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**Testimony of Dr. Edward L. Warner  
Before the Senate Armed Services  
Subcommittee on Emerging Threats and Capabilities  
March 23, 1999**

The Department of Defense has a coordinated, comprehensive strategy to combat the international threats posed by the proliferation and possible use of weapons of mass destruction (WMD). Our first line of defense is to prevent the development and acquisition of WMD and modern missiles by nations that do not already have such capabilities. We also work with other nations to reduce or eliminate existing WMD capabilities by 1) gaining their adherence to a treaty, such as the Chemical Weapons Convention, 2) through pre-emptive acquisition, or, 3) in the case of the New Independent States that emerged from the break up of the Soviet Union, with the help of U.S. assistance provided under the Cooperative Threat Reduction (Nunn-Lugar) program. However, we cannot expect to prevent WMD proliferation in all cases and at all times. Despite our efforts to prevent WMD proliferation, we recognize that determined states and some terrorist organizations will manage to acquire these weapons. Therefore, we pursue counterproliferation activities to compliment our nonproliferation efforts. These efforts include training and equipping our forces to operate effectively in a WMD-contaminated environment, and working with U.S. civil authorities to prepare to cope with the consequences of WMD terrorism in the United States. In this testimony, I will expand on each element of this comprehensive strategy.

**I. NONPROLIFERATION IN THE DOD**

Our first line of defense against WMD proliferation is to prevent it from occurring, and if that fails, to roll it back through peaceful means. Over time, the United States and its treaty and regime partners have had notable successes in this regard. The concerted, coordinated efforts of the American government helped to convince Brazil and Argentina to forego long-range ballistic missiles and to persuade Ukraine, Kazakhstan, and Belarus to give up their nuclear weapons. As a consequence, there is no serious ballistic missile threat in the Western Hemisphere and only one nuclear weapons state in the New Independent States following the break up of the Soviet Union. In the 1960s, conventional wisdom held that there would be 20-25 nuclear powers. The reality is far smaller than that. The Nonproliferation Treaty significantly reduced the threat that numbers of nations would acquire nuclear weapons. Under the recently concluded Chemical Weapons Convention, all signatories are committed to destroying their chemical weapons stocks by April 29, 2007 (but there is an option for a five-year extension). The Australia Group has retarded the growth of chemical and biological threats by placing constraints on international trade in chemical and biological materials and technology.

While we have had notable successes, the challenge of reducing and eliminating threats that stem from the proliferation of weapons of mass destruction, and modern missiles that deliver them, has not disappeared. Indeed, the challenge has grown more complex in the last decade. Because proliferation challenges are national security challenges, the Department of Defense participates actively in the development and implementation of national nonproliferation policy.

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Our participation in nonproliferation policy occurs on four distinct levels.

First, the Department of Defense helps to identify and define U.S. goals and approaches to regional proliferation issues. We are active participants in the Administration's focused efforts, led by the State Department and National Security Council staff, to discourage states from developing, selling or purchasing destabilizing weapons or weapons technologies. We also are active participants in the Administration's efforts to find solutions to daunting WMD proliferation problems that have the potential to upset regional or global stability and security. This includes participation in interagency reviews on such issues as the extensive North Korean missile sales, Russian entity assistance to the Iranian nuclear and missile programs, and the nuclear and missile activities of India and Pakistan. It also includes participation in multilateral and bilateral meetings to find ways to reduce and eventually eliminate such threats. In the last six months, for example, senior and mid-level Defense officials have traveled with interagency teams to Tokyo, Seoul, Pyongyang, Beijing and Moscow and New York on such matters.

Our second avenue of involvement in nonproliferation activities is in the negotiation of new arms control and nonproliferation agreements. The Defense Department's participation in the development of U.S. strategy and our representation on all U.S. delegations ensures that U.S. positions in arms control and nonproliferation negotiations fully consider national security interests -- including negotiating impacts on U.S. military capabilities and the capabilities of potential adversaries. The Comprehensive Test Ban Treaty, the Chemical Weapons Convention, the Biological Weapons Convention, the Fissile Material Cutoff Treaty, the Nuclear Nonproliferation Treaty, and various nuclear weapon free zone treaties are examples of past, present and future treaties that DoD's representatives have a hand in negotiating.

Third, we work with the NSC staff, State Department, the Intelligence Community, and others to ensure that international nonproliferation regimes remain relevant and effective. Critical to these efforts are DoD's activities with regard to five informal, voluntary regimes—the Missile Technology Control Regime, the Australia Group, the Nuclear Suppliers Group, the Zangger Committee, and the Wassenaar Arrangement. Each of these groupings establishes guidelines for, and controls over transfers of equipment and technology. Member states are encouraged or expected to comply by virtue of their decision to join the group. Additionally, we participate in nonproliferation activities under the auspices of the United Nations and the Conference on Disarmament and support the efforts of the International Atomic Energy Agency..

Through both the policy and technical expertise that the Department of Defense brings to the table in Washington and internationally, we ensure that the Department has a strong hand in establishing internationally-agreed criteria to limit the access of potential proliferants to critical chemical, biological, nuclear, missile and dual-use items and technologies. Such criteria are essential for facilitating national efforts to ban or seize exports that could contribute significantly to increased proliferation and security threats. For example, Missile Technology Control Regime (MTCR) restraints that we championed on specialty steels (used by Iran and the North Korea in their missile programs) permitted certain MTCR partners to establish domestic regulations to stop destabilizing sales of these steels. Before these controls were established, these partners were unable to restrict these exports.

The Department of Defense also works closely with the State Department, the Intelligence Community and others to ensure that our regime partners understand the growing

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complexity of the problem and how the regimes must adapt to remain relevant. The expanded information exchanges at regime meetings, regime seminars focused on transshipment issues, and expert discussions of emerging technical challenges all contribute to keeping the regimes relevant.

The Department's participation in international regimes goes hand-in-glove with our responsibilities for export controls. The Under Secretary for Policy provides the policy direction for regulations, rules, procedures and implementing instructions that the Technology Security Directorate of the Defense Threat Reduction Agency implements. DoD's participation in both the formulation and implementation of military and commercial export controls helps prevent the illegal or unintentional export of sensitive information, technology, material or equipment from the United States to proliferants and countries of concern. We protect our own critical military technological advantages through our work in export controls. At the same time, we also promote our national security interests with appropriate transfers to friends and allies.

Finally, because WMD proliferation is a security issue, the Department of Defense devotes attention to these concerns in mid-level and senior-level defense exchanges with friends, allies and other states. Bilateral meetings with defense officials on nonproliferation issues serve several purposes: 1) to exchange information relating to proliferation activities of concern; 2) to build a common understanding of the risks to security and stability should certain proliferation activities continue or increase; and 3) to build mutual interest in encouraging diplomatic action, export controls and national restraint to reduce or eliminate proliferation threats. We hope to develop this mutual interest before WMD proliferation threatens our security and that of other states. Among the countries with whom we have had such exchanges are the United Kingdom, France, Israel, Russia, and China.

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**Key Nonproliferation Regimes in Which DOD Is Active**

<b>NAME</b>	<b>PURPOSE</b>	<b>MEMBERSHIP</b>
Missile Technology Control Regime (MTCR) Established in 1987	Prevent proliferation of missiles, unmanned air vehicles and related technology for systems capable of carrying a 500 kg payload at least 300 km, as well as systems intended for delivery of weapons of mass destruction through agreed guidelines for exports	30 States – Argentina, Australia, Austria, Belgium, Brazil, Canada, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Japan, New Zealand, Norway, Poland, Portugal, Russia, South Africa, Spain, Sweden, Switzerland, Turkey, Ukraine, UK, U.S. Not members but pledged to abide by MTCR Guidelines: China, Israel, Romania, ROK, and Slovak Republic.
Australia Group Established in 1985	Prevent proliferation of chemical and biological weapons through agreed export controls on CW precursors, biological materials, and dual-use materials and technology	30 States – Argentina, Australia, Austria, Belgium, Canada, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Luxembourg, Netherlands, New Zealand, Norway, Poland, Portugal, ROK, Romania, Slovak Republic, Spain, Sweden, Switzerland, UK, U.S.
Nuclear Suppliers Group Established in 1975	Prevent the diversion of nuclear-related material, equipment and technology to weapons through guidelines for and export controls to govern transfers of dual-use nuclear items, including full scope IAEA safeguards.	34 States – Argentina, Australia, Austria, Belgium, Bulgaria, Canada, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Japan, ROK, Luxembourg, Netherlands, New Zealand, Norway, Poland, Portugal, Romania, Russia, Slovak Republic, South Africa, Spain, Sweden, Switzerland, Ukraine, UK, U.S.

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<p>Zangger Committee Established in 1971</p>	<p>Prevent the diversion of nuclear material, equipment and technology to weapons through guidelines for and export controls to govern transfers of transfers, including full scope IAEA safeguards.</p>	<p>31 States – Argentina, Australia, Austria, Belgium, Bulgaria, Canada, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Japan, ROK, Luxembourg, Netherlands, Norway, Poland, Portugal, Romania, Russia, Slovak Republic, South Africa, Spain, Sweden, Switzerland, UK, U.S.</p>
<p>Wassenaar Arrangement Established in 1995</p>	<p>Prevent destabilizing accumulations of conventional arms and dual-use goods and technologies through guidelines for and export controls to govern transfers</p>	<p>33 States – Argentina, Australia, Austria, Belgium, Bulgaria, Canada, Czech Republic, Denmark, France, Finland, Germany, Greece, Hungary, Ireland, Italy, Japan, Luxembourg, Netherlands, New Zealand, Norway, Poland, Portugal, ROK, Romania, Russia, Slovak Republic, Spain, Sweden, Switzerland, Turkey, Ukraine, UK, U.S.</p>

**Key Treaties Related to WMD**

NAME	PURPOSE
Limited Test Ban Treaty (LTBT) EIF: October 10, 1963 Unlimited Duration	Requires Parties to the Treaty not to conduct nuclear weapons tests, or any other nuclear explosion, in the atmosphere, beyond atmospheric limits including outer space, or underwater.
Threshold Test Ban Treaty and Protocol (TTBT) EIF: December 11, 1990	Prohibits underground nuclear weapon tests of more than 150 kilotons.
Treaty on Underground Nuclear Explosions for Peaceful Purposes and Protocol (PNET) EIF: December 11, 1990	Governs all underground nuclear explosions carried out at locations outside the US and Soviet nuclear weapon test sites and limits any individual nuclear explosions at such locations to 150 kilotons.
Comprehensive Test Ban Treaty (CTBT) No EIF; signed by U.S. on September 24, 1996; not yet ratified by the Senate Indefinite Duration	Will ban all nuclear explosions
Non-Proliferation Treaty (NPT) EIF: March 5, 1970 Extended indefinitely on May 11, 1995.	Obligates nuclear weapons states not to assist non-nuclear weapons states in acquiring nuclear weapons, non-nuclear weapons states not to seek to acquire nuclear weapons, and all states parties to promote promoting peaceful uses of nuclear energy and to pursue negotiations on effective measures relating to nuclear disarmament and a treaty general and complete disarmament.

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<p>Treaty of Tlatelolco  EIF: April 22, 1968; indefinite duration  Additional Protocol I – signed May 26, 1977; ratified by the US November 19, 1981  Additional Protocol II – signed April 1, 1968; ratified by the US May 8, 1971  Indefinite Duration</p>	<p>Obligates Latin American Parties not to acquire or possess nuclear weapons, nor to permit the storage or deployment of nuclear weapons on their territories by other countries.  Additional Protocol I – requires nations outside the Treaty zone to apply the Treaty’s denuclearization provisions to the territories in the zone for which they are internationally responsible.  Additional Protocol II – obligates nuclear weapons states to respect the denuclearized status of the zone.</p>
<p>Treaty of Rarotonga (South Pacific Nuclear Free Zone Treaty)  EIF: December 11, 1968; protocols signed by the US but not yet submitted to the Senate</p>	<p>Creates a nuclear free zone in the South Pacific by prohibiting the testing, manufacture, acquisition and stationing of nuclear explosive devices in the territory of Parties to the Treaty and the dumping of radioactive wastes at sea.</p>
<p>Treaty of Pelindaba (African Nuclear Weapon Free Zone Treaty)  EIF: April 11, 1996; protocols signed by the US but not yet submitted to the Senate</p>	<p>Creates a nuclear weapon free zone in Africa by prohibiting the research, development, manufacture, stockpiling, acquisition, testing, possession, control or stationing of nuclear explosives devices in the territories of Parties to the Treaty and the dumping of radioactive wastes in the African zone by Treaty Parties.</p>
<p>INF Treaty  EIF: June 1, 1988</p>	<p>Banned future and eliminated all existing U.S. and Soviet Union ground-launched ballistic and cruise missiles with a range capability of between 300 and 3400 miles (500 and 5500 km).</p>
<p>START I and Lisbon Protocol  EIF: December 5, 1994</p>	<p>Significantly reduced limits on U.S. and Soviet intercontinental ballistic missiles and their associated launchers and warheads and heavy bombers and their armaments including long-range nuclear air launched cruise missiles. The Lisbon Protocol enabled the implementation of the START Treaty following the dismantlement of the Soviet Union.</p>
<p>START II  No EIF; ratified by the US Senate January 26, 1996</p>	<p>Would eliminate all MIRVed ICBMs (including all “heavy” ICBMs) and reduce the overall total of warheads for each side.</p>

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<p>Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or Other Gases, and Bacteriological Methods of Warfare (The Geneva Protocol) EIF: February 8, 1928 Unlimited Duration</p>	<p>Bans the use of poisonous gases and bacteriological weapons.</p>
<p>Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction (BWC) EIF: March 26, 1975 Unlimited Duration</p>	<p>Prohibits the development, production, stockpile, or acquisition of biological agents or toxins “of the types and in quantities that have no justification for prophylactic, protective, and other peaceful purposes,” as well as related weapons and means of delivery. Protocol under negotiation currently to add measures to enhance transparency and strengthen compliance.</p>
<p>Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on their Destruction (CWC) EIF: April 29, 1997 Unlimited Duration</p>	<p>Bans the production, acquisition, stockpiling, transfer and use of chemical weapons</p>

## **II. COOPERATIVE THREAT REDUCTION**

A key (second) element in our effort to combat proliferation is our program to reduce the weapons of mass destruction (WMD) and modern delivery means left behind following the collapse of the Soviet Union. The political collapse of the Soviet Union in 1991 immediately created four states with weapons of mass destruction where there had previously been only one. While Russia inherited the vast majority of the old Soviet arsenal, overnight, the nuclear warheads in Ukraine, Kazakhstan and Belarus would have made them respectively the third, fourth and eighth largest nuclear powers in the world. These and several other former Soviet states also inherited significant amounts of WMD-related infrastructure, including weapons factories and design bureaus.

The economic conditions that followed the disintegration of the Soviet Union raised concerns regarding the ability of its four nuclear successor states to meet their inherited treaty commitments on time and to maintain secure, effective control of nuclear and other weapons of mass destruction and related materials. Military units responsible for the custody of nuclear weapons often waited for months to receive their pay, causing a serious decline in readiness and morale. Budgetary shortfalls led to the risk of degradation of safety and security measures at many weapons storage and production facilities.

Under the leadership of Senators Sam Nunn and Richard Lugar, Congress established the Cooperative Threat Reduction (CTR) program in 1991 to cope with the problems associated with weapons of mass destruction as the Soviet Union collapsed. Through the CTR program, the Department of Defense attacks the threat of unsecured nuclear weapons and WMD proliferation at its root, by providing equipment, services and technical advice to assist the New Independent States in securing and dismantling former Soviet weapons and other assistance preventing weapons proliferation.

CTR assistance removes nuclear warheads from strategic missiles and bombers and makes sure they are transported safely to storage sites. Through CTR assistance, DoD assists in the destruction of long range ballistic missiles and heavy bombers and their supporting equipment and turns them into scrap metal. CTR efforts destroy ICBM silos and SLBM launch tubes, and also assist in the dismantlement of ballistic missile submarines. Through the CTR program, DoD helps Russia dismantle nuclear warheads and store fissile material removed from the dismantled warheads. CTR also dismantles WMD-related production facilities, including those that produced chemical and biological weapons.

Our CTR assistance is administered under the strict Federal acquisition guidelines that require verification of completed work before any payment are made to contractors. Also, pursuant to applicable agreements, DoD conducts audits and examinations to ensure that the items and services we provide are used for their intended purpose. So far we have conducted more than 70 such audits and they have provided high confidence that there is minimal risk of CTR assistance being used for improper purposes.

The Cooperative Threat Reduction Program has been an extremely successful program and an extraordinary bargain. For the roughly \$2 billion spent so far, the bottom line is impressive. With the assistance of the CTR program, Ukraine, Kazakhstan and Belarus decided

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to become nuclear weapons free states. CTR assistance enabled these new countries to ship their nuclear weapons back to Russia. Also, thanks to CTR assistance, the New Independent States are ahead of schedule in implementing strategic delivery systems reductions called for under START I.

CTR assistance has led to the deactivation of 4,838 strategic nuclear warheads that were once targeted at the United States. Under CTR, the United States and the New Independent States have destroyed or eliminated almost 400 strategic ballistic missiles, 350 ICBM silos, 10 ballistic missile submarines, and almost 50 heavy bombers. CTR has also destroyed 191 nuclear weapons test tunnels and bore holes. With CTR assistance, we have eliminated biological weapons production facilities in Kazakhstan. Through Project Sapphire and Project Auburn Endeavor, DoD, through the CTR program, assisted in the removal of significant amounts of weapons grade fissile material from facilities in Kazakhstan and Georgia. By eliminating so many weapons materials and facilities that could have been used against us, the CTR program has increased our security at a bargain price.

While we have achieved much, there is still much to be done. The international economic crisis that spread to Russia in 1998 has dramatically increased the risks of possible proliferation of weapons of mass destruction. Budget shortfalls, wage arrears and the devaluation of the ruble have increased the temptation for individuals or institutions to supplement their incomes by trafficking in WMD across already porous borders. The severe financial difficulties confronting Russian troops, including those that guard nuclear weapons storage sites, have been well-documented. We cannot take lightly the chance that a desperate person will try to steal a weapon of mass destruction and sell it to the highest bidder.

Under the Administration's proposed Expanded Threat Reduction Initiative, the Department of Defense's CTR program will have a key role in combating this growing security challenge. The Department of Defense's six year spending plan recognizes that, without additional assistance, Russia will find it extremely difficult to reduce WMD stocks to desired levels and protect them from falling into the wrong hands. Thus, for the six years from FY 00 to FY 05, we plan to request a total of \$2.8 billion in budget authority for CTR programs, \$1.1 billion more than we previously planned. It reflects significant new initiatives and our expectation that Russia will not be able to contribute as much to cooperative programs as we had previously agreed. During that period CTR projects, pursuant to applicable international agreements, will focus on the areas of greatest concern:

- Accelerate the destruction of Russian missiles, bombers and ballistic missile submarines so Russia can fully implement START I (and ultimately START II and START III), thereby helping to reduce Russia's nuclear forces to less than 20 percent of Cold War levels.
- Enhance the safety, security, control, and accounting of nuclear warheads in transport and at all of Russia's nuclear weapons storage sites.
- End Russia's production of weapons-grade plutonium.
- Provide safe and secure storage of fissile material from up to 12,500 dismantled nuclear warheads by constructing a fissile material storage facility at Mayak.
- Accelerate the dismantlement of Russia's nuclear weapons by preparing the resulting fissile materials for long term storage.

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- Assist Russia to implement the Chemical Weapons Convention by helping it destroy its stockpile of chemical weapons.
- Help prevent the proliferation of biological weapons capabilities by eliminating biological weapons infrastructure and enhancing security at sites with dangerous pathogens.

I want to emphasize that our CTR expenditures are not aiding Russian military modernization. CTR funds are used to provide technical assistance and equipment – not money – to Russia, and, as I have already said, that assistance and equipment is closely monitored to make sure it is not being diverted to any other uses.

Actual Russian military expenditures have declined very dramatically in recent years. We believe they are now less than 15 percent of their level in 1988. Russia is carrying out only a minimum amount of strategic modernization, which is consistent with its arms control commitments. For example, the START II Treaty would require Russia to eliminate all its very large land-based multiple warhead missiles, such as the SS-18. In the process, Russia must reconfigure its forces towards single-warhead land-based strategic missiles. In response to this requirement, Russia is producing—at very slow rates—a new single-warhead ICBM, the SS-27. Deployment of the new ICBM will help ensure that Russia's ICBM force, which it is determined to retain, is START-II compliant. The Department of Defense is convinced that Russia's compliance with START II is stabilizing, and therefore, is in America's interest as well as Russia's.

It is the Department's assessment that in their current economic crisis the elimination of excess missiles, bombers and SSBNs are not a high budget priority for the Russian government. We believe that rather than dismantling these systems, Moscow would most likely leave them untended. It is our fear that these systems pose a grave proliferation risk to the United States should they fall into the wrong hands. Therefore, the Department of Defense, through the CTR program, provides assistance for dismantlement that the Russian government is unlikely to undertake on its own. If there were no CTR program, Russia would incur some additional personnel and maintenance costs to safeguard its demobilized strategic weapons. But the funds involved would probably not be enough to influence the pace of modernization. While we continue to encourage Russia to dismantle its excess nuclear warheads and reduce its weapons-grade material, we believe it is in the national security interest of the United States to proceed with these important projects.

In conclusion, the CTR program is fundamental to U.S. national security because it reduces the numbers of weapons once arrayed against us and secures the weapons of mass destruction that could pose a serious proliferation threat to the U.S. in the future.

### III. COUNTERPROLIFERATION

While our primary objective is to prevent the proliferation of weapons of mass destruction and their delivery systems, we recognize that determined states and possibly even terrorist organizations will manage to acquire these weapons. Therefore, we must train and equip our forces to operate effectively against WMD armed adversaries.

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In virtually every corner of the globe, the United States and its allies face a growing threat from the proliferation of WMD and their delivery systems. In addition to indigenous weapons development programs, WMD, delivery systems, and technology may be “for sale” to the highest bidder. In Northeast Asia, North Korea’s extensive WMD program threatens Japan, South Korea, and U.S. forces and interests in the region. In North Africa and the Middle East, rogue states – Libya, Syria, Iran, and Iraq – remain posed to develop and use all means at their disposal to threaten U.S. and allied interests in the region and beyond.

### **Ensuring U.S. Forces Can Operate Effectively in a CBW Environment**

U.S. conventional military superiority paradoxically creates an incentive for adversary states to acquire nuclear, biological and chemical weapons. Because our potential adversaries know that they cannot win a conventional war against us, they are more likely to try asymmetric methods such as employing biological or chemical weapons or threatening the use of nuclear weapons. Consequently, the Quadrennial Defense Review (QDR), the Department’s most recent strategic-level defense review, published in the spring of 1997, concluded that the threat or use of chemical or biological weapons is a likely condition of future warfare and could occur in the very early stages of war to disrupt U.S. military operations and deployments into theaters of additional men and supplies.

The Quadrennial Defense Review also observed that DoD had made substantial progress in preparing to deal with an adversary’s use of WMD. Nevertheless, it underscored two key challenges that DoD must meet to ensure future preparedness. The first challenge is to institutionalize counterproliferation as an organizing principle in every facet of military activity and to take the necessary steps regarding doctrine, equipment, concepts, and training to provide our forces with the needed capabilities. The second is to internationalize our efforts to encourage allies and coalition partners to train, equip, and prepare their forces to operate under chemical or biological weapons (CBW) conditions.

DoD has made substantial progress toward fully integrating the counterproliferation mission into military planning, acquisition, intelligence and international cooperation activities. Counterproliferation as a mission area has been fully embedded in key planning documents. Each of the regional Commanders-in-Chief (CINCs) has submitted a draft CONPLAN 0400 that outlines plans for counterproliferation activities in peacetime and crises. The Joint Staff is currently reviewing these CONPLANS. Serious preparations to carry out our deliberate plans for theater war in the presence of CBW attacks are well underway.

The Counterproliferation Council, chaired by the Deputy Secretary of Defense, monitors DoD-wide efforts to train, exercise, and equip U.S. forces for the counterproliferation mission. The Counterproliferation Council also oversees DoD counterproliferation activities in interagency and in international fora. The CP Council meets on a regular basis, focusing on the potential impact of WMD and their delivery systems on the Department’s strategic requirement to fight and win two nearly simultaneous Major Theater Wars; on joint and service counterproliferation doctrine, and on exercising and training for integrated operations in a chemically or biologically-contaminated environment.

Because many potential adversaries are likely to pursue WMD to deter the United States from intervening in regional affairs, deterrence is much more of a two-way street than in the past.

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While we will seek to deter our adversaries from using nuclear, chemical or biological weapons, they may attempt to use these weapons to deter us. As a result, deterrence is more problematic than in the past. We recognize that we need to think differently about how to strengthen deterrence, because deterrence of WMD use remains our preferred line of defense. We must go beyond the threat of devastating punishment in constructing our deterrent policies and capabilities vis-à-vis adversary WMD.

The U.S. maintains strong conventional and nuclear military forces to provide offensive and defensive capabilities to deter the use of weapons of mass destruction. We have, in fact, a broad spectrum of military options available with which to deliver a devastating and overwhelming response to WMD use against U.S. or allied forces and civilians. As Secretary Cohen stated in a speech at the National Press Club on March 17, 1998: “We’ve made it very clear to Iraq and the rest of the world that if you should ever even contemplate using weapons of mass destruction—chemical, biological, any other type—against our forces, we will deliver a response that’s overwhelming and devastating.”

There is another aspect of deterrence that is often overlooked. If U.S. forces are equipped and trained to fight effectively, we deprive the adversary a significant benefit if he resorts to CBW use. Thus, effective “counterforce” capabilities against CBW delivery systems as well as improved active and passive defenses can take away the battlefield advantages that an adversary might otherwise gain by employing such weapons.

A key component of our ability to respond to the use of WMD is greater counterforce capabilities to strike the adversary’s ability to use his nuclear, chemical or biological weapons. DoD has programs underway to improve our ability to target and defeat hard and deeply buried targets which are increasingly being constructed throughout the world and are being used to house weapons of mass destruction and missile production and storage facilities. We are continuing our efforts to develop specialized munitions to defeat nuclear, chemical or biological weapons with little or no collateral damage. Finally, we are improving our capabilities to target and destroy mobile missile launchers.

If deterrence fails, and an adversary fires ballistic or cruise missiles against U.S. and coalition forces or population centers, our goal is to be able to destroy the ballistic or cruise missiles before they land and cause damage. In light of the widespread deployment of theater ballistic missiles today, the Department's immediate missile defense priority is to develop, procure, and deploy theater missile defense (TMD) systems to protect forward-deployed elements of the U.S. armed forces, as well as allies and friends. This plan envisions a time-phased acquisition of a multi-tier, interoperable theater ballistic missile defense using five different TMD systems to provide defense in depth against theater ballistic missiles.

With the submission of the FY 2000 budget request the Administration has significantly changed its national missile defense (NMD) program. Funding has been provided to deploy a limited NMD system by 2005, should such a decision be made in the year 2000. No decision for deployment has been made at this time. A decision regarding deployment is planned for June 2000 that will be based primarily on the maturity of the technology as demonstrated by progress in development and testing. The NMD system being developed would have as its primary mission defense of the entire United States - all 50 states - against a very small number of intercontinental ballistic missiles carrying WMD warheads launched by a rogue nation. This

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system would also provide inherent capability against a small accidental or unauthorized launch of strategic ballistic missiles from China or Russia. It would not however pose a threat to the nuclear deterrent forces of Russia or China.

The NMD development program will continue to be conducted in compliance with the Anti-Ballistic Missile Treaty. NMD deployment may require modifications of the treaty, and the Administration is working to determine the nature and scope of these modifications. Environmental surveys for potential basing sites in both Alaska and North Dakota have begun, and Russian officials have been briefed on these activities. If deployment requires amendment of the ABM treaty, the United States will negotiate with the Russians in good faith to make the needed amendments.

If deterrence, attack operations, and active air and missile defenses fail to prevent the delivery of CBW, passive defenses will be of central importance. Early detection and warning is the key to avoiding WMD contamination. As a result, DoD is concentrating biological and chemical defense research, development and acquisition efforts on providing its warfighters with real-time capabilities to detect, identify, locate and warn against all biological and chemical warfare threats. Current emphasis is on multi-agent sensors for biological agent detection, and stand-off detection of chemical agents and remote/early warning detection of biological agents.

To ensure that U.S. forces can cope with chemical and biological weapons threats, in 1997, Secretary Cohen directed an increase in funding for counterproliferation programs by approximately \$1 billion over the next five years. These resources go directly toward improving U.S. force capability to detect and defeat biological and chemical weapons, and to protect U.S. forces on the battlefield should these weapons be used. In 1999, Secretary Cohen directed an increase in planned spending on counterproliferation by \$380 million over the FY 2000-2005 program period, for biological warfare defense and vaccines.

Our forces must have sufficient individual and collective protective equipment to permit them to continue operating when they cannot avoid contaminated areas, and they must be able to rapidly decontaminate individuals, equipment, and facilities that are critical to the continuation of their mission. We have a number of efforts underway to improve these passive defense capabilities. We are fielding the new Joint Service Lightweight Integrated Suit Technology (JSLIST) chemical protective ensemble. JSLIST will significantly reduce the degradation in performance of our forces due to heat fatigue when wearing the protective ensemble. The Department is also procuring new improved collective protection systems that will provide contamination-free working and rest areas for medical and operational personnel.

Procurement is now underway for a lightweight decontamination system and a modular decontamination system that will reduce the logistical burden compared to existing systems. Critical shortfalls remain, however, in replacing the current decontamination solution with one that is non-aqueous, noncorrosive, and environmentally safe. Efforts are also underway to develop a decontaminant for sensitive equipment such as electronics. Finally, we are investigating new technologies and concepts for decontamination of large areas such as ports or airfields.

U.S. forces face a clear danger from possible exposure to biological weapons around the world. Vaccines are the most effective protection from biological warfare threats. The

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Department of Defense maintains a robust medical research and development program for biological and chemical defense. Medical countermeasures for both chemical and biological threat agents are limited. We currently have an improving, but still limited, vaccine production capability. DoD has begun a Joint Vaccine Acquisition Program that utilizes a prime systems contract to manage and execute the advanced development, Food and Drug Administration (FDA) licensure, production, storage and testing of new vaccines for biological warfare agents.

Anthrax is one of the most lethal and widely held biological agents we could face. Once symptoms occur—within 24-72 hours after exposure—death is almost certain. Therefore, we have a moral obligation to protect our forces by providing them immunity against this lethal biological weapons agent. In December 1997, Secretary Cohen decided to vaccinate all U.S. forces to protect against Anthrax. Initial vaccinations were given to service members assigned to, deploying to, or alerted for assignment to the Persian Gulf and Korea. An Anthrax vaccine has been FDA licensed since 1970. The plan to vaccinate the total force, both Active and Reserve, will take seven to eight years to complete.

It is not sufficient to simply provide new WMD detection and protective equipment. Military preparedness against WMD threats requires proficiency in carrying out operations in several inter-related areas; counterforce attacks, missile defense, passive defense measures, and decontamination. Direction from the Secretary of Defense and the Chairman of the Joint Chiefs of Staff calls upon the Services and theater CINCs to conduct realistic WMD training and includes chemical and biological weapons scenarios in regularly scheduled exercises. The Joint Staff is currently revising Joint Publication 3-11, Joint Doctrine for Nuclear Chemical and Biological Defense. We are actively working with the CINCs to revise their warplans to take into account the likely use of chemical and biological weapons. The Office of the Secretary of Defense is building on the highly successful “CORAL BREEZE” table-top exercise in Korea, and participating in a series of CENTCOM-sponsored exercises, named DESERT BREEZE, which are designed to examine the military implications of the threats or use of weapons of mass destruction in the Persian Gulf region. The lessons learned from this game series will assist the Command in revising its existing operational plans.

### **International Cooperation in Meeting Proliferation Threats**

We recognize that, in future conflicts where weapons of mass destruction may be used, the United States is likely to be fighting as part of a coalition. We have a series of initiatives underway, to discuss these issues with prospective coalition partners to persuade them that counterproliferation is a critical element of their national security and that they need to better equip and train their troops so that they, too, are prepared for the next war.

Our most mature international counterproliferation effort is with NATO. Significant progress has been made in integrating counterproliferation policy into the new, post-cold war agenda of the Alliance. Since 1994, NATO has had a Defense Group on Proliferation that meets regularly at a high level. It has assessed the risks posed by the proliferation of nuclear, chemical and biological weapons and also has identified key areas where Alliance members need to improve their military postures to confront these challenges. This year the Defense Group on Proliferation plans to review intelligence assessments reflecting the evolution of WMD risks and to provide policy guidance as required. The Defense Group on Proliferation also will address

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issues related to protecting forces against biological weapons and NATO's possible collective responses to biological and chemical weapons attacks on civilians.

Looking ahead, NATO needs to sustain its progress in addressing the risks posed by weapons of mass destruction. NATO is now completing work on a U.S. proposal for a NATO WMD Initiative that would enhance NATO's ongoing efforts against WMD proliferation. The WMD Initiative will: (1) increase intelligence sharing to bolster a better common understanding of the WMD problem; (2) undertake additional political measures to combat WMD proliferation; (3) implement practical defensive measures to improve prospects for successful military operations in a WMD environment; and (4) establish a small WMD Center within NATO's International Staff to coordinate Alliance political and defense efforts against WMD. The Senior Politico-Military Group on Proliferation (SGP) and the Defense Group on Proliferation will be primarily responsible for implementing the WMD Initiative. The WMD Initiative complements the ongoing work of both groups.

NATO's work under the WMD Initiative will require the Senior Civil Emergency Planning Committee, and perhaps other NATO bodies, to increase their efforts to improve the ability of the Alliance to respond to a chemical or biological weapons attack against Allies civil populations. Information sharing on civil protection measures will be an essential first step to prepare nations to deal with such an event.

Real progress also will come from national commitments to prepare and equip their forces to carry out any missions they may be assigned, despite the presence, threat of use, or use of WMD. We will work for more realistic scenarios in Alliance political and military exercises that emphasize biological and chemical threats.

Counterproliferation issues are discussed at varying levels of detail within ongoing bilateral consultations with many of our Allies. In a few cases, we are undertaking specific efforts to improve bilateral understanding and improve prospects for success in NATO collectively. In June 1998, Secretary Cohen and UK Secretary of State for Defense Robertson called for senior-level staff talks to enhance cooperation between the UK and the United States to combat WMD. A Joint Venture Oversight Group has been formed to coordinate policy and support ongoing technical cooperation. The first meeting took place in Washington on 14 December 1998 and established a basis for cooperative work in policy, operational assessments, and technical cooperation. Subject matter experts will pursue these activities for the Joint Venture Oversight Group in subordinate working groups. Long-standing technical collaboration under the auspices of the Trilateral Memorandum of Understanding (UK/US/Canada) and the Technical Cooperation Program on chemical and biological defense (UK/US/Canada/Australia) will also continue.

The US-Israeli Counterproliferation Working Group was formed in July 1995 under the auspices of the Department of State-led Joint Political-Military Group. Both the United States and Israel have responded to chemical and biological weapons threats by developing vigorous passive defense and protection capabilities. The Counterproliferation Working Group establishes a venue for each country to benefit from the other's passive defense efforts. This group is co-chaired by the Deputy Assistant Secretary of Defense for Requirements, Plans and Counterproliferation Dr. James N. Miller, and Dr. Eli Levite, Deputy Director General of the

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Bureau for International Security and Arms Control of the Israeli MOD. It meets formally on a semi-annual basis and is comprised of WMD defense experts from both countries.

Republic of Korea (ROK) forces and U.S. forces in Korea face the greatest threat of WMD use due to the very large North Korean inventory of chemical weapons and several different means of delivery. Bilaterally, we have taken action to improve our combined capability to deter and defend against Pyongyang's weapons programs. Combined U.S.-ROK exercises, such as the CORAL BREEZE series, have examined the implications of North Korea's WMD threat to our combined operations. Our combined forces have improved their plans to defend against the threat or use of weapons of mass destruction. The Office of the Secretary of Defense and the ROK Ministry of National Defense have initiated a policy-level dialogue to facilitate our counterproliferation efforts, holding bilateral meetings in June 1997 and September 1998.

We recently have begun a new effort to enhance the ability of the states of the Gulf Cooperation Council and Jordan to deter and defense against WMD threats. Acting in concert with CENTCOM, the Office of the Secretary of Defense has initiated counterproliferation discussions with these states to further increase the preparedness of their forces.

### **Conclusion**

The proliferation of weapons of mass destruction and their delivery systems poses a real threat to global security. More than twenty-five countries currently possess—or appear to be developing—nuclear, chemical and biological weapons and the means to deliver them; and even larger number are capable of producing such weapons, potentially on short notice.

Prevention, deterrence, and protection strategies are mutually reinforcing. There is no silver bullet to counter the threat posed by weapons of mass destruction. Instead an integrated nonproliferation, threat reduction, and counterproliferation strategy is required, because each element has its limits and failings. The overall strategy must run from attempting to stop the proliferation of WMD, to seeking to deny the gains an adversary might hope to achieve, to increasing the risks the adversary would face should it employ these weapons against U.S. or allied forces or populations. When applied in combination, these efforts hopefully will deter the use of weapons of mass destruction. Failing that, we will decisively defeat any nation or group that would employ such terrible weapons.