development and deployment of new defensive capabilities. In this context, I commend the initiatives undertaken by the Senate to insure that our first responders are trained to deal with chemical and biological incidents, and – more recently – for the passage of the National Missile Defense Act of 1999.

The fourth conclusion is that an overwhelming retaliatory capability remains critical to U.S. security policy. Although not adequate by itself, the threat of retaliation remains essential for deterrence of both initial use and follow-on use of NBC weapons by rogue states. Here, conventional superiority alone cannot provide for a credible deterrent. In fact, despite sustained and

determined efforts by some to de-legitimize our nuclear weapons and assertions that their utility ended with the Cold War, our nuclear weapons play a unique and indispensable role in deterring the use of NBC weapons in regional contexts. This is in addition to the hedge our nuclear weapons provide against the strategic uncertainties associated with Russia and China – two states that continue to value and modernize their nuclear forces.

From our examination of the real-world case of deterring Iraqi chemical and biological use in Desert Storm, and from our extensive experience in gaming, we have concluded that our nuclear weapons are the single most important instrument we have for deterring NBC use against us by rogue states. Conventional superiority, which in certain critical ways is perceived as vulnerable, especially if the enemy uses his NBC capabilities early in a conflict, is not enough. Our conventional and nuclear forces must work together to enhance deterrence in a very complex and dangerous environment.

The fifth and final conclusion is that, while we are moving forward in acquiring the necessary capabilities to counter the full range of NBC threats, much more needs to be done.

On the military side, we are deploying better suits and masks, as well as detectors for both chemical and biological agents. We are making progress in improving our ability to strike deep underground targets, as well as in protecting against the release of agents. We are revising joint doctrine for the conduct of military operations in an NBC environment, based on the assumption that chemical and biological use will be a likely condition of future warfare. The regional CINCs are embedding counterproliferation in their planning and training. On the domestic side, efforts at the federal, state and local levels – from law enforcement to medical preparedness – are being considered and implemented.

Yet, we have a long distance to go. In some cases, we are pushing the boundaries of science, such as for remote detection of biological agents. In other areas, we are struggling with the need to re-think how we can best deter and defend against new and emerging threats. As you are all aware, there are no easy answers or silver bullets on which we can rely. The problem is enormously complex and will take the efforts of our best people to resolve.

Thank you again for this opportunity to speak before the committee and I look forward to your questions and comments.

Testimony of Robert G. Joseph Senate Armed Services Committee Subcommittee on Emerging Threats and Capabilities March 23, 1999