Testimony of Robert L. Gallucci
Dean of the Edmund A. Walsh School of Foreign Service
Georgetown University
Before the Subcommittee on Strategic Forces of the
Senate Armed Services Committee
21 March 2007

I want to thank the Subcommittee for this opportunity to address some of the issues related to policy options for the future strategic nuclear force posture of the United States. I would like to begin by addressing three types of threats from nuclear weapons, in descending order of importance, that confront our country: first, the threat of a nuclear weapon delivered by a terrorist group and detonated in an American city; second, the threat of an accidental or unauthorized strike on the United States by a nuclear weapons state; and third, the threat posed by a pre-meditated attack on the United States or one of its allies by a nuclear weapons state.

The most likely threat comes from a terrorist group such as Al Qaeda. If Al Qaeda could acquire a nuclear weapon, few doubt that it would try to use it. Since it would deliver such a weapon by unconventional means -- such as a boat, truck or shipping container -- we should not have much confidence in our ability to interdict this kind of a border crossing now or in the near future. Since Al Qaeda members are known for valuing our death more than their life, neither should we expect to deter them. Lacking either defense or deterrence against this threat, we should put our energy and resources into preventing Al Qaeda from acquiring either a manufactured nuclear weapon or the fissile material to make one. This means that we must <u>persuade</u> those countries with nuclear weapons or fissile material to secure them against <u>unauthorized</u> transfer -- which we might call "leakage" -- and <u>deter</u> them from any <u>authorized</u> sale or transfer.

For a variety of reasons, when it comes to leakage, we ought to be particularly concerned about Russia and Pakistan, and when it comes to intentional transfer, two different countries appear most worrisome, North Korea and, eventually, Iran. The question, then, is what policies should we adopt to persuade some countries to secure nuclear weapons and materials to our standard, and deter others form deciding to sell such weapons or materials. The first part of the answer is that we must develop the capability to identify the source of a nuclear weapon or the fissile material at its core, whether we should find it before detonation or have only the debris it produces to analyze after detonation. If we can accomplish this attribution with high confidence, through a combination of scientific forensic analysis and intelligence collection and analysis, and we can convince other countries that we can do this, then we can take the next step in persuasion and deterrence, that is, making a credible threat of retaliation. For those states that would intentionally transfer a nuclear weapon or fissile material, the deterrent threat is relatively straight forward, that is, to treat those countries as though they had launched the attack and to pose to them the prospect of devastating consequences, without excluding the use of nuclear weapons, if the United States or one of it allies should be the victim of a nuclear attack.

For those states that we are concerned might leak a nuclear weapon or fissile material to a terrorist group, and fail to take actions that we regard as reasonable and prudent to secure their weapons and material, we should warn them also that we will treat them as though they were negligent and thus as though they had launched the attack. The American public would demand no less. In neither the case of transfer nor leakage would our response necessarily involve nuclear retaliation, but in both cases the President should

have the option of a precise nuclear response with as little collateral damage as possible. Obviously, if we are to gain the advantage of what may be called "expanded deterrence" to prevent leakage, countries such as Russia and Pakistan must be told that we have adopted this posture.

Beyond the missions of deterrence and expanded deterrence, we should also consider the force requirements of pre-emption and preventive war to deal with this threat. In contrast to a retaliatory strike, there is no reason to create the option to use a nuclear weapon to strike another country in order to <u>prevent</u> the transfer of fissile material or a nuclear weapon to a terrorist group, or to stop a country from even <u>acquiring the capability</u> to accumulate such weapons or material. But there is every reason to maintain the capability for pre-emptive or preventive strikes in our <u>conventional</u> force structure, even though we should see such options as a last resort.

This brings us to the second type of threat posed by nuclear weapons, that from the accidental or unauthorized launch of a nuclear weapon against the United States. Although this threat may arise from more countries in the future, for now it is almost exclusively one that is posed by Russian strategic nuclear systems. The best way for the United States to reduce the risk of such a launch would be to seek agreement with Moscow to measures that would, for both countries, reduce the alert status of our delivery systems, increasing the time required to launch strategic nuclear weapons.

The third type of threat, a pre-meditated nuclear attack on the United States or one of its allies by another nuclear weapons state, is the least likely event, but the one which guides our thinking in determining the basic size and character of our nuclear forces, just as it did decades ago when we confronted a hostile Soviet Union with tens of thousands of

nuclear weapons. Today, and for the foreseeable future, the only country against which our deterrent could conceivably be tested is Russia, and neither that country's intentions nor capabilities would seem to require the number of warheads and delivery systems which we plan to deploy and hold in reserve in the future in order to maintain a high level of confidence in our deterrent capability. It is hard to understand why it would not be enough to have some hundreds of warheads on deployed systems -- trident submarines, with a reduced number of warheads per missile in order to increase range and survivability, silo-based ICBMs, and bomber aircraft with gravity bombs and ALCMs -- in addition to reserve forces of comparable size and composition. In short, this classic threat would arguably require less than half the 1700 warheads permitted by the lower end of the range of deployed strategic nuclear warheads allowed under the Strategic Offensive Reduction Treaty (SORT). Those who argue that more is required of our strategic forces for this mission should be made to justify the assertion, without reference to any additional missions for our strategic nuclear forces.

None of the three nuclear threats just identified justify increases in our nuclear forces, and indeed I am suggesting that they may be accomplished at lower levels of forces. If we can substantially reduce force levels, there are real benefits to the national security to be realized, particularly if matched by Russia, and eventually by others. Let me identify three such benefits. First, the fewer the warheads and delivery systems that are deployed and maintained in reserve, the easier it would be to secure them against theft and against accidental or unauthorized launch, and the less the need for fissile material to field them. Second, if nuclear forces can be reduced, it would help address the obligation of the United States and other nuclear weapons states party to the Nuclear Nonproliferation Treaty to

engage in serious disarmament. Third, and most important, lowering the level of nuclear forces demonstrates a reduced dependence on nuclear weapons to achieve legitimate security objectives, which in turn contributes to a critical international norm of de-legitimatizing the acquisition of nuclear weapons.

The other missions that have been identified for our nuclear forces are meant to improve our ability to deal with rogue states or terrorist groups and, particularly their intention or ability to attack the United States with chemical or biological weapons. The idea seems to be that we can better <u>deter</u> attacks on us by having new, smaller yield (and thus more credibly usable) nuclear weapons to use against these states or groups, and that we can better <u>defend</u> against attacks by having special effects nuclear weapons that are more capable of destroying an enemy's buried chemical or biological weapons facilities. Both these propositions are suspect. First, we already have small yield nuclear weapons in our inventory to impress rogues and terrorists, if indeed they care about what we may regard as acceptable collateral damage. Second, serious questions have been raised about our ability to produce a nuclear weapon whose ability to destroy underground weapons production or storage facilities significantly exceeds that which can be achieved with existing nuclear or conventional weapons - - without producing politically and ethically unacceptable collateral damage. In short, given the incentives to avoid additions to our nuclear force, a convincing case for nuclear weapons designed to attack these targets has yet to be made.

If neither nuclear nor non-nuclear threats would require additions to our nuclear forces, and there are good reasons to try to reduce those forces, are there other reasons to consider augmenting our force posture? There are at least two more reasons that should

be considered. One is a unique mission that is neither a case of classic deterrence nor defense; the other is the more general need to maintain confidence in the reliability of our nuclear forces without resorting to nuclear weapons testing.

We have until now considered nuclear and non-nuclear threats to the national security that might require nuclear weapons for deterrence or defense. There is, in addition, at least one scenario in which we might wish to threaten the first use of nuclear weapons, or actually launch a first strike, in order to forestall the use of conventional forces against U.S. interests: it is the Taiwan contingency. It is possible, at some future date, that China will seek to resolve the status of Taiwan by the use of force and the United States would then want to prevent this outcome without engaging in a massive conventional war so far from America's shores and so close to China's. In such a scenario, the threat to escalate to the strategic nuclear level by launching a disarming first strike against Chinese strategic nuclear forces might be an option the United States would want to preserve or create. Indeed, current Chinese plans for modernizing its strategic nuclear forces are at least in part aimed at increasing their survivability against just such a first strike, that is, at creating a deterrent. Our current plans to deploy even a thin defense against ballistic missiles aimed at the United States further complicate China's plans for such a deterrent.

The most prudent way to assess this scenario is in the larger strategic and political context. From such a perspective, it is profoundly in America's interest to maintain a nuclear force posture and a conventional force structure designed to meet our national security needs without ever resorting to the first use of nuclear weapons. While this proposition is relevant to some of the other missions envisioned for our forces mentioned earlier, it is most critical to addressing the China-Taiwan scenario because it bears directly

on the motivation for Chinese calculations about their own strategic nuclear force requirements. In sum, our choice of policies for our strategic nuclear forces might some day be sensitive to Chinese strategic nuclear force deployments, but our legitimate defense and deterrent needs with respect to China can be met now and for the foreseeable future, at existing or substantially lower force levels.

Finally, there is the issue of whether or not it is necessary to develop and deploy a new nuclear warhead so that we will be able to maintain confidence in the reliability of our nuclear forces for a longer amount of time than we otherwise might. Now, if such a new nuclear warhead were to be introduced to replace our existing, nuclear warheads, without first testing it, a serious question arises about why we would think it more reliable than the well-tested warheads to be retired. On the other hand, if the replacement warhead would eventually require testing in order to sustain the confidence we have in the reliability of our stockpile, then we should consider the implications of resumed nuclear weapons testing for our national security. Suffice it to say, that while many continue to argue against the benefits of our future adherence to a treaty banning further nuclear weapons testing -- arguments which I do not accept -- the disadvantages of eventually resuming the testing of nuclear weapons are undeniable. If there is a theme that runs through this presentation, it is that our nation's security is best served by taking steps that de-emphasize the relevance and utility of nuclear weapons. Nuclear weapons testing undermines that proposition.