

**STATEMENT OF**

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**BEFORE THE**

**SUBCOMMITTEE ON TERRORISM,  
UNCONVENTIONAL THREATS AND CAPABILITIES**

**COMMITTEE ON ARMED SERVICES  
U.S. HOUSE OF REPRESENTATIVES**

**COUNTERING THE TERRORIST USE OF WMD**

**19 MARCH 2003**

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**Statement of Dr. Dale Klein,  
Assistant to the Secretary of Defense for Nuclear, Chemical, and Biological Defense  
Programs  
Before the Subcommittee on  
Terrorism and Unconventional Threats and Capabilities  
Committee on Armed Services  
U.S. House of Representatives  
Hearing on Countering the Terrorist Use of WMD  
19 March 2003**

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Chairman and Distinguished Committee Members, I am honored to appear before your Committee again to address your questions regarding the Department's efforts to counter terrorist use of WMD. I am Dr. Dale Klein, the Assistant to the Secretary of Defense for Nuclear, Chemical, and Biological Defense Programs (ATSD(NCB)). In this role, I am the focal point for the oversight, coordination and integration oversee of Department of the Department's chemical and biological defense research, development, and acquisition efforts, and provide the overall guidance for planning, programming, budgeting, and executing chemical and biological defense programs. U.S Forces are trained, ready, and will deploy with the best available equipment. I want to assure the committee that the Department's Chemical Biological Defense Program is a top priority for the senior leadership of the Department and the Services.

The Chemical Biological Defense Program's initiatives over the last decade have significantly improved our ability to protect Service members from the effects of chemical and biological weapons. Initiatives have resulted in improvements in the whole family of chemical and biological defense systems, including improved detection and identification technologies, improved individual protection systems, improved decontaminants, improved medical protection, and improved battlespace management capabilities. Our commanders on the battlefield today have the benefit of those improvements.

I will provide a brief description of some key chemical and biological defense efforts that reduce the risk that our armed forces are facing. Specific efforts I will describe include: Force Protection Initiatives, Biological Detection Capabilities, Chemical Biological Protective Ensembles, and Biological Defense Vaccines.

**Force Protection Initiatives**

In response to the 11 September 2001 terrorist attacks, \$32.9M was budgeted in FY03 for installation protection equipment. The Chemical and Biological (CB) Installation Protection

Equipment is an integrated suite of highly effective chemical and biological sensors and support equipment to be installed at nine installations during FY03 to support a “CONUS Pilot Protection Project”. The CONUS Pilot Protection Project will demonstrate the efficacy of an integrated suite of highly effective chemical and biological sensors and support equipment installed at the nine installations. The suite provides tiered sampling/collection, detection, identification and warning response capabilities. It is designed to provide early, indoor/outdoor collection, detection, presumptive identification and warning capabilities. Confirmatory identification and enhanced medical surveillance capability is also included.

In the FY04 President’s Budget request we have budgeted for a significant force protection initiative, the CB Installation/ Force Protection Program (CBIFPP). This effort consists of a highly effective suite of manual and automated chemical and biological detection equipment. The placement and set- up of this equipment is integrated into base operational command and control infrastructure. Bio- detection equipment will consist of automated Joint Biological Point Detection and Portal Shield systems deployed along with manual Dry Filter Unit samplers with support from confirmatory laboratories designed with tiered, multi-technology testing protocols. Chemical detection will be provided by ACADA and the Joint Chemical Agent Detector (JCAD) linked to central command and control. The program also procures all initial detection system consumables, New Equipment Training (NET), employment support, spares, Contractor Logistics Support, and operators. This program will provide chemical and biological protection coverage to 200 DoD installations.

### **Biological Detection Capabilities**

Biological detection capabilities available in 1991 were very limited. The primary system available include assays that were manually operated, capable of detecting only a few biological agents, and susceptible to false readings. Over the past several years, the Department has fielded several new biological detection capabilities. Several point detection systems have been fielded. Fielded as part of the Army’s Biological Detection Companies, Biological Integrated Detection System (*BIDS*) provides a multiple-technology point detection system mounted on a HMMWV. The Navy has installed the *Interim Biological Agent Detector* on all ships deploying to the Persian Gulf. In addition, we have fielded the *Portal Shield network sensor system* for protection of critical joint fixed sites. The Department has also field the *Biological Weapon Sampling Kit*, which includes Hand Held immunochromatographic Assay (HHA), a simple, antibody-based test

used as a quick screen to presumptively identify biological agents from environmental samples. The *M93A1 NBC Reconnaissance System* provides improved armored vehicle a variety of capabilities, including the new Chemical and Biological Mass Spectrometer and improved early warning and data fusion capabilities. Units also have improved warning and reporting systems, which provide faster and more reliable communications system to increase early warning time throughout the theater.

The military has identified requirements for biological standoff detection capabilities. Standoff detection of biological agents remains a significant challenge. By analogy, Geiger counters can differentiate between natural background radiation and higher levels of radiation that may pose of health risk. However, developing biological detection systems has posed a technological challenge because not only are there high levels of biological aerosols naturally present, but detection systems need to identify the various biological species and strains, the particle size, whether they are pathogenic, and whether they remain viable after being released in the atmosphere. The Department is investing in multiple technological approaches, for example, multi-spectral laser-based technologies, to provide the warfighter with effective biological detection early warning capabilities.

### **Chemical Biological Protective Ensembles**

Beginning in 1996, an improved individual protective ensemble, known as the Joint Service Lightweight Integrated Suit Technology (JSLIST). JSLIST replaces the Battle Dress Overgarment (BDO) that was used during Operation Desert Storm. JSLIST provides increased protection and extended protection (24 hours) in a chemical or biological weapon contaminated environment. In addition, because the suit is based upon activated carbon bead technology, JSLIST is lighter and less bulky, plus the suit may be laundered.

#### ***(INSERT ANECDOTE- ABOUT WIFE WEARING BDO'S)***

Since initial fielding, there has been increased emphasis to field JSLIST to the entire force with plans to phase out the BDO entirely. Prior procurement investment has allowed the Department to ensure that all of our forces deploying to the Persian Gulf will have two sets of the JSLIST protective suit, and for the Marines to have three JSLIST suits each. Continued investment is needed to ensure this level of protection is provided to our forces in the future.

The Department is also committed to improving on the design of the JSLIST suit. We are investing in numerous initiatives in our science and technology base. One example is an advanced lightweight protective ensemble that is made from an advanced, non-carbon based material that will be even lighter than JSLIST and provide improved protection and mobility and comfort for our forces. Another initiative is the development of self-detoxifying clothing that will allow our personnel to sustain operations in a contaminated environment with reduced risk. Additionally, improved masks and filters are being designed to increase protection, improve visual awareness, and improve compatibility with other systems (for example, communication systems, weapons sights, or aircraft controls.)

### **Biological Defense Vaccines**

Medical protection is a critical component of total force protection. In 1991 we had very limited stocks available of biological defense vaccines. Currently we have a strong vaccination program ongoing, with all deploying forces receiving vaccines for anthrax and smallpox. DoD currently has two licensed vaccines for biological defense protection—Anthrax Vaccine Adsorbed (BioThrax™) and Smallpox vaccine. For other biological defense vaccines, DoD awarded a prime systems contract to establish a single integrator to develop, license, produce, and maintain a stockpile of biological defense vaccines.

In July 2001, DoD submitted the “Report on Biological Warfare Defense Vaccine Research & Development Programs.” This report addressed:

- the implications of relying on the commercial sector to meet the DoD’s biological defense vaccine requirements;
- a design for a government-owned, contractor-operated (GOCO) vaccine production facility;
- preliminary cost estimates and schedule for the facility;
- the impact of international vaccine requirements and the production of vaccines to meet those requirements on meeting Armed Forces needs and facility operating costs.

As part of the DoD’s vaccine initiative, DoD is working closely with the Department of Health and Human Services, the Department of Homeland Security and other federal agencies to develop the requirements and plans for constructing a national biological defense vaccine

production facility. In addition, we are working with industry associations to ensure the appropriate infrastructure is developed to enable sustained vaccine production.

The military's role in protecting our nation's security is vital. Their duty requires that they face risks as a result of nations and terrorists that continue to threaten the interests and security of the United States and our allies with chemical or biological weapons. The Department is committed to providing the best available protection to the men and women of the military in order to reduce the risks from these weapons, and ultimately to deter an adversary from using them. Mr. Chairman, this concludes my remarks. I would be pleased to respond to your questions.