Combating Proliferation of Weapons of Mass Destruction

Report of the Commission to Assess the Organization of the Federal Government to Combat the Proliferation of Weapons of Mass Destruction

Pursuant to Public Law 293, 104th Congress

Commission to Assess the Organization of the Federal Government to Combat the Proliferation of Weapons of Mass Destruction

P.O. Box 18205
Washington, D.C. 20036-8205
(202) 331-4060
Fax (202) 296-5545

July 14, 1999

The Honorable Trent Lott
Majority Leader
United States Senate
Washington, D.C. 20510

Dear Mr. Leader:

In accordance with the Intelligence Authorization Act for Fiscal Year 1997 (P.L. 104-283) and the Omnibus Consolidated and Emergency Supplemental Appropriations Act of 1999 (P.L. 105-277), we hereby submit the report of the Commission to Assess the Organization of the Federal Government to Combat the Proliferation of Weapons of Mass Destruction.

The Commission was established in January 1998 to perform its assessment and report to Congress on specific administrative, legislative, and other changes it believes would improve U.S. performance in combating proliferation.

It has been an honor to serve.

Respectfully submitted,

John M. Deutch
Chairman

Arlen Specter,
Vice Chairman

Anthony C. Beilenson

Stephen A. Cambone*

M.D.B. Carlisle

Henry F. Cooper

J. James Exon

Dave McCurdy

Janne Nolan

Daniel Poneman

William Schneider, Jr.

Henry D. Sokoloski

*** nominated**
**** resigned**

Enclosure

Commission to Assess the Organization of the Federal Government to Combat the Proliferation of Weapons of Mass Destruction

P.O. Box 18205
Washington, D.C. 20036-8205
(202) 331-4060
Fax (202) 296-5545

July 14, 1999

The Honorable Tom Daschel
Minority Leader
United States Senate
Washington, D.C. 20510

Dear Mr. Leader:

In accordance with the Intelligence Authorization Act for Fiscal Year 1997 (P.L. 104-283) and the Omnibus Consolidated and Emergency Supplemental Appropriations Act of 1999 (P.L. 105-277), we hereby submit the report of the Commission to Assess the Organization of the Federal Government to Combat the Proliferation of Weapons of Mass Destruction.

The Commission was established in January 1998 to perform its assessment and report to Congress on specific administrative, legislative, and other changes it believes would improve U.S. performance in combating proliferation.

It has been an honor to serve.

Respectfully submitted,

John M. Deutch
Chairman

Arlen Specter,
Vice Chairman

Anthony C. Beilenson

Stephen A. Cambone*

M.D.B. Carlisle

Henry F. Cooper

J. James Exon

Dave McCurdy

Janne Nolan

Daniel Poneman

William Schneider, Jr.

Henry D. Sokoloski

*** nominated**
**** resigned**

Enclosure

Commission to Assess the Organization of the Federal Government to Combat the Proliferation of Weapons of Mass Destruction

P.O. Box 18205
Washington, D.C. 20036-8205
(202) 331-4060
Fax (202) 296-5545

July 14, 1999

The Honorable J. Dennis Hastert
Speaker of the House of Representatives
Washington, D.C. 20515

Dear Mr. Speaker:

In accordance with the Intelligence Authorization Act for Fiscal Year 1997 (P.L. 104-283) and the Omnibus Consolidated and Emergency Supplemental Appropriations Act of 1999 (P.L. 105-277), we hereby submit the report of the Commission to Assess the Organization of the Federal Government to Combat the Proliferation of Weapons of Mass Destruction.

The Commission was established in January 1998 to perform its assessment and report to Congress on specific administrative, legislative, and other changes it believes would improve U.S. performance in combating proliferation.

It has been an honor to serve.

Respectfully submitted,

John M. Deutch
Chairman

Arlen Specter,
Vice Chairman

Anthony C. Beilenson

Stephen A. Cambone*

M.D.B. Carlisle

Henry F. Cooper

J. James Exon

Dave McCurdy

Janne Nolan

Daniel Poneman

William Schneider, Jr.

Henry D. Sokoloski

*** nominated**
**** resigned**

Enclosure

Commission to Assess the Organization of the Federal Government to Combat the Proliferation of Weapons of Mass Destruction

P.O. Box 18205
Washington, D.C. 20036-8205
(202) 331-4060
Fax (202) 296-5545

July 14, 1999

The Honorable Richard A. Gephardt
Minority Leader
United States House of Representatives
Washington, D.C. 20515

Dear Mr. Leader:

In accordance with the Intelligence Authorization Act for Fiscal Year 1997 (P.L. 104-283) and the Omnibus Consolidated and Emergency Supplemental Appropriations Act of 1999 (P.L. 105-277), we hereby submit the report of the Commission to Assess the Organization of the Federal Government to Combat the Proliferation of Weapons of Mass Destruction.

The Commission was established in January 1998 to perform its assessment and report to Congress on specific administrative, legislative, and other changes it believes would improve U.S. performance in combating proliferation.

It has been an honor to serve.

Respectfully submitted,

John M. Deutch
Chairman

Arlen Specter,
Vice Chairman

Anthony C. Beilenson

Stephen A. Cambone*

M.D.B. Carlisle

Henry F. Cooper

J. James Exon

Dave McCurdy

Janne Nolan

Daniel Poneman

William Schneider, Jr.

Henry D. Sokoloski

*** nominated**
**** resigned**

Enclosure

Contents

* nominated

Executive Summary

Every American should understand that weapons of mass destruction (WMD)—nuclear, biological, and chemical weapons and their means of delivery—pose a grave threat to the United States and to our military forces and our vital interests abroad. The most serious threats are:

- Terrorist use of weapons of mass destruction against the United States or its allies;
- Possession of, and the manufacturing infrastructure for, WMD by Iran, Iraq, North Korea, or other unfriendly states;
- Diversion of WMD-related weapons, technology, materials, and expertise from Russia;
- Transfer of nuclear, chemical, and biological weapons, delivery means, and technology by China; and
- Destabilizing consequences of WMD programs in the Middle East, South Asia, and East Asia.

These threats define a chilling new reality for our country. Their magnitude and reality require a new strategy focused not just on prevention, but also on ***combating all aspects of proliferation,*** to include impeding the spread of capability, responding to proliferation as it occurs, strengthening our capacity to defend against such weapons, and preparing to respond if these weapons are used against us at home or abroad.

Congress established this Commission to assess the organization of the Federal Government with regard to WMD proliferation and to make recommendations for improvements. The task is formidable. Proliferation is related to catastrophic terrorism, infrastructure protection, and espionage. Many separate government agencies that have overlapping jurisdiction are involved. Combating proliferation requires actions both at home and abroad, both unilateral and with other nations and international organizations. The Commission finds that ***the US Government is not effectively organized to combat proliferation.***

This report makes many recommendations, including particular ones for each agency involved. Together, the recommendations aim to bring about four major changes:

- ***Presidential leadership*** is essential to ensure that a strategy for combating proliferation is formulated, understood, and implemented by the many agencies involved. The President should consider assigning the Vice President a special role in the National Security Council to ensure that adequate attention and resources are devoted to WMD proliferation.
- ***Central direction and coordination.*** A new post of **National Director for Combating Proliferation** should be established. The National Director would operate within the National Security Council structure and would chair a new **Combating Proliferation Council**. The Council, composed of senior-level officials designated by each agency, would formulate policy, reach timely decisions, and harmonize the interagency process of program execution and resource allocation in accordance with an integrated national plan.

- ***Improved execution of policies and programs by responsible agencies.*** Each agency must adjust its internal organization, programs, and resources in ways that reinforce an integrated government-wide effort to combat proliferation. The Commission's specific recommendations primarily address process and operations. In the case of the Department of Defense, we recommend major changes in reporting relationships. We endorse changes proposed for the Department of Energy.

- ***Integrated planning and budgeting of resources.*** There is no system for tracking resource expenditures for combating proliferation. Doing so is essential to an effective interagency effort. The Commission recommends the creation of a new budget sub-function for this purpose. The National Director should be charged with preparing government-wide plans, especially for technology development and acquisition, to combat proliferation. These plans should be designed to enable the Executive Branch and Congress to measure progress and assure that resources are applied effectively and flexibly to explicit program objectives and schedules.

We believe the adoption of the Commission report will reduce the risks to the American people from WMD proliferation. The Commission's recommendations promote:

- A national strategy that will more effectively employ a broader range of policy instruments in both bilateral and multilateral diplomacy, from export controls to foreign assistance;

- Greater efficiency, accountability, and capability for defense against and response to weapons of mass destruction, from biological agent detection to reducing the risk of leakage from the Russian nuclear stockpile;

- Better intelligence about the intentions and capabilities of proliferators;

- Enhanced capability to take timely and effective operational actions that could deter or prevent the use of WMD; and

- A more transparent process for tracking the application of resources to their intended purposes, coordinating agency efforts, and evaluating progress toward achieving clear program objectives.

The Commission does not assert that these changes, even if fully implemented, will "solve" the proliferation problem. We live in a dangerous world where hostile forces will seek to exploit WMD to their advantage and to threaten us, especially since a new WMD threat can arise with little or no warning. It is precisely because WMD pose this grave danger to us that the threat must be addressed with grit and determination, but also with the most effective and efficient organization this country can muster.

Introduction: Commission Charge and Procedures

A cardinal truth of government is that policy without proper organization is effectively no policy at all. If the Federal Government's policy is to combat the threat posed by the spread of weapons of mass destruction, then the government must be organized effectively to do so. The large number of agencies involved in this particular effort makes organization especially critical. Recognizing the need, Congress established this Commission to assess the current structure and organization of the government, as well as our cooperative efforts with foreign governments, and to make recommendations for improvements.[1]

The Commission began by assessing the operation of proliferation-related efforts by the responsible federal agencies. The examination was timely, since many of the agencies were undergoing substantial reorganization. For example, the Arms Control and Disarmament Agency was being integrated into the Department of State, while the Department of Defense was consolidating several activities into a single agency devoted to counter-proliferation, cooperative threat reduction, and on-site arms control inspections. Similarly, the Intelligence Community was taking steps to strengthen community-wide proliferation-related collection and analysis in response to recent recommendations by Congress, the Commission to Assess the Ballistic Missile Threat to the United States (the Rumsfeld Commission), the Commission on the Roles and Capabilities of the United States Intelligence Community (the Aspin/Brown Commission), the President's Foreign Intelligence Advisory Board, and the reports issued by Admiral David Jeremiah: one in the wake of the 1998 Indian and Pakistani nuclear tests and another following allegations of espionage at the nuclear weapons complex.

Between January 1998 and June 1999, the Commission held approximately 125 meetings with Cabinet-level and other senior officials, former senior officials, and non-governmental specialists. Appendix C provides a list of individuals whom the Commission interviewed. The Commission also sent a "Baseline Survey of Proliferation-Related Activities" (Appendix D) to all Federal agencies that deal with the spread of weapons of mass destruction. Some of the information contained in their responses is included in this report, as are specific recommendations to improve the agencies' effectiveness with respect to their efforts to combat proliferation.

In addition to reviewing the efforts of the individual agencies, the Commission evaluated the mechanisms by which the interagency process develops policy alternatives and reaches decisions on government-wide policies and programs to combat proliferation. The management of resource allocation received particular scrutiny.

Effective export control policy is vital to our efforts to impede the spread of WMD-related technology. Accordingly, the Commission examined this area and presents a number of recommendations for improvements.

[1] See Appendix A for the Commission's history and its legislative mandate. See Appendix B for a list of Commission members and staff.

Similarly, the Commission assessed particular agency and interagency efforts to develop technologies that could advance our efforts to combat proliferation, as well as the present procedures for deciding which technologies are pursued, in what form, and with which resources. For example, development of biological-agent detectors has been a priority since the Gulf War, but the fielding of these systems remains slow. The Commission considered whether the work under way sufficiently addresses the varied needs of potential users, users such as state and local officials, international inspectors, clandestine intelligence collectors, those responsible for protecting Americans overseas at U.S. embassies, and deployed military forces.

Finally, the Commission sought to determine the effectiveness of bilateral and multilateral proliferation-related cooperation with foreign governments and international organizations. The range of international cooperative activities spans diplomacy, military, commercial, law enforcement, and intelligence, in both bilateral and multilateral relationships. Because proliferation concerns are global and are so interconnected with other transnational security challenges, such as terrorism, infrastructure vulnerabilities, and crisis management and response, an appropriate policy response clearly includes cooperation with international partners.

The Commission's deliberations took place within the context of the broad nature of the proliferation threat, including the potential for WMD use within American borders. However, the legislation establishing the Commission prohibited us from reviewing or assessing U.S. domestic response preparedness and capabilities. ***The Commission believes that an effective capability to respond to the use of nuclear, chemical, or biological weapons by states or sub-national groups, whether at home or abroad, is critical not only in the event of an attack, but also for its deterrent effect.*** The Commission believes these issues should be integrated.

This report presents the findings and recommendations of the Commission's work.

Chapter 1
A Grave Threat to the United States

Weapons of mass destruction pose a grave threat to U.S. citizens and military forces, to our allies, and to our vital national interests in many regions of the world. Combating the proliferation of these weapons and their means of delivery is a paramount national security need for the United States.[2]

Consider the following hypothetical scenarios:

- *A disgruntled Russian scientist at Ozersk (Chelyabinsk-65) acquires 20 kilograms of highly enriched uranium and sells it to the government in Tehran.*
- *Anthrax is released in a Boston subway station during rush hour, sending 6,000 people to hospital emergency rooms.*
- *Analysts estimate that North Korean scientists have assembled ten nuclear weapons, and intelligence officials receive reports that Pyongyang is planning to sell at least two of these devices.*
- *Saddam Hussein launches Scud missiles armed with a nerve agent against forward-deployed U.S. forces in Turkey and Saudi Arabia.*

These events have not taken place. But they could.

Now consider these developments that actually ***have*** occurred or are now taking place:

Terrorist acquisition or use of nuclear, chemical, or biological weapons:

At least a dozen terrorist groups have expressed an interest in or have actively sought nuclear, chemical, or biological weapons capabilities.[3] On March 20, 1995, the Japanese cult group, Aum Shinrikyo, released the nerve agent *sarin* into the Tokyo subway system, killing 12 people and injuring more than 5,000. A successful nuclear, chemical, or biological attack against the United States would be devastating. Even a credible threat of such an attack could dramatically undermine America's sense of security, constrain our ability to support allies abroad, and cause major disruptions.

Possession of, and the manufacturing capability for, nuclear, chemical, or biological weapons and the means to deliver them by Iran, Iraq, North Korea, or other unfriendly states:

North Korea is believed to have enough nuclear material for one or perhaps two nuclear weapons, and it may be continuing to develop its nuclear program. Moreover, it may exploit its

[2] "Proliferation" refers to the actions of a country or sub-national entity to transfer, develop, or acquire nuclear, chemical, or biological weapons and the means of their delivery.
[3] Statement by John A. Lauder, Special Assistant to the Director of Central Intelligence for Nonproliferation, at Commission Hearing, 29 April 1999, p. 6.

role as a supplier of ballistic missiles to aquire WMD materials and components, especially for nuclear weapons. Iran has manufactured and stockpiled chemical weapons, including blister, blood, and choking agents, as well as the bombs and artillery shells with which to deliver them. ***In fact, most of the seven state sponsors of terrorism (Cuba, Iran, Iraq, Libya, North Korea, Sudan, and Syria) either have or are seeking weapons of mass destruction. More than a dozen states have offensive chemical and/or biological weapons programs.*** And despite seven years of intrusive on-site inspections, the United Nations Special Commission (UNSCOM) and the International Atomic Energy Agency (IAEA) have not been able to certify that Iraq's WMD programs have been eliminated.

Nuclear weapons can be delivered in the back of a truck or covertly launched from a merchant ship, chemical weapons dispersed from a paper bag, and biological weapons spread by a crop duster. These "low-tech" delivery methods are likely to be favored by terrorists. State threats, however, include the use of WMD loaded on cruise or ballistic missiles. Here, too, the risk is growing. In August 1998, North Korea unexpectedly launched a three-stage Taepo Dong-1 ballistic missile over Japanese territory. This followed a previously successsful test flight of North Korea's No Dong ballistic missile over Japanese territory in May 1993. North Korea's missile-related exports to Iran helped Tehran "save years" in the development of the Shahab-3 missile, tested in 1998.[4]

Diversion of nuclear, chemical, or biological weapons, technology, materials, or expertise from Russia:

We know of seven instances since 1992 in which weapons-usable fissile materials were stolen from Russian facilities. The continuing economic meltdown in Russia has heightened the risk of both further material leakage and the "brain drain" of technical expertise. Russia has no reliable inventory of its fissile material, and Russian vulnerability to an "insider" threat is increased by power outages at Russian nuclear installations, by the need for unpaid guards and technicians to forage for food, and by sporadic violence both by and against personnel from the Ministries of Defense and Atomic Energy. Many dangerous state and sub-national actors would like to exploit Russia's troubles in order to acquire nuclear weapons or small quantities of weapons-usable materials.

China's role as a significant proliferator of ballistic missiles, weapons of mass destruction, and enabling technologies:

China has carried out extensive transfers to Iran's solid-fuel ballistic and cruise missile programs. It has supplied Pakistan with a design for a nuclear weapon and additional nuclear weapons ballistic missile assistance. It has transferred complete ballistic missile systems to Saudi Arabia (the 3,100-kilometer range CSS-2) and Pakistan (the 350-kilometer range

[4] Id. at 4.

M-11). China is both a source and transfer agent for passing knowledge, technology, sub-systems and entire systems to dangerous state and sub-national actors.[5]

Destabilizing consequences of nuclear, chemical, biological, and missile programs in South Asia, East Asia, and the Middle East:

In 1998, both India and Pakistan tested nuclear weapons. Neither country has real-time surveillance capability; reliable command, control and communications; or early warning systems. This vulnerability could lead to a "launch-on-warning" posture, further aggravating the subcontinent's already serious instability. Moreover, this rivalry increases the possibility of Chinese and Russian involvement and more explicit missile and nuclear assistance. Similar efforts by countries in East Asia and the Middle East to acquire nuclear, chemical, or biological weapons, and the means to deliver them, may motivate nations in those regions to enhance their own relative security in ways that reduce U.S. influence and fuel regional arms competitions. The proliferation of WMD and delivery systems manufacturing capabilities may further stimulate the diffusion of these dangerous and destablizing technologies.

These examples demonstrate that the danger to U.S. national security from the spread of weapons of mass destruction is real and urgent. We should harbor no illusions about the pace, magnitude, or complexity of the problem. Proliferation is not a single phenomenon. The most obvious proliferation threat comes from the planned efforts of states or sub-national groups to acquire a WMD capability. We have seen such efforts in Iran, Iraq, North Korea, and earlier in Pakistan and India. But nations can also take actions that by themselves appear innocent, and that permit plausible deniability of intent to acquire WMD capability, but that effectively provide them with elements required to achieve WMD or delivery missile capability.

Understanding and combating proliferation is further complicated by the fact that "weapons of mass destruction" do not present a single, undifferentiated threat. Nuclear, chemical, and biological weapons each present unique challenges in terms of control, detection, and response.

The strategic context for proliferation has changed substantially during the past several years. Until the 1980s, the concern was focused on the spread of weapons of mass destruction to states that previously lacked them—nuclear weapons to Iran for example—and our attention was focused on *preventing* proliferation. Since then, certain states have made efforts to improve and modernize their arsenals, e.g. upgrading of North Korea's ballistic missile forces. Several countries have acquired WMD capability. Several additional countries have this as a strategic objective, and the necessary technologies and material are progressively more available. It has become necessary for the US Government to devise and implement strategies which capitalize on America's enduring military,

[5] Report of the Commission to Assess the Ballistic Missile Threat to the United States, II, 3, C.

economic, political, and diplomatic strengths to respond to proliferation when it occurs and target the weaknesses of specific proliferators. A policy that focuses on prevention is unlikely to succeed.

Today, however, both diplomatic and military efforts to combat proliferation too narrowly confine the range of tools they employ and the goals they seek. In the case of Defense Department-led efforts, there is a natural focus on military instruments to respond to the potential threats of weapons of mass destruction. State Department-led efforts, by contrast, naturally focus on formal diplomatic tools, such as treaties, agreements, and understandings, that seek pledges of compliance with international norms or the expansion of multilateral agreements to limit the transfer of technology and materials related to weapons of mass destruction.

A set of effective strategies reflecting today's proliferation challenges must go much further than this. Strategies are needed to actively orchestrate the entire spectrum of U.S. and allied strengths in trade, finance, military force, intelligence, technology, and diplomatic leverage against proliferators' clear vulnerabilities in one or more of these areas. Using intelligence to identify and analyze these vulnerabilities would help focus interagency operations to achieve a more comprehensive set of objectives. These would include: (1) effectively dissuading nations from proliferating by targeting and influencing interest groups or power centers within these nations to recognize the costs of such behavior, (2) encouraging the most hostile proliferating regimes towards internal political changes that would either reduce their proliferation activities or lead to new regimes that might give them up; (3) keeping our friends secure enough to defend themselves with our help against proliferating neighbors so they do not resort to acquiring such weapons themselves, and (4) strengthening the global consensus for proliferation-related norms. These operations and the specific strategies which they support, moreover, must be updated regularly to anticipate changes in proliferating countries and calibrate instruments accordingly.

What we worry about most:

- *Terrorist acquisition or use of nuclear, chemical, or biological weapons*
- *Possession of, and the manufacturing capability for, nuclear, chemical, or biological weapons by Iran, Iraq, North Korea, or other unfriendly states*
- *Diversion of WMD-related weapons, technology, materials, and expertise from Russia*
- *China's role as a significant proliferator of ballistic missiles, weapons of mass destruction, and enabling technologies:*
- *Destabilizing consequences of WMD programs in the Middle East, South Asia, and East Asia*

Combating these threats—and preventing the potential crises described above—requires a government that is organized to develop and carry out a coherent, coordinated, and sustained response, using all available tools and an appropriate level of resources.

Chapter 2
Combating Proliferation: What the Federal Government Should Do

Successfully combating the proliferation of weapons of mass destruction requires leadership. It requires organization. It requires coordination.

It requires policies, plans, programs, and operations that will (1) deter, impede, interdict, and defend against the development, acquisition, transfer, and use of these weapons and their means of delivery, (2) either roll back or effectively address the consequences of existing WMD programs, and (3) if these efforts fail, respond to the use of nuclear, chemical, or biological weapons against Americans at home or abroad.

We do not have a comprehensive approach to combating the proliferation of weapons of mass destruction.

It is not difficult to identify the key elements of an effective governmental response:

First, Presidential leadership is essential in combating proliferation. No organizational structure can overcome a lack of commitment at the top.

Second, we need policy guidance that sets clear priorities and reflects a consensus on our national objectives. This policy must be integrated with other objectives that the United States has in a region or country and with related national security objectives such as arms control, combating terrorism, and protecting critical infrastructure.

Third, our intelligence system must provide early warning of threats, while also supporting diplomatic, preemptive, or retaliatory responses to either threats of proliferation or the actual use of weapons of mass destruction. Resources should be allocated to reflect current policy priorities.

Fourth, we need an effective interagency process to develop coordinated and consistent government-wide strategies to address these threats, including country-specific, long-term plans to reduce the demand for these weapons, as well as strategies for technology denial and for mitigating the consequences of proliferation that has already occurred, and is likely to occur in the future.

Fifth, there must be a clear delineation of responsibility to executive branch departments and agencies to develop coordinated and systematic programs, operations, and technology development and acquisition plans to implement these strategies, with resources commensurate to the scale of the problem.[6]

[6] We need particular emphasis on preventing further leakage or transfer of weapons, technology, and know-how about WMD from Russia and the New Independent States (NIS). This includes activities such as:

- purchasing highly enriched uranium from Russia, Kazakhstan, and Georgia;
- helping Russia and the NIS improve protection, control, and accounting of fissile material; and
- preventing Russian technology from falling into the hands of unfriendly nations or sub-national groups.

Sixth, we must prepare for the threat or use of nuclear, chemical, or biological weapons. This will require a broad effort at all levels, involving federal agencies and state and local governments. It will require new working relationships among the defense, intelligence, law-enforcement, and public health communities, including integrated training of federal, state, and local authorities; active duty and reserve military forces; National Guard units; and police, fire, and medical officials.

Seventh, we need to marshal resources for the fight against proliferation and to manage budgets for combating proliferation more efficiently.

Eighth, we must engage our allies—and potential proliferators—more effectively in curtailing countries' desires for nuclear, chemical, or biological programs; preventing their acquisition of critical WMD-related technology; and preparing to respond to deployment of weapons of mass destruction.

The Commission defines the scope of combating proliferation as policies, plans, programs, and operations that:

- ***Prevent or impede the acquisition or use of weapons of mass destruction and their means of delivery***
- ***Roll back or effectively address proliferation when it occurs***
- ***Respond if weapons of mass destruction are threatened or used against us at home or abroad***

The Role of Congress

None of these efforts will succeed without the energetic and informed involvement of Congress. The legislative and executive branches must achieve greater cooperation in addressing this grave national security threat. A lack of consensus on methods has undermined the consistency of U.S. proliferation policy through several presidential administrations and Congresses.

Over the last several years, regardless of which party controlled the White House or Congress, there has been a tension at both ends of Pennsylvania Avenue over how to deal with proliferation. Congress has tended to perceive the executive branch as insufficiently committed to combating proliferation because it seemed to subordinate proliferation-related goals to other bilateral or multilateral objectives. The executive branch, on the other hand, has complained that Congress insists on using blunt instruments to combat proliferation and generally relies too heavily on punitive measures, downplaying the value of good bilateral

relations in achieving our proliferation-related goals. An organizational structure within the executive branch that raises the proliferation profile and establishes a clearer connection between our proliferation-related objectives, policies, strategies, and programs could help to pave the way for a more cooperative relationship.

Congressional-executive interaction is complicated by the number of congressional committees that now have oversight and budgetary authority over proliferation-related programs. Oversight from at least twenty committees heightens the need for coherent, continuous consultation between the branches.

Organizing to Combat Proliferation

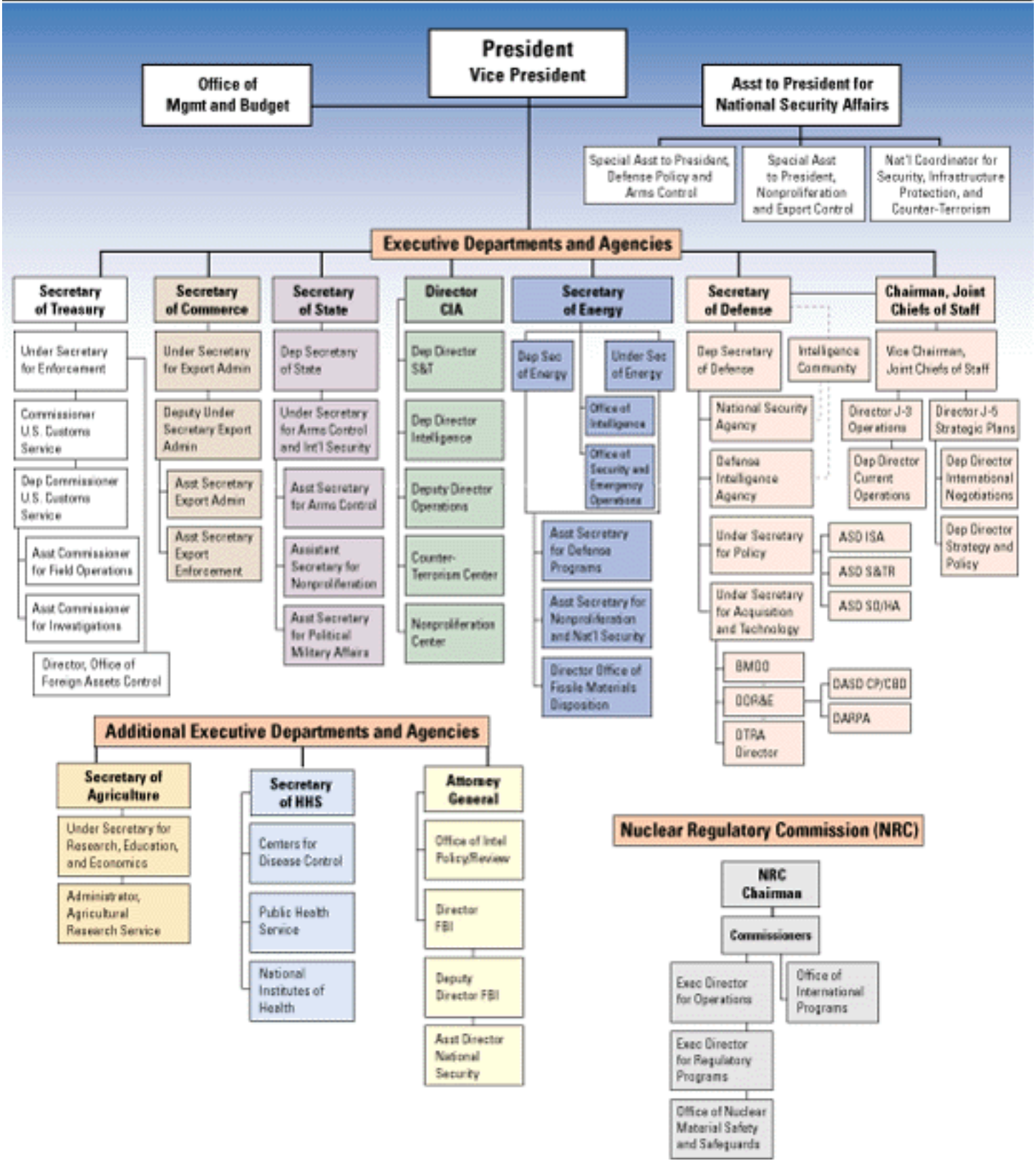
How we organize the Federal Government to combat proliferation will have a profound impact on our prospects for success.

While organization will not by itself determine the overall success or failure of our efforts to combat proliferation, it is a critical component. Organization governs the establishment of priorities, the assignment of tasks, and the allocation of resources. It influences the flow of information and analysis. It affects how the work of government is done and who is accountable for the results.

Many offices and agencies have a role in countering the proliferation threat. These include several White House offices; traditional national security elements in the Intelligence Community and at the Departments of State, Defense, and Energy (including the national laboratories); as well as the Departments of Justice, Commerce, Treasury, Health and Human Services, and Agriculture. The chart on the next page shows the many players involved.

Ensuring that these diverse elements work effectively during both crises and non-crisis times requires more than coordination. It requires strong and timely direction to establish policy, set program priorities, and allocate resources. It requires a clear delineation of responsibilities. It requires specific mechanisms to plan and execute operational responses to the threat or use of weapons of mass destruction, whether diplomatic initiative, foreign assistance, security assurances, covert action, or military retaliation. Once responsibility and authority are established, there must be accountability for performance against specified objectives.

Combating Proliferation—Key Executive Agencies and Departments



Many present and past officials have indicated that the coordination of proliferation-related programs has often failed to meet these standards. The Commission has identified several areas in which interagency activities are deficient. These have common features:

- ***overlapping responsibility and resource requirements:*** When a new problem involves identifying available resources or the development of a coordinated response from several agencies, the process is cumbersome and slow, and is further hampered by a lack of resource flexibility. Disputes that should be resolved promptly at the working level must often be resolved instead at meetings of deputy secretaries or Cabinet-level officials.

- ***no end-to-end interagency plan for addressing proliferation:*** There is no proliferation-related architecture—an end-to-end plan for policy development, program planning, and budget formulation—nor does any person or staff have the power or responsibility to develop one.

- ***absence of a cross-cutting budget for program elements related to proliferation:*** Neither the President, Congress, nor any executive branch official knows how much the various agencies have spent on these efforts or how much they plan to spend in the future. The private sector has an apt expression: “If you don’t measure it, you can’t manage it.” Without an explicit financial plan tied to programmatic objectives, individual agencies and the corresponding sub-committees on Capitol Hill make their program and resource decisions independently of any overall plan or objective. The result is not only inefficiency and duplication but also potentially catastrophic delay.

The President’s National Security Advisor has the broadest perspective on the proliferation threat, but with all of his other responsibilities he cannot be expected to manage the government’s proliferation-related programs on a daily basis. With no one specifically in charge of all proliferation-related efforts, no one is ultimately accountable to the President and to Congress. Thus, the present system lets agencies protect their perceived institutional interests rather than fully contributing to an overall plan for achieving broader objectives. Blame can be deflected and diffusedother participants in the interagency process. Such diffuse responsibility invites inefficiency and ineffectiveness, and avoids accountability.

Assessing the Need for Change

The nation lacks a comprehensive policy and plan to meet the threat posed by the proliferation of weapons of mass destruction.

A coordinated, consistent, and coherent response to proliferation-related threats requires concerted changes in all three elements of the current system: the interagency process, the individual departments and agencies, and Congress.

An improved mechanism for White House-led interagency direction and support is a critical first step.[7] Improved proliferation-related direction and management within each agency is also needed. Finally, the executive and legislative branches need to work together rather than—as is so common—at cross purposes.

The Commission considered a number of options for improving the interagency process. During the course of our work, we consulted many current and former government officials, including Secretaries of State and Defense, National Security Advisors, and two former Presidents. All agreed that stronger central direction is necessary, but they differed about how to achieve better coordination.

Here are the options the Commission considered:

1. ***Assign responsibility for interagency coordination of proliferation-related matters to the Secretary of State.*** This is based primarily on State's responsibility for the conduct of foreign affairs. The recent Presidential designation of the Under Secretary of State for Arms Control and International Security Affairs as chair of the interagency working group on non-proliferation is a step in this direction. Some officials noted, however, that State has few resources and little capacity to design or manage proliferation-related programs now executed by other agencies.

2. ***Assign responsibility to the Secretary of Defense.*** Advocates cite both significant Department of Defense (DoD) resources devoted to counter-proliferation programs and the Department's capacity to manage large programs. However, others echo concerns about the ability of one agency to direct others, and note that centralizing all proliferation-related management within DoD fails to reflect the need to integrate non-proliferation into our overall foreign policy.

3. ***Assign execution responsibility to a single individual who will serve as an Assistant Secretary in the Departments of Defense, State, and Energy.*** This proposal for a "triple-hatted" Assistant Secretary for Proliferation is based on the key roles that these three agencies play in proliferation-related activities. Advocates note the close link between directive authority and control of resources, emphasizing the difficulty of vesting such control outside the agencies. As precedent, they cite the Director of the Naval Propulsion Program, who was a Deputy Assistant Secretary in both the Departments of Defense and Energy. Critics argue that this official could wind up without support in any of the agencies and create confusion in the chain of command.

[7] Appendix E contains an illustrative list of the many interagency groups currently involved in trying to coordinate U.S. proliferation-related activities. The complexity of the issues and the variety of participating groups add weight to the view that an improved mechanism could bring valuable direction and integration to the existing process.

4. ***Assign responsibility for interagency coordination of counter-proliferation matters to the Secretary of Defense and of non-proliferation policy to the Secretary of State.*** This reflects the view that formulation of policy and implementation of programs are fundamentally different types of activities and should be coordinated and managed in different ways. It recognizes the primacy of State in proliferation-related policy formulation and the core capabilities and budget dominance of Defense with regard to specific programs. Critics point out that other agencies have significant roles in each of these areas, and that this proposal does not address the difficulty inherent in one agency trying to assert directive authority over others. Moreover, it may undermine the critical importance of ensuring that there is no disconnect between policies and programs.

5. ***Create a new agency to combat proliferation.*** In the past, consideration was given to transforming the Arms Control and Disarmament Agency into an agency devoted to emerging threats. An alternative is to create a support agency charged with providing an architecture for combating proliferation and managing the resulting programs. This latter idea is similar to the Strategic Defense Initiative Organization created in the Reagan Administration to address ballistic missile defense. The primary disadvantage of this model is that it again fails to recognize what the Commission views as a fundamental tenet: combating proliferation must be integrated into our overall security and foreign policy. Establishing an agency and staff outside the National Security Council (NSC) pulls the process in the opposite direction.

6. ***Create a new office in the White House for combating proliferation.*** Those who advocate this point to the role of the Director of the Office of National Drug Control Policy (ONDCP) and its staff of about 150. The Director (also known as the "drug czar") has significant legislative authority to direct all drug programs and activities, backed up by budgetary powers previously exercised only by the Office of Management and Budget (OMB). The principal concern with this model is the same as that with the "new agency" model, i.e., that our efforts to combat proliferation must be coordinated from within the NSC in order to ensure that those efforts remain a part of our overall security and foreign policy. This concern is mitigated in the case of ONDCP because its efforts are focused primarily on domestic issues related to drug abuse, although the drug issue does have some foreign policy aspects. The disadvantages of pulling ONDCP out of the NSC structure are thus not as significant as they would be in the case of proliferation-related activities.

7. ***Assign responsibility for proliferation to the Vice President.*** Advocates for this model believe that only the President or Vice President has the authority to make agencies conform to a central coordinating authority. They point out that although the President does not have time to lead these efforts on a day-to-day basis, the Vice President has both the clout and the time. They cite the testimony of officials speaking to the Commission who noted that Cabinet secretaries are often reluctant to disagree in front of the Vice President. Thus, interagency issues put on the agenda for meetings chaired by the Vice President tend to get Cabinet-level attention and are

resolved before the meetings occur. Supporters of this option cite several programs that have benefited from Vice Presidential authority, such as the Space Council (since the time of Vice President Johnson) and the Reinventing Government program of Vice President Gore. Others point out that Vice Presidents are often chosen for reasons having nothing to do with their interest in or qualifications for leading a major national security effort. Moreover, there is a danger in building a staff structure under the Vice President that is separate from the NSC.

8. ***Assign responsibility for proliferation to a National Director for Combating Proliferation within the National Security Council, with the rank of Deputy Assistant to the President.*** This model establishes a senior individual inside the national security apparatus with the authority and responsibility to coordinate the development and implementation of interagency policies and programs bearing on proliferation-related threats. It embeds this effort within the NSC structure to ensure integration with our overall security and foreign policy and to take advantage of the NSC's traditional role of bringing relevant agencies together at all levels, from the working level up to the Principals. It elevates the stature of proliferation-related efforts in the NSC and assigns a correspondingly enhanced role in resolving differences between agencies, setting priorities for agency activities, and allocating resources within existing congressional authorities. Execution of programs would remain with agencies.

   Critics of this model express doubt that a member of the NSC staff, even one with the rank of Deputy Assistant to the President, can direct Cabinet agencies or resolve disputes between Cabinet secretaries. Moreover, they point out that directive authority without control over budget resources is tenuous, but that the NSC should not be involved in executing budgets. In addition, such direct budget authority would likely require that the official be appointed by the President with the advice and consent of the senate.

9. ***Work to improve the present system and organizational structure.*** The Commission was mindful of the first rule of any effort to change organizations and systems: do no harm. Some felt the disadvantages inherent in each of the proposals considered by the Commission argued in favor of leaving the existing system in place, on the theory that individuals of good will can work together in the existing framework through both formal and ad hoc interagency mechanisms. They suggested that the interagency process works well and is getting better at dealing with the emerging threats of proliferation, terrorism, and infrastructure protection. Finally, advocates of this view note that there are other important issues that cut across several agencies and require coordination, and that it is impractical to seek to solve each such cross-cutting issue with a new interagency organizational structure.

A New Approach to Combating Proliferation

The Commission recognizes that the right people—with the right skills and dedication—can often overcome poor organizational structure, and that even good organizational structures need dedicated individuals to succeed. However, ***the Commission concludes that the shortcomings of the existing system need to be addressed.*** We cannot afford "business as usual" in the face of this growing threat.

Therefore, the Commission makes the following recommendations:

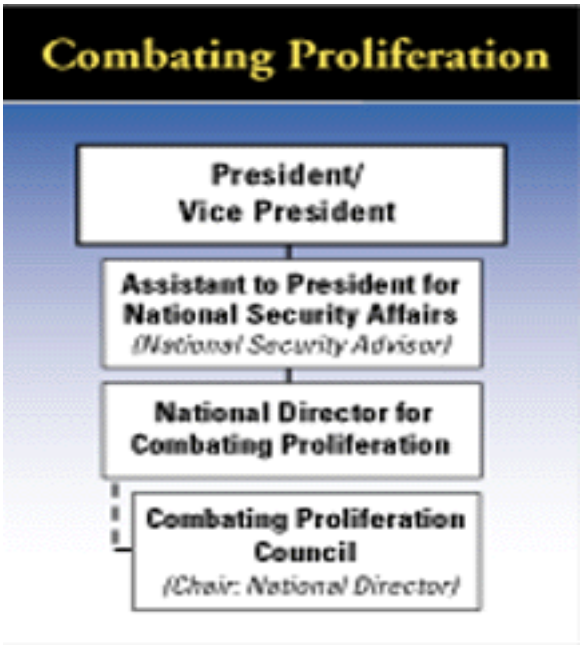
> ***Recommendation 2.1:*** *The President must lead efforts to combat proliferation and direct immediate steps to make those efforts more coherent, consistent, and effective.*

In order to sustain this senior-level leadership, the President should consider designating a special role for the Vice President in the National Security Council, designed to ensure that adequate attention and resources are devoted to countering this threat. For example, the President could direct the Vice President to coordinate an annual report from the NSC Principals Committee, through the Vice President to the President and Congress, updating the nature of the threat and evaluating our progress in responding to that threat. As part of this evaluation process, the Vice President could chair meetings of the relevant Cabinet secretaries to provide a mechanism for ensuring senior-level attention.

> ***Recommendation 2.2:*** *The President should appoint a National Director for Combating Proliferation, with the rank of Deputy Assistant to the President and sufficient staff resources to carry out his or her charter.*

The National Director would have two distinct responsibilities: to advise the President and Vice President, through the National Security Advisor, on proliferation-related matters, and to lead an interagency group, the Combating Proliferation Council, in developing policies to combat proliferation, coordinating the development and implementation of plans and programs by the agencies, and ensuring the efficient allocation of resources.

In ***advising the President and Vice President on proliferation-related matters,*** the National Director would:



- ensure that the President and Vice President are fully informed about proliferation-related issues, activities, and events here and abroad;
- prepare and coordinate presidential reviews, directives, and decision papers on matters relating to proliferation policy;
- organize the President's or Vice President's meetings of Cabinet secretaries on proliferation;
- provide all necessary support for the annual report to the President evaluating our proliferation efforts; and
- participate in presidential meetings, including meetings with heads of state, as well as presidential-level communications, where proliferation-related issues are relevant.

In fulfilling these responsibilities, the National Director would work through the National Security Advisor to ensure coordination with overall national security policy and planning.

In ***leading the Combating Proliferation Council*** in the development and execution of proliferation-related policies and programs, the National Director would:

- lead the interagency policy development process with regard to proliferation and export controls;
- act as the administration's principal spokesperson on proliferation-related threats, which includes the responsibility to coordinate demarches, speeches, and testimony that articulate and define the administration's policy in this area;
- lead the development of a detailed plan to address the full range of proliferation-related issues and activities including, for example, integrated strategies for technology development and acquisition, resource allocation, reducing the threat from the former Soviet Union, intelligence collection and analysis, and domestic response (responsibility for execution of programs would remain with the agencies);

- work with the Director of OMB and the relevant agencies to construct a coordinated agency proliferation budget and oversee proliferation-related transfers and reprogrammings;[8]

- consult with Congress to explain the overall plan and how individual programs and activities fit into that plan, and work toward a more cooperative relationship; and

- ensure that the requisite legal authorities are in place to act against the threat.

The National Director would be a member of the NSC Deputies Committee and, at the request of the National Security Advisor, would chair Deputies Committee meetings dealing with proliferation issues. The National Director should be invited to attend Principals Committee meetings as appropriate, and should be included in meetings of the NSC country or regional interagency working groups to ensure that proliferation policy both reflects and is reflected in country and regional strategies. While the National Director would manage the policy process within the NSC to the Deputies level and seek to resolve interagency disputes, agency heads would retain the right to appeal to the Principals and, if necessary, to the Vice President and President.

The duties of the National Director should be spelled out in a Presidential Decision Directive (PDD).[9] If this position is created by statute rather than by PDD, the Commission recommends that the position expire after five years unless Congress reauthorizes it.

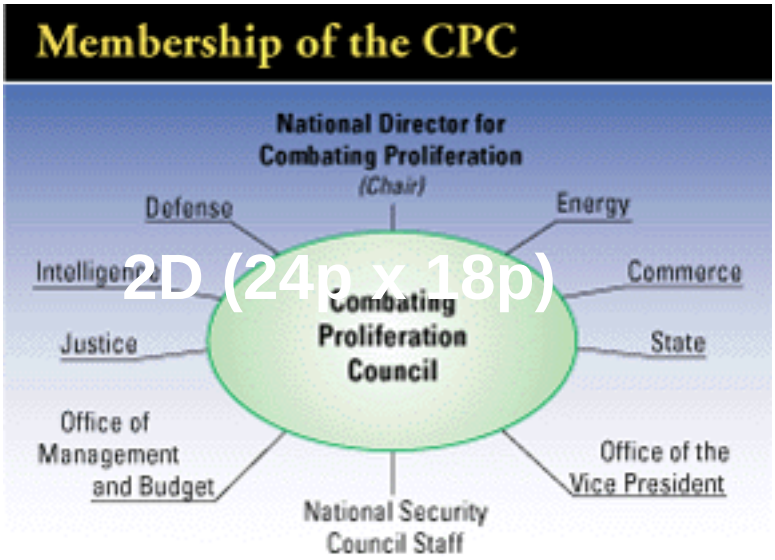
Additional staff that the National Director needs to carry out these duties should be included within the NSC, either as direct hires or as detailees from participating agencies. The chart above illustrates one option for organizing such a staff.

[8] See Chapter 3 for additional recommendations on agency reprogramming authority.
[9] This PDD should also clarify the relationship between the National Director and those who currently perform coordinating functions for particular aspects of the proliferation issue, such as the National Coordinator for Security, Infrastructure Protection, and Counter-Terrorism, and the Under Secretary of State for International Security and Arms Control.

Recommendation 2.3: *The President should establish a Combating Proliferation Council (CPC) headed by the National Director and made up of senior-level, Senate-confirmed officials from each agency with responsibility in this area.*

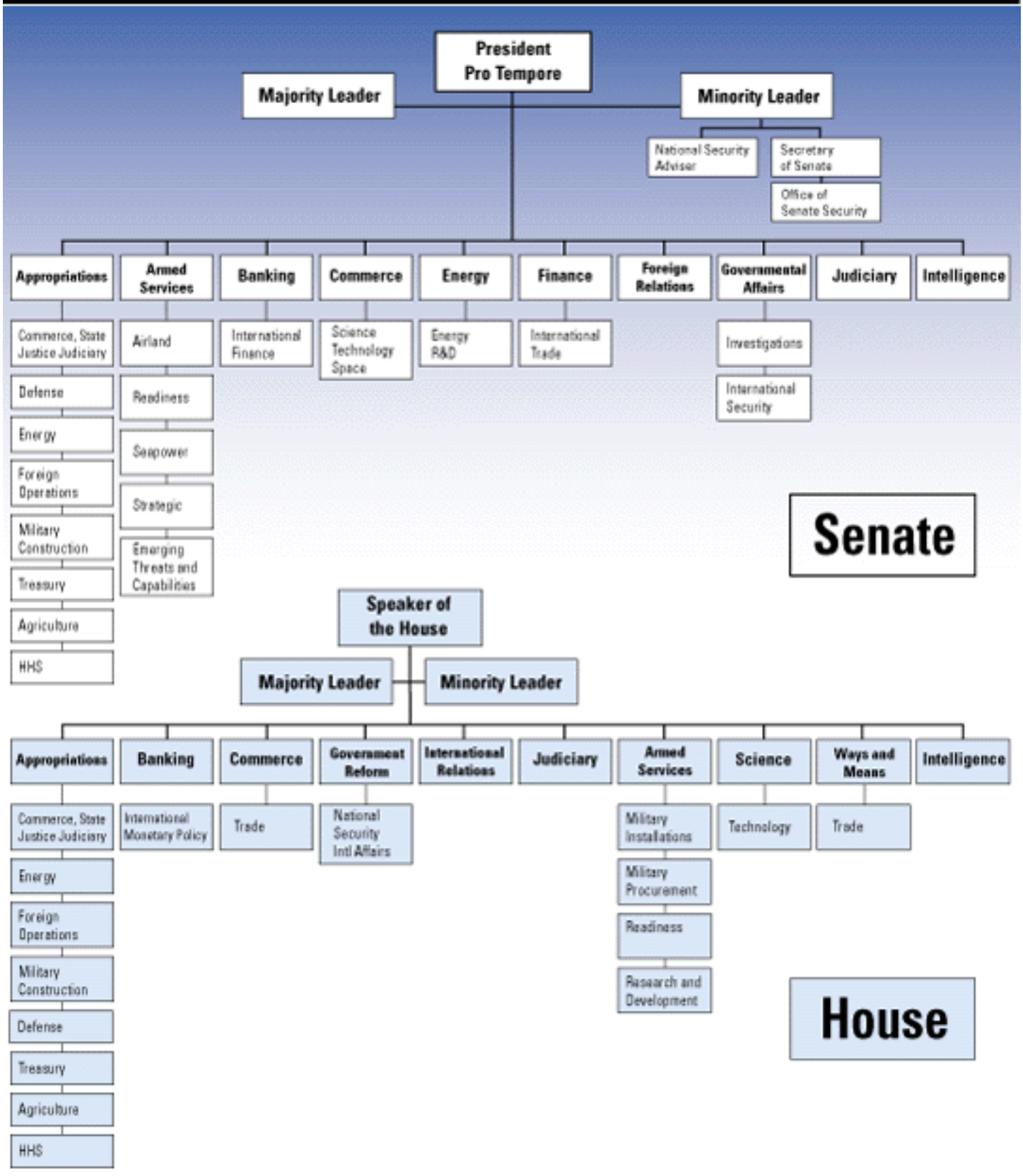
The CPC would exist to improve coordination within individual agencies and ensure close coordination and consultation between the National Director and the agencies. The Commission recommends that its membership consist of senior-level, Senate-confirmed officials designated by the head of each major agency with responsibility for proliferation-related matters. (The National Director could include additional agencies to address specific issues.) The designated officials would represent their agencies in the CPC at a level that is sufficiently senior to make decisions and resolve disputes. These individuals or their designees should also attend meetings of the country and regional interagency working groups. The existing interagency working group on non-proliferation and export controls would be subsumed by the CPC.

An important task for the National Director will be to establish a relationship with members of the CPC that is mutually reinforcing. The National Director should ensure that he or she is able to help the designated agency officials accomplish their missions within their agencies, as well as contributing to a more effective and efficient interagency process.



Recommendation 2.4: *The urgent nature of the threat makes it essential that Congress, as well as the executive branch, take immediate action. Congress should examine its organization with the goal of streamlining its consideration of proliferation-related matters.*

Combating Proliferation—Key Congressional Committees



Streamlining executive branch authority and focusing responsibility will not be enough to produce a new approach to combating proliferation. Congress must also put its house in order.

The number of congressional committees with oversight and budgetary responsibility for proliferation-related programs complicates efforts to manage these programs effectively. In the House of Representatives, at least ten committees share responsibility for the authorization of funds and oversight of proliferation-related programs in the departments and agencies, while an even greater number of sub-committees is responsible for appropriating funds for these programs. A similar problem exists in the Senate. With responsibility so widely dispersed, it is difficult if not impossible for Congress to deal with proliferation in a consistent and coordinated fashion.

The Commission urges Congress to examine its programmatic and budgetary organization in order to improve its processes for considering WMD-related matters. The Commission commends the Senate Armed Services Committee's decision to consolidate its consideration of these matters in an Emerging Threats sub-committee.

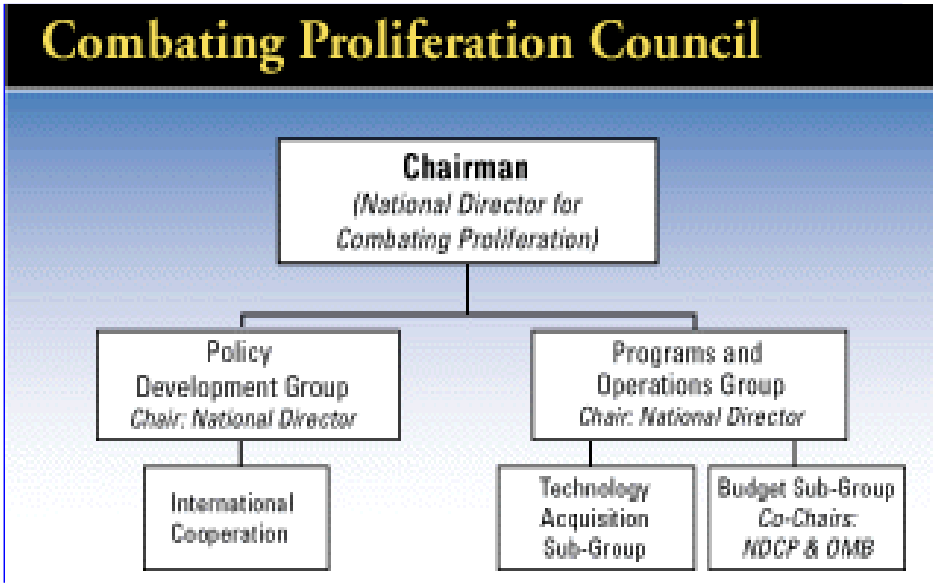
> ***Recommendation 2.5:*** *Congress should consolidate the number of reports on proliferation required from the executive branch.*

Congress should consolidate the WMD-related reporting requirements it has imposed on the executive branch. Currently, the executive branch must submit scores of reports to Congress. Although many of these are triggered by specific events—such as a decision to waive sanctions—nearly two dozen are required at some regular interval, usually once a year. (See Appendix F for a list of these reports.) The Commission urges Congress to streamline these requirements so that the President would be required to submit one comprehensive annual report providing Congress with all of the information it needs—and has requested through the current reporting requirements—about proliferation. If Congress feels that some data should be updated more often, it could require a second, less comprehensive, report to be due at some appropriate interval after the annual report.

Chapter 3
Managing the Interagency Process

The National Director for Combating Proliferation, in leading the Federal Government's efforts to combat the proliferation of weapons of mass destruction, should focus particularly on three critical aspects of interagency activity: (1) identifying how much money we are spending on combating proliferation and determining whether we are having any success, (2) determining what technologies we need to acquire to combat proliferation and the most efficient and timely way to acquire them, and (3) developing sound policies and strategies for improving cooperation with foreign governments and international organizations. (See chart below.)

In each of these areas, the National Director should ensure that every agency is supported in its proliferation-related mission with clear policy guidance, adequate resources, and efficient leveraging of the capabilities of other agencies. The National Director will also provide guidance and direction to top officials in each agency, to ensure that the agencies' efforts support the government's overall proliferation-related policies. He or she will be accountable ultimately for the effective integration and implementation of national proliferation-related policy objectives.



Resources and Program Evaluation

No one in the Federal Government knows how much money we are spending to combat proliferation. The success of any campaign depends on the resources available to wage it, and on the ways in which those resources are brought to bear. Currently, however, no one decides what level of resources should be devoted to proliferation-related efforts, there is no overall plan for how those resources should be allocated and no consistent evaluation of the effectiveness of these expenditures.

Proliferation-related Budget Sub-function

> ***Recommendation 3.1:*** *The Director of the Office of Management and Budget (OMB) should create a separate National Defense budget sub-function for proliferation-related programs and activities in the President's budget.*

The Commission determined that the most effective way to identify and manage proliferation-related activities would be to create a separate budget sub-function in the National Defense function (050) for these programs.

Budget sub-functions are usually established to identify a coherent set of activities that, while scattered among different agencies, should for policy purposes be considered as a whole. For example, there is a budget sub-function for the defense-related activities in the Department of Energy (sub-function 053).

Creation of a proliferation sub-function will identify the funds dedicated to combating this threat and is an essential first step in coordinating our proliferation-related programs and activities. It would not alter existing congressional authorization or appropriations responsibilities for proliferation-related programs, although later in this section the Commission makes a recommendation for improving congressional consideration of these issues.

The Commission recognizes that determining which activities fall within this budget will, in some instances, be difficult. Nevertheless, it is well worth doing to provide a mechanism for managing this critical area of activities. (Appendix G illustrates a process by which government officials might construct a useful 05x proliferation budget sub-function.)

Building the Proliferation-related Budget

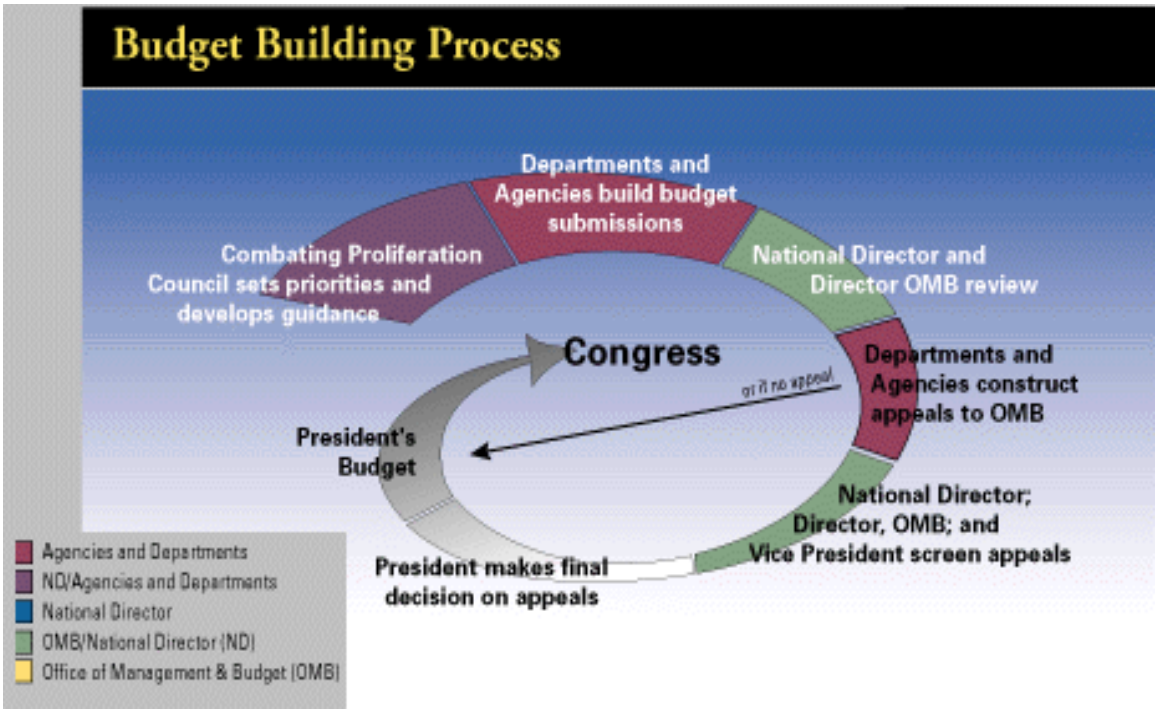
> ***Recommendation 3.2:*** *The National Director and the Director of OMB should jointly direct an annual proliferation-related budget-building and review process with the departments and agencies.*

The National Director and the Combating Proliferation Council (CPC) should test the fit between administration policy and program aims and the various agency programs and activities, using the budgetary cross-cut undertaken in the establishment of the 05x account as a baseline. The National Director should provide each agency with his or her policy guidance early in the budget process, so that the agencies can fit their planning into the framework of overall priorities. This means, of course, that the National Director and

the CPC will need to set program recommendations before agency planning begins in the spring or summer. As agencies build their budgets, the National Director should participate in the OMB fall budget reviews.

The agencies make their budget submissions to OMB in the early fall. OMB should then do a cross-cutting budget review of all proliferation-related agency budgets, holding hearings with each agency. The National Director or his or her representative should take part in this review and reach an agreement with the OMB Director on recommended budget changes. Once the review is complete, OMB should pass the recommended changes, endorsed by the National Director, back to each agency, in order to ensure that the final agency submissions conform to the National Director's guidance. This step will ensure both that priority programs get adequate funding and that the agencies are coordinated across budgets to eliminate redundancies.

Agencies appeal budgetary pass-backs to the OMB Director. In this case, the appeal should be copied to the National Director, who should discuss the appeals with the OMB Director. Ultimately, as the President hears budgetary appeals, there should be an explicit pre-meeting on proliferation-related resource priorities before final budget decisions are made. The Vice President, jointly with the National Director and the OMB Director, might pre-screen appeals to the President, to prepare the presidential agenda. This process would help ensure that priority presidential attention is given to resource level and allocation decisions in this area.



Program Execution and Evaluation

> ***Recommendation 3.3***: *The National Director and the Director of OMB should jointly create a government-wide database on budget execution of proliferation-related programs, and develop goals and standards to evaluate programs annually.*

Effective oversight requires transparency. The National Director and the CPC should be made fully aware of the ways in which programs and activities for which the CPC is responsible are executed. This is needed to make sure that resources are appropriately put to the purposes intended and not siphoned off for other agency uses. This requires creation of a clear, cross-agency database on budget execution. While it will take time to develop such a database, the National Director and OMB should require of each agency participating in the CPC an initial annual report on the execution of proliferation-related programs within its budget. These reports would provide a baseline for further refinements, leading to more frequent reporting.

Programs in this area should also be carefully evaluated on an annual basis. Under the Government Performance and Results Act (GPRA), all agencies—except those in the Intelligence Community—are required to design strategic plans and processes for evaluating program performance. In this case, an evaluation matrix is needed for programs across agencies.

Working with OMB, which has general responsibility for GPRA implementation as well as experienced staff, the National Director should develop an evaluation proposal. This proposal should be discussed with the Vice President and the Council, with the overall goals of each proliferation-related program made clear and general standards for evaluation set. Determination of goals and standards should be integral to the CPC's discussion of program priorities.

The National Director and OMB should then work with each agency to refine those goals into specific performance measurements and to set forth annual reporting requirements for each agency. The President should consider tasking the Vice President to review the annual reports with the National Director and the OMB Director, and prepare an overall assessment for the President. This assessment should have two purposes: to show (1) the extent to which the agency programs are meeting their assigned goals and (2) how well the allocated budgetary resources are being used.

Agency Budget Processes

> ***Recommendation 3.4:*** *Each Cabinet secretary or agency head with proliferation-related responsibilities should designate a senior proliferation budget manager.*

The Commission believes that White House coordination and decision making will not be fully effective unless the participating agencies themselves give priority to proliferation-related programs and to the internal transparency needed for proper resource planning. No agency currently gives these programs special attention. This must change.

In Chapter 2, the Commission recommended that each agency with proliferation-related responsibilities designate a single senior-level, presidentially-appointed official to manage those responsibilities. Each agency should also make one senior resource official responsible for proliferation-related budgets. This official would work with the National Director and the Director of OMB in the resource planning process.

Congressional Budget Process

> ***Recommendation 3.5:*** *Congress should develop a means to review the President's proliferation-related budget as a whole, rather than dividing it among several authorization committees and appropriations sub-committees.*

In the end, Congress appropriates. But just as proliferation-related programs are distributed widely among the departments and agencies, so too is congressional responsibility for funding these programs widely dispersed among authorization committees and appropriations sub-committees. This means that even if the President were to send Congress a cross-agency proliferation-related budget, as the Commission recommends, Congress would not be able to consider it as a whole. Instead, it would have to be cut into agency- or department-specific programs and budgets, with each considered independently in a separate jurisdiction.

In Chapter 2, the Commission urged that Congress examine its organization with the goal of streamlining consideration of proliferation-related matters. Nowhere is this more important than on budget issues.

The Commission urges Congress to find a forum for reviewing the President's proliferation-related budget as a whole—perhaps through joint hearings in the Armed Services committees, the Foreign/International Relations committees or the Government Operations/ Affairs committees. It would also help if each Appropriations committee

assigned a senior staff member responsibility for cross-appropriations scrutiny of proliferation-related programs. This would facilitate the executive/congressional dialogue.

Reprogramming and Transfers

> ***Recommendation 3.6:*** *The President should authorize the National Director, jointly with the Director of OMB, to concur in departmental or agency proposals for reprogramming or transferring funds from lower priority to higher priority programs and to propose funds transfers between departments and agencies under existing draw-down authorities.*

Internal agency reprogramming is common in the Defense Department and also takes place to some extent in other agencies. For those agencies with proliferation-related responsibilities, below-threshold reprogramming rules need to be set that would provide sufficient flexibility within the proliferation budget to respond to needs that arise after budgets are written and appropriations passed. Above these thresholds, congressional committees normally must be notified of reprogramming.

Transfers across agencies (as distinct from reprogrammings, which are internal to an agency budget) are substantially more difficult to accomplish. Draw-downs allow one agency (e.g., State) to request that another agency (e.g., Defense) provide a service or good up to a certain amount, out of spending authority provided in law for such a draw-down (e.g., military equipment to a country State wishes to support). Economy Act transfers allow one agency to provide a good or service to another agency, provided it has the statutory authority to do so.

The Commission believes that the President should authorize the National Director, together with the OMB Director, to concur in agency proposals for below-threshold reprogrammings from lower-priority to higher-priority programs and activities and to propose above-threshold reprogrammings, which would ultimately require the concurrence of the congressional authorizing and appropriating committee chairmen. The National Director should also have authority to propose transfers of funds between agencies under existing draw-down authorities and the Economy Act.

Technology Acquisition

In the age of technology, one need is self-evident: coping with the menace of WMD-related technology requires the vigorous acquisition of new and effective counter-proliferation technologies.

The Persian Gulf War gave vivid warning of our technology weakness against weapons of mass destruction. There was no equipment to detect biological weapons, and our chemical sensors were plagued by false alarms and thus virtually useless; our forces in the Gulf were essentially blind to biological and chemical attack. We found that our troops also lacked adequate protective measures and procedures, including sufficient protective clothing, vaccinations, and other critical items. We found the threats to civilian populations were even worse, as nations neighboring the Gulf ran out of gas masks and quickly discovered they had no civil defenses effective against biological and chemical attack.

Yet nearly nine years after this wake-up call, and after billions of dollars of WMD technology expenditures, we see that there has been relatively little progress made in any of the areas vital to combating WMD proliferation.

The Department of Defense's own technology estimates indicate how serious the shortfalls still are. Here are some examples:

- Loudspeaker announcements and shouting (called "voice alerts") remain our principal means of alert against biological and chemical attacks.

- We still can detect only a handful of the thousands of possible chemical and biological threats, and those few that can be detected require the use of many sensors that have limited range.

- Security guards remain at great risk; their only threat detectors have low sensitivity, high false alarm rates, require long inspection times, lack portability, and are intrusive.

- Nine years after the Gulf War, only an "interim" biological detection system is available to our military forces in the field.

- Even as the Department places greater reliance on commercial technology for enhancing force capabilities, there has been an erosion of policy guidance, technical expertise, and programmatic implementation to assure such technology could operate through a nuclear environment.

- Our national ballistic, theater, and cruise missile defenses are little better than the Patriot missile that we used in the Gulf War, and the missile threat—fueled by proliferation—is growing faster than our defense improvement programs.

- Deeply buried WMD facilities still cannot be effectively detected, characterized, or defeated, which may affect the credibility of our nuclear deterrent. We also lack the know-how needed to contain the spread of threat agents that are released by destroying above ground facilities.

- Even our basic understanding of the threat, as contained in models of WMD lethality and vulnerability, has major gaps and unsolved problems.

The Department of Defense predicts that, given current technology programs and resources, only incremental improvements to these deficiencies will be made in the next 1-3 years.

To be sure, acquiring modern technology is not easy. It involves an entire cycle of research, development, and acquisition activities, including testing, deploying, and supporting technologies put into the field. Furthermore, it is an expensive process that places pressure on our limited federal budgets. It requires building and maintaining a highly skilled workforce with the best facilities and equipment. It requires vision, long term strategies, expert management, and careful oversight.

But while the rewards for successful technology acquisition are great, so too are the consequences of failure. We cannot afford to duplicate acquisition efforts wastefully within the federal enterprise. We cannot afford to develop technologies that will never be fielded. We cannot leave unused technology capabilities already available from the private sector. We cannot wait decades for technology support. Yet we are doing all of the above.

Problems with Current Practice

WMD technology acquisition efforts in the Federal Government today occur in several departments and agencies and are not well integrated. The Department of Defense (DoD), the Department of Energy, and the Intelligence Community each separately reports its WMD-related technology acquisition efforts under the 1994 National Defense Authorization Act. Of these technology producers, DoD is by far the largest, with the greatest budget investment, facilities, and expertise for combating WMD.

Other agencies, such as the departments of Health and Human Services and Agriculture, also fund technology programs of direct importance to the WMD mission. However, these organizations have not traditionally classified their activity as being “WMD-related,” nor do they formally report or coordinate their efforts with the Intelligence Community or the departments of Defense and Energy.

Despite the existence of numerous “coordination mechanisms” (such as those described in the DoD section of Chapter 5), the Commission finds that existing efforts to coordinate the diverse WMD technology acquisition efforts fall far short of the minimum standard articulated above, and result in poor integration and substantially reduced effectiveness for the entire federal technology investment used for combating WMD.

Examples abound of poor coordination, redundancy, and neglect of private sector technology.

One example of poor coordination is the profusion of biological sensor programs within various departments. While the need for better biosensors is clear, each technology producer has separate efforts to build its biosensors based upon the definitions and needs of its own internal organization, and lacks effective mechanisms to leverage each other's efforts, avoid unnecessary duplication, fill evident gaps, or measure progress. Significantly, most of these biosensor efforts have identified no end-user willing to field their technology, placing the value of these efforts in doubt.

Examples of redundant technology acquisition efforts include the numerous efforts to develop software tools used for improving the quality of intelligence analysis relevant to WMD. These efforts exist in virtually every affected department or agency, each responding independently to the same functional need. Not surprisingly, all such efforts have strong similarities in their technology (such as achieving integration, query of multiple databases with different information content, and development of automated data retrieval techniques). Such tools are certainly useful and needed, but how many programs do we need?

Omission of private sector technology may be seen throughout the area of biological threats. For example, the food industry years ago fielded technology proven to be highly effective in protecting food from biological contamination—a technology of immediate value for protecting key U.S. facilities from biological attack. Yet these simple and elegant solutions remain largely unknown and unused in the federal effort. Furthermore, the government is not discriminating well between work it should perform and work that is best left to the private sector. For example, should DoD remain in the vaccine business when vaccine development and production in the United States has been, and continues to be, successfully performed by the nation's universities and pharmaceutical industry?

Finally, the entire acquisition cycle takes far too long. The average time required to field a new technology system, from its earliest stages to completion, is well over ten years, and growing. We cannot afford to wait decades for meaningful technology solutions to appear.

What's Missing: A Coordinated Government-wide Plan

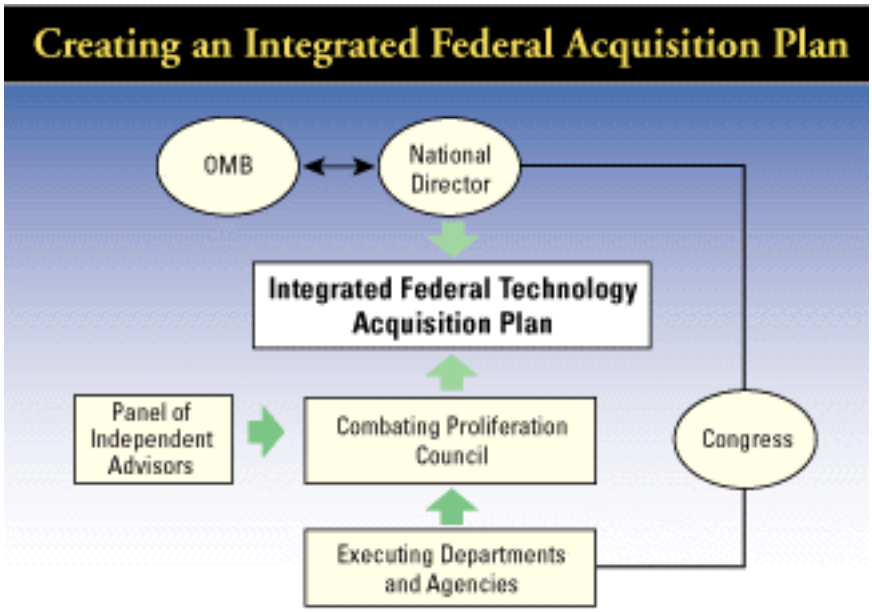
Of the many problems with technology acquisition, perhaps the most serious is that the Federal Government lacks a government-wide WMD technology acquisition plan. What plans there are reside within the confines of each department or agency, with no interagency investment strategy or effective guidance from above. Technology producers are not well connected to technology consumers, either within individual departments or between them. Consequently, our existing expenditures are frequently wasteful and ineffective.

Even within the individual departments, WMD technology acquisition lacks strong leadership and advocacy. A consequence of this lack of leadership is the tendency for each

Department's WMD technology efforts to lose their focus over time, in favor of the more traditional priorities resident within each organization. For example, nearly two-thirds of what DoD reports as WMD technology investment for fiscal year 1999 is in missile defense, a traditional warfighting requirement that would exist even without a WMD threat. A similar tendency toward traditional roles and missions can be found in the Department of Energy's reported WMD technology program.

> ***Recommendation 3.7:*** *The President should direct the National Director for Combating Proliferation to oversee the creation of a government-wide technology acquisition plan.*

This plan, the first of its kind, must clearly articulate an acquisition strategy, be understood and executed by all relevant federal departments and agencies, and effectively include private-sector technology. To succeed, the plan must have the direct and vigorous support of the President, and should be integrated into the proliferation-related programs and budgets submitted to Congress. The Commission recognizes that the construction of such a plan will necessarily involve decisions about what is to be included and what is to be excluded. The National Director must also develop or possess suitable tools, such as an integrated budget, that can facilitate management oversight of the many separate organization and accounting systems used by the executing departments and agencies. (Another potential management tool is illustrated by the taxonomy provided in Appendix H.) Without such tools, managing the federal technology effort will be impossible. .



The lengthy time required for technology acquisition is also a serious problem that needs urgent resolution. The Commission notes that this problem is not new and that it affects our entire national security posture, not just WMD threats. The problem is serious enough, and long-standing enough, that the traditional approaches to correct it simply will not do

Recommendation 3.8: *The head of each department or agency involved in the development of technology used to combat WMD, particularly the Secretary of Defense, should personally reinvigorate the use of private-sector technology in his or her department, while simultaneously increasing the speed by which technology transitions to fielded systems.*

Personal involvement at the secretarial level is absolutely vital to success. Without the personal and sustaining commitment of agency heads, our large government departments will be unable to reverse their course toward longer and longer acquisition times. Personal involvement by the Secretary of Defense is perhaps most critical of all, because a weakness in DoD technology acquisition is a weakness throughout the national effort to combat weapons of mass destruction.

The Commission also realizes that the department secretaries will need effective organizational incentives to overcome the chronic technology acquisition problems caused by the separation of technology producers and consumers, and by non-responsive acquisition regulations, within the government.

Recommendation 3.9: *The National Director should measure the success of the WMD technology program by using performance measurements provided by technology users.*

Funding for further technology development, except in discretionary cases, should be made conditional upon user validation of those programs. This recommendation places a discipline upon the technology producer community similar to that employed in the private sector, which emphasizes the connection of corporate technology development to its business units. In the Federal Government's case, the user community acts as the business unit.

Recommendation 3.10: *The National Director should direct development and implementation of a plan to harmonize the communications and computational infrastructure used by the departments and agencies in combating proliferation.*

An investment in modern database management is badly needed. Such an investment would not only be more efficient but also would make for more consistent and intelligent applications of policy. This new system should be optimized for efficient electronic exchange of information for all federal agencies involved in combating proliferation of weapons of mass destruction, with other international organizations involved in similar missions, and for improved communications among the policy, intelligence, and enforcement communities.

> ***Recommendation 3.11:*** *To ensure better connectivity between federal technology users and technology producers, the Combating Proliferation Council (CPC) should coordinate interagency requirements across the federal enterprise.*

This would consolidate activities currently assigned to the Counterproliferation Program Review Committee (CPRC) and the Nonproliferation and Arms Control Technology Working Group (NPAC-TWG), both of which would be eliminated under this recommendation. Each department or agency involved in WMD technology development would send its individual technology needs and requests to the CPC to ensure that all consumers of the technology base are fully and appropriately represented.

The Commission notes that the National Director cannot do it alone. He or she will need the best advice possible, especially in the complex area of technology acquisition.

> ***Recommendation 3.12:*** *The President should establish a panel of independent experts to provide advice to the National Director and the Combating Proliferation Council on technology acquisition in the Federal Government.*

International Cooperative Efforts

The third key area requiring greater interagency coordination and focused attention is our international cooperative efforts aimed at combating proliferation. These efforts are essential. The United States cannot do the job alone. We must join with like-minded nations if we are to reduce the threat that weapons of mass destruction pose to this nation and to our allies and friends.

International cooperative efforts take many forms, including:

- employing diplomatic contacts with allies, friends, and others to deter or prevent the acquisition or use of weapons of mass destruction by threshold states and terrorist organizations;

- facilitating other countries' removal and destruction of nuclear and chemical weapons and ballistic missiles;

- helping other nations to protect, control, and account for critical materials and technologies; implement export controls; maintain border security and law enforcement; and restrict the flow of scientists and technicians or transfer of sensitive knowledge to states seeking to acquire weapons of mass destruction;

- engaging in security cooperation, including military training and joint efforts;

- providing funding, information, and expertise to international organizations to monitor and enforce compliance with multilateral agreements; and

- negotiating, implementing, and verifying arms control treaties and export control regimes to prevent proliferation of weapons of mass destruction and the means for their delivery;

The Commission examined four aspects of international cooperative efforts to combat proliferation: (1) cooperation with foreign governments through diplomacy and assistance programs, (2) cooperation with international organizations, (3) intelligence sharing with foreign governments and international organizations, and (4) cooperative enforcement efforts.

The Commission found that while our ***diplomatic*** efforts with foreign governments are extensive and coordinated, our ***programmatic*** response—particularly U.S. assistance programs in the former Soviet Union and with allies threatened by WMD and their means of delivery—has often fallen short. The Commission concluded that the National Director for Combating Proliferation, working through the Combating Proliferation Council, should play a leading role in coordinating these efforts. The Commission also concluded that the Director of Central Intelligence should exercise more leadership in coordinating U.S. intelligence agencies' cooperation with foreign governments and international organizations.

Cooperation with Foreign Governments to Combat Proliferation

The United States has aggressively sought foreign governments' cooperation in combating proliferation. These diplomatic activities include efforts to:

- Stem the flow of sensitive materials and technology to Iran and Iraq,

- Denuclearize in the former Soviet Union,

- Freeze North Korea's nuclear weapons program,

- Extend indefinitely the Nuclear Non-Proliferation Treaty, and
- Dissuade China from transferring WMD technology and delivery systems to other nations.

The dissolution of the Soviet Union, however, and continuing political, administrative, and economic crises in Russia and the successor states also created the need for programmatic response to proliferation threats. The Commission identified leakage of weapons and weapons-related materials, technologies, and expertise from Russia to threshold states and terrorist organizations as a grave threat to the United States. As a result, the Commission paid careful attention to our programs intended to mitigate and alleviate this danger.

For the past seven years, we have conceived, funded, and implemented programs of cooperation with Russia and the New Independent States (NIS) to:

- enhance safety, security, control, accounting, and centralization of nuclear weapons and nuclear materials;
- assist in the elimination, and prevent the proliferation, of the former Soviet Union's chemical weapons and biological capabilities;
- assist Russia in accelerating its implementation of arms reduction agreements;
- train and develop an infrastructure for customs and border control;
- help build export control institutions, infrastructure and legislation;
- employ former NIS weapons scientists and engineers to prevent their exodus to proliferating states; and
- safeguard fissile material disposition.

Distinct from our diplomatic efforts at combating proliferation, these operational programs involve departments and agencies across the US Government.

Enhancing the Efficacy of U.S. Assistance to Russia and the New Independent States

Every agency assessed by the Commission is engaged in programs to assist Russia and some of the NIS in combating proliferation. The bilateral programs managed by these various U.S. departments require thorough coordination. The U.S. Coordinator for Assistance to Russia and the NIS is responsible for ensuring that resources are allocated

efficiently among the departments, but the Coordinator is not equipped to oversee the management of these programs. Consequently, the assistance programs are Balkanized: each department conducts its activities according to its own understanding of how it can best contribute to overall U.S. foreign policy goals. Strategic planning is weak. Agencies do not appear to work closely with each other. Funding is unpredictable and often not delivered in a timely manner. Program effectiveness is not regularly evaluated.

For example, several agencies manage programs to assist Russia and the Newly Independent States in detecting and deterring trafficking in WMD materials and devices, as well as dual-use commodities and technologies useful in developing WMD projects. The Department of Commerce has a program to establish a legal and regulatory foundation for export control and licensing. The NIS Coordinator's office administers funds for Commerce's export control assistance programs because Commerce receives no direct funding for this program. Commerce has great difficulty in planning its programs due to delays of up to 11 months in receiving funding from State.

A lack of Russian government cooperation has also contributed to inefficiency. For example, problems with the Russian customs and tax services have plagued many projects. Russia taxes U.S. assistance funds intended to pay former weapons scientists participating in the Department of Energy Initiatives for Proliferation Prevention program, thus reducing the availability of funds to engage Russian scientists in non-weapons work. In other cases, the Russian customs service charges customs duties on U.S. equipment provided to Russia in order to deter and detect smuggling of critical materials. The siphoning off of funds from these important programs reduces their effectiveness.

A recent General Accounting Office investigation highlighted other problems in programs intended to move former Russian weapons scientists into commercial technology development activities.[10] Evidence suggests that the Department of Energy, having little experience in this field, may be an inappropriate partner for Russia in bringing civilian technology projects to commercial success. Moreover, the current economic situation in Russia may preclude success under even the best of circumstances.

Ensuring Priority of Proliferation Issues on the President's Bilateral Agenda

The Commission notes that the National Director will have a key role in diplomatic contacts with foreign governments. As a Presidential advisor and senior member of the White House staff, the National Director will have an opportunity to ensure that proliferation-related issues are included on the agenda for the President's and Vice President's meetings with foreign leaders. The National Director will also have a principal role in

[10] General Accounting Office. *Nuclear Nonproliferation: Concerns with DOE's Efforts to Reduce the Risks Posed by Russia's Unemployed Weapons Scientists.* GAO/RCED-99-54. February 1999.

preparing the President's and Vice President's remarks for such meetings, as well as sculpting their public statements and speeches.

While proliferation-related diplomacy is primarily the responsibility of the State Department, the National Director will also be a valuable resource for the Department to use in meetings below the Presidential level, whether in Washington or abroad. Foreign visitors who may not see the President or Vice President recognize that a meeting with a senior White House official, such as the National Director, conveys a powerful message of emphasis. Likewise, when U.S. officials meet with foreign counterparts in their countries, the inclusion of the National Director on some occasions can give extraordinary emphasis to the proliferation message.

Improving the Effectiveness of International Organizations

The United States cooperates on proliferation-related matters with several types of international organizations, including the United Nations; military alliances such as NATO; arms control treaty review and compliance organizations such as the Organization for the Prohibition of Chemical Weapons (OPCW); export control regime monitoring organizations such as the Nuclear Suppliers Committee, Zangger Committee, and Australia Group; and special proliferation-related activities such as the Korean Peninsula Energy Development Organization.

The Commission applauds the efforts of the United States to support the activities of these international organizations. Generally, the Commission found that American leadership, expertise, and funding energizes and drives the work of these organizations. Whether pushing the WMD Initiative at the 1999 NATO Summit, providing inspectors to the United Nations Special Commission on Iraq, or encouraging China to join the Missile Technology Control Regime, the United States is at the forefront of the effort to make proliferation-related international organizations more effective.

Intelligence Sharing with Foreign Governments and International Organizations

> ***Recommendation 3.13:*** *The Director of Central Intelligence should introduce a disciplined procedure for approaching key allies and international organizations for the purpose of expanding intelligence cooperation.*

The Commission noted that intelligence sharing is a valuable tool for building support for U.S. efforts to combat proliferation, but one that carries serious risks. Government officials need to balance the advantages to be gained from informing allies and international

organizations about proliferation threats or supporting enforcement operations against the need to maintain the security of U.S. intelligence sources and methods. Moreover, at present intelligence sharing generally takes place at the individual agency level, and there is no coordinated effort by the government to identify the highest priority opportunities for cooperation, or to determine a unified Intelligence Community approach either to friendly governments and their intelligence services or to international organizations. The Commission endorses carefully planned and securely executed intelligence-sharing activities to strengthen multilateral support for our proliferation policy.

Chapter 4
Export Controls

The most effective measures to combat proliferation are those that persuade governments not to acquire weapons of mass destruction. To the extent such restraint is lacking, export controls can reinforce other measures aimed at combating proliferation.

Profound and fundamental changes in the sources of technology for military application have occurred. To an increasing degree, enabling technology for advanced military capabilities is drawn from the commercial sector. The defense industrial sector is no longer the leading developer in areas crucial to military performance such as telecommunications, computation, microelectronics, etc. Moreover, these technologies are available from suppliers throughout the world. This worldwide commerce in advanced technology is helping to sustain U.S. economic growth and the technology leadership that is critical to our military strength. But it is also intensifying the problem of proliferation.

The export control system needs to adapt to these changes if it is to contribute to combating proliferation effectively. This can be accomplished by refocusing the export control system from broad-based, technology-driven controls to limiting or denying access to proliferation-enabling technologies by potential proliferators. Reinforced by the coordinated employment of other policy instruments available to the US Government, ranging from diplomacy to arms transfers, export controls can provide leverage to these initiatives to achieve U.S. goals in combating proliferation.

Export controls have made—and continue to make—significant contributions to combating proliferation. This is done in three ways. First, the very process of developing export controls within a nation, or negotiating export controls multilaterally, educates government officials and individual companies about technologies, materials, and equipment that could be diverted for proliferation-related purposes. Doing so facilitates the broad-based voluntary compliance by exporters without which no system could function effectively.

Second, export controls, and the enforcement apparatus that supports them, can prevent dangerous goods from reaching their intended destinations. In this connection, the Commission acknowledges the determination and creativity in enforcing export controls by U.S. officials.

Third, export controls provide a legal basis for punishing violators. For those exporters who fail to comply, violation of export controls may result in fines, denial of export privileges, or in extreme cases, prison sentences.

Export controls properly administered will continue to be one of the principal tools in combating proliferation.

The Proper Role of Export Controls in Combating Proliferation

An effective export control system requires a national consensus on its importance and objectives. What technologies are we trying to deny to a potential proliferator? Why? For how long?

Protecting U.S. national interests requires (1) a clear policy backed by (2) a strong consensus on the proper role of export controls in the context of both the growing availability of proliferation-related technology and today's difficult diplomatic environment. The United States now lacks both. The lack of a clear policy reflects an absence of consensus both within and between Congress and the Administration on the role of export controls. Indeed, this issue has become more polarized in the past two years. The Congress has reversed executive branch decisions in such areas as computer exports and the process for reviewing commercial communications satellite license applications. The range of views is broad, from those who favor unilateral controls to those who are only prepared to support export controls with broad multilateral support.

The Commission believes that the recommendations outlined below can increase the effectiveness of export controls in combating proliferation:

> ***Recommendation 4.1:*** *Target U.S. export controls and enforcement efforts on end-users of concern.*

For export controls to keep proliferation-sensitive materials, equipment and technology out of the wrong hands, assessments of the likely end user should be critical to decisions of whether to approve or deny an export license. This is increasingly true, as shown by our experience in Iraq. Proliferators will revert to using "low" technology when they are denied access to high technology and their WMD aspirations require only a "low-tech" solution.

Moreover, many dual-use items have such broad civilian applications that unless the control system is sufficiently focused on end-users of real proliferation concern, U.S. controls could needlessly constrain many innocent exports while failing to deny proliferators the capacity to develop or produce weapons of mass destruction. As more and more items fall into the "dual-use" area, it will be increasingly important to target U.S. controls on end-users that present a credible risk of diversion to a proliferation-related end-use.

Automation can help meet this objective. For example, if the Shipper's Export Declarations already required by law were collected electronically, they would provide a wealth of data that would include vital information both for assessing proliferators' procurement patterns and for determining when a proposed export should be denied. Mandating exporter participation in the Automated Export System would also save the expense of manually

inputting the data from 500,000 declarations each month. This would be good for national security ***and*** economic interests, as it would facilitate government identification of—and interdiction of—dangerous shipments, while sparing industry a cumbersome and obsolete paper process. Such expanded use of the information reported on export declarations could also demonstrate global procurement patterns of proliferators, and thus support a new diplomatic effort to win greater multilateral support for effective export controls.[11]

Additional steps to improve our ability to target end-users include:

- Increase resources devoted to research of open primary source information (e.g., Dunn & Bradstreet's, Web sites) to help identify, for example, front companies in procurement networks used by entities attempting to acquire weapons of mass destruction.

- Develop mechanisms to increase information sharing between industry and government and within the government on end-users of concern.

- Improve our ability to conduct post-shipment verification by granting greater discretion in how resources for verifications can be used or by providing more resources.

> ***Recommendation 4.2:*** *Strengthen multilateral coordination and enforcement of export controls.*

Since proliferators are not constrained by "Buy American" legislation, any export control policy that does not embrace all major sources of supply is doomed to fail. Here we face two challenges. First, our allies have made it abundantly clear that they will not resubmit their exports to a potential U.S. veto, as in the days of the Coordinating Committee on Multilateral Export Controls (CoCom), through which Western countries restricted the export of strategic materials and technology to Communist nations. Instead, even multilateral export controls—including the new Wassenaar regime, which replaced CoCom—are now implemented at the "national discretion" of each government, which inevitably tempts many to relax their enforcement when there is money to be made through exports. Many governments license exports that the United States would deny because they disagree over which countries— e.g., China, India, Iran—should be the targets of these controls. This loss of consensus is another victim of the end of the Cold War and, with it, the easy East versus West labeling of friend and foe.

[11] The U.S. Customs Service has developed and implemented a pilot program, the Automated Targeting System—Anti-Terrorism, which builds on the efficiencies of AES to identify exports of goods which may be in violation of U.S. law. The ATS-AT is a useful tool for law enforcement to identify and interdict such shipments in a timely fashion as well as providing a database of exports which could be the basis for analysis.

Second, many of the countries that were traditionally targets of multilateral export controls have now become sufficiently developed to constitute significant suppliers themselves, with Russia and China being only the most notable examples. No multilateral export system that excludes these key players can ultimately succeed.

The United States should therefore pursue vigorous diplomatic efforts to maximize multilateral support for the U.S. approach to export controls. Here, national security and commercial interests coincide. Weaker export controls in foreign countries will both promote trade in weapons-related articles in those countries, and weaken American exporters adhering to higher standards of control by siphoning sales and investments to less-constrained foreign competitors.

It is not enough, however, to agree with other governments on control lists and target countries. ***Effective international enforcement*** is essential to achieving U.S. proliferation objectives. Effectiveness, in turn, turns on equivalent enforcement among control regime members, in terms of degree of scrutiny, processing times, and policies determining when an export should be approved or denied. Absence of equal enforcement will confer uneven commercial advantages on one member state over another and reward non-compliance. Intelligence-sharing offers a unique contribution to effective enforcement by cueing licensing and enforcement authorities to dangerous exports involving member states in a multilateral regime. Other measures to enhance effective enforcement, however, include post-shipment end-user checks, training for foreign export control enforcement agencies, and financial and in-kind support to resource-poor export control organizations abroad.

> ***Recommendation 4.3:*** *Enhance discipline in the U.S. export control system.*

The complexity of the U.S. export control system has also blurred our focus on the principles of good government that should discipline the administration of any effective system:

- ***Transparency.*** Any agency should have the right to review any export license, with the corresponding duty to express a view on that license or have its silence deemed as consent. Agencies should also be allowed to review written commodity classification or jurisdiction determinations that have been made by other agencies.

- ***Deadlines.*** Agencies should be given clear deadlines for action on a proposed license, with silence deemed consent, except in those cases (for example, policy-sensitive arms sales) in which such deadlines are inappropriate.

- ***Default to Decision.*** The system should provide for clear escalation and decision procedures—up to the President—to assure that the review process defaults to a decision rather than to gridlock. Critical to this principle is that specific officials should

be made ***accountable*** for ensuring that the interagency review process reaches a decision within an allotted period, or for referring the matter to more senior interagency review with the issues framed for decision by that higher body.

To be sure, there will be cases involving difficult foreign policy issues—such as the sale of advanced military capability to areas where regional security and stability dominate—in which it makes no sense to straitjacket the interagency review process by artificial deadlines. For the vast majority of cases, however, these principles for the review of license applications provide a useful discipline to a system that too often degenerates into delay and inaction.

Recommendation 4.4: *Rationalize common export control functions where it advances American interests.*

The end of the Cold War brought about the elimination of parallel export control systems in most nations. The side-by-side existence of separate export control systems for dual-use and munitions-related exports was needed to support multilateral controls through CoCom as well as national controls on munitions list exports. Typically, the trade-related ministries managed dual-use export controls or economic ministries in allied countries while the foreign ministry operated the munitions export control system. The inability since the 1994 dissolution of CoCom to develop an international consensus on multilateral constraints on dual-use exports to combat proliferation meant that most of our former CoCom partners substantially limited dual-use controls and refused to allow one another a continued veto over exports to destinations of proliferation concern.

The United States has continued to maintain a robust system of dual-use and munitions controls. Export controls on dual-use products aim to block proliferation-related items and technology from end-users of proliferation concern. Export controls on munitions list items are maintained to permit arms transfers to be employed as an instrument of foreign policy.

Both systems share common functions. Cases must be reviewed and enforced. The Department of Commerce issues approximately 11,000 dual-use export licenses per year, while the Department of State issues approximately 45,000 munitions licenses per year. There is considerable unevenness in the distribution of resources for the two export licensing and enforcement systems, as well as different procedures for interagency review. The Department of Commerce applies 300 employees to its export licensing and enforcement functions while the Department of State applies less than fifty to license processing. As a result, there are significant differences in processing time and administrative procedures between the two systems.

There is scope for increasing the efficiency of the export control process in the United States by a measure of rationalization of some common functions. The enforcement

function is shared as a statutory requirement by both systems, and involves similar skills in implementation. End-user checks, for example, are required in some cases in both systems. Enforcement investigations, and associated enforcement activities, may benefit from rationalization as well.

In the first instance, the current dual-use and munitions export control systems should be fully automated, either through a government-wide computer system or through systems that are fully compatible, and use of the automated system by exporters should be mandatory. Automation of cases that interface effectively between each agency is both practical and desirable. As commercial technology assumes a more central role in munitions list equipment, there can be considerable benefit to U.S. policy from a data processing system that is mutually reinforcing of the separate regimes. As discussed above, Shipper's Export Declarations (SEDs)—already required by law—could be collected and processed electronically to provide an abundance of data that could contribute to assessing proliferator procurement patterns.

Beyond these administrative improvements, the Commission believes that a single system may bring several advantages. It could enhance compliance, since reducing confusing red tape could make it easier for exporters to follow the law and officials to enforce it. Since proliferators purchase both dual-use goods and munitions items, a single system would allow licensing officers to communicate more regarding end-users of concern, reducing the stovepiping of information that could prevent the detection of worrisome acquisition patterns.

In rationalizing these two systems, we must preserve our ability to apply different standards of approval for dual-use and munitions items. Each system now has different statutes and regulations, forms and nomenclatures, rules and procedures, practices and bureaucracies. Security and commercial implications will of course vary enormously across the spectrum of controlled exports, from ball bearings to desktop computers to fighter aircraft. These differences require varying standards of scrutiny, safeguards, and penalties. For munitions, it is essential that the United States retain the ability to approve or deny export licenses based on foreign policy considerations, without regard to such considerations as foreign availability.

Once these steps have been implemented and operated, the Administration should review the results to evaluate the progress toward more efficient administration of export controls. If this review supports pursuing further reform, we recommend that consideration be given (1) to implementation of "one-stop shopping," where an exporter may file a single application into either the State or Commerce "mailbox," confident that the receiving agency will see that it is referred to all relevant agencies and reviewed under the appropriate statutory framework, and (2) to unification of dual-use and munitions systems under a single management structure. The Commission suggests that this review be conducted at the outset of the Presidential administration beginning on January 20, 2001.

Chapter 5
Findings and Recommendations for Executive Branch Agencies

Common Agency Problems

This chapter presents the Commission's findings and recommendations for executive branch agencies that have a WMD-related mission. Most of the recommendations are directed at a specific department or agency—reflecting the fact that each agency's mission and programs are different—but some apply to most or all of the agencies. These broader recommendations are discussed at the outset of this chapter and are directed at all of the departments and agencies that have a role in combating proliferation.

Cabinet-Level Attention and Similar Portfolios

As noted in Chapter 2, one of the Commission's principal findings is that the Federal Government's efforts to combat WMD proliferation would benefit from greater coordination and senior-level attention. The Commission recommended that the President establish a Combating Proliferation Council (CPC) to improve coordination among agencies and ensure close consultation between the agencies and the National Director for Combating Proliferation. The Commission also recommended that the head of each agency designate a senior-level, Senate-confirmed official to be responsible for proliferation-related issues. These officials will constitute the membership of the CPC and will ensure that the threat of proliferation receives sustained high-level attention in each agency. Such attention increases the chances that proliferation-related problems will be noticed early, allowing officials to address them quickly and thus avert serious crises.

Each agency's designated official should be charged with developing a coherent plan for carrying out that agency's WMD-related mission and effective programs to execute that plan. The designated officials will resolve, in consultation with the heads of their agencies (and where appropriate with the National Director), WMD-related disputes within their agencies. They will be accountable to their agency heads and to the National Director for the results of their agencies' strategies and the successes and failures of their agencies' operations.

Each agency's lead official for proliferation-related matters should have a portfolio that is consistent with the portfolio of the National Director and with their counterparts in other agencies. In addition, each agency should make one senior resource official responsible for proliferation-related budgets. This person would work with the National Director in the resource planning process.

Personnel

One of the most important common agency problems is recruiting, retaining, and developing personnel with the skills required for combating proliferation. Even the most

coherent and effective non-proliferation policies will not succeed if the offices that execute them are understaffed, or if the personnel in those offices are inadequately trained or lack the required skills and abilities. The scientific nature of weapons of mass destruction issues mandates expertise (acquired through extensive training) in the physical, chemical, and biological sciences. Such expertise is in relatively short supply, and the Federal Government must compete with the private sector to attract and retain qualified personnel.

The problem is more acute in some areas than others. Knowledge of and experience with nuclear weapons, for example, is greater than with biological and chemical weapons. This is not surprising: the United States invested large amounts of time, energy, and money in the nuclear field during the Cold War, while biological and chemical programs received less sustained attention. In addition, whereas the United States today retains nuclear systems, we gave up our offensive chemical and biological programs many years ago. The Commission does not recommend that those offensive programs be revived. We must recognize, however, and, to the extent possible, address the fact that "we do not have the intellectual infrastructure for biological and chemical threats the way we have it for nuclear threats."[12]

Other skills are also needed. Government officials must have some knowledge of business dealings, in order to understand (and be able to track and impede) procurement networks and other financial transactions that accompany proliferation. Mastery of foreign languages and familiarity with other countries' histories, cultures, and political systems are similarly vital to our efforts to stop proliferation.

The first problem that personnel officials face is hiring individuals with needed skills. The existence of a large gap between what individuals can earn working for the Federal Government and what they can earn in the private sector is not new, nor is it specific to WMD-related positions. Although the government cannot normally match private-sector compensation packages, government officials could in certain cases use targeted incentives, such as "signing bonuses" for individuals with unusual expertise. Government officials must also do a better job of "selling" the government as a career path, of demonstrating to individuals that working for the government provides a unique experience, one that can provide an opportunity to do exciting, challenging, and cutting-edge work unlike anything found in the private sector. Such a work environment can go a long way toward compensating for a wage gap.

Because not enough qualified individuals will decide to pursue a career in the Federal Government, government officials must make more extensive use of individuals and organizations in the private sector (including academia) who are willing and able to work

[12] Deputy Secretary of Defense John Hamre, Remarks to the DSWA Annual International Conference on Controlling Arms, June 11, 1998. Hamre added that "we are somewhat further along on chemical weapons because we really started working very hard on chemical weapons protections back in the mid '80s."

for the government on a temporary basis. By hiring individuals for specific projects of limited duration, government officials can tap into the private sector's talent pool and take advantage of the latest developments made there. This type of short-term contracting also gives people in the private sector an opportunity to experience government work; some of them may decide after their experience to pursue a full-time government career.

Ultimately, we will never replicate for biological or chemical issues the kind of government infrastructure and expertise we created over 50 years in the nuclear field—nor should we. The greatest expertise in these sciences resides outside government, in universities and industry. We must be more creative in finding ways to leverage that expertise short of bringing individuals into government service.

Retention of individuals currently in government is a second important issue. Many people spend a few years in government and then find the allure of the private sector irresistible. Such turnover drains the government of its most valuable workers, who are able to secure the most attractive offers elsewhere. Retention is an especially serious problem in regions that have a relatively high cost of living. Many of the same techniques that are used to attract individuals in the first place can also be used to retain them. Officials might again consider "signing bonuses," for example—in this case "re-signing bonuses"—for the most valuable (in terms of experience and skills) individuals.

A third important personnel issue involves education and training. Educating and training government employees is vital: attracting the most capable individuals will be a wasted effort if inadequate education and training prevents them from doing their jobs effectively. This is particularly important in the WMD-related arena. Whether the individual is an intelligence analyst poring over satellite photos of a suspected biological weapons plant, an Energy Department scientist directing the removal of weapons-grade plutonium from Russia, or a U.S. Customs inspector trying to decide which packages are suspicious enough to warrant a search before they leave the country, sufficient education and training is indispensable.

Unfortunately, this is often one of the first areas to be cut in a period of budget retrenchment, even though such an approach is almost always counterproductive. A well-trained worker can do more to advance U.S. interests than several untrained workers, as a well-trained worker will avoid pitfalls and head off nascent problems, preventing them from becoming full-blown crises that require higher-level attention and expensive solutions.

Another problem with education and training is that it is time-consuming. Because of this, agencies often fail to educate and train their most valuable workers because the agencies feel that they cannot function well without those workers, even for a short time. Supervisors should seriously consider their workers' requests for training, in order to assess its value to the agency's mission. Officials at each agency's headquarters should identify education

and training opportunities that will enhance workers' WMD expertise, and ensure that all of the agency's offices are aware of them.

Education and training are, of course, not independent of hiring and recruitment. In fact, education and training can be an excellent incentive for individuals to join the government, and also for them to remain in government service. Government officials should explore the use of an ROTC-type program whereby the government would offer financial assistance to individuals pursuing undergraduate and graduate degrees in exchange for a commitment to work in the government after graduation.

Education and training can similarly be used to help retain valuable individuals. Many people who would otherwise leave government service might be convinced to stay if they were guaranteed the opportunity to further build their skills base and their intellectual capital. Such offers might be particularly attractive in the coming years, as individuals who worked in the government during the Cold War seek to acquire knowledge and skills that were of minimal value during the Cold War but that are in high demand in the post-Cold War era.

Department of State

The Department of State (State) has preeminent responsibility and authority for the conduct of U.S. foreign policy. Thus, State should be assigned the principal responsibility for communicating to foreign governments U.S. policy on proliferation of weapons of mass destruction, and should play a central role in defining and coordinating U.S. policy.

A Reorganized Department of State: Long-term Challenges and Opportunities

The integration of the Arms Control Disarmament Agency (ACDA) into the State Department in April 1999 resulted in the consolidation under the Department's purview of a number of new international security affairs and arms control functions. Prior to 1999, ACDA was responsible for formulating, advocating, and negotiating arms control and non-proliferation agreements. During this time, ACDA worked to establish and institutionalize an arms control verification process that was used (1) to focus Intelligence Community collection, analysis, and dissemination and (2) to provide procedures by which non-compliant behavior could be brought to the attention of other agencies and deliberated in the interagency process. Important proliferation-related agreements, such as the Non-Proliferation Treaty, the Chemical Weapons Convention, the Biological Weapons and Toxin Convention, and the proposed Comprehensive Test Ban Treaty, have all been the focus of ACDA negotiation and advocacy. Implementation was left to other agencies.

When ACDA existed as a separate agency, activity within the Department of State on proliferation-related policy was divided between regional (e.g., European and Canadian Affairs) and functional (e.g., Political-Military Affairs) bureaus. Moreover, coordination authority was divided between the Under Secretaries responsible for bilateral affairs (Under Secretary for Political Affairs) and arms control (Under Secretary for Arms Control and International Security Affairs). These circumstances often led to a wide range of bilateral policy considerations dominating functional policy concerns, including proliferation-related policy objectives. Thus, despite the primacy of proliferation-related goals in U.S. declaratory policy, the imperatives of day-to-day bilateral policy concerns undercut our proliferation goals vis-a-vis certain governments.

Arms control and non-proliferation are now under the day-to-day jurisdiction of a new organization headed by the Under Secretary for Arms Control and International Security Affairs. The Department has reorganized its political-military affairs bureaus accordingly, replacing the Bureau of Political-Military Affairs with three new bureaus designed to accommodate new missions, as well as the substantial increase in personnel, resulting from the absorption of ACDA.

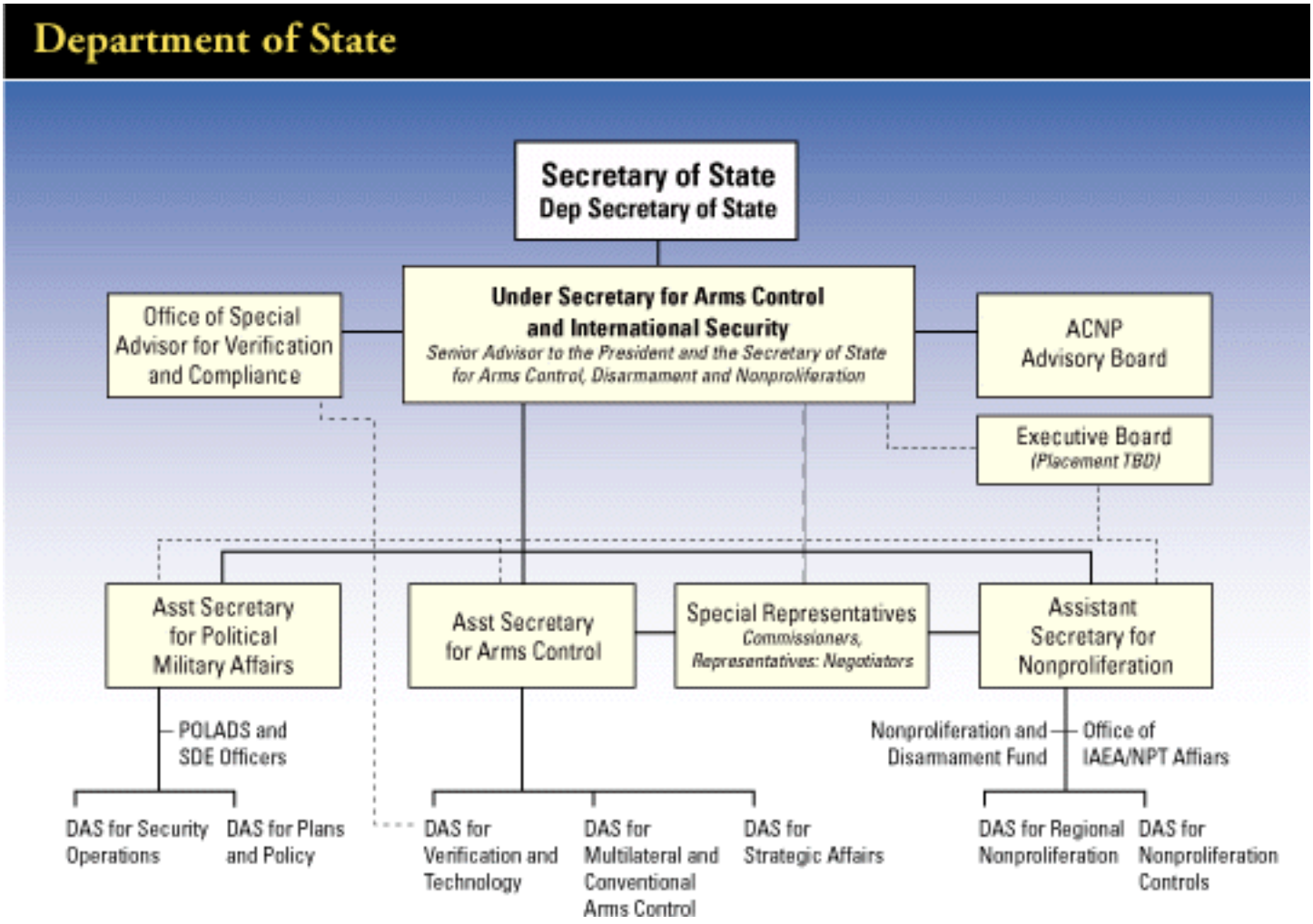
The Commission believes this reorganization has the potential to improve the Department's ability to address the long-term challenges it faces in combating the proliferation of weapons of mass destruction.

Maintaining the Proper Balance Between WMD Priorities and Bilateral Priorities

> ***Recommendation 5.1:*** *The Department of State should take advantage of its new organizational structure to create country-specific strategies that combine regional and functional perspectives concerning WMD proliferation. Instructions to Chiefs of Mission should reflect these strategies.*

Centralizing responsibility for proliferation-related issues within State should help balance the Department's historical institutional preference for bilateral policy objectives at the expense of global policy objectives, such as WMD proliferation. The long-standing parallel "functional" and "regional" organization viewpoints within the Department reflect fundamentally different ways of organizing and approaching foreign policy issues. This overall organizational framework could pose a continuing challenge to proliferation policy management. Advocacy for "functional" issues, such as WMD proliferation, arms control, and counter-narcotics, is likely to continue to clash with the State Department's dominant "regional" philosophy and structure. Instead, the Department should find ways to better integrate its regional and functional expertise to bring both approaches to the development of country- and region-specific strategies for combating proliferation.

The Commission also believes that the appointment of a National Director for Combating Proliferation, as recommended in Chapter 2, will help alleviate concerns about maintaining strong interagency advocacy for proliferation policy objectives within the foreign policy community.


Department of State
Secretary of State
Dep Secretary of State
Under Secretary for Arms Control and International Security
Senior Advisor to the President and the Secretary of State for Arms Control, Disarmament and Nonproliferation
Office of Special Advisor for Verification and Compliance
ACNP Advisory Board
Executive Board
(Placement TBD)
Asst Secretary for Political Military Affairs
Asst Secretary for Arms Control
Special Representatives
Commissioners, Representatives: Negotiators
Assistant Secretary for Nonproliferation
POLADS and SDE Officers
Nonproliferation and Disarmament Fund
Office of IAEA/NPT Affiars
DAS for Security Operations
DAS for Plans and Policy
DAS for Verification and Technology
DAS for Multilateral and Conventional Arms Control
DAS for Strategic Affairs
DAS for Regional Nonproliferation
DAS for Nonproliferation Controls

Responding to Proliferation that Has Already Occurred

> ***Recommendation 5.2:*** *The National Director, working with the Under Secretary of State for Arms Control and International Security Affairs, should conduct an organizational and resource review to identify the changes and resources needed to take advantage of opportunities to prevent proliferation or to mitigate the consequences of proliferation that has already occurred.*

State and ACDA historically emphasized efforts to prevent proliferation or to deny WMD capabilities to other countries rather than to marshal instruments to address significant proliferation that had already occurred. Thus, the Department traditionally has been slow to react to the rapidly changing proliferation problem, for example in Iraq, Iran, and North Korea. This must change. ACDA's leadership in establishing and institutionalizing processes used by the US Government for treaty formulation, negotiation, advocacy and verification, enforcement, and evidence collection may now help the Department to address these issues, but it is not clear that the reorganization will provide the increasing emphasis on addressing existing proliferation deemed necessary by the Commission.

The review should address ***all the multilateral and bilateral instruments that are available to the United States to deal with the foreign policy aspects of proliferation,*** both to prevent or deter proliferation and to deal with it once it has occurred. India, Pakistan, North Korea, and, potentially, Iraq and Iran are central examples of the latter. In assessing the results of this review, the National Director should bear in mind that, as with all efforts to combat proliferation, these potential sources of leverage will be far less effective if they are exercised unilaterally than if we can gain multilateral cooperation. The range of instruments that should be examined includes, but is not limited to:

- Foreign assistance
- Security assistance
- Arms transfers
- Security guarantees
- Cooperative WMD programs of all agencies
- Trade and economic assistance
- Regulation of access to global markets, including:

- Civil aviation access to ports of entry
- Trade access to industrial, agricultural, and service markets
- Support for nations abroad through international financial institutions
- Military training and related services
- The sale of surplus defense commodities
- Official travel visas
- Access to financial markets
- Access to advanced technology
- Government-sponsored export credit and insurance

Obtaining and Efficiently Using Funding for Combating Proliferation.

> ***Recommendation 5.3:*** *The National Director, the Secretary of State, and Congress should consider ways to enhance the use of the Foreign Assistance and Security Assistance programs to achieve proliferation-related objectives, including reducing existing constraints on how the funds can be used, as well as ways to use the flexibility provided by the Nonproliferation and Disarmament Fund (NDF) more aggressively, and expand the precedent established by the NDF authorities more broadly in international affairs accounts.*

The Commission believes that both the foreign and security assistance programs are currently too constrained by limitations on the reallocation of funds under congressional direction to be used effectively as policy instruments for proliferation contingencies. The Foreign Assistance program, in particular, has accumulated nearly forty years of earmarks and extra-statutory obligation restrictions. It is surrounded by a powerful set of supplier and recipient constituencies that severely constrain the ability of the Department to address fast-breaking policy objectives in a timely way. An illustration of a program with responsive resource allocation provisions is State's Nonproliferation and Disarmament Fund (about $15 million per year), which can be used aggressively to address proliferation issues as they arise. This model could be applied with appropriate modifications to other accounts in the foreign assistance program. Under the Commission's proposal outlined in Chapter 3, the National Director should require a full accounting of how NDF funds are expended each year as part of the resource allocation review and evaluation.

Recommendation 5.4: *The National Director, in consultation with the Director of Central Intelligence, should establish a decision-making process regarding the use of intelligence in a demarche that ensures timely decisions and a careful evaluation of the policy benefits and the risks to sources and methods.*

The Commission was briefed on the problems involved with the use of intelligence to support diplomatic demarches aimed at combating proliferation. This understandable difficulty arises from the tension between protecting sources and methods and using intelligence information to achieve a desirable policy end.

Department of Defense

The Department of Defense (DoD) has the most resources applied to the widest variety of programs for combating proliferation of weapons of mass destruction and their means of delivery. DoD combats proliferation by (1) the application of military power to protect United States forces and interests, (2) intelligence collection and analysis, and (3) support to diplomacy, arms control, and export controls. It is the only agency involved in all aspects of responding to the WMD threat, including prevention, deterrence, defense, and limiting the damage in case of use. It must be organized to support not only its own effort, but also the government-wide efforts described in Chapter 2.

Impact of the Defense Reform Initiative on Proliferation Policy

> Responsibilities for combating proliferation are too diffuse. Below the level of the Deputy Secretary, there is no institutional means of integrating the multitude of separate activities.

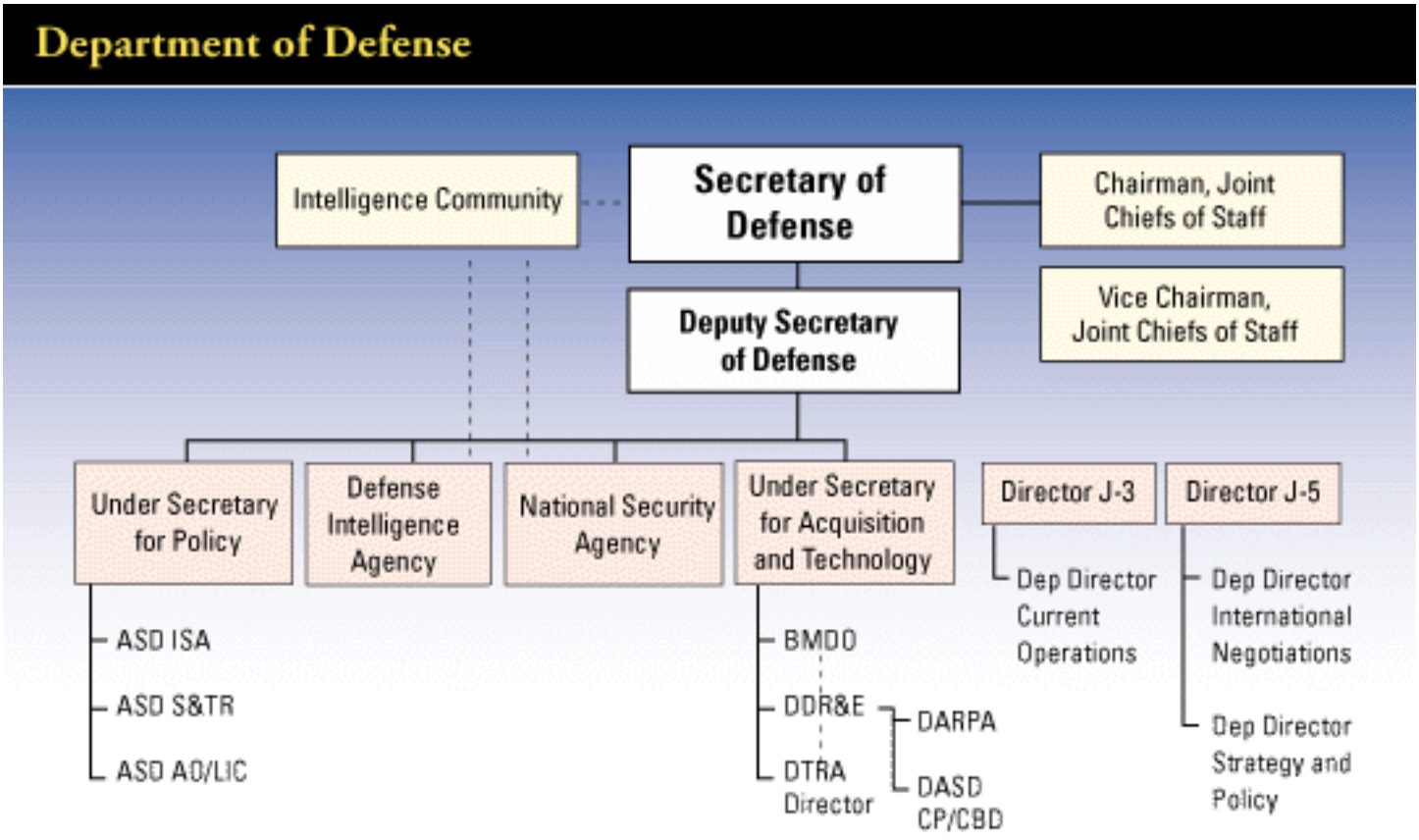
The Secretary of Defense's November 1997 Defense Reform Initiative (DRI) included several organizational changes intended to raise the priority of DoD proliferation-related activities and to improve the Department's overall performance in this area. Since then:

- The position of Assistant Secretary for International Security Policy has been abolished and its functions, including proliferation policy, transferred to the Assistant Secretary for Strategy and Resources (renamed Assistant Secretary for Strategy and Threat Reduction).

- A new Defense Threat Reduction Agency (DTRA) has brought together under a single Director several agencies dealing with emerging threats: the Defense Special Weapons Agency (formerly, the Defense Nuclear Agency), On-Site Inspection Agency, Defense Technology Security Administration, Center for Verification Research and elements responsible for implementing the Cooperative Threat Reduction program.

- Congress stopped the Secretary of Defense from abolishing the post of Assistant to the Secretary for Atomic Energy (later for Nuclear, Chemical and Biological Defense) –previously a key advisor on these programs—although the position remains unfilled.

In spite of these developments, responsibility for proliferation-related issues in DoD remains so diffused as to make it impossible to determine who—below the Deputy Secretary—has the authority and the responsibility to integrate plans, policy, requirements and programs. No one seems to be "in charge" of combating proliferation and, in an organization as large and complex as DoD, that is a serious problem.


Department of Defense
Intelligence Community
Secretary of Defense
Chairman, Joint Chiefs of Staff
Vice Chairman, Joint Chiefs of Staff
Deputy Secretary of Defense
Under Secretary for Policy
Defense Intelligence Agency
National Security Agency
Under Secretary for Acquisition and Technology
Director J-3
Director J-5
ASD ISA
ASD S&TR
ASD AO/LIC
BMDO
DDR&E
DTRA Director
DARPA
DASD CP/CBD
Dep Director Current Operations
Dep Director International Negotiations
Dep Director Strategy and Policy

The Commission is concerned that the DRI, in its zeal to reduce the size of Office of the Secretary of Defense, has damaged the Department's ability to develop and implement proliferation plans, policy and programs. The Commission believes that the Secretary should reconsider the results of the DRI and reorganize proliferation related policy and technology acquisition activities.

Making Proliferation Policy. The Under Secretary for Policy is responsible to the Secretary of Defense for proliferation policy. Implementation of DRI recommendations has not only produced a downsizing of the Under Secretary's staff, but also a consolidation of diverse policy areas, including proliferation, under a single ASD for Strategy and Threat Reduction. The quite considerable abilities of this individual notwithstanding, the Commission believes that the proliferation policy responsibility should not be lumped with other policy and strategy issues. Instead, this demanding portfolio should be the exclusive province of an Assistant Secretary for Combating Proliferation.

Acquiring Technologies to Combat Proliferation. While the effort to bring all proliferation-related acquisition programs together in the new Defense Threat Reduction Agency (DTRA) is laudable, the Director of the new agency lacks the authority to set priorities among research and development programs of the military departments and the Defense Advanced Research Projects Agency. This weakness has both organizational and "cultural" origins. Our experience in developing the capability to protect our forces against chemical and biological weapons illustrates the problem.

The Urgency of Chemical and Biological Defense

> The 1990-91 Gulf War heightened our awareness to the threats posed by the spread of chemical and biological weapons. Today, the warfighting commanders-in-chief continue to rank chemical and biological defense as their number one counter-proliferation priority.

Despite the expenditure of several billion dollars since the threat emerged in 1991, previously identified vulnerabilities against chemical and biological weapons remain, and our commanders have found even more weaknesses. Moreover, it appears likely that only incremental progress will be achieved in the next three years. Why? The Commission's pessimistic outlook is based on four concerns.

- First, our system for acquiring technology is broken. The Commission discussed the problem and proposed steps toward a solution in Chapter 3. Our recommendations include an integrated, government-wide technology acquisition plan to sort out requirements and determine how and by whom they can best be satisfied.

- Second, DoD elements are still learning how to define the threat in the requirements process. Understanding what we are seeking to defend our forces against, where, and under what circumstances is essential, but so, too, is articulating those and other important factors in a complex organization with numerous competing interests and finite resources.

- Third, one of the competitive challenges to chemical and biological weapons defense comes from another, more traditional threat to our military forces: short and intermediate range ballistic and cruise missiles. Substantially more resources are expended on missile defenses than on the number-one priority for chemical and biological defense, although the regional warfighting commanders agree that both threats—the traditional and the new—demand immediate attention and funding.

- Finally, DoD lacks both the organizational leadership and an integrated plan to relate new requirements, like chemical and biological defense, to other priorities.

For chemical and biological defense acquisition programs, the Commission identified five inter-linked sets of committees in a management chain under the Under Secretary of Defense for Acquisition and Technology: the Office of the Secretary of Defense's Nuclear, Biological and Chemical Steering Committee; the Joint Nuclear, Biological and Chemical Defense Board; the Joint Service Integration Group; the Joint Service Materiel Group; and a series of six "commodity area" groups led by program managers from the various military services. But even this list is not all-inclusive. The ASD for Special Operations and Low-Intensity Conflict has primary oversight of force protection activities, but has no apparent connection to this chemical and biological defense committee process. This may explain why force protection assessments lack sufficient integration with technology development programs for chemical and biological weapon defense.

Well-intentioned as it is, the DTRA solution, as presently structured, will not answer DoD's technology acquisition problem. As the chemical and biological defense example illustrates, nowhere in this process is there a senior official with sufficient clout and resources to command the development and implementation of a single, aggregated Department-wide architecture to combat the proliferation of weapons of mass destruction.

Halting the Erosion of U.S. Nuclear Programs

The proliferation of nuclear weapons will remain a primary security concern for the foreseeable future. The safety, security, reliability, and adequacy of the U.S. nuclear deterrent will also be continuing DoD concerns, and sustaining viable strategic forces

needs to be a top national priority.[13] But, DoD faces challenges similar to those of the Department of Energy in maintaining the cadre of skilled nuclear weapons specialists it needs, together with the underlying infrastructure to support their work. The specialized technical analysis they provide is also critical to our understanding of other states' nuclear capabilities.

The Commission is concerned that placing responsibility for the custody and technical/acquisition oversight of nuclear forces under the Defense Threat Reduction Agency, as recommended by the Defense Reform Initiative, created two potential problems:

- First, responsibility for maintaining effectiveness of U.S. nuclear weapons has been assigned to an agency whose principal mission is keeping others from acquiring such weapons. Such a dual focus is inherently conflicted.

- Second, the Defense Reform Initiative relegated nuclear weapons and nuclear programs to a much lower level of attention, with a significant degradation of the nuclear career field among the military services.[14]

The downgrading of nuclear program oversight has been occurring for some time. The Defense Nuclear Agency was once headed by a three-star general officer with line responsibility to the Chairman of the Joint Chiefs of Staff, as well as the DoD civilian leadership. Today, nuclear operations are headed by a one-star general who is dual-hatted as head of a Defense Threat Reduction Agency directorate and deputy director of the nuclear weapons office in the Department of Energy (DOE). The position of Assistant to the Secretary of Defense (ATSD) for Atomic Energy, recently renamed ATSD for Defense for Nuclear, Chemical, and Biological Defense, was proposed for elimination in the Defense Reform Initiative, but Congress, concerned with DoD oversight of nuclear programs, has in effect prevented this action.

The Commission believes the President's description of the role of nuclear systems in deterring our adversaries from employing weapons of mass destruction as a vital interest

[13] Increased attention to chemical and biological defense should not come at the expense of attention to the challenges posed by nuclear issues. Indeed, chemical and biological defense is often joined into the larger category of "NBC defense," but this term is often unreflective of any significant nuclear component and these are not synonymous: nuclear defensive issues are a distinct category that wants for more balanced attention from senior defense leadership and acquisition program managers.

[14] The Commission shares the concern of the March 1, 1999, Chiles Commission in DOE and the DoD 1998 Defense Science Board Task Force Report on Nuclear Deterrence that nuclear weapons and related programs are not receiving sufficient management attention. In particular, the Commission endorses the Chiles Commission's conclusion that "the Administration and Congress, through actions and words, should make a concerted and continuing effort to convey to the nuclear weapons community that their mission is vital to the security of the nation and will remain vital well beyond the planning horizons normally associated with programmatic decisions. This message should be unequivocal, clear, and periodically reinforced."

remains valid, and his recognition of the need to ensure the viability of the supporting infrastructure is equally compelling. The Commission notes that other blue-ribbon panels have identified shortcomings in this area and proposed remedial actions. The Commission urges that the Secretary of Defense (and the Secretary of Energy), as well as Congress, place a high priority on addressing their recommendations.

Reorganizing DoD Proliferation-related Policy and Technology Acquisition

> ***Recommendation 5.5:*** *The Secretary of Defense should reorganize the Office of the Under Secretary of Defense for Policy, establishing a senior position for all proliferation-related issues.*

(1) Establish the position of Assistant Secretary of Defense (ASD) for Combating Proliferation/Policy to be the focal point for policy on combating proliferation of weapons of mass destruction and related emerging threats, and align his or her responsibilities with those of the National Director for Combating Proliferation:

- Developing the DoD strategy for implementing policy on combating proliferation, including prevention, protection, and mitigation of the consequences of proliferation in countries of concern, regionally and globally.
- Overseeing the execution of DoD's Cooperative Threat Reduction Program and assuring it is consistent with overall U.S. policy;
- Overseeing DoD consequence management (transferred from Assistant Secretary of Defense for Special Operations and Low-Intensity Conflict); and
- Managing export control and sanctions policies, with support of the Defense Technology Security Administration (transferred from the Defense Threat Reduction Agency).

(2) Realign the responsibilities of the ASD for Strategy and Requirements to include *functional* areas:

- Defense guidance and plans;
- Nuclear force structure and employment planning;
- Ballistic missile defense; and
- Arms control.

(3) Maintain the *regional* responsibility focus of the ASD for International Security Affairs. (It may be advisable to include the Russia, Ukraine, and Eurasian region with the Cooperative Threat Reduction Program under the ASD for Proliferation Threats.)

Planning Proliferation-related Military Operations

> ***Recommendation 5.6:*** *The President should direct the Secretary of Defense to establish a Joint Proliferation Operations Plans Group, under the Assistant Secretary of Defense for Combating Proliferation/Policy, to conduct planning in support for operations to combat proliferation.*

Preparing plans for military operations is the job of the Director for Operations (J-3) in the Organization of the Joint Chiefs of Staff. Planning operations to combat proliferation is complex, specialized, and sensitive. The Commission believes that the Joint Staff should establish a small cadre of specialists—a Joint Proliferation Operations Plans Group—to conduct planning for operations to:

- Deny acquisition of weapons-useable nuclear, biological and chemical materials, equipment, and technology by countries and sub-national groups of concern;
- Disrupt delivery of weapons of mass destruction and related delivery systems; and
- Identify and inhibit sub-national terrorist groups and nations that are seeking to acquire or enhance weapons of mass destruction capability.

This Joint Proliferation Operations Plans Group would necessarily work closely with the National Director for Combating Proliferation, receiving requirements and guidance from the National Director as well as keeping him or her fully informed of planning activities. This group would also work closely with the headquarters of U.S. warfighting commanders, the Central Intelligence Agency, and, where appropriate, the Federal Bureau of Investigation. The Commission believes that coordination could best be accomplished by detailing intelligence and law enforcement specialists to work with the Group. This organization could, over time, become an important force in crystallizing consideration of aggressive action that advances our efforts against proliferation. Eventually, these plans could involve covert or military action that would require review by Principals, approval by the President, and notification of relevant congressional committees. Others would involve public

diplomacy and various forms of cooperation including, but not limited to military cooperation.

> ***Recommendation 5.7:*** *The Secretary of Defense should establish an Assistant Secretary of Defense for Combating Proliferation/Acquisition to be responsible for technology acquisition programs bearing on combating proliferation.*

Reporting to the Under Secretary for Acquisition and Technology, the Assistant Secretary of Defense for Combating Proliferation/Acquisition would be dual-hatted as the Director of the Defense Threat Reduction Agency and responsible for:

- Developing a comprehensive architecture for technology and capability to combat the proliferation of weapons of mass destruction and their delivery systems. In carrying out this responsibility, the Assistant Secretary of Defense for Combating Proliferation/ Acquisition would make use of the analytic strength of the Defense Threat Reduction Agency's Advanced Systems Concept Office;

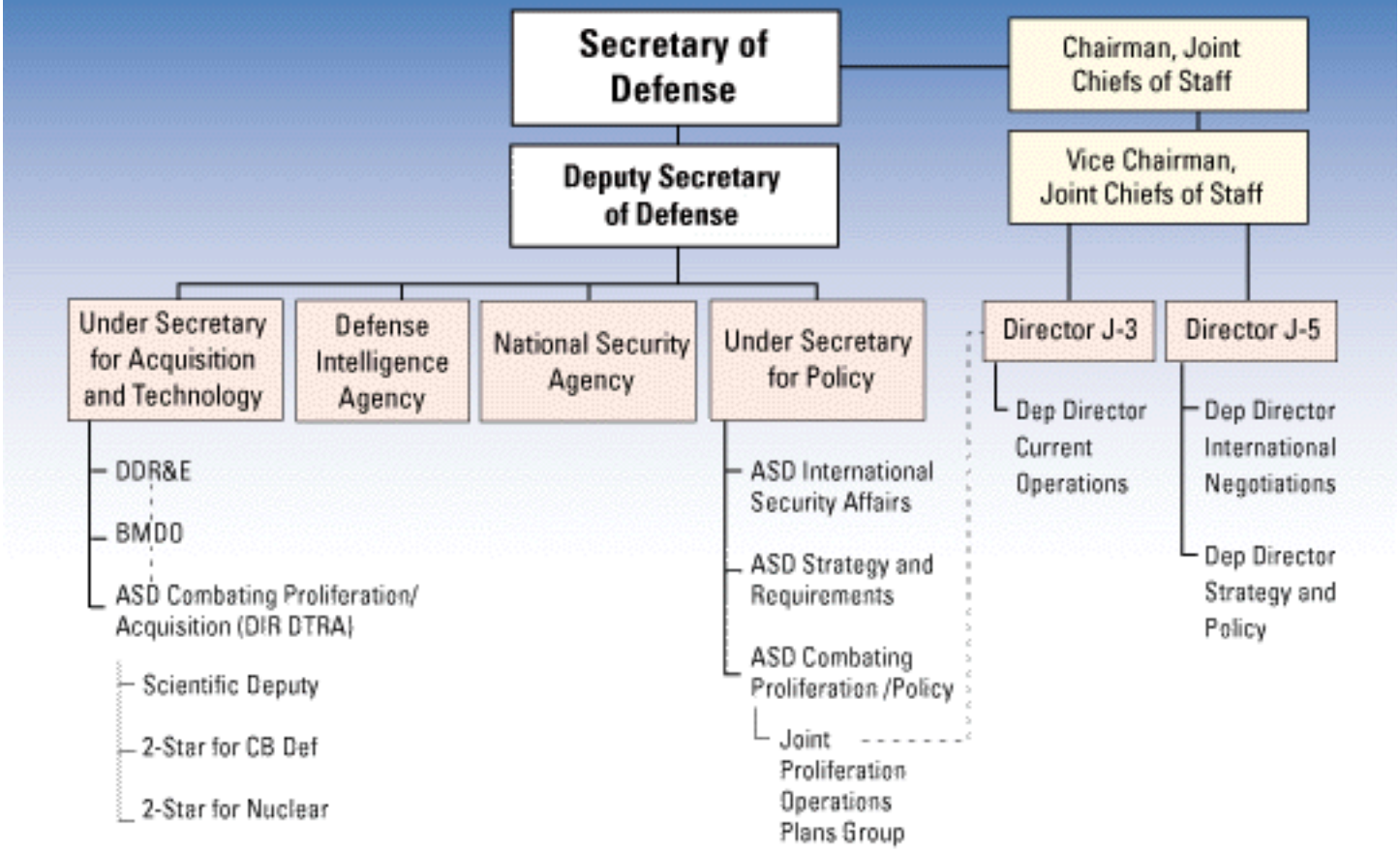
- Ensuring the DoD plans and programs are consistent with national policy and complement government-wide technology acquisition plans, as outlined by the National Director for Combating Proliferation and the Combating Proliferation Council;

- Providing guidance and direction to a senior scientific deputy charged with developing a coordinated research and development (R&D) program to combat proliferation, including Advanced Technology Demonstrations and Advanced Concept Technology Demonstrations, and related R&D conducted by the Services, the Defense Advanced Research Projects Agency, and the Defense Threat Reduction Agency;

- Overseeing an office, led by a two-star general, to assure the continued viability of the United States nuclear forces. This office should have responsibility for nuclear and radiological defense acquisition programs, including technical matters, the need for personnel with a knowledge of nuclear weapons, and the safety and security of weapons; and

- Replacing much of the Army-led chemical-biological defense committee structure with an office, led by a two-star general, responsible for planning, coordinating, and programming resources. This office would take principal responsibility in DoD for oversight of all chemical and biological development and acquisition programs.

Recommended Restructuring of the Offices of Under Secretary of Defense for Policy and Acquisition and Technology



Department of Energy

The Department of Energy (DOE) plays a key role in combating proliferation. Because of its expertise in nuclear weapons and nuclear power, DOE has greater knowledge than any other agency in dealing with matters of nuclear proliferation. It manages the national laboratories, including the three national weapons laboratories, Los Alamos National Laboratory, Lawrence Livermore National Laboratory, and Sandia National Laboratories and the manufacturing complex for nuclear weapons. These have extraordinary technological capabilities that, if properly harnessed, can contribute enormously to all aspects of combating proliferation.

The Commission's review of DOE's proliferation-related activities occurred during the period when major counterintelligence and security problems were made public. Since that time, there have been several independent reviews and recommendations for significant changes in the management of the weapons programs and of the national labs most closely associated with nuclear weapons. In general, the Commission is in sympathy with the views of the recent report of the President's Foreign Intelligence Advisory Board (PFIAB). Along those lines, the recommendations that the Commission makes seek to focus DOE more closely on nuclear proliferation-related activities in which the labs have unique experience. The Commission endorses the PFIAB's recommendation to place the Office of Nonproliferation and National Security under a new Under Secretary of Energy, if such an office is created.

DOE and its predecessor agencies, the Atomic Energy Commission (AEC) and the Energy Research & Development Administration (ERDA), have a long history in nuclear proliferation matters. In the 1950s and 1960s, the AEC was the principal agency implementing "Atoms for Peace," a policy aimed at providing civilian nuclear technology assistance to nations willing to forswear the acquisition of nuclear weapons. During this period and until India's nuclear explosion in 1974, the AEC, and later ERDA, also supported policies today considered proliferation risks, such as peaceful nuclear explosions and export of commercial enrichment and reprocessing capabilities. Ever since its creation in 1977, DOE has been committed to advancing U.S. proliferation-related objectives. Over time, several programs have emerged in DOE that bear on those objectives. The most important relate to nuclear matters in the former Soviet Union. These include developing Materials Protection, Control, and Accounting (MPC&A) systems, disposition of weapons-usable fissile materials (notably the purchase of highly enriched uranium from Russia), participating in the Cooperative Threat Reduction effort, helping to convert Russia's three plutonium production reactors to fuel that will not produce weapons-grade plutonium, and the Nuclear Cities Initiative.

DOE's strength is also its weakness. The Department and its laboratories are excellent at creating new high-performance technology, although the cost to develop such technology is high, and the laboratories do not have experience in procuring and deploying systems in the commercial world. The expertise of the laboratory system is unparalleled in the nuclear

and related areas (such as instrumentation), and the government is understandably the single developer and supplier of nuclear weapons. However, in the areas of chemistry and biology, DOE has peers in universities and the private sector.

DOE is good at sponsoring work in the laboratory system that supports its missions, but is less adept at competing work between the laboratories and industry or universities. The Commission stressed in Chapter 3 that the US Government program must include consideration of the entire life cycle of technology, from research and development through procurement, testing, and field deployment. For chemical and biological agent and weapons detection, protection, and treatment, the problem of procurement, testing, and deployment is as demanding and more costly than developing new technology. The Commission believes it is important that DOE's development program not proceed in isolation from a government-wide acquisition plan that involves other agencies responsible for addressing the procurement and acquisition issue. Without such integration, there is a danger that DOE (or other agencies) may develop new technology that is not used, or may sponsor similar projects in several different laboratories, as has happened in the past. The Commission found examples of chemical and biological agent detection projects and computer software systems designed to serve a possible proliferation end use that were proceeding in parallel. The result is that significant resources are devoted to technology development with greater duplication than desirable, and with little or no attention to fielding new capabilities.

DOE assistance to Russia on MPC&A provides an important example of shortfalls that can occur when there is an exclusive focus on technology. DOE has been successful in helping MINATOM, the Russian nuclear agency, obtain MPC&A systems. However, the assistance program does not include any support, either financial or technical, for deployment, operation, and maintenance of these systems. The result is that, in some instances, installed systems are neither used nor maintained, thus vitiating the purpose of this critical Cooperative Threat Reduction effort.

The Commission believes that DOE should focus its policy and program efforts on combating nuclear proliferation, and should shift its focus on chemical and biological proliferation to one of supporting the requirements of other agencies and easing their access to its laboratories. Our recommendations are intended to accomplish this.

Recommendation 5.8: *Responsibility for combating nuclear proliferation should be consolidated under one Assistant Secretary of Energy (ASE).*

All relevant DOE programs should be placed under this official, and programs not directly relevant should be moved to other offices. This ASE should be the senior secretarial officer designated as a member of the Combating Proliferation Council. Thus:

- All activities related to foreign nuclear materials disposition currently handled by the Office of Nonproliferation and National Security (NN) should be consolidated under this ASE. This includes, for example, the North Korean spent fuel canning operation. Activities related to U.S. materials disposition currently handled by the Office of Fissile Materials Disposition (MD) arguably should be included in this office, because of the international impact of such actions. Alternatively, domestic fissile material disposition activities could be moved to ASE/Defense Programs (DP), or to ASE/ Environmental Management (EM).

- The Office of Emergency Management in ASE/Nonproliferation and National Security should be consolidated with the Office of Emergency Response in ASE/ Defense Programs. The Commission notes that Energy Secretary Bill Richardson has independently taken action to transfer the NN Office of Emergency Management and the DP Office of Emergency Response to the newly created Office of Security and Emergency Operations. However, these two offices have not been merged organizationally.

- Activities of the Office of International Nuclear Safety and Cooperation that relate to reactor safety and are not directly concerned with proliferation should be moved, either to the Office of Nuclear and Facility Safety within the Office of Environment, Safety and Health, or transferred to the Nuclear Regulatory Commission.

> ***Recommendation 5.9:*** *DOE activities in the interagency policy process should be focused on nuclear matters, in which the agency has unique strength.*

DOE's role in the export control process should be limited to issues involving export of nuclear technology and products, broadly defined.

Over time, the DOE intelligence program should be focused on nuclear proliferation issues, including analysis of both technical and country/regional issues in which the DOE laboratories have unique capabilities. In addition, this technical expertise in nuclear matters should be made more accessible to the rest of the Intelligence Community, particularly those elements whose mission is primarily proliferation-related analysis. This process could involve the assignment of personnel from DOE's Office of Intelligence and the national laboratories to the DCI Nonproliferation Center (NPC). Our recommendation is in line with one made by the President's Foreign Intelligence Advisory Board in its June 1999 report on security problems at the Department of Energy. An infusion of DOE nuclear expertise into the NPC would benefit the NPC and the Intelligence Community as a whole.

Recommendation 5.10: *DOE's proliferation-related research and development (R&D) efforts should conform to a government-wide technology acquisition plan put together by the National Director for Combating Proliferation and the Combating Proliferation Council, and existing regulatory and other barriers that make it difficult for the DOE laboratories to perform work for other agencies should be removed.*

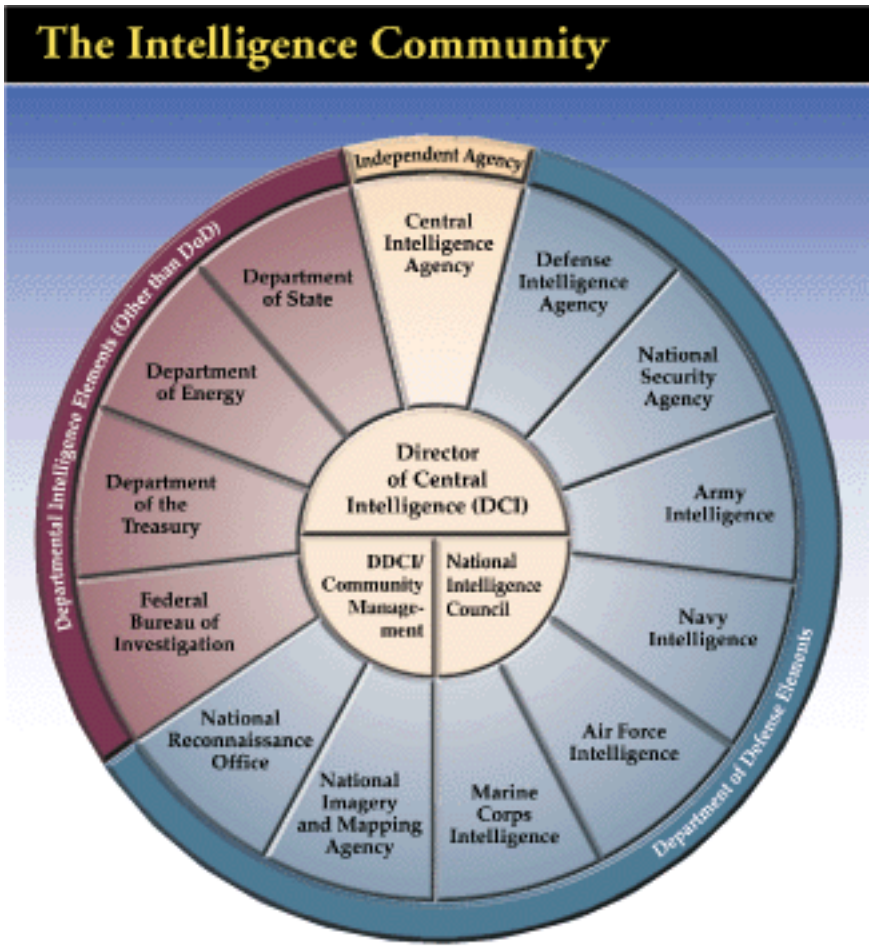
R&D programs should be structured as part of an overall strategy that leads to field deployment, whether for force protection or for domestic response.

The DOE R&D effort should be coordinated with other agencies, especially in the chemical and biological areas, to avoid duplication.

Much of the work on technology related to combating biological and chemical weapons currently funded in the DOE budget should be funded instead by the agencies with direct requirements for the technology, such as the Department of Health and Human Services, the Department of Defense, and the Intelligence Community. This work can then be done at the DOE laboratories as "work for others." This will strengthen the connection between the user and the developer, and hopefully shorten the time required to field needed capabilities.

Intelligence Community

National intelligence collection and analysis has been important for U.S. proliferation-related policies since the 1950s. Significant steps to strengthen U.S. intelligence capability intensified after India surprised the world with its 1974 nuclear explosion in the Thar Desert. During the Bush Administration, Directors of Central Intelligence (DCIs) William Webster and Robert Gates established the DCI Nonproliferation Center to coordinate proliferation-related intelligence collection and analysis. In addition, all agencies of the Intelligence Community (IC)—including the CIA, the National Security Agency, the Defense Intelligence Agency (DIA), the Department of Energy (DOE), and the State Department's Bureau of Intelligence and Research (INR)—have taken steps to expand their proliferation-related intelligence capability.



While there has been considerable progress in U.S. intelligence capability, much remains to be done to meet policy needs. There are no better reminders of the need for improvement than the unexpected Indian nuclear test in May 1998 and North Korea's test of a three-stage ballistic missile in August 1998. Similarly, the importance of intelligence for warning about potential terrorist use of weapons of mass destruction was reinforced by the revelation that environmental samples and other intelligence indicated that Usama Bin Ladin's terrorist organization was interested in acquiring chemical weapons and had links to the presence of a VX nerve agent precursor in Sudan. And surely our leaders deserve a detailed appraisal of how well Russia is controlling its nuclear stockpile, its inventory of strategic nuclear and other WMD-related materials, its technology, and the technical personnel who work, or have worked, on its nuclear, chemical, and biological weapons.

Our objectives for proliferation-related intelligence should include the following:

- The earliest possible warning of imminent and emerging WMD threats, including use, significant testing milestones, and technological surprises;

- Accurate information and assessments about the WMD programs and operational practices of nations and sub-national groups, including associated delivery systems and related technology, along with identification of vulnerabilities;

- Greater understanding of the particular strategic, regional, and internal factors that motivate a country or sub-national group to acquire, or use, WMD capabilities, as well as key points of leverage for influencing such decisions;

- Identification of critical links and nodes in the web of selling, buying, and brokering WMD technology and materials, as well as vulnerabilities in those procurement networks; and

- Resource allocation in the IC should reflect the high priority accorded to combating proliferation.

Considerable collection and analytic resources are required to accomplish these objectives. Both collection and analysis must be better planned, managed, and organized, along both functional lines that stress the weapons and their means of delivery and along regional lines, so that the political and security contexts that lead to demand for these weapons are better understood.

It is also important to address the relationship between intelligence and its customers, in both Congress and the executive branch, and the ways in which this relationship can affect the quality of the intelligence. Good intelligence is fundamental to combating proliferation. Most efforts to acquire weapons of mass destruction are shrouded in secrecy, deception, and denial; the Intelligence Community must pierce that shroud. In only the rarest cases—as in Iraq immediately after the Gulf War—can we quickly uncover vast quantities of

incontrovertible evidence of these weapons programs. But even there, despite intense scrutiny supported by the most intrusive non-proliferation inspection regime in history, we still believe Saddam Hussein has been able to conceal some of his WMD programs and much of his WMD development infrastructure.

Discovering the secrets of unfriendly states and terrorist groups must be done carefully and in confidence. In this work, sources are fragile and any public hint of information is likely to make the source dry up or, worse, jeopardize the source's safety. Moreover, objectivity is the Intelligence Community's greatest asset. Attempts to politicize intelligence inevitably threaten to bias it. Biased intelligence courts policy failure.

For these reasons, good intelligence and the rough-and-tumble of the open political process do not always mix. Yet U.S. intelligence depends on political support from the people's elected representatives, support that requires close cooperation and consultation between the Intelligence Community and Congress. In addition, the quality of the relationship between the Intelligence Community and the government's policy arms is of crucial importance. To be agile and well-informed, policy needs disinterested intelligence. To be relevant, intelligence efforts must address policy concerns.

> ***Recommendation 5.11:*** *The Director of Central Intelligence should ensure that intelligence is responsive to the needs of policy makers and that regular conferences between policy agencies and the Intelligence Community continue, with a sharpened focus on presenting usable intelligence.*

In much intelligence work, clear, mission-specific standards of evidence are lacking. For example, the consequences of a missed warning can be much more serious than the consequences of a false alarm. Therefore, in providing warning reports, the Intelligence Community should err on the side of over-reporting by using a low threshold or standard of proof. In providing estimates and analytical reports, on the other hand, the Intelligence Community should apply its best assessment, taking all its data and collective experience and judgment into account. In analyzing whether a specific transaction has occurred in the context of a sanctions determination or other action that could have profound consequences for American interests, the Intelligence Community should use a rigorous standard of proof. Once promulgated, these standards would guide the development of the analysis by the Intelligence Community and its evaluation by the policy community.

> ***Recommendation 5.12:*** *The National Director should work with the Director of Central Intelligence to promulgate guidance to ensure that clear standards of evidence are applied to current intelligence and warning assessments, as well as longer term analyses and estimates, and that these standards are distributed throughout the Intelligence Community, to relevant policy makers, and to the relevant committees of Congress.*

Recommendation 5.13: *The President should direct the Director of Central Intelligence to create a single proliferation-related intelligence program plan, pursuant to policy guidance and priorities established by the National Director for Combating Proliferation and the Combating Proliferation Council, for adoption by the President and review by the appropriate congressional committees.*

The Director of Central Intelligence is responsible for determining the architecture of proliferation-related intelligence efforts and the successful execution of these programs. An effective architecture requires a single integrated proliferation intelligence program (and accompanying budget) that includes all activities within the National Foreign Intelligence programs in the Departments of State, Justice, and Energy. At present, such a single integrated plan covering collection, analysis, and production of proliferation-related intelligence does not exist.

Recommendation 5.14: *The Director of Central Intelligence should ensure that there is integrated collection planning against priority proliferation targets.*

Intelligence collection is most successful when collectors and analysts from all disciplines—imagery intelligence (IMINT), signals intelligence (SIGINT), human intelligence (HUMINT), and measurement and signature intelligence (MASINT)—work together to define a collection plan. While the individual agencies will execute the collection, the scope and strategy for collection require a community-wide perspective and should not go forward without the Director's approval. The Director of Central Intelligence has taken steps toward a more coordinated collection plan across the entire Intelligence Community by appointing an Assistant Director of Central Intelligence for Collection (ADCI/Collection).

The Commission believes that the Nonproliferation Center (NPC) should work with the ADCI/Collection to assemble integrated proliferation-related collection plans and present them to the Director for approval. Assigning this responsibility to the NPC is a natural evolution of its scope and is necessary for it to carry out its mission successfully.

Recommendation 5.15: *The Director of Central Intelligence should assess proliferation-related analytical capabilities throughout the Intelligence Community, assign lead responsibility for proliferation analysis, and provide additional support where needed.*

Two recent reports by outside experts[15] suggest that our ability to carry out regional political and military analysis must be strengthened. Without in-depth, informed, and objective analysis, the targeting of collection will be poor and the information collected will not be translated into useful intelligence for policy makers. This analysis must be based both on technical aspects of the development and production processes that lead to weapons of mass destruction and on the regional and domestic political and security concerns that lead nations to acquire them. Such analysis must draw both on unclassified and classified sources.

Accordingly, the Director of Central Intelligence, through the Assistant Director for Analysis and with the help of outside experts, should assess the capability in the CIA, INR, DIA, and national laboratories of DOE, to carry out proliferation-related intelligence analysis. This assessment should identify shortfalls and areas of unnecessary duplication. It should consider ways to: (1) ensure the development and retention of a cadre of regional experts with specialized knowledge of technical proliferation issues (e.g., additional "senior analyst" positions and a career track for such specialists), (2) strengthen foreign language training and support tools, (3) provide outside review of intelligence education and training programs, particularly for intelligence analysts, (4) encourage alternative, minority views and provide appropriate channels for getting those views to the policy community, (5) minimize the risk of inadequate analysis prompted by pressure to be the "first to publish," (6) ensure that analysts have access to all relevant intelligence and that intelligence is not compartmentalized unless justified by security needs, (7) provide actionable intelligence analysis without sacrificing the resources needed for longer-term strategic analysis, (8) make better use of open-source information relevant to proliferation and ensure that analysts have access to it, and (9) ensure maintenance of data-bases on past collection and estimation.

[15] Admiral David Jeremiah's report to the DCI on the Intelligence Community's failure to detect Indian preparations for the nuclear weapons tests conducted in May 1998, and the Congressional Commission chaired by former Secretary of Defense Donald Rumsfeld, charged with assessing the ballistic missile threat to the United States.

Recommendation 5.16: *The Director of Central Intelligence should task the Nonproliferation Center, working with the ADCI/Collection, to prepare a multi-year plan to enhance the technical capability for proliferation-related intelligence collection and to develop new technology for sampling and analysis that will provide faster and more accurate information on activities at suspect facilities.*

Each type of weapon of mass destruction has a different cycle of development, production, and storage, along with corresponding signatures that can be detected by technical intelligence collection. The technical intelligence associated with nuclear weapons activities is unique and considerable capability exists within the Intelligence Community (in large part in DoD and the DOE laboratories) to detect nuclear signatures. There is less capability to detect signatures of chemical and biological agents. There is an urgent need to improve this capability, especially for environmental sampling and analysis of suspect chemical- and biological-weapons activity. The capability that presently exists is fragmented among the CIA, the Army, and DOE laboratories.

Recommendation 5.17: *The National Director for Combating Proliferation and the Director of Central Intelligence should develop a process for resolving disputes regarding the use of proliferation-related intelligence.*

During the Cold War, intelligence was primarily focused on Soviet military plans and capabilities in preparation for a war that never came. In contrast, proliferation-related intelligence is used every day in an ongoing battle to stop the spread of weapons of mass destruction. Intelligence is used as the basis for denying an export license, imposing sanctions, demarching a foreign government, influencing members of international organizations, or undertaking law-enforcement activities. Each of these actions poses some risk to the sources or methods used to acquire the information. At the same time, intelligence is of no value if it cannot be used. Balancing the benefits of these various uses of intelligence against the risk that such use may frustrate future intelligence collection efforts must often be done on a case-by-case basis. Clear policy objectives and a thorough understanding of the potential risks should inform these determinations. At present, there is no established process for ensuring consistent consideration of these factors.

Department of Commerce

The Department of Commerce manages and enforces export controls on dual-use technology, including goods and technology that have a direct application in the design development, production, or use of weapons of mass destruction and their means of delivery. The current organization of Commerce to implement these controls dates to 1985, when Congress—out of concern for the inherent conflict between the trade promotion activities of Commerce and the administration of export controls—removed export controls from the International Trade Administration and created the Bureau of Export Administration (BXA).

The original statutory basis for these dual-use controls was established in the Export Administration Act (EAA), though since 1994—the last time the EAA lapsed—the controls have been implemented pursuant to Presidential emergency authority. Many U.S. controls have been established pursuant to our role as party to the Nuclear Non-Proliferation Treaty and the Chemical Weapons Convention and our membership in the Nuclear Supplier's Group, Australia Group, the Missile Technology Control Regime, and the Wassenaar Arrangements. Under the "catch-all" authority established under Presidential authority through the Enhanced Proliferation Control Initiative, BXA controls all U.S. dual-use goods and technologies if destined for an end-user engaged in the development of WMD projects or the proliferation of WMD projects to other nations.

A New EAA with Enhanced Penalties

BXA establishes and maintains the Commerce Control List, which identifies specific commodities requiring export licenses for export to specified destinations. BXA receives, reviews and decides export license applications for items on the Commerce Control List. In fiscal year 1998, BXA received about 11,000 export license applications. The National Defense Authorization Act of 1998 imposed a new ten-day notification prior to the export of high performance computers to Tier 3 destinations which resulted in about a 10 percent increase in applications received in the first year.

Effective administration of export controls is enhanced by clear legislative authority reflecting clear export control policy. As noted in Chapter 4, we do not now have a clear consensus on export control policy. We also do not have clear legislative authority, since Congress and the Administration have failed for a decade to enact a comprehensive update of the Export Administration Act that reflects the post-CoCom (Coordinating Committee on Strategic Trade) world. Year after year, the United States has implemented its export control system pursuant to emergency Presidential authority, rather than a regular statute—the Export Administration Act. We have undertaken an extensive effort to assist emerging nations in the establishment of export control regimes and a fundamental first step in these efforts is to convince these nations to establish a legal framework for their

own export control system. This effort could be assisted by U.S. passage of its own export law.

Since the expiration of the Export Administration Act on September 30, 1990, (except for two short periods when the EAA was extended), the Export Administration Regulations have been continued in force by a series of executive orders under the authority of the International Emergency Economic Powers Act (IEEPA). The lack of an Export Administration Act hampers BXA in its compliance and enforcement efforts. Continuing the Export Administration Regulations under IEEPA limits the criminal fines for violations to an amount much less than the penalties of the last EAA, and less still than the enhanced penalties that any new EAA would surely contain. In some cases, an export control violator could view the risk and burden of penalty for a violation as low enough to be merely a "cost of doing business," to be balanced against the revenue received from an illegal transaction. There is also a significant difference in the standard for violations between the EAA and IEEPA.

> ***Recommendation 5.18:*** *Congress should enact and the President should sign a new Export Administration Act, reflecting the post-CoCom export control regime, and containing substantially greater penalties than now apply to export control violations.*

Post-shipment Verifications

An aggressive enforcement effort discourages would-be violators, and post-shipment verifications are an important tool for monitoring exports from the United States. Many export licenses are approved with conditions, such as limiting access to the goods, prohibiting resale or re-export, and prohibiting use in a proliferation end-use. As part of BXA's compliance efforts, post-shipment verifications are conducted to ensure that U.S. goods are received by the declared end-user and to ensure the goods are being used in accordance with any conditions that BXA imposed on the export. When foreign buyers know that Commerce personnel may visit to verify that the goods are being used in compliance with the conditions of the export, their incentives to ensure full compliance with U.S. export controls are enhanced.

The NDAA of 1998 mandated that BXA conduct postshipment verification of all high performance computers exported to Tier 3 destinations, numbering about 1000 in the first year. BXA has had to devote significant resources to conduct these on-site checks, devoting four of its international safeguards teams solely to verifications of high-performance computers. Commerce therefore has fewer resources to conduct similar checks for other technologies which may contribute more directly to the development of an indigenous WMD capability.

Recommendation 5.19: *The Bureau of Export Administration should expand its post-shipment verifications to encompass technologies of proliferation concern, and Congress should ensure that the Bureau has the resources and the discretion it needs to implement an effective and aggressive post-shipment verification program.*

Informing Congress

The Commission believes it is important that Congress have access to export licensing information. The Export Administration Act provided for such access by appropriate committees in Congress, along with confidentiality provisions in Section 12(c), and the Commerce Department should fully comply with any and all requests from Congress in accordance with that section. By keeping such information from Congress, the executive branch insulates itself from healthy engagement with Congress.

Recommendation 5.20: *Congress and the executive branch should develop a mechanism for ensuring that Congress has greater access to export licensing information.*

BXA should report this export licensing information annually to Congress to facilitate oversight of the administration's implementation of dual-use export controls.

Effective Enforcement of Export Controls

Commerce's Office of Export Enforcement (OEE) has about 100 agents in eight field offices nationwide whose sole responsibility is enforcing the Export Administration Regulations. The Export Administration Act authorized the law-enforcement powers of Commerce's special agents. However, since the EAA expired, OEE special agents must be deputized annually by the U.S. Marshal's Service in order to continue working to enforce U.S. export control laws.

OEE agents are closely linked to the export licensing process and review pending export license applications. The special agents can flag companies who produce targeted technologies, parties under investigation or parties they or the Intelligence Community (IC) have identified as front companies for would-be proliferators. In a number of cases, OEE has provided information to licensing officials that caused them to deny an export license and in other cases, licensing officials have alerted OEE to possible violations based on an export license application.

For a variety of reasons, however, there is not adequate sharing of information between enforcement agents and the Intelligence Community. Moreover, agents are limited in their ability to tap into information outside BXA on end-users. Because of BXA's visibility in the exporting community and the outreach efforts of the agents, many exporters call OEE first when they are concerned about an end-user. BXA officials can query only the Bureau's own database in response to these calls, and there is no way for them to query other US Government sources of information about end-users, classified and unclassified. It is essential that BXA be fully integrated into the information-sharing process in order to take swift action to prevent illegal export.

> ***Recommendation 5.21:*** *The National Director for Combating Proliferation should work with the Under Secretary of Commerce for Export Administration to improve information sharing between the Bureau of Export Administration and the Intelligence Community, and should develop mechanisms by which special agents in the field can request and receive end-user information from US Government sources.*

Specifically, BXA should be connected to the IC network in order to facilitate querying classified sources regarding end-users.

Training of Personnel

Export license application processing requires the assessment of the potential proliferation and strategic uses of an item, vetting the end-user through the Intelligence Community, and consulting with other agencies who review these applications, including the Departments of State, Defense, and Energy, and the Nonproliferation Center. The initial analysis of an export license application is done by BXA's licensing officers. These licensing officers need technical expertise in the technologies for which they review license applications. These officers are not the sole source of expertise, as some technical analysis is contributed from other agencies during the interagency review process.

> ***Recommendation 5.22:*** *The Bureau of Export Administration should take steps to increase the expertise of its licensing officers.*

The ideal solution would be to recruit specialists in the technologies of WMD. Where this is not possible, training of existing personnel should be a priority, and BXA should take advantage of the expertise among the various agencies, including the IC, to provide training for licensing personnel.

Other Agencies

The agencies discussed below have important contributions to make to the combating-proliferation effort. Each of these departments should designate a senior-level, Senate-confirmed official to act as the point of contact for the National Director for Combating Proliferation and to ensure adequate coordination of proliferation-related efforts within the department.

Department of the Treasury

The Department of the Treasury includes several offices and bureaus that deal with the proliferation of weapons of mass destruction, including the U.S. Customs Service, the Office of Foreign Assets Control, the U.S. Secret Service, and the Office of International Investment. Specific recommendations for some of these offices and bureaus, most of which fall under the purview of the Under Secretary (Enforcement), are given below.

United States Customs Service

The mission of the U.S. Customs Service is to ensure that all goods and persons entering and leaving the United States do so in accordance with U.S. laws and regulations. Customs inspectors administer the Service's interdiction program, and are empowered to conduct warrantless searches of any items entering or leaving the United States. Customs therefore plays a key role in ensuring that weapons of mass destruction (or WMD components) do not enter or leave the United States illegally.

> ***Recommendation 5.23:*** *The Customs Service should create an office dedicated to the detection and interdiction of weapons of mass destruction.*

Preventing the smuggling of weapons of mass destruction must be one of the Customs Service's top priorities. However, Customs is also charged with preventing the smuggling of other items, notably illegal drugs. Since interdiction of weapons of mass destruction is vital to the security of the United States, Customs must have inspectors and other employees who focus solely on that task.

The staff of this office should be specially trained in WMD detection and interdiction techniques, and responsible for ensuring that Customs inspectors at land, sea, and airports around the country are similarly trained. Congress and the Administration should ensure that it has the resources it needs to guard America's borders effectively against WMD smuggling.

In theory, all goods leaving or entering the customs jurisdiction of the United States could be inspected. In reality, the volume of U.S. foreign commerce makes this impractical. Successful interdiction is based on advance intelligence or on irregularities that raise the suspicions of a Customs inspector on the spot. Because intelligence is one of the Customs Service's most powerful interdiction tools, Customs and the Intelligence Community (IC) must ensure that Customs continues to receive as much useful intelligence as possible, consistent with the protection of sources and methods.

Customs also participates in several interagency programs that train foreign customs services to deal with the smuggling of WMD-related materials. Because it is vital to intercept such material as far from U.S. territory as possible, these international efforts are a critical part of U.S. interdiction efforts. Congress must ensure that they receive adequate funding.

Automated Export System

The Customs Service tracks items that leave the country in part by requiring exporters to report on their shipments. Under current law, however, a Shipper's Export Declaration (SED) does not have to be submitted to government officials until after the shipment has left the country. Because of this (and for other reasons), data from the SED are usually not used for enforcement purposes, but only to amass trade statistics. Customs has begun trying to encourage exporters to file their SEDs electronically using its Automated Export System (AES). Use of the AES is voluntary, however, and participation rates remain quite low.

> ***Recommendation 5.24:*** *Congress should require all exporters to file their Shipper's Export Declarations electronically via the Automated Export System. This requirement should be phased in over a period of several years, and in creating the mandate Congress should seek to address, to the extent possible, the concerns of the trade industry regarding the costs it will impose, particularly on small businesses.*

Economic Leverage

Although the Commission was prohibited in its charter legislation, as amended, from evaluating the adequacy or usefulness of sanctions laws, it is clear from our overall review that the United States is not making optimal use of its economic leverage in combating proliferation. Trade sanctions are only one of the economic tools at our disposal. Access to U.S. capital markets, access to U.S. technologies, financial assistance, and influence in international financial organizations are among the wide range of economic levers that

could be used as carrots or sticks as part of an overall strategy to combat proliferation. Given the increasing tendency to turn to economic sanctions rather than military action in response to proliferation activity, it is essential that we begin to treat this "economic warfare" with the same level of sophistication and planning we devote to military options. For example, just as good intelligence is essential to successful military action, so too is good intelligence on key points of leverage in the government of a proliferating country essential for tailoring economic tools to achieve maximum influence.

In addition, we should ensure that we have in place the legal mechanisms required to exercise this leverage. For example, the Commission is concerned that known proliferators may be raising funds in U.S. capital markets. The Cox Committee's recently released report found that "the [People's Republic of China] is using capital markets both as a source of central government funding for military and commercial development and as a means of cloaking U.S. technology acquisition efforts by its front companies with a patina of regularity and respectability."[16] Because there is currently no national security-based review of entities seeking to gain access to our capital markets, investors are unlikely to know that they may be assisting in the proliferation of weapons of mass destruction by providing funds to known proliferators. Aside from the moral implications, there are potential financial consequences of proliferation activity—such as the possible imposition of trade and financial sanctions—which could negatively impact investors.

> ***Recommendation 5.25:*** *The Secretary of the Treasury, in consultation with the National Director for Combating Proliferation, should lead an interagency review of current mechanisms for exercising financial or economic leverage to combat proliferation, and develop recommendations for improving our use of such leverage, including any legal changes that might be required. This review should focus on positive as well as negative incentives.*

As part of this assessment, the National Director should, in consultation with the appropriate agencies and experts from the private sector, assess options for denying proliferators access to U.S. capital markets. Options considered should include ways to enhance transparency, such as requiring more detailed reporting on the individuals or companies seeking access or disclosure of proliferation-related activity, as well as mechanisms to bar entry of such entities into the U.S. capital markets. Along with the possible costs and benefits of various options, this review should consider the potential effectiveness of unilateral actions and the impact of those options on the health and viability of the global capital market in general and U.S. capital markets in particular.

[16] Report of the Committee on U.S. National Security and Military/Commercial Concerns with the People's Republic of China, Volume 1, Chapter 1, page 57.

Committee on Foreign Investment in the United States

The Secretary of the Treasury chairs the interagency Committee on Foreign Investment in the United States (CFIUS). The Office of International Investment, under the Assistant Secretary for International Affairs, handles CFIUS-related matters on a day-to-day basis. By delegation from the President, CFIUS administers the Exon-Florio provision, which authorizes the President to bar foreign acquisition of an American firm if that acquisition "threatens to impair the national security" and if other laws cannot protect the national security. The law does not define "national security," but its language indicates that WMD proliferation could be considered within CFIUS's jurisdiction. However, the language could also be interpreted to mean that CFIUS, in deciding whether or not to bar an acquisition, should not consider either the potential for the transfer of dual-use material or the potential for the transfer of actual WMD by means other than direct sales. Such an interpretation might lead CFIUS to permit acquisitions or mergers that could damage U.S. national security.

> ***Recommendation 5.26:*** *The Committee on Foreign Investment in the United States should continue to take steps to prevent foreign individuals and groups that engage in or assist in the proliferation of weapons of mass destruction from acquiring U.S. firms. In doing so, CFIUS should view its mandate broadly, relying as appropriate on the expertise of interested agencies to aid CFIUS in considering both the potential for transfers of WMD by means other than direct sales, and the possible transfer of dual-use material.*

Department of Justice

Combating proliferation of weapons of mass destruction is essentially a national security issue, but one in which law-enforcement tools can be particularly useful for promoting deterrence, blocking certain proliferation activities, and organizing for response to their use. In its response to the Commission's baseline survey, the Department of Justice (DoJ) stated that it does not have a specific proliferation-related mission. The Commission believes, however, that the Attorney General's role as the nation's chief law-enforcement officer and principal law-enforcement advisor to the President puts the Department in a unique position to help ensure that appropriate enforcement efforts are targeted against this threat.

Legal Authorities for Combating Catastrophic Terrorism

Protecting citizens in a democracy necessarily involves striking an often difficult balance between the risks to public safety presented by the threat and the risks to constitutional liberties posed by the means of protection. In the context of terrorist use of nuclear, chemical, or biological weapons (sometimes referred to as "catastrophic" terrorism), analyses of this balance and its implications do not appear to have been either carefully or thoroughly made. Certain logistics of domestic response have been discussed, but there has been no sustained public debate on the nature of the catastrophic terrorism threat and the measures that, as a nation, we are willing to accept to prevent or respond to it.

In the case of either a known imminent threat or an actual use of weapons of mass destruction, whether overseas or at home, enormous pressures would be brought on both the President and Congress to move quickly and decisively. Thorough analyses of (1) the public safety needs and (2) the legal options available for meeting those needs, should be undertaken now, not in the wake of a credible threat or devastating deployment. Consultations with Congress on executive branch planning should also take place now.

> ***Recommendation 5.27:*** *The National Director should work with the Attorney General to determine the legal authorities needed to deal with the threats from catastrophic terrorism.*

This should include a thorough assessment of the appropriate balance, in light of the present threat environment, between investigative tools and authorities and concerns for civil liberties. It should also determine whether we have the authorities needed to respond to a heightened threat environment, such as receipt of a credible threat of a terrorist use of a biological weapon or an actual attack. Such a situation could generate increased public support for greater federal authorities, but it also carries the risk of overreaction. It is important to consider carefully, in advance, what measures might be justified in such a

context. The results of this assessment should be provided to the National Director and discussed with Congress.

Impact on National Security

The Department of Justice oversees prosecutions of criminal violations of laws against use of, or trafficking in, weapons of mass destruction. Justice's Office of Intelligence Policy and Review plays an important role in the review and approval of surveillance applications under the Foreign Intelligence Surveillance Act. In such reviews, the Department may pick up information that can affect either overall national security or particular elements of national security policy.

> ***Recommendation 5.28:*** *In conjunction with the National Director, the Department of Justice should assess the national security implications of information developed in its investigations, and identify appropriate ways to communicate these to executive branch agencies while preserving the integrity of its investigations.*

Law Enforcement and Intelligence

The potential catastrophic consequences of an attack involving chemical, biological, or nuclear weapons require concerted action to detect the actions of those, whether states or sub-state actors, who seek to attain such weapons and those who already possess them and who have the means and motive to use them. These potential sources of attack, of course, need to be identified and continually monitored by the Intelligence Community (IC), including the FBI. In case of a successful terrorist attack with such weapons in the United States, the emphasis would shift to law enforcement –catching those guilty and bringing them to justice.

However, in combating proliferation the line between intelligence and law enforcement is not always clear. Though they operate under different authorities, the two communities can no longer make clear distinctions on such criteria as "foreign versus domestic" or "criminal activity versus national security threat." Over the years, Congress has enacted laws establishing extraterritorial jurisdictions and criminalizing activity with national security implications, such as nuclear smuggling. This blurring of jurisdictions increases the need for effective coordination.

Working together, the national security and law enforcement communities present those who seek to acquire or deploy weapons of mass destruction with a tough opponent. Much progress has been made toward ensuring coordination and cooperation between these two communities, but more needs to be done. There needs to be a recognition that both

sides bring discrete skills and abilities to the table and each can work within the existing legal framework to improve coordination and information sharing regarding the significant threat of the proliferation of weapons of mass destruction.

Toward this end, the Department of Justice and the CIA established the Joint Intelligence Community-Law Enforcement Task Force (JICLE), which recommended procedures and policies for appropriate coordination between the two entities. This task force identified a lack of coordination regarding the use of intelligence crime reports or tips and leads provided to law enforcement by the Intelligence Community. There are concerns within the law enforcement community that the IC is not forthcoming with information it can share without risk to sources and methods. In addition, there are continuing problems, both cultural and legal, with sharing of law enforcement information with the Intelligence Community. While some of these problems transcend proliferation, the potential harm from proliferation and, worse, use of weapons of mass destruction is so great that solutions must be identified, implemented and maintained.

> ***Recommendation 5.29:*** *The National Director should coordinate efforts to improve the relationship of the Intelligence Community and law enforcement in their respective efforts to detect, disrupt, prevent, and prosecute those who seek to acquire or use weapons of mass destruction.*

First, the national security agencies and domestic law enforcement agencies should be brought together in a dialog to identify all resources within the intelligence and law-enforcement communities that can be brought to bear on the detection and prevention of the acquisition or use of weapons of mass destruction. Next, guidelines should be established identifying what information, intelligence and investigative, can be shared and under what circumstances, rather than only specifying what cannot be shared. Also, processes should be put in place for the appropriate exchange of information from the operational units of each community and for monitoring the effectiveness of such sharing. Lastly, a joint Intelligence Community/law enforcement report should be submitted to the Attorney General and to the Director of Central Intelligence, outlining steps taken to establish information sharing procedures, and detailing examples of such sharing as it relates to combating proliferation.

The Department of Justice is the initial law enforcement and prosecutorial contact point with the IC, and thus should be an important part of the assessment process. DoJ should establish specific procedures by which the sharing of information between the IC and law enforcement can be monitored, and should regularly communicate with the IC regarding the results of the information sharing.

DoJ should actively encourage such sharing by providing advice to the law enforcement community as to when and what information can and should be shared with the IC, e.g.,

when grand jury secrecy no longer applies. There has been improvement in prosecutorial understanding of ways to minimize the threat to intelligence sources and methods. However, it may be more effective to begin such efforts earlier in the investigative process, and additional efforts should be made to encourage interaction with respect to all law enforcement agencies that have jurisdiction of offenses involving the acquisition or use of weapons of mass destruction.

Coordinating Law enforcement Community Efforts

The Attorney General must also ensure that all law enforcement elements that have a role in combating proliferation have the legal authorities they need to fulfill their mission, and that they are coordinating their efforts within the law enforcement community. There currently exists a number of laws prohibiting proliferation activities. Some prohibit international trafficking in the weapons themselves; others prohibit the acquisition of technologies directly related to production capability or destined for proliferation end-users. Still other laws criminalize the use of these weapons within the United States or against U.S. interests abroad. There are agency overlaps in enforcement authorities and, in some cases, there is concurrent jurisdiction by two or more agencies. Some enforcement authorities are unique, e.g., the border search authority granted only to the U.S. Customs Service. Some agencies bring specific expertise to enforcement, such as the Department of Commerce's Office of Export Enforcement. On the other hand, the Federal Bureau of Investigation brings its store of resources, including larger reservoirs of personnel and technical abilities. While the law enforcement agencies usually work together, overlaps in jurisdiction can result in investigations proceeding down separate tracks, risking a collision of interests along the way. Proper coordination and direction from DoJ could minimize such collisions and ensure that our best combined efforts are being put forth to combat proliferation of WMD.

Federal Bureau of Investigation

The FBI's role in countering espionage by foreign powers now includes responding to efforts directed by or sponsored by nations, sub-national groups, or terrorists to acquire chemical, biological, or nuclear weapons capability, or to deploy these weapons against U.S. interests at home and abroad. In addition, in recent years the FBI's authority to investigate and prosecute violations of law prohibiting the use of weapons of mass destruction has been expanded by several statutes:

- Title 18 USC §831, which makes possession of and trafficking in nuclear materials a crime;
- Title 18 USC §175 et seq., which prohibits the development, possession, or trafficking of biological toxins for use as a weapon; and
- Title 18 USC §2332 et seq., which prohibits the threat or actual use of weapons of mass destruction against U.S. persons and property.

In enacting these laws, Congress granted significant extraterritorial jurisdiction to the FBI when such attacks are perpetrated against U.S. citizens and property located overseas or, in some cases, when committed by U.S. citizens anywhere in the world. This expansion is a new direction for the FBI. Integrating these responsibilities with the work of the Intelligence Community and with diplomatic or military efforts in the aftermath of an event overseas can be problematic. Protecting a crime scene so that it can be processed by investigators is essential to a successful prosecution, but doing so in a foreign country can be difficult. Diplomatic or military relationships with a host government may be more fruitful in gaining their cooperation. The investigative methods traditionally used by law enforcement to preserve prospects for a prosecution may be slower to uncover information about the perpetrators or possible future attacks than intelligence sources and methods in a foreign country. These factors should be considered and decisions should attempt to maximize our options for response.

Organization of the FBI to Combat Proliferation

The FBI fulfills its role in combating proliferation through its authorities under the Foreign Intelligence Surveillance Act and the enforcement of criminal violations of weapons trafficking laws and counter-terrorism laws. The FBI must be prepared to respond appropriately when foreign powers target US Government facilities or personnel to acquire weapons of mass destruction or related technologies. Recent revelations of the activities of foreign nationals working in or visiting the national laboratories underscore the importance of counterintelligence activities—as led by the FBI—in combating proliferation.

The FBI's National Security Division has added proliferation to its National Security Threat List and in January 1999 established a unit to address the acquisition of U.S. technology for the development of weapons of mass destruction by foreign countries. The FBI has contracted with the Department of Energy to utilize the expertise of the national laboratories to identify technologies and industry sectors which might be targets for states and sub-state actors bent on acquiring weapons of mass destruction and/or related production capability. In conjunction with the laboratories, the FBI has worked to develop an initial assessment of the scope and breadth of proliferation activities and is working with other agencies in an effort to thwart the acquisition of WMD-related materials, equipment, information, or technology from the United States.

Several attempts to acquire actual chemical, biological, or nuclear devices by foreign countries have been identified. However, the predominant number of cases involves acquisition of U.S. dual-use technology designed to give a nation the infrastructure for an indigenous weapons program. The FBI works closely with the Intelligence Community (IC) and utilizes the expertise of agents from the Department of Commerce and the U.S. Customs Service in these cases.

The Criminal Division is responsible for pursuing the investigation and prosecution of those who violate U.S. laws relating to the trafficking in and/or use of weapons of mass destruction against U.S. persons. The Criminal Division is supported by the Counterterrorism Center (CTC) within the National Security Division at FBI headquarters. The CTC brings together representatives of twenty different law-enforcement and IC agencies, and provides intelligence and threat analysis information about the threat of use of weapons of mass destruction by terrorist groups to the appropriate law-enforcement units.

These various FBI units report up distinct chains of command, and they do not all come together until well up the chain. This is especially true of investigations and intelligence units within the FBI. While the legal authorities and constitutional requirements are different for each, this separation within the FBI leads to stovepiping of information and inefficient information sharing regarding WMD activities of foreign entities in the United States.

> ***Recommendation 5.30:*** *The FBI should designate a single program manager to coordinate the efforts of all units within the FBI with responsibility for combating the proliferation of weapons of mass destruction. This manager should be close enough to the actual operation to identify priorities, coordinate activities, and ensure information sharing.*

Personnel Requirements of the FBI

The FBI has proposed the establishment of the National Domestic Preparedness Office to assist state and local emergency response agencies by providing coordination with federal efforts. This office will provide training for a broad base of state and local agencies and will be supported by a network of coordinators located in FBI field offices around the country. The FBI's new Strategic Information and Operations Center allows coordination of multiple incidents and enhances communications capabilities between FBI headquarters and field operations. The FBI has undertaken an ambitious initiative to ensure that the consequences of a WMD attack are managed in a coordinated effort involving all levels of law enforcement and public safety officials. The Commission, consistent with restrictions contained in its charter legislation, did not address the effectiveness of these efforts.

The Commission did consider, however, whether the FBI agent force is adequately prepared to prevent the illegal acquisition or use of WMD in the United States. We found that the FBI lacks the technical expertise among its agents and analysts to meet this challenge. FBI agents do not have adequate training in how to conduct an investigation where such weapons may be present.

The FBI has increased the number of agents to meet new missions, but many have little experience or technical expertise to deal with proliferation-related threats. Likewise, the Bureau's intelligence analysts are not well-prepared in this area. Field offices depend on quality analysis in pursuing their detection and prevention efforts against those who would acquire weapons of mass destruction. More analysts with appropriate skills are required to support these efforts.

While the FBI has historically focused on the investigation and prosecution of violations of law, its responsibilities in detecting and preventing the use of weapons of mass destruction within the United States require a more proactive approach. In the FBI's foreign counterintelligence division, human source reporting on non-traditional threats has not kept pace with the demands of the new threat environment and in some areas has even declined. Human source reporting is essential to discovering acquisition methods and networks before an incident involving weapons of mass destruction occurs. Experts in the technologies of emerging threats, as well as regional specialists, are required to detect and prevent the acquisition and/or use of weapons of mass destruction. The activities within the United States of those working on behalf of foreign powers or foreign terrorist groups must be monitored by the FBI, and the FBI's foreign language capability should reflect those countries and foreign groups in order to make the best use of human sources. The

Commission notes that the FBI has identified areas for improvement in its Strategic Plan, and supports the FBI's initiatives to address the threat of proliferation.

> ***Recommendation 5.31:*** *The FBI should initiate training programs to raise the level of technical expertise of its agents and analysts in detecting, countering, and investigating proliferation and uses of weapons of mass destruction.*

Based on analysis of the foreign threat in the United States, the FBI should act to improve the quality of analysis and human source reporting through personnel training and the recruitment of new personnel with technical and language expertise required by emerging threats. New expertise should encompass both the geopolitical and technological needs required to combat foreign proliferation within the U.S. effectively. FBI agents should be trained and prepared to respond to crime scenes that may involve the use of chemical, biological, or nuclear devices.

Information Management

As noted above, effective information sharing between the IC and the law-enforcement community is important to countering the WMD threat. Even within the FBI, however, much intelligence and investigative information exists only on paper, and is often contained only in local files. Thus the information may not be distributed, searched, or retrieved electronically for cross-office or cross-mission use. This system causes significant delay in distribution to the appropriate units, and does not ensure that all units receive information pertaining to their mission. It is vital to detect a threat ***before*** it becomes a terrible reality. Timely dissemination of information to all appropriate units is essential to a coordinated effort to meet the threat. In addition, many attempts to acquire weapons of mass destruction span the globe. A system in which information is maintained largely in written form and retained primarily on a local basis is not adequate to meet this challenge.

> ***Recommendation 5.32:*** *The FBI should develop and implement an automated information management system that allows for electronic distribution, search, and retrieval of intelligence and investigative information, as well as tracking intelligence information received by its own National Security Division and other parts of the Intelligence Community.*

Such a system will enhance the FBI's ability to detect proliferation-related activities as well as allow the Bureau to provide such information to others promptly so action can be taken to detect and prevent such activities. The system could also be used to track the sharing

of intelligence and investigative information in support of the joint reporting of such activities to the Attorney General and the Director of Central Intelligence.

Coordination with Intelligence Agencies

The FBI is not well connected to the IC network. Inability to participate in electronic information-sharing among the other IC agencies has put the FBI at a disadvantage because they have to rely on personal contact and relationships to receive information. The FBI perceives that other intelligence organizations do not fully understand or recognize the Bureau's role in combating proliferation. The Intelligence Community in turn feels the information it provides to law enforcement disappears into a "black hole." The exchange of senior people between the FBI and the CIA has begun to foster a better and more effective relationship, but there is still much room for improvement.

> ***Recommendation 5.33:*** *The FBI should continue to improve the coordination with the Intelligence Community and establish mechanisms to resolve problems created by overlapping jurisdiction and conflicting interests.*

Improved coordination will facilitate management of the competing interests of intelligence and law enforcement, particularly in the event of an attack involving weapons of mass destruction. In addition, participating fully in an automated environment with the Intelligence Community would provide a comprehensive assessment and analysis of all proliferation activities known to the United States.

Departments of Health and Human Services and Agriculture

In 1993, the Office of Technology Assessment reported that a single airplane delivering 100 kilograms of anthrax spores by aerosol on a clear, calm night over the Washington, D.C., area could kill between one million and three million people.[17] Two key players in our efforts to meet the challenges presented by the threat of biological weapons are the Department of Health and Human Services (HHS) and the Department of Agriculture. These departments' proliferation-related resources mainly involve response to an attack against the U.S. civilian population or economy, a subject beyond the scope of the Commission's charter.[18] However, these departments perform substantial work that does bear directly on WMD issues relevant to the Commission's inquiry. Furthermore, actions taken by these departments (such as efforts to establish better communications with the traditional national security community) underscore the significance of their WMD-related work to the Commission's charter.

Department of Health and Human Services

HHS's unique resources include the National Institutes of Health (NIH), the Centers for Disease Control and Prevention (CDC), the Public Health Service, and the Food and Drug Administration (FDA). HHS's fiscal year 1999 budget for bioterrorism preparedness is $158 million, with a proposed increase in the President's fiscal 2000 budget to $230 million. HHS organizes its bioterrorism efforts into five areas:

- Disease surveillance and public health network
- Medical consequence management
- National pharmaceutical stockpile
- Research and development (R&D)
- Deterrence

[17] Richard K. Betts. "The New Threat of Mass Destruction." *Foreign Affairs*, Vol. 77, No. 77, January/February 1998, page 26.

[18] Because Congress prohibited the Commission from studying domestic response capabilities, such issues as developing a national communications network, upgrading medical and emergency response capabilities, conducting threat/risk/benefit assessments for stockpiling vaccines and medicines, development of interim measures until such stockpiles are in place, and steps necessary to mitigate "culture clash" between the various cooperating agencies were not studied. These issues need to be addressed in order to develop an overall coherent, complete strategy for combating proliferation.

Of these areas, research and development is of most interest to the Commission. NIH's basic research on infectious diseases, immunology, and microbiology is being expanded to address the biological weapons (BW) and chemical weapons (CW) threat. This expansion is useful to military efforts to combat WMD. HHS has asked the Institute of Medicine (IOM), in collaboration with the Commission on Life Sciences, to review existing research, development, and technology on detecting chemical and biological agents as well as on protecting and treating casualties and health care providers. Based on the results of this review, IOM recommended and prioritized research and development needed to address shortfalls in addressing the BW and CW threats.[19] In addition, NIH is placing major emphasis on generating genetic information about potential bioterrorism agents, especially organisms that cause anthrax, tularemia, and plague—each a threat to U.S. military forces abroad. Also, both the Department of Defense (DoD) and HHS are working on the anthrax and smallpox vaccination problems. Recognizing the military significance of much of its research and development, NIH has collaborated with the U.S. Army Medical Research Institute of Infectious Diseases (USAMRIID),[20] other DoD elements, and the Department of Energy.

HHS regulates shipments of certain hazardous biological organisms and toxins. Since 1997, the CDC has regulated transfer of particular biological agents, established a registry of laboratories handling such materials, and ensured compliance with requirements governing shipment of these materials.[21] Finally, HHS is involved in efforts by the State and Defense Departments to convert biological warfare facilities in the former Soviet Union (FSU) to legitimate pharmaceutical factories.

HHS has significant resources available to combat the proliferation of WMD abroad. A sample list of funding for specific HHS activities includes:

- Smallpox and anthrax vaccination R&D ($30 million in fiscal year 2000).
- Vaccines, antibiotic/antiviral basic research ($22.1 million in fiscal year 2000).
- An FDA-expedited review that can help speed procurement of vaccines and other treatments for military personnel ($12.4 million in fiscal year 2000).
- A public health service information technology network that can be useful to the military's battlefield situation awareness capability ($40 million in fiscal year 2000).

[19] "Chemical and Biological Terrorism, Research and Development to Improve Civilian Medical Response," Committee on R&D Needs for Improving Civilian Medical Response to Chemical and Biological Terrorism Incidents, Health Science Policy Program, Institute of Medicine and Board on Environmental Studies and Toxicology, Commission on Life Sciences, National Research Council, National Academy Press, Washington, D.C. 1999, pre-publication copy, available at http://www.nap.edu

[20] USAMRIID is roughly the military counterpart to the CDC and the NIH.

[21] 42 C.F.R. 72.6

Department of Agriculture

The Department of Agriculture's (USDA) involvement in combating biological terrorism was spurred by the discovery of the extent of investment by the former Soviet Union in creating anti-plant and anti-animal agents designed to destroy U.S. crops and livestock. According to Ken Alibek, former first deputy chief of research and production for the Soviet BW program, the Russian offensive biological research complex had employed some 10,000 of its 30,000 scientists and technicians on agriculturally related issues. Consequently, USDA's traditional mission of protecting U.S. livestock and crops against diseases and its extensive research and development facilities have been broadened to include national security matters. The Agricultural Research Service (ARS), Animal and Plant Health Inspection Service (APHIS), the Food Safety and Inspection Service (FSIS), and Office of Inspector General (OIG) have important capabilities. USDA's budget for bioterrorism related initiatives was $11 million in fiscal year 1999; the President's budget for fiscal year 2000 requests $10.6 million. However, a significant increase in funding in fiscal year 2000 is being considered.[22]

USDA has established contacts with the Intelligence Community and is providing working-level technical support to the Defense Intelligence Agency in analyzing data from international sources on crop disease projects. USDA has state-of-the-art genomics and molecular biology capabilities. It plans to recruit staff with expertise and backgrounds in biological warfare issues.

Like HHS, USDA is actively involved in efforts to convert BW facilities in the former Soviet Union to legitimate uses. USDA's most important contribution against WMD proliferation will be in aiding the development of a robust veterinary science and pharmaceutical industry in Russia.

Specific initiatives being considered include:

- Law Enforcement and Investigative Activities ($45 million in fiscal 2000 – in APHIS, FSIS, and OIG for operational purposes that include safeguarding research on, collection of, and information on dangerous biological materials; strengthened BW interception capacity at foreign locations and U.S. ports of entry; and specialized staff training, facilities, and equipment.)

- Antiterrorism R&D ($186.5 million in fiscal 2000—in ARS to develop critical technologies and avoid technological surprise).

[22] "U.S. Agriculture: The Threat of Terrorism, Biological Weapons And Weapons of Mass Destruction," Committee on Emerging Threat Diseases, October 23, 1998.

Issues

Control of biological materials and biotechnology that are weaponized is emerging as an important issue. The National Academy of Sciences believes that it will be impossible to control dissemination of these materials and biotechnology without cooperation and transparency at all facilities, medical and otherwise, involved in biological defense, counter-proliferation, emergency response, and medical treatment, to include emerging infectious diseases. Issues such as accountability, security, and disclosure of relevant activities, together with a system of transparency in which the private sector is fully involved, must be addressed. A key sub-set is restrictions on research in areas in which development should never be pursued by choice because of inherent virulence and contagion dangers coupled with high-risk containment factors. Some of the same considerations apply if the Biological Weapons Convention is strengthened to include on-site inspection of private sector facilities. Appropriate controls, safeguards, and conduct of inspections that avoid compromising intellectual property must be devised. The roles of HHS and USDA in initiating private sector involvement, including that of the medical community, in addressing this issue need to be identified.

USDA and HHS must also work to increase their understanding of the national security environment and to enhance their ability to operate within that environment. This includes the proper handling of classified information. The Secretaries of HHS and Agriculture should review their security procedures with the Director of Central Intelligence.

To meet the demanding schedules imposed by the severity of the threat, steps must be taken to mitigate what could be a severe culture clash among the national security, law enforcement, public health, and other communities all working toward common objectives, in some respects closely, and maybe for the first time. For example, up until now the medical community has not engaged with the national security community other than in the battlefield mission area. The need for trained personnel with relevant experience and the appropriate clearances must be addressed. Links between the CDC, APHIS, and FSIS and the Intelligence Community must be established to ensure the earliest possible detection of a BW or CW threat event both on the domestic and international scenes.

Since analyzing small outbreaks is important, although difficult, personnel conducting surveillance and response processes must become more attuned to these threats. We need to think creatively about mechanisms that would develop a better understanding of the threat and build trust in government activities dealing with the threat. Courses in graduate school, conferences, outreach programs such as USAMRIID's training of medical personnel by teleconference, and articles like the recent *Journal of the American Medical Association* on BW[23] are recommended.

[23] *Journal of the American Medical Association*, Vol. 278, No. 5, August 6, 1997.

As discussed in Chapter 3, collaborative research with the private sector should be encouraged, particularly in the area of vaccine development and possibly protection against viruses. Challenges in doing this include protection of intellectual property, indemnification, and the public relations aspects of being involved in defense related work. New legislation may be required on procedures for approving new means of medical protection and treatment to reduce industry risks, with the caveat that careful oversight is in place and reasonable steps are taken.

Strong interagency coordination mechanisms to better integrate research and development activities of HHS and USDA with other major technology producers, such as the Departments of Defense and Energy, particularly in the areas of developing and fielding biosensors, need to be established. In Chapter 3, the Commission recommended the creation of a government-wide technology acquisition plan. Both HHS and USDA must participate in the development of this plan.

Finally, owing to significant technical challenges, management must create a work environment that sustains enthusiasm for finding solutions regardless how long it takes.

Recommendation 5.34: *The National Director should ensure that the HHS budget includes resources for the Director of the National Institutes of Health to establish a comprehensive program in vaccine development and other means of protection and treatment that makes use of the huge private sector store of knowledge and technology.*

Recommendation 5.35: *USDA and HHS should continue to work closely with USAMRIID and others in the national security community to ensure that their cooperative efforts with the former Soviet Union do not inadvertently enhance or sustain any offensive biological or chemical weapons capability.*

Appendix A: Commission History and Charter Legislation

Commission History

The legislation that created the Commission was the Intelligence Authorization Act for fiscal year 1997 (P.L. 104-293), which was enacted in October 1996. It called for the appointment of eight commissioners, four to be selected by the President and one each by Speaker of the House, the House minority leader, the Senate majority leader, and the Senate minority leader. The Commission was charged with issuing a final report within eighteen months of the legislation's enactment.

The eight appointments were not made until December 1997, however, and the Commission did not begin its work until January 1998. The Commission sought to amend P.L. 104-283 to reflect its delayed start, and to extend the report's due date to 18 months from the initial January 1998 meeting. This amendment passed the Senate unanimously but failed to reach the floor of the House before the earlier deadline for the life of the Commission had passed. The Commission ceased operation in June 1998.

The Commission's deadline was subsequently extended to July 18, 1999, by the Omnibus Consolidated and Emergency Supplemental Appropriations Act for fiscal year 1999 (P.L. 105-277), and in November 1998 the Commission re-convened. This legislation expanded the number of commissioners to twelve, with two new appointees each from the Speaker of the House of Representatives and the Senate Majority Leader. It also imposed new prohibitions on the Commission's ability to review, evaluate, or report on both U.S. domestic response capabilities for WMD-related contingencies and the adequacy or usefulness of U.S. laws that provide for the imposition of sanctions on countries that engage in WMD proliferation.

Charter Legislation

P.L. 104-293 (FY 1997 Intelligence Authorization Act)

TITLE VII—COMBATTING PROLIFERATION

SEC. 701. SHORT TITLE.

This title may be cited as the "Combatting Proliferation of Weapons of Mass Destruction Act of 1996".

Subtitle A—Assessment of Organization and Structure of Government for Combatting Proliferation

SEC. 711. ESTABLISHMENT OF COMMISSION.

(a) Establishment.—There is established a commission to be known as the Commission to Assess the Organization of the Federal Government to Combat the Proliferation of Weapons of Mass Destruction (in this subtitle referred to as the “Commission”).

(b) Membership.—The Commission shall be composed of eight members of whom—

(1) four shall be appointed by the President;

(2) one shall be appointed by the Majority Leader of the Senate;

(3) one shall be appointed by the Minority Leader of the Senate;

(4) one shall be appointed by the Speaker of the House of Representatives; and

(5) one shall be appointed by the Minority Leader of the House of Representatives.

(c) Qualifications of Members.—

(1) To the maximum extent practicable, the individuals appointed as members of the Commission shall be individuals who are nationally recognized for expertise regarding—

(A) the nonproliferation of weapons of mass destruction;

(B) the efficient and effective implementation of United States nonproliferation policy; or

(C) the implementation, funding, or oversight of the national security policies of the United States.

(2) An official who appoints members of the Commission may not appoint an individual as a member if, in the judgment of the official, the individual possesses any personal or financial interest in the discharge of any of the duties of the Commission.

(d) Period of Appointment; Vacancies.—Members shall be appointed for the life of the Commission. Any vacancy in the Commission shall not affect its powers, but shall be filled in the same manner as the original appointment.

(e) Initial Meeting.—Not later than 30 days after the date on which all members of the Commission have been appointed, the Commission shall hold its first meeting.

(f) Quorum.—A majority of the members of the Commission shall constitute a quorum, but a lesser number of members may hold hearings.

(g) Chairman and Vice Chairman.—The Commission shall select a Chairman and Vice Chairman from among its members.

(h) Meetings.—The Commission shall meet at the call of the Chairman.

SEC. 712. DUTIES OF COMMISSION.

(a) Study.—

(1) In general.—The Commission shall carry out a thorough study of the organization of the Federal Government, including the elements of the intelligence community, with respect to combatting the proliferation of weapons of mass destruction.

(2) Specific requirements.—In carrying out the study, the Commission shall—

(A) assess the current structure and organization of the departments and agencies of the Federal Government having responsibilities for combatting the proliferation of weapons of mass destruction; and

(B) assess the effectiveness of United States cooperation with foreign governments with respect to nonproliferation activities, including cooperation—

(i) between elements of the intelligence community and elements of the intelligence-gathering services of foreign governments;

(ii) between other departments and agencies of the Federal Government and the counterparts to such departments and agencies in foreign governments; and

(iii) between the Federal Government and international organizations.

(3) Assessments.—In making the assessments under paragraph (2), the Commission should address—

(A) the organization of the export control activities (including licensing and enforcement activities) of the Federal Government relating to the proliferation of weapons of mass destruction;

(B) arrangements for coordinating the funding of United States nonproliferation activities;

(C) existing arrangements governing the flow of information among departments and agencies of the Federal Government responsible for nonproliferation activities;

(D) the effectiveness of the organization and function of interagency groups in ensuring implementation of United States treaty obligations, laws, and policies with respect to nonproliferation;

(E) the administration of sanctions for purposes of nonproliferation, including the measures taken by departments and agencies of the Federal Government to implement, assess, and enhance the effectiveness of such sanctions;

(F) the organization, management, and oversight of United States counterproliferation activities;

(G) the recruitment, training, morale, expertise, retention, and advancement of Federal Government personnel responsible for the nonproliferation functions of the Federal Government, including any problems in such activities;

(H) the role in United States nonproliferation activities of the National Security Council, the Office of Management and Budget, the Office of Science and Technology Policy, and other offices in the Executive Office of the President having responsibilities for such activities;

(I) the organization of the activities of the Federal Government to verify government-to-government assurances and commitments with respect to nonproliferation, including assurances regarding the future use of commodities exported from the United States; and

(J) the costs and benefits to the United States of increased centralization and of decreased centralization in the administration of the nonproliferation activities of the Federal Government.

(b) Recommendations.—In conducting the study, the Commission shall develop recommendations on means of improving the effectiveness of the organization of the departments and agencies of the Federal Government in meeting the national security interests of the United States with respect to the proliferation of weapons of mass destruction. Such recommendations shall include specific recommendations to eliminate duplications of effort, and other inefficiencies, in and among such departments and agencies.

(c) Report.—

(1) Not later than 18 months after the date of the enactment of this Act, the Commission shall submit to Congress a report containing a detailed statement of the findings and conclusions of the Commission, together with its recommendations for such legislation and administrative actions as it considers appropriate.

(2) The report shall be submitted in unclassified form, but may include a classified annex.

SEC. 713. POWERS OF COMMISSION.

(a) Hearings.—The Commission may hold such hearings, sit and act at such times and places, take such testimony, and receive such evidence as the Commission considers advisable to carry out the purposes of this subtitle.

(b) Information from Federal Agencies.—

(1) In general.—The Commission may secure directly from any Federal department or agency such information as the Commission considers necessary to carry out the provisions of this subtitle. Upon request of the Chairman of the Commission, the head of such department or agency shall furnish such information to the Commission.

(2) Classified information.—A department or agency may furnish the Commission classified information under this subsection. The Commission shall take appropriate actions to safeguard classified information furnished to the Commission under this paragraph.

(c) Postal Services.—The Commission may use the United States mails in the same manner and under the same conditions as other departments and agencies of the Federal Government.

(d) Gifts.—The Commission may accept, use, and dispose of gifts or donations of services or property.

SEC. 714. COMMISSION PERSONNEL MATTERS.

(a) Compensation of Members.—Each member of the Commission who is not an officer or employee of the Federal Government shall be compensated at a rate equal to the daily equivalent of the annual rate of basic pay prescribed for level IV of the Executive Schedule under section 5315 of title 5, United States Code, for each day (including travel time) during which such member is engaged in the performance of the duties of the Commission. All members of the Commission who are officers or employees of the United States shall

serve without compensation in addition to that received for their services as officers or employees of the United States.

(b) Travel Expenses.—The members of the Commission shall be allowed travel expenses, including per diem in lieu of subsistence, at rates authorized for employees of agencies under subchapter I of chapter 57 of title 5, United States Code, while away from their homes or regular places of business in the performance of services for the Commission.

(c) Staff.—

(1) In general.—The Chairman of the Commission may, without regard to the civil service laws and regulations, appoint and terminate an executive director and such other additional personnel as may be necessary to enable the Commission to perform its duties. The employment of an executive director shall be subject to confirmation by the Commission.

(2) Compensation.—The Chairman of the Commission may fix the compensation of the executive director and other personnel without regard to the provisions of chapter 51 and subchapter III of chapter 53 of title 5, United States Code, relating to classification of positions and General Schedule pay rates, except that the rate of pay for the executive director and other personnel may not exceed the rate payable for level V of the Executive Schedule under section 5316 of such title.

(d) Detail of Government Employees.—Any Federal Government employee may be detailed to the Commission without reimbursement, and such detail shall be without interruption or loss of civil service status or privilege.

(e) Procurement of Temporary and Intermittent Services.—The Chairman of the Commission may procure temporary and intermittent services under section 3109(b) of title 5, United States Code, at rates for individuals which do not exceed the daily equivalent of the annual rate of basic pay prescribed for level V of the Executive Schedule under section 5316 of such title.

SEC. 715. TERMINATION OF COMMISSION.

The Commission shall terminate 60 days after the date on which the Commission submits its report under section 712(c).

SEC. 716. DEFINITION.

For purposes of this subtitle, the term “intelligence community” shall have the meaning given such term in section 3(4) of the National Security Act of 1947 (50 U.S.C. 401a(4)).

SEC. 717. PAYMENT OF COMMISSION EXPENSES.

The compensation, travel expenses, per diem allowances of members and employees of the Commission, and other expenses of the Commission shall be paid out of funds available to the Director of Central Intelligence for the payment of compensation, travel allowances, and per diem allowances, respectively, of employees of the Central Intelligence Agency.

Excerpt from Senate Report Accompanying Charter Legislation[24]

In the view of the Committee, the US Government at present is not well organized to meet the threat to U.S. national security posed by the worldwide proliferation of chemical, biological or nuclear weapons or devices, and their delivery systems. More than 80 departments, agencies and other organizations, including the Departments of Defense, State, Commerce, Energy, Health and Human Services and Justice, as well as the National Security Council and the intelligence community, have responsibilities for combating proliferation. Yet no one individual or organization is responsible for coordinating the political, military, diplomatic, economic and intelligence resources that are required to prevent or roll back proliferation.

Moreover, the Committee believes that there is unnecessary duplication of effort and other inefficiencies among the departments and agencies that have responsibilities in this area, and that streamlining is required.

Organizational inefficiencies and a lack of central focus and direction have made U.S. efforts to combat proliferation ad hoc, reactive and less effective than they could be. Given the extraordinary challenge to U.S. national security posed by the proliferation of weapons of mass destruction (and the means to deliver them), and the current lack of focus within the Federal Government, the Committee believes that a thorough assessment and review of the institutional architecture of the Federal Government is required.

The Committee's authorization bill includes legislation to create a commission to perform such an assessment, and to report to Congress on specific administrative, legislative and other changes it believes are required to improve U.S. performance.

"Re-authorizing" Legislation

P.L. 105-277 (FY 1999 Omnibus Appropriations bill)

SEC. 708.

[24] Report 104-258 to accompany S.1718, Authorizing Appropriations for Fiscal Year 1997 for the Intelligence Activities of the United States Government and The Central Intelligence Agency Retirement and Disability System and for other purposes.

(a) Extension of Deadline for Submission of Report by Commission To Assess the Organization of the Federal Government To Combat the Proliferation of Weapons of Mass Destruction.—Section 712(c)(1) of the Combating Proliferation of Weapons of Mass Destruction Act of 1996 (subtitle A of title VII of Public Law 104-293) is amended by striking out “the date of the enactment of this Act” and inserting in lieu thereof “January 18, 1998”.

(b) Membership of Commission.—Section 711 of that Act is amended—

(1) in the matter preceding subsection (b)(1), by striking out “eight members” and inserting in lieu thereof “twelve members, none of whom may, during the period of their service on the Commission, be an officer or employee of any department, agency, or other establishment of the executive branch (other than the Commission), and”;

(2) in subsection (b)(2), by striking out “one” and inserting in lieu thereof “three”;

(3) in subsection (b)(4), by striking out “one” and inserting in lieu thereof “three”; and

(4) in subsection (e), by striking out “the date on which all members of the Commission have been appointed” and inserting in lieu thereof “the date of enactment of an Act making appropriations for the Departments of Labor, Health and Human Services, and Education, and related agencies, for the fiscal year ending September 30, 1999, regardless of whether all the members of the Commission have been appointed as of that date,”.

(c) Restrictions on Activities of Commission.—Section 712(a) of that Act is amended by adding at the end the following:

(5) Restrictions.—In carrying out the study under paragraph (1), making the assessments under paragraph (2), and addressing the matters identified in paragraph (3), the Commission shall not review, evaluate, or report on—

(A) “United States domestic response capabilities with respect to weapons of mass destruction; or

(B) “the adequacy or usefulness of United States laws that provide for the imposition of sanctions on countries or entities that engage in the proliferation of weapons of mass destruction.”

(d) Limitation on Commission Expenditures.—Section 717 of that Act is amended by striking out “shall be paid” and inserting in lieu thereof “shall not exceed $1,000,000, and shall be paid”

Appendix B: Commission Members and Staff

Commissioners

John M. Deutch, Chairman of the Commission, is an Institute Professor at the Massachusetts Institute of Technology. He served as Director of Central Intelligence from May 1995 to December 1996. He previously served as Deputy Secretary of Defense (1994-95) and Under Secretary of Defense for Acquisition and Technology (1993-94). From 1979 to 1980 he served as Under Secretary of the Department of Energy.

Senator Arlen Specter, Vice Chairman of the Commission, is the author of the legislation that created the Commission. As Pennsylvania's senior Senator, he chairs the Senate Veterans Affairs Committee and the Appropriations Subcommittee on Labor, Health and Human Services, and Education. He is also a member of the Judiciary and Governmental Affairs Committees. In the 104th Congress, he chaired the Senate Select Committee on Intelligence.

Anthony C. Beilenson of California served twenty years in the U.S. House of Representatives. He chaired the House Permanent Select Committee on Intelligence for two years and promoted bipartisan cooperation on that committee. He was also an influential member of the House Rules Committee for nearly twenty years, active on budget, intelligence, and House floor issues.

Stephen A. Cambone[25] is Director of Research at the Institute for National Strategic Studies of the National Defense University. He recently served as staff director of the Commission to Assess the Ballistic Missile Threat to the United States. From 1993 to 1998 he was Senior Fellow in Political-Military Studies at the Center for Strategic and International Studies. He was previously Director of Strategic Defense Policy in the Office of the Secretary of Defense (1990-93).

M.D.B. Carlisle was Chief of Staff to Senator Thad Cochran from 1991 to 1997. She previously served as Vice President for Government Relations at The Heritage Foundation (1989-90) and Assistant Secretary of Defense for Legislative Affairs (1986-89).

Henry F. Cooper is Chairman of Applied Research Associates, Inc., Chairman of High Frontier, and a private consultant. He previously served as Director of the Strategic Defense Initiative Organization, chief negotiator at the Geneva Defense and Space Talks with the Soviet Union, Assistant Director of the Arms Control and Disarmament Agency, Deputy Assistant Secretary of the Air Force, and Scientific Advisor to the Air Force Weapons Laboratory.

J. James Exon of Nebraska retired from the U.S. Senate in 1997 after serving three terms. He was a member of the Senate Armed Services Committee and an influential voice in Congress on matters regarding the military, particularly strategic issues. He also served

[25] Nominated

on the Senate Budget and Commerce, Science and Transportation Committees. He was Governor of Nebraska from 1970 to 1978.

Robert L. Gallucci[26] is currently Dean of the School of Foreign Service at Georgetown University. He was previously a career civil servant in the Department of State and served as Ambassador at Large during his tenure as Assistant Secretary of State for Political-Military Affairs.

Dave McCurdy of Oklahoma was a Member of the U.S. House of Representatives for 14 years (1981-1995). During his tenure, he served in several leadership positions, including Chairman of the Military Installations and Facilities Sub-committee of the House Armed Services Committee and Chairman of the Transportation Aviation and Materials Sub-committee of the Science and Space Committee. He was the youngest person in history to chair a congressional committee, the House Permanent Select Committee on Intelligence. He is currently the President of the Electronic Industries Alliance.

Janne E. Nolan is a professor of national security studies at Georgetown University and director of the Ethics and National Security Project at the Century Foundation. She has served in several senior positions in both the private sector and government, including Senior Fellow at the Brookings Institution, senior consultant to SAIC, a designee to the Senate Armed Services Committee, and an official at the Arms Control and Disarmament Agency.

Daniel B. Poneman is attorney at the law firm of Hogan & Hartson in Washington, D.C. He served on the National Security Council staff for six years, spanning two presidential administrations, as Director in the Office of Defense Policy and Arms Control (1990-93) and as Special Assistant to the President and Senior Director for Nonproliferation and Export Controls (1993-96).

William Schneider, Jr. is President of International Planning Services, Inc., a Washington-based international trade and finance advisory firm. He was Under Secretary of State for Security Assistance, Science and Technology from 1982 to 1986, and served as a Member of the recent Commission to Assess the Ballistic Missile Threat to the United States.

Henry Sokolski is Executive Director of the Nonproliferation Policy Education Center, a Washington-based non-profit organization founded in 1994 to promote a better understanding of strategic weapons issues for academics, policy makers, and the media. He also teaches graduate-level courses on proliferation issues at Boston University's Institute of World Politics in Washington, D.C. From 1989 to 1993 he served as Deputy for Nonproliferation Policy in the Office of the Secretary of Defense.

[26] Resigned

Staff

Suzanne E. Spaulding, Executive Director
Margaret A. Glatz, Executive Officer
Bonnie D. Jenkins, General Counsel

Dorothy C. Donnelly	Robert A. Kehlet
Jason D. Ellis	Maureen E. Lenihan*
Goldie R. Flowers	Marcel J. Lettre II
Barbara M. Gregory	Terence M. Lynch*
John A. Hartford, Jr.*	Mary E. O'Brien
John W. Ivicic	Kevin A. Stroh*
Joseph F. Jakub III*	Daniel S. Volchok

* until July 1, 1998

Consultants

Gordon Adams	Neil Joeck
Burrus M. Carnahan	Richard A. Johnson
John P. Carrico	William M. Wise
Portia Clark	

Appendix C: Individuals Interviewed by the Commission

The following is a list of individuals whom Commission members or staff interviewed, or who submitted written comments to the Commission, between January 1998 and June 1999:

A

Madeline K. Albright
Secretary of State

Kenneth Alibek
Program Manager
Battelle Memorial Institute

Gene Aloise
Assistant Director
Resources, Community and Economic Division
General Accounting Office

Desaix Anderson
Executive Director
Korean Peninsula Energy Development Organization

Brian D. Andresen
Leader, Forensic Science Center
Lawrence Livermore National Laboratory

Steven Aoki
Director
Office of Regional Nonproliferation Policy
Department of State

B

John Barker
Department of State

James Barone
Special Agent-in-Charge, New York Office
U.S. Customs Service

Richard K. Betts
Council on Foreign Relations

Kent L. Biringer
Cooperative Monitoring Center
Sandia National Laboratories

Hans Blix
Former Director General
International Atomic Energy Agency

John Boright
National Academy of Sciences

Harold Brown
Former Secretary of Defense

John Brougher
International Trade Administration Office
Department of Commerce

George Bunn
IIS Consulting Professor
Center for International Security and Cooperation
Stanford University

Walter Busby
Major General, USA (Ret.)
Former Deputy Assistant to The Secretary of Defense (Counter-Proliferation/Chemical and Biological Defense)

George Bush
Former President of the United States

Ambassador Richard Butler
Executive Chairman
United Nations Special Commission on Iraq (UNSCOM)

C

Ashton Carter
The Belfer Center for Science and International Affairs

Jimmy Carter
Former President of the United States

John F. Kennedy School of Government
Harvard University

Seth Carus
Senior Research Professor
Center for Counterproliferation Research
National Defense University

Hugh Casey
Center for International Security Affairs
Los Alamos National Laboratory

Marvin E. Casterline
Assistant Director
National Security and International Affairs Division
General Accounting Office

Maritza Castro
Office of Field Operations
U.S. Customs Service

Ferdinand Cirillo
DCI Nonproliferation Center

Joseph Cirincione
Senior Associate and Director
Non-Proliferation Project
Carnegie Endowment for International Peace

Richard A. Clarke
National Coordinator for Security,
Infrastructure Protection, and Counter-Terrorism

Donald J. Cobb
Associate Laboratory Director for Threat Reduction
Los Alamos National Laboratory

Thomas B. Cochran
Senior Scientist
National Resources Defense Council

William Cohen
Secretary of Defense

Congressman Christopher Cox (R-California)

David Crane
Office of the Inspector General
Department of Defense

Richard T. Cupitt
Associate Director
Center for International Trade and Security

Charles B. Curtis
Partner, Hogan & Hartson
Former Under Secretary and Deputy Secretary of Energy

D

Richard Davis
General Accounting Office

Steven Day
Office of the Assistant Secretary of Defense
(Nuclear, Chemical and Biological)
Department of Defense

Jonathan Dean
Union of Concerned Scientists

Robert M. DeBell
Chief Scientist,
The Jefferson Project
Battelle Memorial Institute

F. Amanda DeBusk
Assistant Secretary for Export Enforcement
Department of Commerce

Trisha Dedik
Director
Nuclear Transfer and Supplier Policy Division
Department of Energy

William Desmond
Director
Initiatives for Proliferation Prevention
Department of Energy

Paula DeSutter
Senate Select Committee on Intelligence

Randy Devalk
Legislative Aide
Senator Thomas Daschle

Jayantha Dhanapala
Under Secretary General for Disarmament Affairs
United Nations

Senator Pete V. Domenici (R-New Mexico)

Mildred Donlon
Program Manager, Biological Warfare Defense
Defense Advanced Research Projects Agency

James C. Doyle, Jr.
Energy and Environmental Analysis Group
Los Alamos National Laboratory

Melvin Dubee
Former head of Legislative Affairs
Office of National Drug Control Policy

Charles Duelfer
Deputy Executive Director
United Nations Special Commission on Iraq (UNSCOM)

Liesel Duhon
Director, Special American Business Internship Training Program
International Trade Administration
Department of Commerce

William H. Dunlop
Program Leader
Proliferation Prevention and Arms Control Program
Lawrence Livermore National Laboratory

E

William Eckert
Department of State

R. P. Eddy
Senior Policy Advisor to the Secretary of Energy for Intelligence
Department of Energy

Douglas Elliott
Staff Member
Senator Michael B. Enzi

Gerald L. Epstein
Senior Policy Analyst
National Security and International Affairs Division
Office of Science and Technology Policy

Scott Everett
Office of Enforcement Policy
Department of the Treasury

F

Edward T. Fei
Acting Director
International Policy and Analysis Division
Department of Energy

Mark Flohr
Plans and Programs Office
Counterproliferation and Operations Directorate
Defense Threat Reduction Agency

Josephine Fontana-Moran
Special Agent-in Charge
Office of Export Enforcement, New York Field Office
Department of Commerce

Leon Fuerth
National Security Advisor to the Vice President

Torrey Froscher
Chief of Analysis
DCI Nonproliferation Center

G

Peter Gagliardi
Special Agent-in-Charge, New York Office
Bureau of Alcohol, Tobacco and Firearms

Neil J. Gallagher
Assistant Director (National Security Division)
Federal Bureau of Investigation

Linda Gallini
Deputy Director
Office of Multilateral Nuclear Affairs
Bureau of Nonproliferation
Department of State

William V. Garner
International Consultant
Pyramid Limited

Bruce J. Gebhardt
Special Agent-in-Charge, San Francisco Field Office
Federal Bureau of Investigation

Victor Gilinsky
Former Commissioner, Nuclear Regulatory Commission

James Goodby
Guest Scholar
The Brookings Institution

Lisa Gordon-Hagerty
Director
Office of Emergency Management
Department of Energy

Rose Gottemoeller
Assistant Secretary for Nonproliferation and National Security
Department of Energy

Thomas Graham
Second Choice Foundation

Thomas Graham, Jr.
President
Lawyers Alliance for World Security

H

Benedikt Haller
Political Counselor
German Embassy

Morton Halperin
Director, Policy Planning Staff
Department of State

Margaret Hamburg
Assistant Secretary for Planning and Evaluation
Department of Health and Human Services

John Hamre
Deputy Secretary of Defense

Robert Harmon
Global Technology Partners

Anne Harrington
Department of State

Elisa Harris
National Security Council

Ronald Hauber
Director
Division of Nonproliferation, Exports, and Multilateral Relations
Nuclear Regulatory Commission

Robert J. Hermann
Connecticut Technology Associates

Laura Holgate
Director
Office of Fissile Materials Disposition
Department of Energy

John Holum
Acting Under Secretary for Arms Control and International Security
Department of State

Tom Hopkins
Colonel, USAF
Director
Counterproliferation and Operations Support Directorate
Defense Threat Reduction Agency

Floyd P. Horn
Administrator
Agricultural Research Service
Department of Agriculture

Sally K. Horn
Director
Non-proliferation Policy
Office of the Secretary of Defense/International Security Policy

Daniel Hurley
Nonproliferation and Export Control Coordination
Department of Commerce

I

David Ivry
Director
Israeli National Security Council

J

James E. Johnson
Under Secretary (Enforcement)
Department of the Treasury

Robert Joseph
Director for Counterproliferation Research
National Defense University

Shaun B. Jones
Commander, USN
Defense Sciences Office
Defense Advanced Research Projects Agency

K

Arnold Kanter
The RAND Corporation

David A. Kay
Corporate Vice President
Science Applications International Corporation

Spurgeon Keeney
President and Executive Director
The Arms Control Association

Donald M. Kerr
Assistant Director (Laboratory Division)
Federal Bureau of Investigation

Robert F. Knouss
Rear Admiral, USN
Director
Office of Emergency Preparedness
U.S. Public Health Service

Susan Koch
Deputy Assistant Secretary of Defense

Mitch Kugler
Staff Director
Sub-committee for International Security, Proliferation and Federal Services
Senate Governmental Affairs Committee

L

Anthony Lake
Former Assistant to the President for National Security Affairs

Terry R. Lash
Director
Office of International Nuclear Safety and Cooperation
Department of Energy

John A. Lauder
Special Assistant to the Director of Central Intelligence (DCI) for Nonproliferation and
Director, DCI Nonproliferation Center

Peter Lavoy
Director, Counter-proliferation Policy
Office of the Assistant to the Secretary of Defense for Strategy and Threat Reduction

Joshua Lederberg
Sackler Foundation Scholar
The Rockefeller University

Janice Dunn Lee
Director
Office of International Programs
Nuclear Regulatory Commission

Ronald F. Lehman II
Director
Center for Global Security Research
Lawrence Livermore National Laboratories

Milton Leitenberg
Senior Fellow
Center for International and Security Studies
University of Maryland

James F. Leonard
Former U.S. Ambassador to the United Nations and
Former Assistant Director
Arms Control and Disarmament Agency

Jacob L. Lew
Director
Office of Management and Budget

Allen W. Locke
Director
Office of Analysis for Strategic, Proliferation, and Military Issues
Bureau of Intelligence and Research
Department of State

Senator Richard G. Lugar (R - Indiana)

Kenneth N. Luongo
Executive Director
Russian-American Nuclear Security Advisory Council

M

Bruce W. MacDonald
Assistant Director for National Security
Office of Science and Technology Policy

Douglas MacEachin
Former Deputy Director (Intelligence)
Central Intelligence Agency

R. Roger Majak
Assistant Secretary for Enforcement Administration
Department of Commerce

John Martuge
Area Director
John F. Kennedy Airport
U.S. Customs Service

Jessica Mathews
President
Carnegie Endowment for International Peace

Edward G. McGinnis
Senior Special Assistant to the Assistant Secretary of Energy for Nonproliferation and National Security
Department of Energy

Maureen I. McCarthy
Science Advisor to the Assistant Secretary of Energy for Nonproliferation and National Security
Department of Energy

Kathryn McGuire
Legislative Director
Senator Michael B. Enzi

Thomas G. McInerney
Lieutenant General, USAF (Ret.)
President and CEO
Business Executives for National Security

Holly McMahon
Standing Committee on National Security
American Bar Association

Robert Meekins
Chief Inspector
John F. Kennedy Airport
U.S. Customs Service

Robert Mikulak
Director
Office of Chemical and Biological Weapons Convention
Bureau of Arms Control
Department of State

Gary Milhollin
Director
Wisconsin Project on Nuclear Arms Control

Jami Miscik
Director
Office of Transnational Issues
Central Intelligence Agency

Elizabeth A. Moler
Under Secretary of Energy

Ernest J. Moniz
Under Secretary of Energy

Michael Moodie
President
Chemical and Biological Arms Control Institute

Stephen S. Morse
Program Manager
Defense Science Office
Defense Advanced Research Projects Agency

Sarah Mullen
Director
Office of Technology and Analysis
Department of State

N

Michael Nacht
Dean
Goldman School of Public Policy
University of California, Berkeley

R. Richard Newcomb
Director
Office of Foreign Assets Control
Department of the Treasury

O

Michael O'Neill
Politico-Military Affairs
British Embassy

Gordon Oehler
Corporate Vice President for Corporate Development
Science Applications International Corporation

Vayl Oxford
Deputy Director
Counterproliferation and Operations Support Directorate
Defense Threat Reduction Agency

P

John Parachini
Senior Associate
Monterey Institute of International Studies

Sang-Hoon Park
First Secretary
Embassy of the Republic of Korea

Gerald W. Parker
Colonel, USA
Director
United States Army Medical Research Institute for Infectious Diseases

Christopher Payne
National Resources Defense Council

Federico Peña
Secretary of Energy

Donald Prosnitz
Chief Scientist
Nonproliferation, Arms Control, and International Security
Lawrence Livermore National Laboratory

R

William Reinsch
Under Secretary for Export Administration
Department of Commerce

Alice M. Rigdon
Port Director, San Francisco
U.S. Customs Service

John Rheingruber
OSD(P) RT&A

Brad Roberts
Strategy, Forces, and Resources Division
Institute for Defense Analyses

Paul Robinson
President and Laboratories Director
Sandia National Laboratories

Roger W. Robinson
RWR, Inc.

Michael Rosenthal
Office Director
Multilateral Nuclear Affairs
Department of State

Randy J. Rydell
Senior Political Affairs Officer
Office of the Under Secretary General
Department for Disarmament Affairs
United Nations

S

Richard Sadleir
First Secretary (Political)
Embassy of Australia

Scott Sagan
Co-Director
Center for International Security and Cooperation
Stanford University

Gary C. Salzman
Lead Project Leader
Chemical and Biological Nonproliferation Program
Los Alamos National Laboratory

Gary Samore
Special Assistant to the President and Senior Director for
Non-Proliferation and Export Controls
National Security Council

Kenneth E. Sanders
Director
International Safeguards Division
Department of Energy

Amy Sands
Associate Director
Center for Nonproliferation Studies
Monterey Institute of International Studies

Larry Sanchez
Special Assistant to the Secretary of Energy and Director
Office of Intelligence
Department of Energy

Kim Savit
Office of the NIS Assistance Coordinator
Department of State

Jon Sears
Captain, USN
Chief, Deterrence and Counterproliferation Branch
Joint Staff, J5
The Department of Defense

Lawrence Scheinman
Director
Center for Nonproliferation Studies (Washington D.C. Office)
Monterey Institute of International Studies

Lewis Schiliro
Acting Director
New York Field Office
Federal Bureau of Investigation

James Schlesinger
Former Director of Central Intelligence
Former Secretary of Defense
Former Secretary of Energy

Brent Scowcroft
Lieutenant General, USAF (Ret.)
Former Assistant to the President for National Security Affairs

David Shapiro
Chief
Criminal Division
U.S. Attorney's Office
San Francisco

Owen J. Sheaks
Special Advisor
Verification and Compliance
Department of State

Kenneth B. Sheely
Deputy Director
Russia/NIS Nuclear Materials Security Task Force

Wayne J. Shotts
Associate Director
Nonproliferation, Arms Control and International Security
Lawrence Livermore National Laboratory

George P. Shultz
Former Secretary of State

Randall S. Sike
Special Agent-in-Charge
Office of Export Enforcement San Jose Field Office
Department of Commerce

Charles Simonsen
Special Agent-in-Charge, San Francisco
U.S. Customs Service

Julianne Slifco
Federal Bureau of Investigation

Amy E. Smithson
Senior Associate
The Henry L. Stimson Center

John F. Sopko
Chief Counsel for Special Matters
Department of Commerce

Leonard S. Spector
Director
Office of Arms Control and Nonproliferation
Department of Energy

Carmen Spencer
Director, Chemical and Biological Defense Directorate
Defense Threat Reduction Agency

Daniel J. Spohn
Deputy Director for Policy Support
Defense Intelligence Agency

Richard Stratford
Director
Office of Nuclear Energy Affairs
Department of State

James C. Swingle
Z Division Leader
Lawrence Livermore National Laboratory

T

C. Bruce Tarter
Director
Lawrence Livermore National Laboratory

William B. Taylor
Special Advisor to the President and to the Secretary of State on Assistance to the New Independent States of the Former Soviet Union and Coordinator of NIS Assistance
Department of State

Jonathan H. Temple
Environment and Energy
British Embassy

George J. Tenet
Director of Central Intelligence

Roszel C. Thomsen II, Esq.
Thomsen & Burke, LLP

Ralph B. Tildon
DCI Nonproliferation Center

Bonni G. Tischler
Assistant Commissioner
Office of Investigations
U.S. Customs Service

Simon Tower
First Secretary (Trade Policy)
British Embassy

Michael D. Turner
Director
Strategic Investigation
U.S. Customs Service

U

Marc Umeno
Captain, USA
Health Physicist
U.S. Army Nuclear and Chemical Agency

V

Vann Van Diepen
Director
Office of Chemical, Biological and Missile Affairs
Department of State

Laura A. Vanderberg
Los Alamos National Laboratory

Yevgeny Velikhov
President
Nuclear Energy Institute—Kurchatov Institute

Blaine Villwock
Automated Export System
U.S. Customs Service

W

John Wade
Colonel, USA
Acting Deputy Assistant for Counterproliferation and Chemical/Biological Defense
Department of Defense

Robert E. Waldron
Director
Office of Research and Development
Headquarters, Department of Energy

Michael Walls
Senior Counsel
Chemical Manufacturers Association

Robert D. Walpole
National Intelligence Officer for Strategic and Nuclear Programs
Central Intelligence Agency

Edward L. Warner
Assistant Secretary for Strategy and Threat Reduction
Department of Defense

Dale Watson
Inspector Deputy Assistant Director of the National Security Division
Federal Bureau of Investigation

George M. Whitesides
Mallinckrodt Professor of Chemistry
Harvard University

Rhys M. Williams
Director
Nuclear Nonproliferation Division
Office of Intelligence
Department of Energy

Frank G. Wisner
Vice Chairman, External Affairs
American International Group, Inc.
Former U.S. Ambassador to India

Gillian Woollett
Associate VP for Biologics and Biotechnology
Pharmaceutical Research and Manufacturers of America

R. James Woolsey
Partner
Shea & Gardner
Former Director of Central Intelligence

Z

Dov S. Zakheim
Corporate Vice President
Systems Planning Corporation (SPC)

Appendix D: Baseline Survey of Proliferation-Related Activities

Mission

1. Describe your department's/agency's overall proliferation-related mission. In this survey, proliferation refers to the spread of nuclear, biological, and chemical weapons, their means of delivery, and related technologies and expertise.

2. List and briefly describe all laws, directives, and guidance statements (Presidential, Congressional, departmental) that directly and specifically inform your department's/agency's proliferation-related mission, as well as any relevant legislation currently being proposed or sought by the Administration or Congress.

Organizational Structure

3. Describe the organization of your department's/agency's proliferation-related efforts, including the specific function of each element and key management personnel and their positions. Include a description of how these elements interact with each other.

4. What do you envision your proliferation-related mission and organizational structure to be in one year? Five years? If you have recently undergone or are anticipating a significant reorganization of this structure, please provide a description of the previous organizational framework, the changes made or anticipated, and the reasons for the reorganization. How has your organization evolved over the last ten years on proliferation matters? Show the evolution of organizational units covering proliferation, including each reorganization, in this time frame.

5. List and briefly describe department/agency directives that set forth authorities and responsibilities for managing department/agency efforts to combat proliferation.

Resource Allocation

6. Provide data on the amount and source of funds obligated for proliferation-related activities in fiscal years 1990-1997, budgeted for fiscal year 1998, and projected for fiscal years 1999-2001. Provide a breakdown of allocated resources by function (including but not limited to: operational activities; research and development for related technologies; acquisition activities; education, training, and career development for related personnel including rotatees; information management; and by proliferation subject area—nuclear, chemical, biological, means of delivery, and related technologies and expertise).

7. List and describe the authorities and responsibilities of the persons or groups within the department/agency making overall resource decisions, providing advice on resource decisions, or influencing the resource decision process.

8. Describe how your department/agency integrates decisions on combating proliferation into its strategic planning and resource planning-programming-budgeting process. How do you prioritize activities and allocate personnel and funds to achieve your proliferation-related mission? What is the process used to balance resources for current activities with mid/long term investment needs?

9. What is the process and criteria for evaluating your success in allocating resources to achieve your proliferation-related mission?

Personnel

10. Provide a breakdown of the number of personnel working proliferation-related issues by the following categories: full-time, part-time employees, full and part-time rotational employees in and out of your organization, and full and part time contractor employees. Also include in your breakdown for these categories, the number of employees at each pay grade, their total years of government service, and the total years of proliferation-related service. Include, to the extent available, a breakdown by organization (e.g., offices, groups, task forces, centers).

11. Compare the size and capabilities of your proliferation-related staff today to those covering these issues for you ten years ago using the following criteria:

    - Number of staff with specialized non-technical degrees whose primary account responsibility was the assessment of proliferation programs, collection or gathering of information on these programs or formulation of proliferation-related policies.[27] (For example, the number of political science officers who conducted proliferation-related policy on a country of concern.)

    - Number of staff with technical degrees whose primary account responsibility was the assessment of proliferation programs, collection or gathering of information on these programs, or formulation of proliferation-related policies. (For example, the number of chemists/chemical engineers assigned to the task of assessing the technical status of a foreign chemical weapons program.)

[27] When counting those assigned to work proliferation program assessments, count staff-level officers with primary account responsibility for formulation of overall country assessments, military or political analysis regarding the proliferation problem, international non-proliferation regimes, and exports and controls related to proliferation.

- Number of staff, not captured by the above categories, whose primary account responsibility was the assessment of proliferation programs, collection information on these programs, or formulation of proliferation-related policies.

- A breakdown of the staff devoted to information collection or gathering into general categories of collector, report preparation and evaluation, and desk officers or other categories as you deem appropriate.

- Number of staff officers and support contractors with foreign language capabilities relevant to countries of proliferation concern.

12. Do you rely significantly on contractors, consultants, or other outside personnel to fulfill your proliferation-related mission? If so, describe the rationale for outsourcing and provide a breakdown for each contract, including type of work conducted, and length and cost of contract. What are the comparative advantages and disadvantages to using these personnel?

13. As they pertain specifically to proliferation-related personnel, describe your processes and policies for recruitment, retention, maintenance of morale, and advancement of personnel. What opportunities for training, acquisition of new expertise, and career development are made available to proliferation-related personnel in your agency?

Interagency and Other Interactions

14. List all inter-agency proliferation-related efforts in which your department/agency participates, including task forces, working groups, and other permanent or ad hoc forums. Describe your role in inter-agency proliferation-related efforts and the precise mechanisms in place to plan, coordinate, and implement that role.

15. Describe the interface between your department's/agency's proliferation-related efforts and the National Security Council, including any formal mechanisms in place for day-to-day interaction, as well as any additional framework established for crisis management. Include details regarding the level at which the interaction occurs both at the NSC and at your department/agency, as well as the names and positions of the individuals responsible for this interaction. Describe any related interactions with other offices in the Executive Office of the President, such as the Office of Management and Budget and the Office of Science and Technology Policy.

16. Describe your interaction with entities of the federal government that collect or provide intelligence in support of your proliferation-related activities. What deficiencies and strengths do you see with intelligence on this topic? Would you make recommendations for change?

17. What deficiencies and strengths do you see with the U.S. policy process on proliferation? What recommendations would you make for changes to the policy process on proliferation matters?

18. Describe how specific elements within your department/agency interact on proliferation-related issues with foreign governments and with international or multilateral organizations. Include formal arrangements as well as policies and practices for ad hoc interaction. Provide a description of specific significant recent or ongoing cooperative efforts with foreign governments. Explain the most significant factors hampering more effective cooperation with foreign governments as well as the factors that most ensure or enhance the effectiveness of such cooperation. How have these relationships evolved over the last ten years? Has the US Government been effective in its interactions with foreign governments on proliferation issues?

19. Describe your department's/agency's role in achieving, monitoring, and/or verifying bilateral and multilateral treaties, agreements, or commitments with respect to non-proliferation, including assurances regarding the future use of commodities exported from the U.S.

20. Describe any significant relationships with non-federal-government entities (e.g., state and local governments, academic institutions and think tanks, industry, trade groups and associations) that support proliferation-related activities.

Evaluation/Accountability

21. Describe the department's/agency's evaluation process, including criteria used to determine success in achieving national and/or organization proliferation-related efforts.

22. Please provide copies of any formal evaluations or audits undertaken in the last three years of any of the offices or elements involved in the proliferation-related efforts described above. Include any customer surveys, Inspector General reports, GAO reports, or other internal or external reports that address the effectiveness of your proliferation-related efforts.

23. Describe the most significant successes and failures of your department's/agency's proliferation-related efforts over the last 8 years. What factors most significantly contributed to these successes/failures?

24. What does your agency see as the key proliferation-related challenges for the future? In your view, is the US Government prepared to address these concerns?

Appendix E: Proliferation-related Interagency Coordination Groups

This representative but by no means exhaustive list of interagency groups illustrates the scope of WMD proliferation issues, the number of agencies involved, and—by the number of groups listed—the continuing need for coordination. One task of the National Director would be to insure the best integration possible of the functions and activities of these and other WMD-related groups.

Groups Chaired by the National Security Council (NSC)

NSC Coordination Group - Nuclear Smuggling

Purpose: to set policy and oversee activity related to nuclear smuggling issues.

WMD Preparedness Interagency Working Group (WMDP)

Purpose: to coordinate policies and programs related to WMD preparedness and consequence management, in response to the requirements of Presidential Decision Directive 62.

Nonproliferation and Export Control Interagency Working Group

Purpose: to set policy and oversee activity related to nonproliferation and export control issues.

Interagency Working Group on Plutonium Disposition

Chairs: NSC, OSTP

Purpose: to set policy and oversee activity related to the disposition of U.S. and Russian surplus weapons plutonium.

Enrichment Oversight Committee (EOC)

Purpose: established by the President in 1998 to monitor and coordinate USG efforts with respect to the U.S. Enrichment Corporation (USEC). A sub-group oversees issues arising from the U.S.-Russian HEU Agreement.

Export Control Groups

Nuclear Export Violations Working Group (NEVWG)

Chair: State/NP/NE

Reviews procurement-related activities by countries of proliferation concern; determines when and how to approach supplier governments about these activities.

Subgroup on Nuclear Export Coordination (SNEC)

Chair: State/NP/NE

Established in 1977 and mandated by the Nuclear Nonproliferation Act of 1978, this is the interagency forum for discussion of significant/difficult (dual-use) nuclear export cases and issues.

Operating Committee (OC) of the Advisory Committee on Export Policy (ACEP)

Chair: Commerce/BXA/EA

The Chairman of the OC is authorized to approve or deny applications for export license referred to it. Any voting agency disagreeing with the decision can appeal to the full ACEP. Agencies are represented at the A/S level. ACEP decisions may in turn be appealed to the Cabinet level ***Export Administration Review Board (EARB).*** Appeals to the EARB are very rare.

Zangger Committee and the Nuclear Suppliers Group (NSG) working groups

Chair: State/NP/NE

Working-level coordinating groups for issues before those two international groups.

Technology Transfer Working Group (TTWG)

Chair: State/NP/ECNP

Identifies and attempts to frustrate efforts to circumvent export controls related to the Wassenaar Arrangement and conventional arms.

Missile Technology Export Control Group (MTEC)

Chair: State/NP/CBM

Working-level group that reviews proposed U.S. exports of goods and technologies controlled for missile proliferation concerns. Agency disagreements are referred to State's Office of Defense Trade Controls for final decision.

Missile Trade Analysis Group (MTAG)

Chair: State/NP/CBM

Reviews intelligence for missile-related transactions that should be interdicted; decides on action to be taken, monitors progress. Also reviews intelligence on missile-related activities potentially sanctionable under U.S. law; initiates sanctions-review process, vets sanctions Statements of Fact.

Missile Annex Review Committee (MARC)

Chair: State/NP/CBM

Evaluates U.S. and Missile Technology Control Regime (MTCR) partner proposals for changes to the MTCR Annex; determines U.S. interpretation of Annex.

Missile Nonproliferation Working Group

Chair: State/NP/CBM

Office director-level group that guides the working level policy process, especially as it relates to U.S. participation in the MTCR.

Chemical and Biological Weapons Control Working Group (SHIELD)

Chair: State/NP/CBM

Chemical and biological weapons policy/export review group. Two SHIELD Subgroups, Licensing and Interdiction, review proposed U.S. exports and examine chemical and biological weapons (CBW)-related transactions respectively.

Australia Group Working Group and Delegation

Chair: State/NP/CBM

Oversees U.S. policy with regard to and participation in the Australia Group CBW proliferation regime.

Proliferation-related Groups Addressing Physical Security Issues

Defense Treaty Inspection Readiness Program (DTIRP)

Chair: DTRA/OSIA

Established to provide assistance to DoD and other agencies in preparing their facilities for inspections under international treaties/agreements. The original focus on CWC, BWC, CTBT and START is expanding.

Technical Equipment Inspection (TEI) Program

DoD-funded and managed by the Defense Threat Reduction Agency (DTRA) and the On-Site Inspection Agency (OSIA). Chartered to inspect all equipment prior to use in foreign inspections of U.S. facilities.

Overseas Security Policy Board (USPB)

Chair: State/DSS

A forum to review and evaluate issues and make recommendations involving physical and technical security measures for federal facilities and personnel security. Aids policy integration between agencies.

Groups Addressing WMD Accident, Emergency, Smuggling

Illicit Tracking Notification System

State/NP/RNP

Incidents of nuclear smuggling come to the attention of State (PM/RNP) either by way of the G-8 system or U.S. Embassy contacts. PM coordinates the flow of information and the preparation of a USG response.

National Response Team

Chair: EPA; Vice-Chair: U.S. Coast Guard

A legislatively mandated group responsible for preparedness planning in response to national oil and other hazardous spills, including those that might include radioactive material. It also coordinates regional planning and provides policy guidance and support to regional response teams.

Nuclear Accident/Incident Program (NAIP)

Chair: State

Coordinates an interagency nuclear accident/incident training program for embassies and country teams overseas.

Federal Radiological Preparedness Coordinating Committee (FRPCC)

Chair: FEMA

Coordinates federal planning and training for any radiological emergency, including sabotage and terrorism.

Groups Addressing Nonproliferation/Arms Control Technology Requirements

Nonproliferation and Arms Control Technology Working Group (NPAC TWG)

Chairs: State/DoD/DOE/NN

Established by PDD 27 (1994) to coordinate all federally funded nonproliferation and arms control technology R&D programs, and to identify and eliminate unnecessary duplication and technology gaps. Has 13 focus groups and one subcommittee. Reports annually to the relevant NSC IWGs and to the National Science and Technology Council's ***Committee on National Security (CNS).***

Counterproliferation Program Review Committee (CPRC)

Chair: DepSecDefense; Vice Chair: DepSec Energy; members: DCI, CJCS

Established by the Defense Authorization Act of 1994. Reviews activities and programs related to countering proliferation. Makes/implements recommendations on interdepartmental activities/programs to address shortfalls in existing and programmed capabilities to counter WMD proliferation and their means of delivery, and to counter paramilitary and terrorist WMD threats.

Technical Support Working Group (TSWG)

Chairs: State, Energy, and Defense

The group addresses R&D efforts to meet the threat posed by domestic and international terrorism. It includes a working group on Chemical, Biological, Radiological, and Nuclear Countermeasures.

Interagency National Security Technology Exchange

Host: DOE/NN-20

Annual forum to discuss current security projects/accomplishments using technology.

U.S. Nuclear Detonation Detection System (USNDS) Program Management Review Group

Chair: DoD/Air Force Space & Missile Systems Center and Air Force Space Command

Meets biannually to coordinate the USNDS programs, which place and operate nuclear explosion monitoring sensors aboard GPS and DSP satellites.

Satellite Systems Review Panel

Chair: DOE/SNL

Meets biannually to review the AFTAC R&D program for atmospheric and space nuclear explosions monitoring from satellites. Also assesses recent anomalous event signals.

Other Interagency Groups

NPT Working/Backstopping Group

Chair: State/NP/IAEA

Coordinates U.S. policy on NPT-related issues and participation in NPT conferences.

IAEA Steering Committee

Chair: State/NP

Office Director-level group to formulate U.S. policy toward the IAEA and to oversee its implementation. The Committee directs and coordinates the activities of four subcommittees (where much of the continuing work is accomplished), manages congressional relations with regard to the IAEA, and coordinates IC support to the IAEA.

Interagency Intelligence Committee on Terrorism (IICT)

Chair: CI/CB

An interagency umbrella organization composed of over 45 entities from the military, defense, intelligence and law enforcement communities involved in counter-terrorism activities. It functions as a forum for exchange of counter-terrorism information and products. It is not a policy body. It has seven subcommittees, including a Chemical, Biological, Radiological, and Nuclear Subcommittee (CBRN).

Appendix F: Proliferation-related Reporting Requirements

The following table shows the proliferation-related reports that the executive branch currently must submit to Congress. Each entry includes a description of the report, the legislation that includes the requirement, the person in the executive branch who is responsible for providing the report, and how often the report must be made.[28]

Title (Legislation that Contains Reporting Requirement)	From Whom	Frequency
1. Determination and Identification of a Country or Person that Has Violated Nuclear Safeguards (Export-Import Bank Act (EIBA))	Secretary of State (SecState)	Upon determination
2. Determination to Impose Sanctions on a Country or Person Who Violates Nuclear Safeguards (EIBA)	SecState	Following consultations
3. Status of Consultations Before Imposing Sanctions (EIBA)	SecState	No later than 90 days after making a determination under subparagraph (a)(v)
4. Determination to Grant Approval for Extension of Credit to Governments (EIBA)	President	Not less than 45 days before any approval
5. Termination Prohibition Against Governments Who Have Taken Corrective Actions Against Persons (EIBA)	SecState	Upon determination and certification
6. Terminating Prohibition Against Persons (EIBA)	President	Upon determination and certification
7. Nuclear Export License Applications (Atomic Energy Act (AEA))	SecState	Promptly
8. Nuclear Export Licenses (AEA)	President	Upon determination
9. Notice of Export Authorization not Meeting Safeguards Criterion (AEA)	President	60 days prior to export
10. Continuation of Nuclear Cooperation Despite Violations (AEA)	President	When a violation occurs
11. Reasons for Proposed Subsequent Arrangement for Retransfer or Reprocessing of Special Nuclear Material (AEA)	Secretary of Energy (SecEn)	Prior to entering into arrangement
12. Foreign Spent Fuel Storage in the United States (AEA)	President, SecEn	Prior to entering into agreement
13. Possession of Nuclear Explosive Device by Pakistan (Foreign Assistance Act (FAA))	President	Prior to furnishing military equipment or technology
14. Waiver of Sanctions Imposed on U.S. Persons Who Transfer Missile Equipment or Technology (Arms Export Control Act (AECA))	President	Upon certification
15. Exports to Space Launch Vehicle Programs (AECA)	SecState	W/in 15 days after issuing a license
16. Notification of Admittance of Missile Technology Control Regime Annex (MTCR) Adherents (AECA)	President	Promptly

[28] This Information was compiled by the Congressional Research Service

Title (Legislation that Contains Reporting Requirement)	From Whom	Frequency
17. Waiver of Sanctions Against a Foreign Person Who May Violate Missile Equipment Transfers (AECA)	President	Not less than 45 working days before issuing waiver
18. Determination Against Imposing Sanctions (AECA)	President	Upon determination
19. Status of Consultations with and Actions by Foreign Government (AECA)	President	Not later than 90 days after making determination under subsection (a)
20. Determination to Terminate Sanctions (AECA)	President	Upon determination
21. Determination to Exercise Waiver Authority on Sanctions (AECA)	President	Not less than 20 days before waiver takes effect
22. Funds for Nuclear Equipment Transfers (AECA)	President	Upon certification
23. Certification for Prohibited Assistance to Countries Involved in the Transfer of Nuclear Reprocessing Equipment (ACEA)	President	Upon determination and certification (congressional disapproval provided for)
24. Imposing Sanctions Against Countries Who Transfer or Use Nuclear Explosive Devices (AECA)	President	Upon determination
25. Justification for Delaying Imposition of Sanctions (AECA)	President	Upon certification
26. Waiving Sanctions to Achieve Nonproliferation Objectives (AECA)	President	Congressional disapproval provided for
27. Notification to Waive Sanctions on Countries that Transfer Nuclear Explosive Devices (AECA)	President	Upon certification
28. Determination Not to Impose Sanctions (Export Administration Act (EAA))	President	90 days after making determination under subsection (a)(1)
29. Determination to Terminate Sanctions (EAA)	President	Upon certification
30. Notification of Waiver of Application of Sanctions (EAA)	President	20 days before waiver takes effect
31. Certification on China's Non-Proliferation Policy (Joint Resolution Approving Nuclear Agreement with China (JRANA))	President	30 days prior to export of nuclear items to China
32. Report on China's Non-Proliferation Policy (JRANA)	President	30 days prior to export of nuclear items to China
33. Certification Required to Impose Additional Sanctions if Certain Conditions Are not met (Chemical and Biological Weapons Control and Warfare Elimination Act (CBWA))	President	W/in 3 months after making determination under Section 306(a)(1)
34. Determination to Waive Sanctions (CBWA)	President	15 days before waiver takes effect
35. Determination that a Foreign Government Has Used Chemical or Biological Weapons (CBWA)	President	Promptly

Title (Legislation that Contains Reporting Requirement)	From Whom	Frequency
36. Use of Chemical or Biological Weapons by a Foreign Government (CBWA)	President	60 days after receiving a Congressional request under sec. 306(b)(1)
37. Certification for Assistance to Destroy Soviet Nuclear Weapons (Conventional Forces in Europe Treaty Implementation Act)	President	Upon assistance
38. Determination to Provide Assistance for the International Nonproliferation Initiative (Weapons of Mass Destruction Act (WMDCA))	Secretary of Defense (SecDef)	30 days in advance
39. Determination to Impose Sanctions on Persons Engaging in Export Activities that Contribute to Proliferation (Nuclear Proliferation Prevention Act (NPPA))	President	90 days after holding consultations with foreign governments
40. Status of Consultations with Foreign Governments (NPPA)	President	90 days after making determination under subsection (a)(1)
41. Certification to Terminate Sanction (NPPA)	President	Upon determination
42. Determination to Waive Application of Sanction (NPPA)	President	Upon determination and certification
43. Consultations with Foreign Government Regarding Imposition of Sanctions (NPPA)	President	If a determination is made under subsection (c)
44. Coordination with Activities of Foreign Governments (NPPA)	President	Upon certification
45. Report on Status of Consultations (NPPA)	President	Before the end of the 90 day period beginning on the date the order is issued under subsection (c)
46. Sanctions on Persons Who Engage in a Prohibited Activity (NPPA)	President	Upon determination
47. Determination to Waive Continued Application of Sanctions (NPPA)	President	Upon certification
48. Theater Missile Defense System Under ABM Treaty (National Defense Authorization Act (NDAA))	SecDef	Upon certification, but not later than 90 days after on which certification is issued
49. Military and Civil Defense Preparedness Plans (NDAA)	SecEn and SecDef with Director, FEMA	Not later than March 1, 1996
50. Limitation on Assistance to Nuclear Weapons Scientists of Former Soviet Union (NDAA)	SecDef	30 days after certification
51. Limitation on Funds for Offensive Biological Warfare Program in Russia (NDAA)	President	Upon certification under subsection (b) or subsection (c)

Title (Legislation that Contains Reporting Requirement)	From Whom	Frequency
52. Consultations with Foreign Governments to Delay Sanctions (Iran and Libya Sanctions Act (ILSA))	President	Immediately
53. Status Report on Consultations (ILSA)	President	Not later than 90 days after making determination under Sec 5(a) or 5(b)
54. Weapons Proliferation and Policies of the People's Republic of China (NDAA)	President	Not later than November 1996 (received April 1997)
55. Review of National Intelligence Estimate 95-19 (NDAA)	DCI	Not later than 3 months after the appointment of the Commission to Assess the Ballistic Missile Threat to the US
56. Report of the Commission (Commission to Assess the Ballistic Missile Threat to the United States) (NDAA)	Commission	Not later than 6 months after the date of the first meeting (received August 27, 1998)
57. Response to Threats of Terrorist Use of Weapons of Mass Destruction (Defense Against Weapons of Mass Destruction Act (DAWMD))	President	By January 31, 1997 (received February 26, 1997)
58. Cooperative Program for Elimination of Plutonium Production (DAWMD)	SecDef	By March 23, 1997 (received April 23, 1997)
59. Comprehensive Preparedness Program (DAWMD)	President	At same time budget for FY98 submitted (received May 5,1997)
60. Reliability and Safety of Nuclear Arsenal (NDAA)	President	Upon notification and determination
61 Policies and Practices Relating to Protection of Armed Forces Personnel Abroad from Terrorist Attack (NDAA)	SecDef	By March 18, 1998
62. Use of Funds for Planning a Chemical Weapons Destruction Facility (NDAA)	SecDef	Either 15 days after a notification of an agreement between the US and Russia is received or after the date Russia formally approves a plan allowing for the destruction of chemical weapons
63. Obligation of Funds for Storage Facility for Russian Fissile Material (NDAA)	SecDef	15 days after the date notification is received

Title (Legislation that Contains Reporting Requirement)	From Whom	Frequency
64. Funds for Weapons Storage Security (NDAA)	SecDef	Upon submission of report
65. Chemical Warfare Defense (NDAA)	SecDef	By May 1, 1999
66. Obligation of Funds in Excess of Individual Amounts for Cooperative Threat Reduction Funds (NDAA)	SecDef	15 days in advance
67. Limitation on Use of Funds for Chemical Weapons Destruction Activities (NDAA)	President	Upon submission of written certifications
68. Limitation on Use of Funds for Biological Weapons Proliferation Prevention Activities in Russia (NDAA)	SecDef	15 days after date report is submitted
69. Assistance for Cooperative Counter Proliferation Program (NDAA)	SecDef	15 days after certification is made
70. Waiver of Notification for Assistance to Country of Former Soviet Union (NDAA)	SecDef	Promptly notify in advance of providing assistance
71. Biological Weapons Programs in Russia (NDAA)	SecDef	Not later than March 1, 1999
72. Individuals with Expertise in Weapons of Mass Destruction Programs (NDAA)	SecDef, SecEn, other appropriate officials	Not later than January 31, 1999
73. Response to Threats of Domestic Terrorism (DAWMD)	President	Not later than January 31, 1999
74. Requirement to Develop Methodologies for Assessing the Threat and Risk of Terrorist Use of Weapons of Mass Destruction (NDAA)	Attorney General; FBI; appropriate Federal, state, and local agencies	By October 17, 1999
75. Funds for the Korean Peninsula Energy Development Organization (Foreign Operations Appropriations Act (FOAA))	President	30 days prior to obligation of funds
76. Regional Nuclear Non-Proliferation Policy in South Asia (Foreign Assistance Act (FAA))	SecState with other Agencies	April 1,1993, and every six months thereafter
77. Status of United States Arms Control, Nonproliferation, and Disarmament Policy (Arms Control and Disarmament Act (ACDA))	President	Annually by January 31
78. Compensating for Violations of U.S. Nonproliferation Commitments (ACDA)	President	Include in second consecutive report
79. Foreign Military Sales and Commercial Sales Case Listings (AECA)	President	Quarterly: within 60 days after end of each fiscal year
80. Grant Excess Defense Articles (Foreign Military Sales Act Amendments)	President	Annually; promptly report additional grants

Title (Legislation that Contains Reporting Requirement)	From Whom	Frequency
81. Determination to Impose Sanctions Against Certain Foreign Persons (EAA)	President	Upon determination
82. Annual Determination to Permit Continued U.S. Nuclear Cooperation with EURATOM (NNPA)	President	Annually
83. US Government Efforts to Prevent Nuclear Proliferation (NNPA)	President	Annually
84. Nonproliferation Policy and Actions (NNPA)	DOE/NRC	Annually, as part of NRC and DOE reports
85. Activities to Carry Out the Purposes and Policies of Nuclear Non-proliferation Act (NNPA)	State, DOE, NRC, DoD	Currently informed
86. Nuclear Programs and Related Activities of Certain Countries (International Security and Development Cooperation Act (ISDCA))	President	Annually (as part of foreign aid presentations)
87. Nuclear Facilities and ESF Funds (ISDCA)	President	Prior to use of funds
88. Report on Foreign Government's Use of Chemical or Biological Weapons (CBWA)	President	March 4, 1993, then every 12 months
89. Report on the Proliferation of Missiles and Essential Components of Nuclear, Biological and Chemical Weapons (NDAA)	President	March 5, 1997; then annually
90. Nuclear Weapons Reduction (NDAA)	President	Annually, by February 1
91. Assistance to Support International Nonproliferation Activities (WMDCA)	SecDef	Quarterly
92. Determination to Waive Sanctions Against Iran and Iraq (Iran-Iraq Non-Proliferation Act (IINPA))	President	15 days after determination
93. Activities in Support of Counterproliferation Programs (NDAA)	SecDef	Annually by April 30
94. Assessment of the Counterproliferation Policy (NDAA)	Joint Committee for Review of Counterproliferation Programs	Each fiscal year
95. Individual Transfer of Arms (IINPA)	President	W/in 30 days after such transfer
96. Report on Transfers to Subject to Sanctions to Iran or Iraq (IINPA)	President	Beginning October 23, 1993 then annually
97. Counterproliferation Activities and Programs (NDAA)	SecDef	Annually by May 1
98. Limitation on Use of Funds for a Chemical Weapons Destruction Facility (NDAA)	President	Upon certification
99. Multilateral Sanctions Regime Against Iran (Iran and Libya Sanctions Act)	President	By August 5, 1997; periodically thereafter
100. National Defense Panel's Review of Force Structures of the Armed Forces (Military Force Structure Review Act)	SecDef and Chairman, JCS	Not later than December 15, 1997
101. Early Deactivation of Strategic Nuclear Delivery Systems (NDAA)	President	Funds may not be obligated until 30 days after submission of report

Title (Legislation that Contains Reporting Requirement)	From Whom	Frequency
102. Recommendations to Make Nonproliferation Laws More Effective (NDAA)	President	By March 21, 1997
103. Policy Functions/Operational Roles of Federal Agencies in Countering the Domestic Chemical/Biological Threat (DAWMD)	President	1st report due 12/23/96, 2nd report due 9/23/97, 3rd report due 12/99
104. International Border Security Assistance to States of the Former Soviet Union (DAWMD)	President	Upon certification
105. Commission to Assess the Organization of the Federal Government to Combat the Proliferation of Weapons of Mass Destruction (Combating Proliferation of WMD (CWMD)	Commission	By April 1998
106. Weapons of Mass Destruction Technology and Conventional Munitions (CWMD)	DCI	By April 1997; then every six months thereafter
107. Threat to the United States by WMD (NDAA)	SecDef	Annually by January 30
108. Budget for Carrying out Counterterrorism and Antiterrorism Activities (NDAA)	President	Annually by March 1
109. Findings, Conclusions and Recommendations of Advisory Panel (NDAA)	Advisory Panel to Assess Domestic Response Capabilities for Terrorism Involving WMD	Annually by December 15, 1999, and ending in 2001
110. Notification of Nuclear Export License (NDAA)	President	Upon granting of license
111. Report on Korean Peninsula Energy Development Organization (FOAA)	SecDef	Annually
112. Iraqi Development of WMD (FOAA)	President	By November 20, 1998

Appendix G: Resource Allocation—Budget Sub-function 05x

Establishing the specific composition of the 05x account will be difficult. Following is a list of specific considerations to help determine what should be included in the sub-function.[29]

The following categories should be included:

- Threat reduction
- Nonproliferation
- Counter-proliferation

When WMD may be included:

- Anti-/counter-terrorism
- Infrastructure protection
- Emergency response/management capabilities
- Domestic preparedness activities
- Export control efforts
- Epidemiological activities (e.g., bio-surveillance/early warning)

The cross-cut should include the following areas:

- State
- Defense
- Public health
- Intelligence
- Law enforcement
- Trade/Commerce
- Interagency (e.g., Nonproliferation and Arms Control Technology Working Group [NPAC TWG], Counterproliferation Program Review Committee [CPRC], and Technical Support Working Group [TSWG])

And overall budget categories:

- Operations and maintenance
- RDT&E
- Administrative (e.g., personnel, security, training, and overhead)
- Procurement/acquisition

[29] A list of abbreviations used in this appendix appears at the end of it.

Illustrative 05x Sub-function

As a starting point, this sub-function should include current proliferation-related efforts, as well as WMD-related counter-terrorism and domestic preparedness activities. It should also include, as possible, particular arms control (e.g., the Nuclear Non-Proliferation Treaty or the Comprehensive Test Ban Treaty), epidemiological (e.g. bio-surveillance), commercial (e.g., export control), and other specific activities of interest. Some arms control (e.g., land mines), counter-terrorism , and infrastructure protection activities, would not be included.

WMD-related programs are currently run by at least eight different cabinet-level departments—Defense, Energy, Commerce, State, Justice, Treasury, Health and Human Services, and Agriculture—along with the Intelligence Community. This should also cover such interagency technology development groups as the CPRC, TSWG, and NPAC TWG. While the Nuclear Regulatory Commission, the Environmental Protection Agency, the Department of Transportation, and other non-designated federal actors play some role in counter-terrorism, most, if not all, of their respective activities would not be included in the 05x account.

As an illustration, the following activities from the various federal departments and agencies that should become part of the newly-created 05x account are enumerated below (anything *not* explicitly mentioned should stay as it is):

Department of Defense

- Cooperative Threat Reduction program
- Passive measures, such as chem-bio defense programs
- Active measures, such as counterforce capabilities (e.g., weapons to defeat hardened, deeply-buried targets)
- DoD-Customs and DoD-FBI counter-proliferation programs
- Select force protection efforts and special operations capabilities [TBD]
- Intelligence support activities (i.e., specific WMD-related GDIP and TIARA)
- Domestic preparedness program
- Most currently-specified CPRC, TSWG, and NPAC TWG RDT&E efforts
- Diplomatic support activities carried out by the Office of Nonproliferation Policy and others, such as DTRA's On-Site Inspection Directorate
- Select planning capabilities (including personnel) in the Joint Staff, DTRA, and elsewhere [as appropriate, TBD]

Department of State

- NDF
- NIS export control efforts
- NIS science centers
- IAEA assessments
- OPCW assessments
- CTBT prep-com assessments
- KEDO funding
- UNSCOM support
- Some portion of proliferation-related arms control activities [e.g. MTCR, NSG, etc.; also percentage of strategic arms control treaties/negotiations]
- Select administrative costs [Bureau of Nonproliferation, some Bureau of Arms Control admin.]
- NPAC TWG overhead

Department of Energy

- IPP
- NCI
- MPC&A
- RERTR
- Reactor safety (NIS)
- North Korea spent fuel packaging
- Export control activities
- Plutonium disposition [IAEA voluntary, trilateral; NIS aid]
- Emergency response [NEST, etc.]
- All relevant CPRC, NPAC TWG, and TSWG technology development activities
- Some portion of proliferation-related arms control activities [e.g. NPT, CTBT, etc.; also, percentage of strategic arms control treaties/negotiations]
- Elements of stockpile stewardship
- Select administrative costs in DOE HQ [e.g., Office of Emergency Response, IN, elements of NN] and for the national labs

Department of Commerce

- Bureau of Export Administration (select administrative and overhead costs)
- Export control activities
- Support to international regimes
- Enforcement activities
- NIS export control assistance (with State)
- SABIT program

Department of Justice

- Select administrative/overhead costs for technology development, criminal investigations, operations
- WMD operations unit and counter-proliferation unit
- Elements of the FBI critical incident response group
- National Domestic Preparedness Office
- Some FBI counterintelligence
- Select cooperative international law enforcement activities
- Portions of AG's Office of Intelligence and Policy Review
- Critical infrastructure protection

Department of Treasury

- Portions/percentage of OFAC's work/overhead
- CFIUS
- Secret Service's CBRN program
- Customs: Strategic Investigations Division
- Customs: Georgian border security efforts
- Customs: WMD detection equipment (U.S. border security)

Department of Agriculture

- Select ARS R&D activities
- Select law enforcement and investigative activities
- PDD-62/63 activities

Department of Health and Human Services

- Select R&D activities (CDC, NIH, FDA)
- Select emergency/medical response/consequence management
- CDC: Public health surveillance and diagnostics
- CDC: Epidemiological capability
- CDC: Laboratory activities
- Pharmaceutical stockpile

Intelligence Community

- CPRC technology development activities
- Relevant portions of NFIP, JMIP
- Specific offices: personnel and admin. costs for relevant collectors, administrators, analysts, and researchers (e.g., NPC, CPD)
- Select field operations

Other Federal agencies or offices

- Nuclear Regulatory Commission (export control activities)
- Admin. or overhead costs for specific White House offices (or portions thereof): OMB, NSC, OSTP
- Department of Transportation (elements of: aviation security, infrastructure protection, detection and interdiction efforts, collaborative work with Customs, or other)
- National Information Protection Center
- FEMA

Specific Action Items:

1. Broker agreement on which categories of effort should be included, and how much of each (e.g., include threat reduction? Arms control?).

2. Similarly, specify which particular actors within the Federal agencies should be included, and to what extent (e.g., include all of CDC or just a specific office? How much of the foreign counterintelligence activities of the FBI or DOE?).

3. Determine which discrete budget categories (e.g., O&M, procurement, etc.) should be included in the proposed 05x account.

4. Further specify (i.e., revise above estimates with specific costs) other proliferation-relevant programs and activities of each federal actor (and administrative and other costs, as appropriate).

5. Compile composite matrix of estimated government-wide proliferation-related programs and related activities.

6. Draft a cross-cutting interagency resource allocation section, using composite matrix as a specific template.

Abbreviations

AG	Attorney General
ARS	Agricultural Research Service
CBRN	Chemical, Biological, Radiological and Nuclear
CDC	Centers for Disease Control and Prevention
CFIUS	Committee on Foreign Investment in the United States
CPD	Counterproliferation Division
CTBT	Comprehensive Test Ban Treaty
CPRC	Counterproliferation Program Review Committee
CW	Chemical Warfare or Chemical Weapons
DOE	Department of Energy
DoD	Department of Defense
DTRA	Defense Threat Reduction Agency
FBI	Federal Bureau of Investigation
FDA	Food and Drug Administration
FEMA	Federal Emergency Management Agency
FSU	Former Soviet Union
GDIP	General Defense Intelligence Plan
HHS	Department of Health and Human Services
IAEA	International Atomic Energy Agency
IN	Office of Intelligence
IPP	Initiatives for Proliferation Prevention
JMIP	Joint Military Intelligence Program
KEDO	Korean Peninsula Energy Development Organization
MPC&A	Material Protection, Control, and Accounting program
MTCR	Missile Technology Control Regime
NCI	Nuclear Cities Initiative
NDF	Nonproliferation and Disarmament Fund
NEST	Nuclear Emergency Search Team
NFIP	National Foreign Intelligence Program
NIH	National Institutes of Health
NIS	Newly Independent States of the former Soviet Union
NN	Office of Nonproliferation and National Security
NPAC TWG	Nonproliferation and Arms Control Technology Working Group

NPC	DCI Nonproliferation Center
NPT	Nuclear Nonproliferation Treaty
NSC	National Security Council
NSG	Nuclear Suppliers Group
OFAC	Office of Foreign Assets Control
O&M	Operations and Maintenance
OMB	Office of Management and Budget
OPCW	Organization for the Prohibition of Chemical Weapons
OSTP	Office of Science and Technology Policy
PDD	Presidential Decision Directive
R&D	Research and Development
RDT&E	Research, Development, Test and Evaluation
RERTR	Reduced Enrichment for Research and Test Reactors Program
SABIT	Special American Business Internship Program
TIARA	Tactical Intelligence and Related Activities
TSWG	Technology Support Working Group
UNSCOM	United Nations Special Commission on Iraq
WMD	Weapons of Mass Destruction

Appendix H: Technology Acquisition

A key finding of the Commission concerns the lack of tools appropriate for managing the diverse proliferation-related technology acquisition efforts of the federal government. In order to illustrate one such tool, consider the following taxonomy, intended to show the information parameters and conceptual organization necessary for effective interagency technology management and oversight. The specific items provided in the taxonomy are intended to be illustrative rather than a comprehensive list.[30]

The many federal departments involved with WMD technology acquisition have different, and often inconsistent, accounting systems. Indeed, the Department of Defense (DoD) at one time had over 100 different accounting systems. The goal of this management taxonomy is not to overrule or replace a given accounting system in any federal department or agency. Rather, the goal is to outline a coherent means to integrate the functional elements common to all these accounting systems to achieve the needed management comparisons. The following management taxonomy is inherently independent of any existing accounting system, even though it is more like some accounting systems than others.

Much work is needed to translate existing systems into any overarching management taxonomy, no matter how well conceived that taxonomy is, and diligence is required in each individual department to maintain coherence with it.

Stating the National Goals

Building the management taxonomy begins with a clear statement of the national goals for combating the proliferation of weapons of mass destruction. Many different ways to articulate these national goals may be found in various statements, publications, and strategy documents produced by the federal government. These statements need to be integrated. For illustration, all U.S. government responses to the WMD proliferation threat can be classified according to one or more of the following four national goals:

Proliferation Prevention/Denial

This class of responses includes all efforts designed either to prevent state or sub-state actor from starting development of a WMD operational capability or to inhibit such development, by means other than military force, once it has begun. Prevention/denial tools may include diplomacy, treaties, international and domestic law-enforcement efforts, and export controls.

[30] A list of abbreviations used in this appendix appears at the end of it.

WMD Deterrence (Short of Military Action)

Deterrence of WMD use is the next line of defense, assuming prevention fails. Deterrence may lead to the rolling back of an existing WMD capability by threatening punishment, political isolation, development of alliances, or the threat of overwhelming military response to a WMD attack.

WMD Military Action (Including Active Defenses and/or Retaliation)

This class of response includes all efforts to physically destroy an existing WMD operational capability or weapon delivery threat, and involves intelligence information, imminent threat identification, perpetrator identification, and interdiction capabilities both in the United States and abroad. This class of responses often targets the critical infrastructure elements of the threat organization, and, in the future, could include a substantial role for active defenses.

WMD Consequence Management

This class of response includes all efforts designed to reduce the harmful effects of a successfully fired WMD weapon. These efforts include active defenses, facility protection, personnel protection, mitigation of effects, emergency response procedures, and so on.

Obviously, these four response classifications have overlaps. For example, strong efforts in facility protection (WMD consequence management) may also act as a partial deterrent by forcing the threat organization to resort to so-called “asymmetric” attacks (i.e., attacks on our known vulnerabilities) or may reduce their willingness to use their existing capability because of its relative ineffectiveness. Similarly, individual U.S. government efforts to combat proliferation may contribute to multiple goals (such as most proliferation-related research and development efforts).

Next: Link Technology Programs to National Goals

The overall process should be designed to link specific WMD technology development efforts with one or more of the four national goals. It could consist of assigning, in hierarchical order, (1) the operational capabilities needed to achieve each goal, (2) the enabling technologies designed to help create or improve a required operational capability, (3) specific technology programs, organized to provide the identified enabling technologies, and (4) program milestones and funding.

The examples below use actual technology programs as reported in the 1998 Counterproliferation Program Review Committee report to Congress. All data are subject

to change; up-to-date data should be obtained from the originating agency. All assignments are by Commission staff only.

National Goal: WMD Prevention and Denial

Proliferation occurs with the acquisition of an operational WMD capability, or a key component therein, not currently possessed by state or sub-state actor, through one or more of the following means:

- Indigenous development,
- Unlawful acquisition (without consent from an existing source), or
- Direct acquisition (with consent from an existing source).

A WMD "source" consists of any state or sub-state actor that currently possesses an operational WMD capability or a key component therein. At present, all known WMD operational sources are states, but some key components may exist in private facilities, such as medical research laboratories.

Required Operational Capabilities (Sample):

- Continuous knowledge and forewarning of:
  - Sources of WMD technology proliferation
  - Indigenous WMD efforts (by states or sub-state actors)
  - Unlawful WMD acquisition efforts
  - Direct (WMD source-supported) acquisition efforts
- WMD capability assessments (of states or sub-state actors)
- WMD key technology identification
- Interdiction capabilities (for export control support)

Enabling Technologies (Sample):

- WMD source surveillance and intelligence-related technologies
- WMD technology and equipment identification and detection technologies (for support to customs and export control efforts and inspection teams)
- Treaty verification technologies
- Hazardous material handling and removal technologies

Technology Programs (Sample):

DoD Program

- PE 603711BR: Various Nuclear, Chemical, Biological and Strategic Arms Control/ Verification Technology Programs. RDT&E of technologies to support Comprehensive Test Ban Treaty (CTBT) implementation, compliance, and verification. Provide enhanced nuclear safeguards. Implementation, verification, monitoring, and inspection of chemical and biological weapons arms-control agreements. RDT&E of technologies to enable verification of START I, START II, and follow-on nuclear weapons treaties.

Department of Energy (DOE) Programs

- Detecting and Characterizing Worldwide Production of Nuclear Materials and Weapons: Continuing development of both remote and on-site complementary tools to detect and characterize foreign nuclear materials production activities. Includes the Chemical Analysis by Laser Interrogation of Proliferation Effluents (CALIOPE) program, development of a hyperspectral infrared imaging spectrometer for detecting effluents associated with nuclear materials production processes, and other nuclear weapons clandestine production detection efforts focused on the development of a small satellite demonstration system employing multispectral infrared imaging techniques.
- Monitoring Worldwide Nuclear Testing: Continued development and deployment of U.S. capabilities for monitoring the Limited Test Ban Treaty and the Comprehensive Test Ban Treaty. DOE has a long standing partnership with DoD in this area, with DOE designing and producing nuclear detonation detection sensor systems for deployment on DoD GPS and Defense Support Program satellites, and ground-based technical methods associated with the CTBT, and specifically intended for the International Monitoring System.
- Preventing and Detecting the Diversion and Smuggling of Nuclear Materials: This program focuses on detecting and preventing nuclear smuggling by securing nuclear material at its source, detecting stolen material in transit, responding to threatened and actual events, and determining the origin of intercepted material. Extensive DOE efforts are focused on protecting domestic nuclear materials and combating smuggling by securing potential sources of material in the United States. In late 1997, the “Second Line of Defense” program, aimed at improving Russian border detection capabilities and preventing nuclear materials, high explosives, and other dangerous substances from exiting the country, was begun. In addition, DOE and national laboratory personnel lead an international technical working group to help determine the sources of smuggled nuclear material.
- Securing Nuclear Materials, Technology, and Expertise in Russia, States of the Former Soviet Union, and the Baltics: Two DOE programs comprise the majority of

this activity: the Materials Protection, Control, and Accounting (MPC&A) program and the Initiatives for Proliferation Prevention (IPP). The MPC&A program is primarily related to nuclear materials security and nonproliferation, while the goal of the IPP is to engage scientists and engineers from the weapons institutes of the former Soviet Union in peaceful technology applications in order to help stabilize personnel and resources that represent a potential risk of "expertise proliferation."

- Reducing Inventories of Surplus Weapons-Usable Fissile Materials Worldwide in a Safe, Secure, Transparent, and Irreversible Manner: Efforts focus on implementing the disposition of surplus highly enriched uranium and plutonium and providing technical support to attain reciprocal actions for the disposition of surplus Russian plutonium. Multinational cooperation is under way to minimize the future demand for highly enriched uranium in civilian programs through the development of alternative low-enriched uranium fuels for research reactors.
- Strengthening the Nuclear Non-proliferation Regime: DOE will lead an interagency task force on warhead and fissile material to create START III options for warhead elimination and fissile material disposition. DOE will continue to support IAEA and UNSCOM by providing equipment, technologies, and expertise to perform monitoring and intrusive inspections in North Korea and Iraq.

Sample Program Milestones (Summarized at the PE/Project Level)

PE 603711BR: Nuclear Arms Control/CTBT Technology Support Program.

Objectives: This consolidated RDT&E program develops capabilities and technologies under the oversight of the Deputy for Nuclear Treaty Programs, to support the preparation, implementation, compliance, and verification of the CTBT. Work under this Program Element also includes the Chemical Biological Arms Control Technology Program and the Strategic Arms Control Technology Program.

Milestones:

Fiscal year (FY) 1999: All U.S. IMS monitoring stations operational.
Deliver IDC to CTBT international organization.
Complete BW history document
Demonstrate new tagging technologies

FY 2000: IMS and IDC operational

FY 2002: Develop nuclear weapon identification detectors.

Funding ($ in millions):

PE	Project	FY99	FY00	FY01	FY02	FY03	FY04
603711BR	N/A	55.22	N/A	N/A	N/A	N/A	N/A

National Goal: WMD Deterrence (Short of Military Action)

This class of responses includes all efforts designed to convince an adversary not to use a WMD operational capability already obtained by state or sub-state actor, short of physically destroying the capability. Deterrence may include political isolation, development of alliances, or the plausible threat of overwhelming military response to a WMD attack. The Commission includes technologies necessary to make the responses plausible (noting that many will be repeated in other categories).

Required Operational Capabilities (Sample):

- Substantially reduced vulnerability to WMD attack (facilities and people)
- Rapid force projection to remote areas
- Political support from international treaties or alliances

Enabling Technologies (Sample):

- Target hardening and personnel protection technologies (reducing the potential gain from a WMD attack)
- Advanced logistics technologies (for rapid force deployment)
- Conventional force projection technologies (e.g. cruise missile technology)

Technology Programs (Samples):

- PE 603228D: Joint Physical Security Equipment: Consolidates DoD activities for facility and nuclear and other high-value weapons protection equipment.
- PE 604384BP: Collective Protection/Contamination Avoidance/Individual Protection: NBC collective protection shelter development, NBC detection and warning systems EMD, EMD for individual protection. Expanded manufacture and Phase 2 clinical testing of vaccines and medical products.

Sample Milestones (Summarized at the PE/Project level)

Sample data not identified by the Commission.

National Goal: Military Action (Including Retaliation)

The use of military force is always targeted against a specific threat organization. Threat organizations may be independent (such as organized crime or fanatical political organizations), state-sponsored (including quasi-independent terrorist organizations), or actual states. No matter its size, a threat organization will have the following critical elements subject to military attack:

- threat organizational structure (including a command hierarchy, personnel expertise, communication capabilities, and so on);
- threat infrastructure facilities and resources (including financial resources, WMD device production facilities, key materials, headquarters and supply facilities, logistics, and so on);
- delivery systems (including transportation) for their WMD devices; and
- intended physical targets (in the United States or abroad) consistent with the goals and motivations of the organization.

Required Operational Capabilities (Sample):

The ability to physically destroy, while minimizing collateral damage, the:

- threat organizational structure,
- threat infrastructure facilities and resources, and
- threat delivery systems.

Enabling Technologies (Sample):

- Threat target identification and intelligence technologies (as in prevention)
- Force projection technologies (as in deterrence)
- Technologies to make hardened targets vulnerable
- Technologies that reduce collateral WMD damage after physical destruction
- Technologies that help ascribe organizational responsibility for a WMD attack (for retaliation)
- Active defenses

Technology Programs (Samples):

- PE 603750D: Tactical FLIR Pod Modification: Improved battle damage assessment of NBC/M and underground facilities.

- PE 603160BR: UAV-Based Collateral Effects Assessment Sensors. Unmanned Aerial Vehicle-based detection, identification, and tracking of chemical weapon collateral effects.
- PE 603160BR: Multiple Projects: Continuous surveillance, target characterization, and battle damage assessment of NBC/M and underground facilities. Collateral Effects Phenomenology Assessment. Source term characterization transport prediction, phenomenology experiments, and assessment tool development. Enhanced penetrating munitions for hard and underground target defeat. NBC/M Target Planning and Response/Vulnerability Assessment. Experimental and analytical analyses of target response/vulnerability and automated target planning for NBC/M facilities.
- PE 603160BR: Counter-proliferation ACTD's: Integrated operational testing to support early deployment of new counterforce capabilities against NBC/M and underground targets.
- PE 603750D: Tactical Multi-Sensor Data Fusion. Support NBC/M and underground target characterization and battle damage assessment.
- PE 603884BP: JBREWS ACTD. Accelerate fielding of warfighting capabilities for remote detection, identification, characterization, and early warning of biological weapons (BW) attacks. Includes demonstration and rapid fielding of selected man-portable and UAV-integrated BW detectors for remote detection and characterization of BW agents.
- PE 603884BP: Eye Safe LR-BSDS for Biological Warfare Detection. Accelerated deployment of airborne eye-safe IR LIDARS for standoff battlefield BW aerosol detection and tracking.
- PE 603160BR: Specialized Special Operations Forces Technologies and Prototype devices. Technologies to detect, disable, render safe, and recover critical components from NBC devices in a non-permissive and time-sensitive environment.
- PE 604327N: Navy Hard Target Munitions Program. Cooperative Navy/Army development of a conventional earth penetrating variant of the Army's Tactical Missile System.
- PE 602601F: LIDAR Remote Optical Sensing Technology Program. Develop LIDAR technologies used for standoff detection and battle damage assessment surveillance of NBC/M production, storage, and use.
- PE 604327F: Hard and Deeply Buried Target Defeat Capability. Joint Service evaluation and development of hard and deeply buried target defeat capabilities.
- PE 604222F: Agent Defeat Weapon Program. Develop capabilities to destroy, neutralize, immobilize, or deny an adversary access to BW/CW agents with little or no collateral damage.

- PE 602715BR: Hard Target Defeat Program. End-to-end evaluation and development of improved tactics and technologies for hard-target characterization and defeat, evaluation of conventional weapon lethality, and effects and collateral effects assessment. Maintain core competency in nuclear weapons effects. Test and simulation technology to validate weapon system survivability, force survivability assessments against nuclear weapons effects based upon test results.
- PE 603122D: Counter-terror Technical Support Program. Develop technical capabilities and prototype systems and concepts to detect, render safe, and defend against paramilitary and terrorist NBC threats.
- PE 603122D: SO/LIC Analytical Support. Research/analysis of technical, acquisition, and policy issues relating to special operations, counter-terrorism, and unconventional warfare.

Sample Milestones (Summarized at the PE/Project Level)

PE 602715BR, Projects AB, AC and AI. (Hard Target Defeat)

Objectives: Deliver to the warfighter an end-to-end deliberate planning capability for the defeat of tunnel facilities. This capability will include the ability to characterize a facility through the fusion of multi-sensor data and reverse engineering to identify critical functional nodes and potential vulnerabilities; identify functional disruptions and time to reconstitute when complete destruction of the facility is impossible or undesirable; assess numerous attack strategies in an automated fashion; assess bomb damage; and identify maximum lethality potential of conventional weapons beyond which other means (such as nuclear weapons) will be necessary. The lethality of several advanced weapon concepts resulting from the hard and deeply buried target defeat capability acquisition program and related service efforts will also be evaluated as part of this program.

Milestones:

FY 1999: Complete tunnel test-bed facility (simulated missile operations facility) at Nevada Test Site; develop signature database.

FY 2000: Demonstrate a capability to deny and disrupt operational (missile) tunnel facilities for a minimum of 48 hours using current conventional weapons; develop and incorporate target reconstitution models. Begin construction on tunnel test-bed #2 (WMD production/storage).

FY2001: Complete MEA Tunnel Module Version 2.0 (Missile Ops Tunnels). Prepare attack plans for tunnel test-bed #2. Demonstrate the effectiveness of nuclear weapon capabilities in defeating deep structures using precise, low-yield attacks by HE simulation.

FY 2002: Demonstrate a capability to deny and disrupt WMD production and storage facilities located in tunnels for at least 7 days with current and advanced conventional weapons. Encompass data into MEA Tunnel Module Version 3.0

FY 2003: Construct test-bed #3, a simulated C2 facility.

Funding ($ in millions):

PE	Project	FY99	FY00	FY01	FY02	FY03	FY04
602715BR	AB	**6.9**	**6.4**	**6.1**	**5.0**	**4.0**	N/A
602715BR	AC	**4.3**	**4.4**	**4.6**	**4.7**	**4.8**	N/A
602715BR	AI	**9.3**	**10.0**	**10.0**	**10.1**	**10.6**	N/A
	Total	**20.5**	**20.8**	**20.7**	**19.8**	**19.4**	N/A

National Goal: WMD Consequence Management

This class of responses includes all efforts designed to reduce the harmful effects of a successfully fired WMD weapon. These efforts include facility protection, personnel protection, mitigation of effects, emergency response procedures, and so on.

Consequence management may also support the goals of WMD prevention and deterrence by substantially reducing the potential “reward” from a WMD attack, while maintaining the associated risks.

Required Operational Capabilities (Sample):

- Substantially reduced vulnerability of facilities and personnel (civilian and military)
- Hazardous material handling and decontamination processes
- Rapid alert and effective response procedures to WMD attack
- Properly trained and equipped personnel
- Casualty treatment tools and techniques

Enabling Technologies (Sample):

- Facility hardening against WMD attack (especially chem/bio)
- Personnel protection technology (masks, clothing)
- Chem/bio detection and identification technology
- Risk assessment technology and modeling
- Medical treatment technology

- Active defenses

Technology Programs (Samples):

DoD Programs

- PE 603160BR: First Responder Support. Accelerated development of capabilities and technologies to enhance interagency response to CW/BW threats.
- PE 601384BP: Medical Chemical Defense. Basic research on medical counter-measures to CW agents and development of drugs and vaccines for BW defense,
- PE 602384BP: Chemical Biological Defense. Development of treatments for CW agent casualties, applied research on drugs and vaccine candidates for BW defense, CW/BW detection and warning, individual and collective protection, decontamination, and modeling support.
- PE 603384BP: Chemical/Biological Defense Systems. Non-clinical testing and evaluation of BW vaccine candidates and drugs, advanced technology development for new medical countermeasures for CW agents, technology demonstrations in CW/BW agent detection/identification, decontamination, and individual/collective protection.
- PE 604384BP: Collective Protection/Contamination Avoidance/Individual Protection. NBC collective protection shelter development, NBC detection and warning systems EMD, EMD for individual protection. Expanded manufacture and Phase 2 clinical testing of vaccines and medical products.
- PE 60365N: Joint Service Explosive Ordnance Disposal Systems Program. Special EOD equipment to locate, access, and render safe explosive devices, including NBC devices, for all services.
- PE 602383E: BW Defense Sensors Program. Research, development, and demonstration of technologies that will minimize impact of BW agents on future military operations. Develop new medical countermeasures, diagnostics, and consequence management tools.
- PE 603709D: Joint Robotics Program. Consolidates Service/DoD RDT&E efforts to demonstrate mature robotics technologies for Explosive Ordnance Disposal and other activities.

DOE Programs

- Detecting Chemical and Biological Agents. Responding to congressional direction and a CPRC recommendation, DOE, DoD and U.S. intelligence established a joint

R&D initiative in chemical and biological defense. DOE began its biological agent detection R&D program in FY 1997. The program is focused on leveraging DOE experience in traditional DOE missions and its Human Genome Project and consists of four thrust areas: fundamental biology (including genomic sequencing of pathogens), prediction (including urban terrain models), detection (using DNA-based technologies), and mitigation (including CW/BW decontamination technologies).

- Nuclear Emergency and Terrorism Response. DOE maintains several emergency response assets postured to respond to events that may occur should proliferation prevention efforts fail. This includes the Nuclear Emergency Search Team, which has primary responsibility for responding to acts of nuclear terrorism or other incidents involving nuclear weapons or devices.

Sample Milestones (Summarized at the PE/Project Level):

PE 603160BR: Project CB2 (CB Protective Clothing)

Objectives: Develop and demonstrate materials for a new generation of lightweight chemical/biological (CB) protective clothing ensembles based on selectively permeable membrane technology that will eliminate or reduce the use of carbon in CB clothing. The resulting advanced material system will be 20 percent lighter in weight than the battle dress overgarment material system, allow selective permeation of moisture while preventing the passage of common vesicant agents, provide protection against penetration by toxic agents in aerosolized form, and provide at least the current level of protection against toxic vapors and liquids. The ultimate objective is to demonstrate a CB protective garment that replaces the standard duty uniform.

Milestones:

FY 1999: Demonstrate material durability. Integrate advanced membranes with lightweight shell fabrics and novel closure systems into a lightweight CB duty uniform concept. The CB duty uniform will be launderable, 30 percent lighter in weight, and less bulky that the JSLIST duty uniform/overgarment system, with equivalent durability, reduced logistics burden and lower cost.

FY 2000: Fabricate and demonstrate a lightweight CB duty uniform that is 30 percent lighter with the same or better protection.

Funding ($ in millions):

PE	Project	FY99	FY00	FY01	FY02	FY03	FY04
602384BP	CB2	**0.5**	**0.6**	**0**	**0**	**0**	**0**

PE 603384BP: Chemical/Biological Defense System, Project BJ5

Objectives: Part of an integrated biodetection ATD designed to demonstrate two technologies: one that provides a pre-exposure warning for a biological attack and another

that provides an order-of-magnitude increased sensitivity to agents while adding a first-time virus identification capability with significantly reduced logistics. These logistical improvements include automated operation, fivefold reduction in size and weight, reduced storage requirements, and reduced consumables.

Milestones:

FY 1999: Products will be demonstrated separately and as an integrated force protection suite in future battlelab warfighting experiments.

Funding (in $ Millions):

PE	Project	FY99	FY00	FY01	FY02	FY03	FY04
603384BP	CB3	**6.1**	**0**	**0**	**0**	**0**	**0**

Abbreviations

ACTD	Advanced Concept Technology Demonstration
ATD	Advanced Technology Demonstration
BW	Biological Warfare or Biological Weapons
CALIOPE	Chemical Analysis by Laser Interrogation of Proliferation Effluents
CB	Chemical/Biological
CPRC	Counterproliferation Program Review Committee
CW	Chemical Warfare or Chemical Weapons
DNA	Deoxyribonucleic Acid
DOE	Department of Energy
DoD	Department of Defense
EOD	Explosive Ordnance Disposal
EMD	Engineering and Manufacturing Development
FLIR	Forward Looking Infra Red
FSU	Former Soviet Union
GPS	Global Positioning System
HE	High Explosive
IAEA	International Atomic Energy Agency
IDC	International Data Center
IMS	International Monitoring System
JBREWS	Joint Biological Remote Early Warning System
JSLIST	Joint Staff List
LIDAR	Light Detection and Ranging
LR-BSDS	Long Range Biological Stand-off Detection System
MEA	Munitions Effectiveness Assessment
MPC&A	Material Protection, Control, and Accounting program
NBC	Nuclear, Biological and Chemical
NBC/M	Nuclear, Biological, Chemical/Materials
R&D	Research and Development
RDT&E	Research, Development, Test and Evaluation
SO/LIC	Special Operations/Low Intensity Conflict
START	Strategic Arms Reduction Treaty
UAV	Unmanned Aerial Vehicle
UNSCOM	United Nations Special Commission (on Iraq)
WMD	Weapons of Mass Destruction

Additional Views

Additional Views of Senator J. James Exon

I generally endorse and applaud the findings and recommendations of the Commission in all sections of the report with the exception of portions of the Executive Summary and Chapter 2 regarding line authority and reporting requirements of the National Director for Combating Proliferation.

I dissent to those sections and urge the President and the Vice President to pursue a somewhat different and more comprehensive course of action to solve the obvious problems. I suggest the assigning of a more direct involvement and responsibilities to Cabinet-level officials, granting more authority to the National Director, and providing a sunset provision. My “Task Force” approach is briefly outlined below.

After finding that “weapons of mass destruction (WMD) pose a grave threat to U.S. citizens and military forces, to our allies and to our vital national interests in many areas of the world” the Commission has, in my opinion, settled on an executive solution that is short of the necessary.

In essence the Commission has recommended heavy new responsibilities for the Vice President, named a National Director for Combating Proliferation, and provided that that official chair a Combating Proliferation Council consisting of what I consider assistant secretaries from each of the agencies of government involved. The National Director is assigned the duty of supporting the President and Vice President and would hold the title of Deputy Assistant to the President. However, the National Director would report to the President and Vice President through the National Security Advisor!

What has been crafted, in my opinion, is another lower-level “working group” chaired by an assistant to the National Security Advisor with an impressive title but who chairs only a council consisting of officials from the many agencies involved. My concern is that the establishment will tend to give a “wink and nod” to such a council and continue the status quo.

If the problem is as critical and serious as the Commission has defined it to be, then it demands the immediate priority attention of the top most officials at every level of government. At this juncture time is of every essence. Relegating the solution back to where it principally now resides, in the National Security Council, is at best a half measure. Inserting the National Director under the National Security Advisor is no bold move demanded by the threat.

In my view the National Director must be an individual of national standing, one highly respected by Cabinet secretaries, visible previously in this area, and with a proven reputation for getting things accomplished. This individual should be prepared to obligate his or her full-time talents, at the request of the President, for a period of at least two years, to jump start this vital task. The President would not likely attract someone with the

qualifications I have suggested if that person would be required to be a subordinate in an existing agency of government and/or not serve directly under, and report directly to, the President and Vice President.

The Commission has assigned significant new time-consuming duties and responsibilities to the Vice President. I question whether the Commission has fully considered whether such assignments are realistic given the existing circumstances. In the view of this commission member, the next eighteen months are absolutely critical in improving and correcting our course in this area! We received testimony from the Vice President's staff cautioning against any significant new responsibilities for the Vice President given his already over-burdened important assignments. If one takes into account that the Vice President will also be running for President for the next eighteen months, a reasonable person might believe we may be expecting too much of the Vice President, given the circumstances. If this is accurate then the Commission's penchant for insisting that the Vice President be the "key" in carrying out our recommendations we run the risk of having our efforts fail because of a fettered key official of our own making!

During our deliberations I have been impressed with the understanding of the challenges by all the Cabinet secretaries and the key individuals and groups who work under their direction. While we have always had the tendency to blame the bureaucracy for any failures, I do not believe that to be the case with the less-than-adequate effort to address weapons of mass destruction. Indeed, the talent and strength of the bureaucracy is obvious in this area. In this instance the bureaucracy represents our greatest prospect to solve the problems. This does not mean that they are currently adequately funded, concentrated, marshaled, directed, or coordinated.

My impressions are that of all the WMD threats, we are better prepared and working in concert more with the nuclear threat. This is likely the case because we have been at this for half a century. The public and Congress are well aware of this threat. Not so with the chemical and biological threat, with the latter apparently the greatest near-term concern for a catastrophic event by most experts to whom the question was posed. What is clearly needed is better direction, coordination, and furtherance of a "team" effort, especially in the chemical and biological areas.

I feel that the Commission's recommendations tend to protect the prerogatives of the Cabinet secretaries unnecessarily, thereby protecting the individual bureaucracies, thwarting cooperation, and complicating the best chance for a united approach which is a must given the seriousness of this threat. Our recommendations diminish the intended authority of the National Director. It goes without saying that Cabinet secretaries would have the right to appeal any decision to the President. That is a given. However, spelling it out in our report invites a weakened National Director whereas I believe this is where we need the most strength.

The following is a brief outline of my suggested “Task Force” alternative:

The members of the Task Force would consist of the following:

1. An Executive Board consisting of the President, the Vice President, and an Executive Director, appointed by the President, who would devote exclusive full-time duties to the position and oversee all activities of the federal government in this area. The Executive Director would report directly to the President and Vice President.

2. The following “Principals” who would report directly to the Executive Director on all matters affecting this nation’s defenses against weapons of mass destruction.

a. The National Security Advisor

b. The Secretary of Defense

c. The Secretary of State

d. The Secretary of Energy

e. The Attorney General

f. The Director of the Office of Management and Budget

g. The Director of Central Intelligence

The seven “Principals” would be involved, under the guidance of the Director, to carry out the mission. These “Principals” could appoint a high-level person in their departments to work directly in their stead with the Director on a daily basis, but official positions of the individual “Principals” would be formally presented to the National Director by the Principals.

The Director would be required to hold at least monthly meetings with the Executive Board and formalized meetings for planning, discussion and decision making at least every six months with the full Task Force. These meetings of the entire Task Force would be chaired by the President or the Vice President and require the attendance of the “Principals” and/or their designees.

The Director would be authorized to employ not more than fifty employees (FTEs) to carry out the duties of this office, but could accept additional temporary personnel from other governmental agencies.

Sunset Provision

The Task Force would be activated with the naming of the Task Force members by the President, and would terminate 36 months thereafter unless earlier terminated by Presidential order. After 36 months the Task Force could be extended for periods of 12 additional months at a time by order of the President.

Additional Views of Margo D. B. Carlisle, Steven Cambone,[31] Henry F. Cooper, William Schneider, Jr., and Henry Sokolski

The Commission's work has addressed a crucial issue of public policy and national security—the organization of the Federal government to combat the proliferation of weapons of mass destruction and their means of delivery. The threat posed to the United States by proliferation has intensified dramatically in recent years. A recent independent review of the proliferation threat led by former Secretary of Defense Donald H. Rumsfeld observed that the threat has matured so rapidly, that the United States could be subjected to WMD attack in the near future "with little or no warning."[32] It is not surprising that this is so. The Commission has concluded that the efforts of the US government to combat proliferation today are neither effective nor command an appropriately high policy priority in the Executive branch of government.

The Commission's recommendations engage two broad areas of government organization. The first is the organization of government departments and agencies to perform their respective functions in combating proliferation. The performance of government agencies in the implementation of their mission to combat proliferation is uneven. The effectiveness of some agencies such as the Department of State have shown signs of improvement, while other agencies such as the Department of Energy have suffered a vertiginous decline. In the case of the Department of Energy, fundamental changes in management of nuclear proliferation-related functions in the Department are needed. We agree with the PFIAB's recommendation that an as an autonomous entity be formed either within the Department similar to the DOD's Advanced Research Projects Agency, or as an independent non-cabinet agency similar to the former Atomic Energy Commission. We prefer either of these suggestions to the Commission's proposed reorganization under an assistant secretary. We agree that the performance of government departments and agencies is crucial to a successful government-wide effort to combat proliferation. From a programmatic perspective, the ability of the government to combat proliferation will not necessarily be improved simply by applying additional resources to existing programs. However, we believe that the Commission's organizational recommendations will enable departments and agencies to better employ existing resources, and effectively use additional resources if they become available in the future to combat proliferation. Future administrations will benefit from the implementation of these recommendations.

The second dimension of the Commission's recommendations concerns the management and leadership of the interagency process. The Commission's recommends creation of a new position within the National Security Council staff to manage the interagency apparatus to combat proliferation. The official would be empowered with extraordinary

[31] Nominated
[32] Commission to Assess the Ballistic Missile Threat to the United States: Executive Summary, (Washington: GPO, 1998).

coordination authority to bring about an effective government-wide response to the proliferation threat. The Commission recommends that a sub-cabinet entity be created that parallels the cabinet-level policy management structure established by the National Security Act of 1947. The Commission's proposal responds to a specific set of circumstances that have adversely affected the responsiveness of the Federal government over several administrations to the proliferation threat—the difficulty in capturing sufficient Presidential involvement, the growing urgency of the proliferation threat, and the increasing complexity for policy and programs of the proliferation threat. These circumstances motivated the Commission to find a new solution to an urgent problem.

We endorse the Commission's proposed solution that can be realized through an Executive Order under the existing authority of the National Security Act. Every administration should be free to organize as it sees fit, especially in response to the mortal danger posed by proliferation. For this reason we view the proposed solution as one that this and succeeding administrations should consider seriously. More important than the particular details of the proposed solution are the principles on which it rests. These include the need for presidential leadership in establishing priorities, accountability among cabinet officers, the identification of NSC-level responsibility, the alignment of departmental organization with presidential priorities, and the integration of the government-wide effort to respond to the proliferation threat. We agree with the Commission's observation that “Presidential leadership is essential in combating proliferation. No organization structure can overcome a lack of commitment at the top.” The apparatus created a half century ago in the National Security Act has proven to be an extraordinarily effective, flexible, and robust instrument for advancing American security interest when committed leadership “at the top” is present.

Annex:
Organizational Overviews

Executive Office of the President

Introduction

This paper describes the role of the Executive Office of the President in U.S. proliferation-related activities. It discusses the National Security Council (NSC), the Assistant to the President for National Security Affairs, the NSC staff, the NSC interagency committee system, the Office of the Vice President, the Office of Management and Budget, and the Office of Science and Technology Policy.

National Security Council

The NSC was created by the National Security Act of 1947 as part of a general post-war reorganization of the U.S. national security apparatus. The function of the NSC, as outlined in the National Security Act, is to advise the President on "the integration of domestic, foreign and military policies relating to national security" so as to facilitate interagency cooperation. At the President's direction, the NSC may also "assess and appraise the objectives, commitments, and risks of the United States in relation to our actual and potential military power, in the interest of national security, for the purpose of making recommendations to the President." It is intended to be, as President Clinton said in Presidential Decision Directive (PDD)/NSC-2, "the principal forum for consideration of national security issues requiring presidential determination." The National Security Act and the PDD also make clear that the NSC and its subordinate committees perform a strictly advisory function. Decision making on national security matters remains exclusively with the President, as specified in the Constitution.

The statutory NSC members are the President, designated by law as chairman; the Vice President; the Secretary of State; and the Secretary of Defense. The Chairman of the Joint Chiefs of Staff is by law the principal military advisor to the NSC, and may, at the discretion of the President, attend and participate in NSC meetings. A similar provision of the act applies to the Director of Central Intelligence. In PDD/NSC-2, President Clinton invited the Secretary of the Treasury, the U.S. Representative to the United Nations, the Assistant to the President for National Security Affairs, the Assistant to the President for Economic Policy, and the Chief of Staff to the President to attend all meetings of the NSC. The Attorney General and the Director of the Office of National Drug Control Policy attend meetings pertaining to their jurisdiction.

PDD/NSC-1, signed by President Clinton on January 20, 1993, revised the framework governing the flow of NSC work. It established a Presidential Review Directive (PRD) series to direct that the departments and agencies undertake specific policy analyses. A

Presidential Decision Directive (PDD) series was created to promulgate presidential decisions on national security matters. PRDs and PDDs are usually, though not always, classified.

Notwithstanding the policy-making framework established by the National Security Act of 1947, as amended, contemporary presidents, including President Clinton, have preferred less formal means for receiving advice. The NSC rarely, if ever, meets as a corporate body. Instead, President Clinton consults his "foreign policy team," an informal group whose membership varies according to the issues under discussion, but which generally parallels the NSC. The President began this practice several years ago, after receiving criticism in the press and in Congress for lack of attention to national security affairs. For some time, the President met with his "foreign policy team" every two weeks. It is unclear with what regularity the practice continues. This illustrates, however, one of the great strengths of the National Security Act, from a President's perspective: it allows him to manage national security affairs according to his decision-making style, while providing a broad legal framework for the process of policy development and implementation.

Assistant to the President for National Security Affairs

Contrary to popular perception, the National Security Act of 1947 did not create the position of Assistant to the President for National Security Affairs. President Eisenhower established the position in 1953 with the appointment of Robert Cutler. Although the precise title of the incumbent has varied, the position has come to be known as the President's National Security Advisor. Under Eisenhower, Cutler (and each of his three successors) served as the principal executive officer of the NSC, setting the agenda, briefing the President, and supervising the staff. Based in part on the military staff system, the Special Assistant to the President for National Security Affairs facilitated the decision-making process, but had no substantive role and did not function as a policy advocate.

The role of the National Security Advisor, like the NSC, has evolved considerably in the ensuing years. To a great extent, it has been a function of the operating style of the President, as well as the personality of the incumbent National Security Advisor. (See ***Report of the President's Special Review Board***, February 26, 1987, p. II-2 and 3, for a discussion of the functions of the National Security Advisor.)

In the Clinton Administration, the National Security Advisor's involvement in proliferation-related matters is similar to his role in other substantive areas. He is the "honest broker" for the NSC process, assuring that issues and options developed by the NSC Principals Committee are clearly presented to the President and that all relevant views are accurately conveyed. He is a confidential and independent advisor to the President. He monitors implementation of the President's national security policies. He develops policy initiatives. He keeps the President informed about foreign developments and activities both in Congress and in the departments and agencies that affect the President's national security

policies through a briefing scheduled, though not held, daily. (The Vice President also attends these briefings when he is available.) He is frequently a spokesman for the President on national security policy, including proliferation-related policy, as was the case in Sandy Berger's recent speech to the Carnegie International Conference on Non-Proliferation. Working through his two deputies and the NSC Executive Director, the National Security Advisor also manages the NSC staff.

To exercise his responsibilities to the President, the National Security Advisor seeks to maintain close working relations with the other members of the President's national security team. He meets regularly with the Secretaries of State and Defense in so-called "ABC" ("Albright-Berger-Cohen") breakfasts, and with the Director of Central Intelligence. Issues related to proliferation, because they are an Administration priority, can be assumed to be on the agenda of many of these meetings.

The National Security Advisor also plays an active role in meeting and communicating on behalf of the President with his counterparts in foreign governments.

In short, the President's National Security Advisor is deeply involved in the substance of national security affairs. In a time when proliferation-related issues hold center stage, and in an Administration in which proliferation-related policies are a high priority, the National Security Advisor is directly and deeply engaged. At the same time, proliferation is but one of many priority concerns that occupy him.

NSC Staff

The National Security Act of 1947 gave the NSC "a staff to be headed by a civilian executive secretary" appointed by the President. The intent of Congress appears to have been for the NSC staff to support the Council as a corporate body in its task of coordinating national security issues. In practice, the NSC staff has come to serve and represent the President, who instructs it through the National Security Advisor.

The NSC staff under President Clinton is composed of regional, functional, and support directorates that are, in most cases, headed by a "Senior Director" who also holds the protocol rank of "Special Assistant to the President." Responsibility for proliferation-related issues is shared, on the functional side, among the Senior Director for Non-Proliferation and Export Controls, the Counselor (formerly Senior Director) for Defense Policy and Arms Control, and several regional directors. The main regional directorates with proliferation-related policy interests are Russia, Ukraine, and Eurasia; Near East and South Asia; and Asia.

The degree to which the Senior Directors affect policy depends on several factors:

- the salience of their issues for the President and the National Security Advisor;

- the confidence that others in the White House appear to have in their abilities;

- the degree to which they are perceived as “expert” or “activist,” or both;

- their skill in bureaucratic maneuver and negotiations; and

- their personal qualities, particularly in trust and discretion.

Although the National Security Advisor does project to the departments and agencies a sense of the extent to which White House direction may be imposed, the performance of individual NSC staff members often determines how successful the White House will be. This is particularly true for cross-cutting issues such as proliferation because they invariably involve a range of actors in both the White House and the departments and agencies.

Senior Director for Non-Proliferation and Export Controls. The Senior Director for Non-Proliferation and Export Controls heads a staff of three professionals and two support personnel.

- The current Senior Director, a career State Department official, serves on a non-reimbursable detail. Primarily because of his extensive background in regional proliferation-related matters, he personally manages Middle East, South Asia, and Northeast Asia issues, as well as supervising his staff of three directors.

- One director, an agency detailee, oversees Russia and the New Independent States, proliferation-related aspects of the Cooperative Threat Reduction program, and security of fissile materials, technologies, and expertise.

- A second director, the only NSC employee of the four professionals, oversees chemical and biological weapons and missile issues, including the Chemical Weapons Convention, the Biological Weapons and Toxin Convention, the Missile Technology Control Regime, and the Australia Group.

- The third director, a career employee detailed from the Department of Commerce, follows conventional arms proliferation and export controls, including the nuclear regimes (the Nuclear Non-Proliferation Treaty, the Nuclear Suppliers Group, the Fissile Material Control Treaty, the Comprehensive Test Ban Treaty, and the Nuclear Weapons Free Zone treaties).

The current Senior Director, as with his predecessor, was promoted from within, having served as a director in the office prior to the departure of his predecessor. The President's National Security Advisor makes the final determination on hiring Senior Directors.

The process for selecting directors is informal. The Senior Director "announces" a vacancy to his proliferation colleagues in the departments and agencies. They, in turn, suggest potential candidates to the Senior Director. The Senior Director interviews the candidates and makes a recommendation to the Deputy National Security Advisor. The Deputy interviews the Senior Director's choice and, if he concurs, approves the recommendation.

NSC budget limitations require that directors be reimbursable detailees, so the Senior Director recruits them from among career federal military and civilian professionals. This has some advantages, as the positions require a detailed knowledge of the issues, agencies, and persons involved in proliferation-related policy, and the pace of work does not allow time for on-the-job training. Hence, career professionals tend to make the best fit.

The current Senior Director would like to have one additional director, preferably a Foreign Service Officer with diplomatic negotiations experience, to handle regional proliferation matters. He believes the addition of another director would free the Senior Director to manage his staff more efficiently and assist more readily in crisis or urgent situations.

The Senior Director for Non-Proliferation and Export Controls chairs the Interagency Working Group in his functional area. However, this responsibility will soon be transferred to the office of the new Under Secretary of State for Arms Control and International Security/Special Advisor to the President for Arms Control, Non-Proliferation and Disarmament. The transfer is a product of the internal Administration negotiations concerning integration of the Arms Control and Disarmament Agency (ACDA) into the State Department. (See below.)

The Senior Director, who also chairs the Highly Enriched Uranium (HEU) Oversight Committee, responsible for implementation of the U.S.-Russia HEU Agreement, expects to continue to chair a biweekly meeting of Intelligence Community proliferation analysts, and department and agency proliferation specialists held via a secure video teleconferencing system.

Counselor for Defense Policy and Arms Control. In the Bush Administration, proliferation-related issues and export controls, plus defense policy and arms control, were the province of a single senior director, who had one staff member to oversee proliferation-related and export controls issues. The latter functional area was assigned to a separate senior director in the Clinton Administration, reflecting the higher priority accorded proliferation-related matters by the President. Some related issues, however, remained with the Senior Director for Defense Policy and Arms Control, recently renamed "Counselor." These include Comprehensive Test Ban Treaty negotiations, U.S. nuclear posture, START treaty negotiations, ballistic missile defense policy, National and Theater

Missile Defense programs, and that portion of the Cooperative Threat Reduction program involving destruction of ballistic missiles. The Counselor shares with the Senior Director for Non-Proliferation and Export Controls responsibility for policy relating to nuclear weapons free zones and the Conference on Disarmament.

The Counselor is also responsible for assembling the President's annual report on U.S. National Security Strategy, required by an amendment to the National Security Act. This report is the primary official statement of U.S. national security strategy and contains a significant section on proliferation. Typically, the proliferation section is drafted in the Department of State, edited by the Senior Director for Non-Proliferation and Export Controls, and coordinated widely throughout the executive branch.

Regional Senior Directors. As noted above, three regional Senior Directors—Russia, Ukraine, and Eurasia; the Near East and South Asia; and Asia—have major proliferation and export control issues in their portfolios. Physical proximity of offices in the Old Executive Office Building, secure telephone and e-mail connections, and frequent participation in meetings on issues of common concern facilitate cooperation with the Senior Director for Non-Proliferation and Export Controls and with other interested NSC staff members.

The Senior Director for Russia, Ukraine, and Eurasia has, since the outset of the Clinton Administration, had a very close relationship with the Senior Director for Non-Proliferation and Export Controls. Indeed, negotiations concerning proliferation issues and export controls have been central to the U.S.-Russian relationship. The two senior directors and their staffs are in constant contact on these issues and cooperate extensively. Together, they also work closely with the Vice President's national security affairs staff to ensure that the Vice President is well-prepared for meetings and conversations with Russian leaders.

Proliferation concerns in Iran, Iraq, India, and Pakistan also require close coordination between the Senior Director for Near East and South Asia and the proliferation directorate. After the Indian and Pakistani nuclear tests, for example, the Senior Director for Non-Proliferation and Export Controls took the lead on sanctions implementation and export control issues, while the regional Senior Director worked with the Deputy Secretary of State on diplomatic responses.

Proliferation issues have been an important element of U.S.-China relations and at the center of U.S.-North Korea relations, requiring that the Senior Director for Asia work closely with the Senior Director for Non-Proliferation and Export Controls. He estimates that they are in contact with each other at least three or four times each day. The Asia staff has a military officer on reimbursable detail who focuses closely on North Korea and, in fact, has been a member of the State Department-led team negotiating with the North Koreans. The Senior Director, a well-known expert on China, oversees Chinese issues.

Although responsibility for proliferation-related matters is diffused among several directorates, it appears to be only on the rarest occasions that the NSC regional directorates do not coordinate relevant cables, meeting papers, correspondence, and other memoranda with the Non-Proliferation and Export Controls staff. In general, the evidence suggests the NSC staff works well as a team on proliferation-related issues.

National Coordinator for Security, Infrastructure Protection, and Counter-Terrorism. Originally the Senior Director for Global Affairs, with responsibility for diverse issues ranging from the United Nations to international crime and counter-terrorism, this office acquired responsibility for protection of critical infrastructure as a result of the recommendations of the President's Commission to study that subject. The National Coordinator reports to the President through the National Security Advisor. The National Coordinator's role is detailed in PDD-63, an unclassified synopsis of which describes him as overseeing preparation of a National Infrastructure Assurance Plan involving assessment of the vulnerability of infrastructure in critical sectors of the economy and remedial planning. Among the threats to be considered is covert employment of weapons of mass destruction against the United States.

National Coordinator on Nonproliferation Matters. In the National Defense Authorization Act for fiscal year 1997, Congress directed the President to designate a "National Coordinator on Nonproliferation Matters" to serve under the direction of the NSC and advise the President on "non-proliferation of weapons of mass destruction, including issues related to terrorism, arms control, and international organized crime." The National Coordinator was to chair a high-level, interagency NSC Committee on Proliferation with broad responsibilities, including development of a comprehensive WMD preparedness program (see below). The National Coordinator was also to ensure emphasis on, coordination of, and cooperation in U.S. Government-funded proliferation-related research efforts. Congress authorized $2,000,000 for this purpose, but did not appropriate the funds.

There is no information in the public domain to indicate that the President complied with this statute by naming a National Coordinator on Nonproliferation Matters. The National Coordinator for Security, Infrastructure Protection, and Counter-Terrorism does, however, have some of the responsibilities identified for the Nonproliferation Coordinator, including preventing acquisition and use of WMD or related materials or technologies by terrorist and organized crime organizations, and WMD consequence management.

The Interagency Committee System

NSC Principals Committee. The NSC Principals Committee was established by President Bush and continued with some modification by President Clinton in PDD/NSC-2 as the senior interagency forum for the consideration of policy issues affecting national security. The function of the Principals is to review, coordinate, and monitor the

development and implementation of national security policy. It is intended to be a flexible instrument, “a forum available to Cabinet-level officials to meet to discuss and resolve issues not requiring the President’s participation.”

The National Security Advisor chairs the Principals Committee. Its members include:

- the Assistant to the President for National Security Affairs (chair)
- the Secretary of State (or Deputy Secretary)
- the Secretary of Defense (or Deputy Secretary)
- the U.S. Representative to the United Nations
- the Director of Central Intelligence
- the Chairman of the Joint Chiefs of Staff
- the Assistant to the President for Economic Policy
- the Assistant to the Vice President for National Security Affairs (added in January 1997)

The Secretary of the Treasury, the Attorney General, and other heads of departments and agencies are invited as needed. The Secretaries of Energy and Commerce, or their Deputies, are routinely invited to Principals Committee meetings involving proliferation-related issues. As a result of the internal Administration negotiations concerning reorganization of the foreign affairs agencies, PDD/NSC-65 provides that the Under Secretary of State for Arms Control and International Security/Senior Advisor to the President for Arms Control, Non-Proliferation and Disarmament is invited to attend meetings concerning matters pertaining to arms control, proliferation, and disarmament. Other members of the White House staff, including the President’s Chief of Staff, the Director of the Office of Management and Budget, and the Deputy Assistant to the President for National Security Affairs, may also attend, depending on the agenda.

NSC Deputies Committee. The Deputies Committee, also established by PDD/NSC-2, is the senior sub-Cabinet interagency forum for consideration of policy issues affecting national security. The function of the Committee, according to PDD/NSC-2, is to review and monitor the work of the NSC interagency process and to focus attention on policy implementation.

Members of the Deputies Committee include:

- the Deputy Assistant to the President for National Security Affairs (chair)

- the Under Secretary of Defense for Policy
- the Under Secretary of State for Political Affairs
- the Deputy Director of Central Intelligence
- the Vice Chairman of the Joint Chiefs of Staff
- the Assistant to the Vice President for National Security Affairs
- the Deputy Assistant to the President for Economic Policy

The chair of the Committee, in consultation with the State and Defense representatives, may invite others to attend Deputies Committee meetings. In fact, the OMB Associate Director for National Security and International Affairs and the Under Secretary of the Treasury for International Affairs are invited to most Deputies Committee meetings. Representatives of the Secretary of Energy and the Secretary of Commerce are routinely invited to meetings involving proliferation-related matters. As in the case of the Principals Committee, the Under Secretary of State for Arms Control and International Security/ Senior Advisor to the President for Arms Control, Non-Proliferation and Disarmament is invited to attend all Deputies Committee meetings concerning proliferation-related matters.

The Deputies meet frequently, often two or three times per week, to address current concerns. The President's Deputy National Security Advisor calls Deputies Committee meetings, determines the agenda, and ensures that papers are prepared and distributed. Papers are normally drafted by the State Department in a format that lays out a range of views and options. The NSC Senior Director with regional or functional responsibility for the issue under consideration writes a separate paper for the chair. This paper provides additional information to the chair concerning the positions of various departments and agencies, suggests a sequence for orderly consideration of the issues, and identifies preferred outcomes. When proliferation-related issues are taken up in the broader context of regional or country-specific policy, the drafting task falls to the NSC regional office involved. If the issue is exclusively proliferation-related, a rare instance, the Senior Director for Non-Proliferation and Export Controls prepares the paper. In either case, the respective senior directors coordinate closely.

Deputies Committee meetings produce a variety of results ranging from agreement on policy options to send to the Principals, to agreement that issues do not rise to the level of the Principals, to agreement to send issues to an interagency group for further work. By its nature, the Deputies Committee focuses on immediate problems. While the Deputies have occasionally met to consider long-term policy matters, such sessions are unusual. They have frequently addressed proliferation-related issues, but there is little information in the public domain concerning Deputies dealing with proliferation in a long term context.

NSC Interagency Working Groups. PDD/NSC-2 authorizes the Deputies to establish a system of Interagency Working Groups (IWGs), some permanent and others ad hoc. While the PDD empowers the Deputies to determine the chairs of the IWGs, other forces intervened in the case of the NSC IWG on Non-Proliferation and Export Controls, the principal interagency group for proliferation-related issues. As originally written, PDD/NSC-2 stated that "[i]n general, foreign policy and defense issues should be chaired at the Assistant Secretary level by the Departments of State and Defense, respectively...and intelligence, ***non-proliferation***, arms control and crisis management by the NSC." (Emphasis added.) Thus, for the first six years of the Clinton Administration, the IWG has been chaired by the NSC Senior Director for Non-Proliferation and Export Controls.

As a result of the State Department reorganization that Congress mandated in the Foreign Affairs Reform and Restructuring Act of 1998, however, the State Department will shortly assume the chair of the non-proliferation IWG. PDD/NSC-65 changed the basic PDD to provide that "[i]n general, foreign policy and ***non-proliferation*** issues should be chaired at the Assistant Secretary level by the Department of State." (Emphasis added.) Presumably, the Assistant Secretary for Non-Proliferation, a position established under the Under Secretary for Arms Control and International Security Affairs, will replace the NSC Senior Director for Non-Proliferation and Export Controls as chair of the IWG, though the Senior Director will remain an important member.

The change to the PDD regarding who chairs the Non-Proliferation and Arms Control IWG resulted from lengthy negotiations over the integration of the independent foreign affairs agencies—ACDA, the Agency for International Development (AID), and the U.S. Information Agency (USIA)—into the State Department. (See "Reorganization Plan and Report," submitted by President Clinton to Congress on December 30, 1998, pursuant to Section 1601 of the Foreign Affairs Reform and Restructuring Act of 1998, as contained in P.L. 105-277.) In fact, possibly as a consequence of the uncertainty surrounding reorganization, the IWG has been meeting less frequently and more informally than in the past. Nonetheless, the IWG maintains a structure of interagency sub-groups devoted to specific issues, including plutonium disposition, chemical weapons, biological weapons, and export controls. Presumably, the new IWG chair will appoint sub-group chairs, as neither the reorganization plan nor the internal Administration negotiations appear to have specified which agency will chair each sub-group.

PDD/NSC-13, which is classified, established and directed implementation of U.S. policy on proliferation and export controls, and it assigned responsibility for implementation of the President's policy agenda to the IWG on Non-Proliferation and Export Controls.

A second NSC interagency group that deals with proliferation-related concerns is the IWG on Defense Policy and Arms Control. This IWG, chaired by the NSC Counselor for Defense Policy and Arms Control (a new title for the Senior Director), assists the Deputies on matters relating to the defense budget, programs, and policy, nuclear arms control, and conventional arms control. The IWG's purview includes the Comprehensive Test Ban

Treaty negotiations, U.S. nuclear posture, START implementation, and ballistic missile defense policy. Who would chair this IWG was also an issue in the negotiations surrounding the integration of ACDA into the State Department. The NSC strongly objected to handing the chair of the Defense Policy and Arms Control IWG to State because of the clear interagency nature of the IWG, and the President decided to maintain the status quo. As in the case of the IWG on Non-Proliferation and Export Controls, the membership, functions, and activities of this IWG are delineated in a classified PDD.

A third interagency group of consequence for proliferation-related interests is the Critical Infrastructure Coordination Group (CIGC), under the chair of the National Coordinator for Security, Infrastructure Protection, and Counter-Terrorism. PDD-63 requires that departments and agencies appoint to the CIGC a representative at the Assistant Secretary level. Reporting to the Deputies, the Group is responsible for coordinating the implementation of PDD-63 to protect the critical infrastructure of the United States from intentional attack, including attack by weapons of mass destruction. NSC directors serve on CIGC sub-groups working on the nuclear, biological, and chemical weapons threat posed by non-state actors. The Office of Science and Technology Policy's Associate Director for National Security and International Affairs chairs the Research and Development Sub-group.

In addition to these functional interagency groups, various regional interagency groups focus on proliferation in the broader context of U.S. foreign relations. These groups sometimes report directly to the Principals Committee, as in the case of the Policy Support Group (PSG) on Russia and the NIS and the Interagency Working Group on South Asia, both chaired by the Deputy Secretary of State. The Deputy Secretary formed and chaired the former group when he was Coordinator of Russia/NIS programs in the State Department and continued to chair the PSG when he moved on to become Deputy Secretary. In the case of the South Asia IWG, the Deputy Secretary took the chair following the May 1998 Indian and Pakistani nuclear tests. The informal group on North Korea, chaired by the State Department Counselor, manages issues relating to that country, including proliferation. The NSC Senior Director for Non-Proliferation and Export Controls and NSC Senior Directors for Russia, Ukraine, and Eurasia; Near East and South Asia (NESA); and Asia, respectively, are represented on these groups. Additionally, the NSC Senior Director for NESA and the Assistant Secretary of State for Near East Affairs co-chair an IWG on Iraq that meets almost daily via the secure video teleconferencing system and weekly on a face-to-face basis.

Each of these regional interagency groups considers critical proliferation-related issues as they are embedded in U.S. policy toward and relations with various regions and countries.

NSC Committee on Transnational Threats. The National Security Act was amended in 1996 (P.L. 104-293) to establish within the NSC a "Committee on Transnational Threats," chaired by the President's National Security Advisor, and composed of the Director of Central Intelligence, the Secretary of State, the Secretary of Defense, the Attorney

General, and such other members as the President may designate. The function of the Committee is to coordinate and direct the activities of the government to combat "transnational threats," which the statute defines as "any transnational activity (including international terrorism, narcotics trafficking, ***the proliferation of weapons of mass destruction and the delivery systems for such weapons***, and organized crime) that threatens the national security." (emphasis added) or any individual engaged in such activities.

In carrying out its function, the Committee is directed to:

- identify transnational threats, develop strategies to enable the United States to respond to these threats, and monitor their implementation;
- assist in the resolution of operational and policy differences between agencies in their responses to transnational threats;
- develop policies and procedures to ensure the effective sharing of information about transnational threats among the departments and agencies, including the Intelligence Community and law-enforcement agencies; and
- develop guidelines to improve coordination between the Intelligence Community and federal law-enforcement agencies outside the United States with respect to these threats.

There is no information in the public domain to suggest that the Committee on Transnational Threats has organized or met. The Committee's function and membership, however, appear to parallel the broad authority given to the NSC Principals Committee under PDD/NSC-2.

NSC Committee on Proliferation. The same Congress that established the NSC Committee on Transnational Threats also established, but by different legislation (P.L. 104-201), the NSC Committee on Proliferation. The Proliferation Committee has a similar, though more detailed, mandate with regard to proliferation matters, but there are some differences between the two committees. The "National Coordinator for Nonproliferation Matters," established by the same legislation, chairs the Proliferation Committee, while the President's National Security Advisor chairs the Transnational Threats Committee. The Proliferation Committee has a wider membership than the Transnational Threats Committee (adding the Secretaries of the Treasury, Energy, and Commerce and the Administrator of the Federal Emergency Management Agency), and a sunset provision for September 30, 1999. The NSC Proliferation Committee was to review and coordinate federal programs, policies, and directives relating to proliferation, "including matters relating to terrorism and international organized crime," and to recommend to the President through the NSC:

- integrated national policies for countering WMD threats;
- options for integrating federal agency budgets for countering such threats;
- means to ensure that all levels of government have adequate capabilities to manage crises involving nuclear, biological, or chemical weapons or related materials and technologies, and to manage the consequences of use of these weapons or technologies, and that use of those response capabilities is coordinated; and
- coordination of smuggling prevention, domestic law enforcement, anti-organized crime efforts, materials and technologies safeguarding, intelligence and law- enforcement activities, and export controls regarding proliferation.

The President, acting through the NSC Committee on Proliferation, was directed to develop a comprehensive preparedness program, including plans for:

- countering proliferation of WMD and related materials and technologies;
- training and equipping federal, state, and local officials to manage a crisis involving a use or threatened use of WMD, including consequence management;
- providing regular sharing of information among intelligence, law-enforcement, and customs agencies;
- training and equipping law-enforcement units, customs services, and border security personnel to counter smuggling of WMD and related materials and technologies;
- establishing export controls relating to WMD;
- encouraging and assisting foreign governments to implement and enforce anti-WMD smuggling laws;
- developing confidence building measures with Russia concerning controls over nuclear weapons and fissile materials, including verification of dismantlement of nuclear weapons;
- reducing the U.S. and Russian stockpiles of excess plutonium; and
- studying the establishment of a global network to detect and respond to terrorist or other criminal use of biological agents.

Finally, the law required the President to report to Congress in his fiscal year (FY) 1998 budget on his specific plans for the comprehensive preparedness program, with budget estimates by department and agency for FY 1998 and the following five years.

As with the NSC Transnational Threats Committee, there is no information in the public domain to suggest that the NSC formed the Proliferation Committee, but it could be argued that the NSC Principals Committee performs the same function.

Office of the Vice President

The Vice President's responsibility in U.S. proliferation-related activities is rooted in his statutory membership on the National Security Council, but his role derives from the solicitation of his advice by the President and the specific tasking on national security matters given him by the President. The Vice President's facility as an advisor on national security affairs, including combating the proliferation of weapons of mass destruction, obviously depends on his personal chemistry with the President, as well as his own background, diplomatic skills, and experience in these matters. From the outset of the Clinton Administration, the President expressed confidence in the Vice President's foreign policy knowledge and abilities, relied on him regularly for advice on key issues, and assigned him broad responsibilities and specific tasks, which included proliferation-related problems.

The Vice President's national security affairs staff is composed of a National Security Advisor, who is appointed by the Vice President and occupies a White House personnel position; a Deputy National Security Advisor, also appointed by the Vice President and detailed from a department or agency; six substantive specialists; and six support personnel, also detailed from departments and agencies. Each substantive specialist manages a portfolio of regional and functional issues, roughly paralleling the NSC senior director structure. Thus, the substantive specialist responsible for proliferation and export control issues may also cover other functional areas, such as Defense Policy and Arms Control, and possibly a region as well. Given its extremely small size and the breadth of its responsibilities, the Vice President's national security affairs staff must work very closely with the NSC staff.

The Vice President and his national security affairs staff become involved in U.S. proliferation-related activities through (1) the Vice President's function of advising the President on national security issues, either informally or as a member of the President's foreign policy team, and his participation in the President's White House meetings with visiting foreign leaders, (2) the Vice President's own meetings and conversations with senior foreign government officials, both in Washington and on official travel abroad, (3) the binational commissions authorized by the President and co-chaired by the Vice

President with the Prime Minister of Russia, the President of Ukraine, the President of Kazakhstan, and the Deputy President of South Africa, and (4) the National Security Advisor's membership on both the NSC Principals Committee and Deputies Committee.

Advising the President. The Vice President directly advises the President on national security affairs by several means. From the beginning of the Clinton Administration, the Vice President has scheduled a private lunch with the President each week. The Vice President's agenda for this lunch is developed by his Chief of Staff, with inputs from the senior staff, and may include matters related to proliferation if the National Security Advisor determines that such matters are timely and important. As indicated above, the Vice President attends the President's daily intelligence and national security briefings in the Oval Office. He also attends the President's irregular meetings with his foreign policy team, at which proliferation-related issues are often discussed. The Vice President also participates in the President's meetings with foreign leaders in the White House, where, depending on the relevance to the particular visitor, proliferation-related matters are sometimes on the agenda. The Vice President reviews all Principals Committee and other decision memoranda on national security matters, and his views are incorporated and specified in the recommendations to the President. Additionally, the Vice President sees in advance, and often comments on, most presidential speeches and statements relating to national security affairs, including those in which proliferation is an issue.

Meeting with Foreign Officials. Vice President Al Gore has maintained an exceptionally active calendar of meetings with senior foreign officials, both in Washington and on official visits to foreign capitals. As a consequence of his interest and experience, he has been asked by the President through his National Security Advisor to raise proliferation-related issues with a diverse group of foreign government officials, political leaders, and heads of state and government. He has developed close, personal relationships with several foreign leaders with whom he remains in contact via cables, telephone calls, and personal meetings.

A prominent, and public, example of the Vice President's role in proliferation-related matters was his acceptance of the task of addressing the Nuclear Non-Proliferation Treaty (NPT) Extension Conference in New York in May 1995. As a result of his personal relations with some of the key foreign officials involved in the NPT conference, the Vice President played an important part in developing and implementing the U.S. strategy that produced a successful outcome.

Working through Binational Commissions. During their first summit in Vancouver in April 1993, President Clinton and Russian President Boris Yeltsin discussed a variety of economic and security issues, including proliferation matters. Among the agreements reached at Vancouver was a plan to set up working groups involving high-level officials of both governments with broad authority in the areas of economic and scientific and technical cooperation. As part of this effort to stimulate close consultations between their respective governments, the two presidents agreed to establish a binational commission

to enhance cooperation in the areas of energy and space, and to designate Vice President Gore and Russian Prime Minister Viktor Chernomyrdin as co-chairs. Over the ensuing six years, the Gore-Chernomyrdin [now the Gore-Stepashin] Commission, officially the U.S.-Russian Joint Commission on Economic and Technological Cooperation, broadened its perspective and became the principal means for conducting U.S.-Russian relations below the presidential level.

The binational commission represented a new model for the conduct of foreign relations, bringing the Vice President and other Cabinet members into direct, regular contact with their foreign counterparts on matters of significant substance. As the Gore-Chernomyrdin Commission matured, its success led President Clinton to recommend this approach to South African President Nelson Mandela as a means to focus U.S. efforts to assist the transition of South Africa from apartheid to democracy. Mandela agreed, and Vice President Gore worked with South African Deputy President Thabo Mbeki to establish the U.S.-South Africa Binational Commission.

Subsequently, the presidents of both Kazakstan and Ukraine sought binational commissions co-chaired by the Vice President and themselves to assist in their nations' transitions. With slight modifications to the original model, these commissions are also operating. Demonstrating the breadth of proliferation-related concerns within the international community, the Vice President has discussed particular proliferation-related issues with each of the governments with which the United States has established a binational commission.

Gore-Chernomyrdin [now Stepashin] Commission. While each of the binational commissions represents a forum for the discussion and implementation of proliferation-related policy, the Gore-Chernomyrdin [now Stepashin] Commission has presented the best and most frequent opportunity. The Commission is composed of eight committees, each co-chaired by U.S. and Russian Cabinet members or, in the case of Defense Conversion, their deputies (committees having interest in proliferation-related matters in *italics*):

Committees	***Working Groups***
Agribusiness	Capital Markets Forum
Business Development	Environmental Working Group
Defense Conversion	
Energy Policy	
Environment	
Health	
Science and Technology	
Space	

A small secretariat guides the day-to-day work of the commission and serves as a communications channel for the Vice President and the Prime Minister. The three U.S. members of the secretariat are the Vice President's National Security Advisor; the NSC Senior Director for Russia, Ukraine, and Eurasian Affairs; and the Special Advisor to the Secretary of State for the New Independent States. The Commission functions as a coordinating body to establish a framework for cooperation, and the instruments of that cooperation are the bilateral committees.

Vice President Gore and Prime Minister Chernomyrdin held the first commission meeting with the respective committee chairs in Washington in September 1993. The Vice President and the Prime Minister made several decisions with significance both for the durability of the commission and for the ability of the principals to take up sensitive security issues such as proliferation.

- They determined that the committees making up the commission should be interagency in nature, meet regularly at the call of their co-chairs, and set their own work plans. (The role of the U.S. committee co-chair was enhanced by his or her authority over funding specific programs with moneys appropriated to his or her department.)

- They agreed to meet in plenary session, that is, with all the committee chairs in attendance, twice each year, alternating between Washington and Moscow. This established the principle that the work of the committees would be subject to regular and intensive review by the Vice President and the Prime Minister.

- They agreed that the two leaders would meet together privately, with one note-taker on each side, on the eve of each semi-annual commission session to resolve any outstanding issues related to the commission's work and to discuss sensitive issues not appropriate to the commission setting. (This practice became known as the ***one-on-one*** meeting, for which a separate agenda, called the ***off-line*** agenda, was developed.) The one-on-one meetings facilitated discussion of the most sensitive matters in U.S.-Russian relations.

- Finally, they agreed that they would meet with the president of the host country at the conclusion of each commission session to report on their accomplishments and discuss other matters that their respective presidents might wish to raise. By regularizing joint meetings with the president of the country hosting each commission meeting, they became a key communications link between Presidents Clinton and Yeltsin.

As has been true from the beginning, Congress appropriates no funds to the Commission itself. The committees pursue their agendas and develop programs with funds appropriated to the U.S. departments and agencies for the specific purposes of assisting Russia and conducting international activities.

On the U.S. side, the evolution of the Commission strongly reinforced the importance of sustaining interagency representation on the various committees. As the U.S. side demonstrated the benefits of interagency consultation and cooperation, the U.S. committee chairs noted a growing interest among the highly "stovepiped" Russian ministries to work together. Still, the general reluctance of one Russian ministry to accept the participation of another in its area of responsibility remained a problem for the Commission, and was clearly evident in discussion of some matters related to proliferation.

The one-on-one meeting has also evolved in several ways.

- First, and most important, the success of the Vice President and the Prime Minister in developing an effective working relationship led Presidents Clinton and Yeltsin to add new and increasingly difficult issues to the Gore-Chernomyrdin agenda. By resolving the question of the Russian sale of missile technology to India at their first one-on-one meeting in September 1993, for example, the Vice President and the Prime Minister demonstrated that they could take on and solve thorny problems related to proliferation. But they also found it necessary to devote more time to one-on-one meetings, with the unintended consequence of appearing to diminish the importance of the committees' work.

- Second, as the complexity of the issues given to Gore and Chernomyrdin grew, they decided on occasion to add selected experts to their private discussions, thus sometimes altering their one-on-one character but expanding the degree of expertise brought to bear on a given problem. This has happened most frequently for the discussion of macroeconomic questions, but sometimes occurs for discussions of security matters involving highly technical details.

- Third, the two presidents, recognizing the effectiveness of the Gore-Chernomyrdin process, soon began tasking the Vice President and the Prime Minister to prepare the agenda for Clinton-Yeltsin summit meetings. On several occasions this required Gore and Chernomyrdin to meet outside the Gore-Chernomyrdin Commission setting in order to coordinate their discussions with the timing of presidential summits. It also focused the Vice President and the Prime Minister ever more closely on security issues, such as Russian nuclear cooperation with Iran.

U.S.-Russia Proliferation Issues in the Gore-Chernomyrdin [now Stepashin] Commission. Proliferation issues have played a central role in U.S.-Russian relations from the outset of the Clinton Administration and, consequently, in the evolution of the Gore-Chernomyrdin [now Stepashin] Commission. In fact, the dispute over proposed Russian transfer of missile technology to India in June 1993 caused the postponement of Chernomyrdin's initial visit to Washington to launch the new commission. The subsequent resolution of this problem through granting Russian access to the U.S. satellite launch market and participation in the international space station demonstrated both the interrelationship of proliferation concerns with other bilateral issues and the value of the Gore-Chernomyrdin Commission as a conduit for high-level negotiations on sensitive matters. As a result, proliferation issues became a staple of the Gore-Chernomyrdin agenda for the next five years.

Both the Defense Conversion and the Energy Policy Committees have dealt with proliferation issues.

- Initially focused on the conversion of Russian military industries to civilian purposes, the Defense Conversion Committee became involved in numerous issues related to proliferation through the Department of Defense's Cooperative Threat Reduction program, which seeks to achieve the accelerated and safe reduction of nuclear materials and chemical and nuclear weapons, and to enhance the safety and security of remaining nuclear weapons and materials. Defense Conversion Committee activities have included the transparency project at the Mayak Fissile Material Storage Facility (for the storage of fissile materials from dismantled nuclear weapons) and the core conversion project related to weapons-grade plutonium-producing reactors.

- Virtually from its inception, the Energy Policy Committee zeroed in on the control, accountability, and protection of nuclear materials in Russia as a priority issue. This work covered a significant number of Russian facilities.

As indicated above, proliferation issues have figured prominently in the one-on-one meetings. In each case the Vice President has pursued discussions with his Russian counterpart intended to implement policy decisions taken by the President. The NSC Senior Director for Non-Proliferation and Export Controls, as well as colleagues at State, Defense, Commerce, and the Central Intelligence Agency (CIA), participate actively in the development of the Vice President's background papers and talking points, and participate in briefing the Vice President on proliferation issues prior to the one-on-one meetings.

Most of these discussions remain classified, in keeping with the private character of the meetings. The Vice President, however, has frequently alluded to his discussion of proliferation matters with the Prime Minister at press conferences following commission meetings. At the press conference following the 10th Gore-Chernomyrdin Commission

meeting in March 1998, for example, the Vice President acknowledged that they had talked about Russian transfer of missile equipment, technology, and expertise to Iran. Generally, no bilateral issue concerning proliferation escaped the attention of the two principals, and several of the most daunting issues owe their resolution in whole or in part to the five-year dialogue between Vice President Gore and Prime Minister Chernomyrdin. The extent to which the Vice President and Prime Minister Sergei Stepashin can make further progress on proliferation-related matters remains to be seen.

Participating in NSC Principals and Deputies Committees. In PDD/NSC-2 President Clinton extended membership on the NSC Deputies Committee to the Vice President's National Security Advisor. Although he also attended the Principals Committee meetings as an observer, the Vice President's National Security Advisor did not become a member of that body until the beginning of the second term in January 1997. (The Vice President's Deputy National Security Advisor attends Principals and Deputies Committee meetings in the absence of the National Security Advisor.)

By virtue of his membership on both NSC committees, the National Security Advisor plays an active role in all policy deliberations concerning the proliferation of weapons of mass destruction and missile delivery systems. As indicated above, these issues comprise a significant and important part of the Administration's national security agenda. Consequently, the National Security Advisor has been involved in regional proliferation problems in Russia, Ukraine, Kazakstan, China, North Korea, India, Pakistan, Iran, and Iraq, as well as broader issues such as extension of the Nuclear Non-Proliferation Treaty, the Chemical Weapons Convention, and the Biological Weapons and Toxin Convention. Unlike other members of these committees, however, the Vice President's National Security Advisor has no departmental or agency interest to represent. This has allowed him, on occasion, to play a neutral, considered role in the discussions and, as a result, the President's National Security Advisor sometimes utilizes his vice presidential counterpart to forge consensus.

Membership on the NSC Principals and Deputies Committees also assured that the Vice President's National Security Advisor would be thoroughly familiar with key issues and thus better able to ensure that U.S. participation in the binational commissions would be based on implementing rather than making policy.

By practice, the National Security Advisor briefs the Vice President on key issues being discussed by the Principals and the Deputies.

Office of Management and Budget (OMB)

OMB's primary mission is to assist the President in overseeing the preparation of the federal budget and to supervise its administration in executive branch agencies. OMB is responsible to the President for evaluating the effectiveness of agency programs, policies,

and procedures; assessing competing funding demands among agencies; and setting funding priorities. In national security matters this is normally a consultative process involving the Departments of State and Defense, the CIA, and the National Security Council staff. OMB also ensures that agency reports, rules, testimony, and proposed legislation are consistent with the President's budget and with Administration policies by acting as a clearinghouse for review of these items within the Executive Office of the President.

Proliferation-related budget issues are primarily the domain of the Principal Associate Director (PAD) for National Security and International Affairs. The PAD's staff of approximately 55 is divided into two divisions: National Security and International Affairs. The Deputy Associate Director (DAD) for National Security manages the Department of Defense (DoD) and Intelligence Community budgets through three branches: Command, Control, Communications, Computers and Intelligence (C4I); Force Structure and Investment; and Operations and Maintenance. The DAD for International Affairs has two branches: Economic Affairs and State-USIA.

OMB Program Examiners review proliferation-related programs and budget submissions in the broader context of departmental and agency programs and budgets. This facilitates cross-cutting analysis, that is, analysis of issues that cross departmental and agency lines, in the proliferation area.

For example, the Intelligence Community budget is mission-based, with proliferation being one "bucket." The contents of the proliferation bucket are culled from National Foreign Intelligence Program elements and projects and subjected to some analysis through the program review process. The C4I branch analyst responsible for the CIA and General Defense Intelligence Program accounts also has functional responsibility for overseeing Intelligence Community proliferation programs. OMB seeks to influence decisions on Intelligence Community proliferation programs through direct participation in Intelligence Program Review Group budget reviews and its own budget hearings. The objective of OMB's analysis is to array resources, focus attention on programs, eliminate unnecessary duplication, and establish priorities. It is, however, necessarily limited by the small size of the OMB staff and the nature of the review process. OMB is most effective in performing diagnostics, focusing attention on issues in existing programs, and encouraging others to examine problems more closely.

OMB has significantly less influence on DoD proliferation programs. OMB staff is invited to the DoD Program Review Group, but is not represented at the table. The OMB staff is not confident that DoD considers proliferation to be a core mission area.

While OMB has made strides in focusing at the PAD level on proliferation as a cross-cutting issue, the Director of OMB had not typically reviewed proliferation in that format. Last year, however, in a departure from OMB's traditional agency focus, the Director's Review—a formal presentation of program issues requiring the OMB Director's attention—included

two cross-cutting issue sets in the National Security and International Affairs area. The first, Counter-narcotics, had been presented to the Director in previous years, but the second, Transnational Issues, including proliferation, terrorism, continuity of government, protection of critical infrastructure, and international crime, was presented in the Director's Review for the first time.

Participation in the Interagency Policy Process. The OMB leadership participates in the national security policy-making process through membership on key NSC committees. The Director of OMB is a member of the NSC Principals Committee and the Deputy Director sits on the Deputies Committee (although in the Clinton Administration the Deputy Director is usually represented by the PAD for National Security and International Affairs). The PAD or his designee is a member of the Interagency Working Group on Non-Proliferation and Export Controls, and OMB representatives often attend IWG sub-group meetings. The PAD is sometimes invited to informal White House discussions on proliferation issues.

The PAD formerly chaired an informal group, unofficially termed the EXOP (for Executive Office of the President), made up of representatives of White House offices and charged with making recommendations on the Function 150 (Foreign Operations) account. This account contains all U.S. bilateral and multilateral foreign economic and military assistance, including funding the U.S. contribution to the Korean Peninsula Economic Development Organization (KEDO), which is a critical element in the Administration's effort to halt the North Korean nuclear weapons program. This matter is of such importance, however, that it is almost certainly managed in the Deputies Committee.

Many program functions in the proliferation area are dispersed as, for example, the Cooperative Threat Reduction (CTR) program in Russia which involves the Departments of State, Defense, and Energy. OMB participates in the informal Office of the Vice President-led interagency review of resources for CTR to ensure that the emergent strategy is within budget constraints. Other proliferation issues, like the problem of KEDO funding, reflect disagreements within the Administration over the source of funds for specific programs.

While OMB plays a significant role in the overall process of balancing competing interests, Director Jack Lew emphasized that his relationship with policy makers is personal, not institutional. He noted that OMB does not have sufficient staff depth to engage on substantive issues.

Office of Science and Technology Policy (OSTP)

The mission of OSTP is to provide expert, timely advice to the President in all areas of science and technology and to coordinate federal science and technology investment. The Office is headed by a Director who is appointed by the President and confirmed by the

Senate, and who is also dual-hatted as the President's Science Advisor. The extent of OSTP's engagement in proliferation matters depends in large measure on the interest and commitment of the individual in this position.

OSTP's proliferation-related activities are conducted in the National Security and International Affairs (NSIA) Division. The Division is headed by an Associate Director who is subject to Senate confirmation and is dual-hatted as Senior Director for Science and Technology (S&T) on the National Security Council staff. The NSIA Division develops and supports science and technology policy in national security, the commerce-security nexus, and international affairs. The Division's National Security staff consists of four persons, all of whom hold advanced degrees in science or technology. The previous Associate Director, herself a Ph.D. in biochemistry and biophysics, estimated that 25 percent of that group's work was devoted to proliferation-related issues.

Participation in the Interagency Policy Process. As a consequence of its policy focus and significant scientific and technical expertise, yet small staff, OSTP's involvement in proliferation matters occurs primarily through participation in interagency activities.

The Associate Director is a member of the IWG on Non-Proliferation and Export Controls, through which OSTP has been involved in Administration efforts to arrange the disposition of Russian excess weapons-grade plutonium, to facilitate a domestic consensus and the implementation of a strategy for the disposition of U.S. weapons-grade plutonium, and to monitor implementation of the highly enriched uranium (HEU) purchase agreement and the blend down of U.S. HEU. The Associate Director formerly co-chaired, with an NSC Director for Non-Proliferation and Export Controls, the IWG's sub-group on Plutonium Disposition. OSTP remains an active member of this group. (OSTP also co-chairs with the Russian Ministry of Atomic Energy (MINATOM) the U.S.-Russian Plutonium Disposition Joint Steering Committee to oversee R&D cooperation in this area.) OSTP participates in other sub-groups of the IWG on Non-Proliferation and Export Controls, including the Sub-Group on Biological Weapons and the Sub-Group on Chemical Weapons.

The Associate Director, in her role as NSC Senior Director for S&T, chairs the Research and Development (R&D) Sub-Group of the WMD Protection, Consequence Management and Preparedness Panel established under PDD-62. This group examines how best to deploy U.S. scientific and technical capabilities to prevent, detect, mitigate against, respond to, and/or recover from terrorist attack, with special attention to possible terrorist use of chemical and biological weapons.

In the area of ballistic missile proliferation, OSTP is working with CIA experts to understand the major technological hurdles to the development of ICBMs and, in particular, the added difficulty of developing ICBMs, as compared to shorter range missiles. Also, in the wake of the Indian and Pakistani nuclear weapon tests, OSTP is leading an interagency effort to evaluate and recommend policy with respect to on-going collaborations with these countries.

OSTP acts as the Executive Secretariat for the National Science and Technology Council (NSTC) established by President Clinton by Executive Order 12882 on November 23, 1993, to coordinate R&D policies and activities across federal agencies. The President chairs the NSTC, and its 25 members include the Vice President, the President's Science Advisor, the President's National Security Advisor, the Director of OMB, the Director of Central Intelligence, Cabinet secretaries, and agency heads. The NSTC Committee on National Security is responsible for efforts to increase the overall effectiveness and productivity of federal national security R&D efforts. This Committee has an IWG on Non-Proliferation and Arms Control technology, but there is little evidence of any significant activity. An Ad Hoc Working Group of the NSTC Emerging Infectious Diseases Task Force, chaired by OSTP, is assessing the costs and benefits of a domestic and international system of surveillance for terrorist or other criminal use of biological weapons, as mandated by the Defense Authorization Act for fiscal year 1997.

President Clinton also established the President's Committee of Advisors on Science and Technology (PCAST) by Executive Order 12882 in November 1993 to advise him "on issues involving science and technology and their roles in achieving national goals and the assist the...NSTC in securing private sector participation its activities." The President appoints the 19 PCAST members who, with the exception of the President's Science Advisor, come from outside government. The Science Advisor co-chairs the committee with a private sector member selected by the President. PCAST is intended to bring a private sector perspective to the S&T policy making process.

PCAST established a panel on U.S.-Russian Cooperation to Protect, Control, and Account for Weapons-Useable Nuclear Materials, which reported to the President, the Vice President, and President's National Security Advisor on May 1, 1995. The panel's recommendations formed the basis for subsequent work on fissile materials cooperation for President Clinton's summit meeting with President Yeltsin.

On issues with a high degree of focus on science and technology, OSTP takes the initiative. But proliferation matters do not often center exclusively on science and technology concerns, and OSTP personnel do not sense that their participation is automatic in proliferation-related policy events. The NSIA Division depends heavily on being invited to attend policy-related meetings convened by others and being asked to review papers on proliferation-related policy issues. The extent to which the invitations are forthcoming seems to be a function of the NSIA staff's skill in learning what issues the NSC, State, Defense, and Energy are pursuing. The Associate Director's dual-hatted status makes possible attendance at the National Security Advisor's twice-weekly NSC staff meetings, a valuable means of staying abreast of NSC activities. OSTP, however, often finds itself "playing catch up" to remain involved on proliferation-related issues.

Department of State

The Non-proliferation Mission

The primary contribution of the Department of State (State) to combating proliferation is its participation in diplomatic activities as well as in interagency, congressional, public education, and other processes. As illustrated below, State acts on a broad range of fronts to constrain the nations that already possess weapons of mass destruction and prevent other states or groups from acquiring them.

State Organization on Proliferation-related Activities

The Department of State's organizational structure with respect to proliferation has undergone change as a result of the integration of the U.S. Arms Control and Disarmament Agency (ACDA) into the Department of State on April 1, 1999. Integration of ACDA and State was mandated by the Foreign Affairs Agencies Consolidation Act of 1998, Subdivision A, Foreign Affairs Reform and Restructuring Act of 1998, as contained in Division G of Public Law 105-277. ACDA's mission was to strengthen national security by formulating, advocating, negotiating, implementing, and verifying effective arms control, non-proliferation, and disarmament policies, strategies, and agreements. ACDA's four bureaus focusing on issues of arms control, non-proliferation, and disarmament were: intelligence, verification, and information management; multilateral affairs; non-proliferation and regional arms control; and strategic and Eurasian affairs. The ACDA Director functioned as the principal advisor to the President, the National Security Advisor, and the Secretary of State on arms control, non-proliferation, and disarmament matters. All of the authorities ACDA had in the area of proliferation were transferred to the State Department in accordance with the legislation mandating the reorganization.

The Under Secretary of State for Arms Control and International Security Affairs provides policy oversight of and coordinates arms control, proliferation, and security assistance policy for State. Prior to the merging of ACDA and State, the Bureau of Political-Military Affairs (PM) was responsible for formulating and implementing policies on national security issues such as the proliferation of WMD and missile technology, nuclear and conventional arms control, arms export controls, and regional security assistance programs and initiatives. PM also was State's primary liaison with the Department of Defense on security assistance issues and on the implications of U.S. foreign policy.

Upon the merging of ACDA and State, the five previous bureaus of ACDA and State (four in ACDA plus PM) were reduced to three, all under the policy oversight of the Under Secretary. In addition, an office reporting directly to the Under Secretary advises on verification and compliance issues.

A new Bureau of Nonproliferation (NP) has been created from the ACDA/State merger. This bureau is now responsible for many of the duties previously carried out by PM. The bureau has two Deputy Assistant Secretaries (DAS). The DAS for Regional Nonproliferation is supported by the Office of Policy Coordination, Office of Regional Affairs, Office of Nonproliferation Threat Reduction, and the Senior Coordinator for Nuclear Safety. The DAS for Nonproliferation Controls is supported by the Office of Nuclear Energy Affairs, Office of Chemical, Biological and Missile Nonproliferation, and Office of Export Controls and Conventional Arms Nonproliferation Policy. Also within this Bureau is the Office for the Nonproliferation Disarmament Fund, as well as the Office of IAEA/NPT Affairs that reports directly to a special representative for nuclear non-proliferation.

The Nonproliferation Bureau is responsible for nuclear non-proliferation, e.g., supporting the International Atomic Energy Agency, implementing the Nuclear Non-Proliferation Treaty, securing nuclear materials, advancing civil nuclear cooperation under safe and sound conditions, and promoting effective protection, control, and accounting of nuclear material worldwide. It presses for non-proliferation of chemical and biological weapons and missiles, and promotes restraint in transfers of conventional arms. The Bureau also pursues regional and bilateral initiatives designed to reduce proliferation pressures and destabilizing arms acquisitions.

The Nonproliferation and Disarmament fund (NDF), also part of the Nonproliferation Bureau, supplements U.S. diplomatic efforts to halt the spread of WMD; limit the spread of weapons, their delivery systems and related technology; and enable the dismantling of existing weapons and their means of delivery. The fund was established pursuant to section 504 of the FREEDOM Support Act, which was enacted on October 24, 1992. The fund currently has projects underway in over 30 countries. Projects have included procurement of highly enriched uranium (HEU), destruction of missiles, procurement of nuclear safeguards and detection equipment, support for UNSCOM, and the development of automated export control systems for foreign governments. NDF has received $85 million in funding since its inception in 1994. It has been funded at a level of $15 million for fiscal year 1997, fiscal year 1998, and fiscal year 1999. The Under Secretary for Arms Control and International Security gives final approval to all proposed NDF projects.

The second bureau under the policy oversight of the Under Secretary is the Bureau of Arms Control. This bureau leads efforts to negotiate new agreements, primarily the third Strategic Arms Reduction Treaty (START III) and other future strategic arms control agreements, and negotiating efforts in the Conference on Disarmament (CD) such as a cutoff of fissile material production and anti-personnel land mines. It has an important task of implementing a large number of existing agreements, including the Anti-Ballistic Missile (ABM) Treaty, the first and second Strategic Arms Reduction Treaties (START I and START II), the Chemical Weapons Convention (CWC), and the Biological Weapons and Toxin Convention (BWC), and of preparing to implement the Comprehensive Test Ban Treaty

(CTBT). The Verification and Compliance Staff within the Bureau contributes primarily to ongoing negotiation, technology policy coordination, policy analysis, arms control efforts relative to critical infrastructure protection, and interagency implementation efforts.

The third bureau under the policy oversight of the Under Secretary is the Bureau of Political-Military Affairs. This bureau supports the Secretary and the Under Secretary in playing a large role in security and defense policy. It provides analytic support for the Secretary and the Under Secretary on defense-related foreign policy issues, contributes to the coordination of peacekeeping and other military operations, is responsible for a cluster of issues involving arms transfers, defense trade controls, and political-military and defense cooperation in critical infrastructure protection, and also supports the Under Secretary in coordinating security assistance.

A scientific and policy Advisory Board on arms control, non-proliferation, and disarmament reports to the Secretary of State through the Under Secretary, who maintains an operational authority over the Board, including designation of members and staff. In addition, special representatives and envoys that previously reported to the ACDA Director are now supported by their relevant DAS and report to that DAS and the Under Secretary.

Finally, the new Bureau of East European and Eurasian Affairs manages U.S. relations with countries that became independent after the collapse of the former Soviet Union. The Bureau ensures the effective utilization of public diplomacy, assistance, and conflict resolution efforts in pursuit of U.S. policy, and works to ensure effective coordination with the new arms control and proliferation-related entities.

New Role for the Under Secretary of Arms Control and International Security.

Presidential Decision Directive 65, dated June 23, 1998, amends Presidential Decision Directive/NSC-2, dated January 20, 1993, specifying that the Under Secretary of State for Arms Control and International Security Affairs/Senior Advisor to the President and the Secretary of State for Arms Control, Nonproliferation and Disarmament shall, at the discretion of the President, (1) be invited to attend all NSC meetings concerning matters pertaining to arms control, proliferation, or disarmament and (2) be invited to attend all NSC/PC and DC meeting concerning the same issues. It also provides that foreign policy and proliferation-related issues should be chaired at the Assistant Secretary level by the Department of State.

The Under Secretary serves as a Senior Advisor to the President and Secretary of State on arms control, non-proliferation and disarmament. The Under Secretary is authorized to communicate to the President through the Secretary of State and participate, at the direction of the President, in meetings of the National Security Council and its subordinate groups.

The Coordinator of U.S. Assistance to the New Independent States of the Former Soviet Union.

Within the Department of State structure is the Coordinator of U.S. Assistance to the New Independent States (NIS) of the former Soviet Union. This position has been established in accordance with Section 102 of the FREEDOM Support Act. The mandate of the Coordinator is to "assure maximum coordination of efforts within the executive branch" to promote reform and policies in the NIS. The Coordinator presides over the allocation of U.S. assistance resources, directs and coordinates the interagency process on development, funding and implementation of all bilateral assistance, trade, and investment programs related to the NIS. These programs include: trade and investment, business and economic development, training and exchange, criminal justice, energy and environmental, social sector and humanitarian, and security. The Coordinator is the chairman of the interagency NIS Assistance Coordination Group and is also a member of the Policy Steering Group for the NIS to ensure that U.S. assistance and related activities are consistent with and support broader foreign policy objectives. The Coordinator is mandated to work with U.S. Ambassadors to the NIS to strengthen coordination mechanisms in the field and increase the effectiveness of our assistance and export and investment programs on the ground. The Coordinator reports to the Secretary of State.

The Role of the Department of State in International Proliferation-related Efforts

The Department of State is the lead for the conduct of diplomacy and representation of the U.S. overseas, and the advocate of U.S. policies for foreign governments and international institutions. As such, State interacts extensively with foreign governments and multilateral organizations on non-proliferation issues. These efforts include, but are not limited to, leading U.S. delegations in numerous multilateral bodies and negotiations, including international proliferation-related treaty negotiations, export control regimes such as the Australia Group and the Nuclear Supplier Group, and in many G-8 and NATO proliferation-related discussions.

The Department holds regular bilateral proliferation-related talks, in Washington and in capitals, with the United Kingdom, Israel, Australia and the European Union, during which the full range of proliferation-related concerns are discussed and joint courses of action are identified. State often writes instructions to U.S embassies to deliver messages to host governments that may address such issues as halting an export to a country of concern, or seeking coordination of public reaction to the South Asian nuclear tests. In the United Nations Security Council, State coordinates efforts to consult both in New York and in capitals on issues of proliferation concern.

The Science Centers are established under multilateral agreements, funded by various governments, and have a number of mechanisms for coordination between governments. The main goal of the Science Centers is to provide peaceful research opportunities to qualified NIS scientists and engineers who are experts in WMD and their delivery systems. The Science Centers process direct, tax-free payments of grants to participating NIS scientists and have access to project facilities for international auditing and technical monitoring. Both Science Centers are run by Governing Boards, with representatives from each of the governments that signed the original agreements.

State has the lead for negotiating and implementing proliferation-related treaties, including the NPT and several treaties establishing regional nuclear-weapons-free zones. State also has leadership responsibilities in ongoing U.S. efforts to strengthen the IAEA safeguards and BWC verification and the development of verification for the future Fissile Material Control Treaty.

U.S. International Cooperative Efforts[1]

Department of Defense (DoD) Efforts

Cooperative Threat Reduction Program (CTR)

CTR was initiated in FY 92 to reduce the threat posed to the United States by weapons of mass destruction remaining on the territory of the former Soviet Union.

Weapons Destruction and Dismantlement

These programs are helping destroy vehicles for strategic nuclear weapons and key weapons-systems components. Key projects include:

Strategic Offensive Arms Elimination (SOAE)

Provision to Russia of equipment, training, services and logistic support to assist in expediting the elimination of strategic offensive arms pursuant to START Treaties.

Chemical Weapons Destruction

Efforts to Russia to help it destroy its chemical weapons stockpile and and associated infrastructure.

Chain of Custody

These programs help prevent the proliferation of nuclear materials, increase the security of nuclear weapons while in transit or in storage, and ensure that fissile materials from dismantled warheads are stored in safe, centralized and environmentally sound locations. Key projects include:

Fissile Material Storage Facility at Mayak

Construction on a facility for the storage of fissile material derived from dismantled Russian weapons at Mayak.

Weapons Protection Control and Accounting (WPC&A)

The project focuses on improving the security of nuclear weapons during transportation and interim storage.

Material Protection, Control and Accountability[2]

MPC&A projects enhance the security of the fissile materials at NIS facilities and institutions, and improve capabilities to prevent, detect and deter theft, diversion, or other unauthorized use of nuclear materials.

---

[1] This list is illustrative only.

[2] The Department of Energy began managing and funding MPC&A programs in fiscal year 1996 (see the DOE section below).

Enhancing Export Controls[3]

This assistance is provided to Belarus, Kazakhstan, Russia, and Ukraine to help establish effective and sustainable national export control systems.

Demilitarization

These programs facilitate the demilitarization and transition of the NIS countries to democratic institutions and market economies.

Defense Conversion

Ongoing projects to assist in the transformation of the former Soviet defense complex into peaceful and productive civilian commercial activities.

Defense Enterprise Fund (DEF)[4]

Provides loans and grants and makes equity investments in joint defense conversion projects involving U.S. companies and former Soviet enterprises formally involved in WMD production.

Science Centers[5]

Provides former Soviet weapons scientists opportunities to work on peaceful civilian research activities so they would not be tempted to sell their expertise to countries of proliferation concern.

U.S. Civilian Research and Development Foundation (CRDF)

This is a non-governmental, non-profit foundation that helps sustain highly competent scientists and engineers in the NIS, including those from the former Soviet defense sector, and support the development of a market economy in the NIS.

Collaborative Biotechnical Programs

Funds collaborative biotechnical research with former biological weapons scientists to increase access to Russian scientists, to enhance the transparency of their work, and to address pressing public health needs in the area of infectious diseases.

[3] In fiscal year 1996, funding responsibility for NIS export control assistance shifted to the Department of State.
[4] In fiscal year 1996, funding responsibility for the DEF was transferred to the Department of State under the FREEDOM Support Act (See DoS section below).
[5] Beginning in fiscal year 1996, direct program funding responsibility shifted to the Department of State under the FREEDOM Support Act (see DoS section below).

Defense and Military Contacts

This program funds defense and military contact events in the NIS, including military exercises, high-level exchanges, and unit exercises.

CTR Country Efforts

Belarus

Strategic Offensive Arms Elimination (SOAE)

SOAE programs seek to facilitate the expeditious, safe and environmentally sound elimination of WMD delivery systems.

Continuous Communications Link (CCL)

This program provides Belarus with its own capabilities to fulfill its reporting requirements under the INF and START Treaties. No funds are available for this project at this time.

Emergency Response Equipment and Training

This assistance provides equipment and training to respond to an accident or incident involving a nuclear weapon or fissile material.

Export Control

Material Control & Accounting (MC&A) and Physical Protection[6]

Defense Conversion

Defense Enterprise Fund (DEF)

International Science and Technology Center (STCU)[7]

Environmental Restoration

This assistance will provide Belarus with the capability to conduct the environmental restoration of former Strategic Rocket Forces (SRF) bases.

Audits and Examinations (A&Es)

Audits and examinations have been done on export controls, industrial partnerships programs, environmental restoration, SOAE liquid-fuel incineration, and emergency and training.

[6] This program has been administered by the Department of Energy since fiscal year 1996.
[7] Funding responsibility transferred to DoS in fiscal year 1996.

Kazakhstan

Strategic Offensive Arms Elimination (SOAE)

Government-to-Government Communications (GGCL)

This assistance will provide Kazakhstan with its own capability to fulfill its reporting requirements under the INF and START Treaties, which it previously did through Russia.

Emergency Response Equipment Training

Export Control

Material Control & Accounting (MC&A) and Physical Protection[8]

Expanded Defense and Military Contacts

Industrial Partnerships (e.g., Byelocorp Scientific, Inc., Allen & Associates International, Kazakhstan's National Nuclear Center, Lucent Technologies)

This assistance will convert former military enterprises to the production of civilian goods.

Defense Enterprise Fund

International Science and Technology Center[9]

Weapons of Mass Destruction Infrastructure Elimination

This assistance is geared to eliminate facilities or infrastructure that supported WMD.

Audits and Examinations (A&Es)

Russia

Strategic Offensive Arms Elimination (SOAE)

Nuclear Weapons Transportation Security

DoD and the Russian MOD are working to enhance the security of nuclear weapons during transport in connection with their destruction.

Armored Blankets

This assistance provides ballistic protection by wrapping warheads or containers with armored blankets.

Rail Car Security Enhancements

This assistance provides training and equipment to modify cargo and guard rail cars for transport of nuclear weapons destined for dismantlement.

[8] The Department of Energy has provided funding for this program beginning fiscal year (FY) 1997.
[9] Administered and funded by DoS since FY1996.

Supercontainers

Supercontainers enhance nuclear weapons security and safety during transport.

Emergency Support Equipment

This assistance provides equipment, training and technical manuals to enhance the MOD's capability to respond to accidents involving nuclear weapons in transit to dismantlement activities.

Nuclear Weapons Storage Security

This assistance establishes cooperation between DoD and the Russian MOD in enhancing the security of nuclear weapons storage in connection with their destruction, and the prevention of nuclear weapons theft or diversion.

Security Assessment and Training (SATC)

This Center will test and evaluate new security alarm and access denial equipment.

Nuclear Weapons Automated Inventory Control and Management Systems (AICMS)

This program provides computer equipment for establishing an AICMS prototype.

Personnel Reliability Program (PRP)

This program provides equipment and training for upgrading Russia's PRP (drug and alcohol testing equipment and related training)

Fissile Material Storage Facility (FMCSF)

This program is to help the Russian government provide safe and secure storage for fissile material from dismantled nuclear weapons.

Fissile Material Containers FMCs/Post-Dismantlement Processing

This assistance program is to provide MinAtom with containers for the transport and storage of fissile material from dismantled weapons.

Core Conversion

This program will modify the cores of Russia's three remaining plutonium producing reactors so as to halt the production of weapons- grade plutonium by December 31, 2000.

Chemical Weapons Destruction Assistance

Biological Weapons (BW) Proliferation Prevention

This assistance is to prevent the proliferation of BW technology and expertise by joint research at former Soviet BW institutes on biodefense.

Defense Conversion

Industrial Partnerships

Housing

This assistance program is to convert and privatize defense facilities and establish housing-assembly and component-manufacturing capabilities for the production of prefabricated housing for demobilized Russian officers and the Russian housing market.

Defense Enterprise Fund (DEF)

International Science and Technology Center (ISTC)[10]

Civilian Research and Development Foundation (CRDF)

Material Control and Accounting, and Physical Protection (MC&A and PP)[11]

Export Control

Arctic Nuclear Waste Assessment

This assessment is to investigate and analyze nuclear waste disposal in the Arctic regions

Audits and Examinations

Ukraine

Strategic Nuclear Arms Elimination (SNAE)

This assistance helps facilitate START implementation and helps eliminate all strategic nuclear weapons systems in Ukraine.

Weapons of Mass Destruction Infrastructure Elimination (WMDIE)

Export Control

Material Control & Accountability and Physical Protection (MC&A and PP)[12]

Civilian Cooperative Nuclear Reactor Safety Upgrade

This assistance is to provide a nuclear reactor simulator for training of reactor operators and engineers to enhance safe operation of nuclear power plants.

[10] Administered and funded by DoS since FY 1996.
[11] Administered and funded by DOE since FY 1996.
[12] Administered and funded by DOE since FY 1996.

Government-to-Government Communications Link (GGCL)

Emergency Response Equipment and Training

Science and Technology Center - Ukraine (STCU)[13]

U.S. - Ukraine Industrial Partnerships

These joint industrial partnerships between U.S. and Ukraine firms is to convert former Soviet military production capability to peaceful, civilian uses.

Audits and Examinations (A&E's)

Defense and Military Contacts

Non-CTR DoD International Cooperative Efforts

Arctic Military Environmental Cooperation

This program supports joint activities with Norway and Russian Ministers of Defense to ensure the safe handling and storage of radioactive materials, and proper disposal of hazardous toxic materials.

Counterproliferation Programs

DoD/FBI Counterproliferation Program

This program is focused on nuclear, chemical, and biological weapons-related law enforcement training to prevent smuggling and trafficking.

DoD/U.S. Customs Service Counterproliferation Program

This program focuses heavily on equipment in its initial implementation and is focused on border security.

Military—Technical Cooperative Efforts

These efforts are expanded opportunities to increase the level of military-technical cooperation with the NIS.

DoD/DoS Warsaw Initiative

This initiative aims to help America's new democratic partners work with the United States to advance the goals of the Partnership for Peace (PFP).

International Military Education and Training (IMET)

This program is designed to foster greater respect for understanding the principle of civilian control of the military, to contribute to responsible defense

[13] Administered and funded by DoS since FY 1996.

resource management, and to improve military justice systems and procedures in accordance with internationally recognized human rights.

Department of State Efforts

Department of State/U.S. Customs Service—Georgia Border Security and Law Enforcement Program

This program is designed to help the Georgian Border Guards and Customs Service gain and maintain control over Georgia's borders as Russian border guards pull out.

Science Centers (ISTC, STCU)

Partners Program

This program allows private industry, foundations, academic and scientific institutions and other inter-governmental and non-governmental organizations in Science Center activities.

New Biotechnology Initiatives

This program is designed to counter the threat of Soviet biological weapons facilities that could contribute, directly or indirectly, to bio-terrorism or attempts to build biological weapons.

International Science and Technology Center (ISTC)

This program funds projects employing scientists and engineers at hundreds of NIS scientific institutes.

Science and Technology Center (STCU)

This is a similar project located in Ukraine

Civilian Research and Development Foundation (CRDF)

Science Collaboration/Redirection of Biotechnical Activities (USDA/HHS)

This project is aimed at redirecting scientists in former Soviet biological weapons related facilities to civilian, commercial, agricultural and public health activities.

USDA Agricultural Research Service (ARS)—Biotechnical Science Collaboration

This program draws on the expertise in USDA in animal and plant pathogens and its network of Agricultural Research Service (ARS) laboratories and related facilities to establish agricultural research collaboration with Russian institutes.

U.S. Department of Health and Human Services (HHS)—Biotechnical Science Collaboration

Through this program, HHS will work with Russian and other NIS biotechnology scientists to better understand and control infectious diseases.

Export Control Assistance

Nonproliferation and Disarmament Fund (NDF) provides resources to support bilateral and multilateral non-proliferation disarmament efforts to prevent, deter or detect potential proliferation of WMD, WMD components, and WMD delivery systems. It is a contingency fund for unanticipated requirements or opportunities in support of our non-proliferation objectives.

Nonproliferation, Anti-Terrorism, Demining and Related Activities (NADR)

This fund focuses on helping the NIS and countries along potential transit routes from the smuggling of WMD and related material to potential proliferators, and to develop effective control regimes.

Department of Energy Efforts

Nuclear Materials Protection, Control, and Accounting (MPC&A)[14]

Railway Transportation Security Projects

This project performs rapid security upgrades on railcars that transport nuclear materials not in weapons form.

Truck Transportation Security Project

DOE upgraded truck sets utilized in the intra-site and inter-site transport of special nuclear materials by modifying the vehicles to prevent unauthorized access to special nuclear material.

MPC&A Training

DOE Cooperation with the Russian Ministry of Internal Affairs (MVD)

This is designed to enhance the effectiveness of physical protection of nuclear material storage at MPC&A locations in Russia by training MVD troops in the operation of modern physical protection systems.

Expanded DOE Cooperation with Serial Production Enterprises

This will expand the cooperation with the four serial production enterprises in Russia.

Expanded Cooperative Work with the Russian Navy

[14] MPC&A include emergency measures (winter uniforms, space heaters, and systems performance contracts).

This expansion will cover the security upgrades for all the Russian Navy fresh fuel by the year 2000.

Expanded Cooperative at the All-Russian Scientific Research Institute of Technical Physics (VNITF)

This provides more cooperative work at the site, which was formerly known as Chelyabinsk-70.

Export Controls

Cooperation with GosAtomNadzor (GAN)

DOE continues its cooperation with GAN, the Russian Nuclear Regulatory Agency, to develop MPC&A program procedures in accordance with Russian federal and GAN-level rules and regulations, and licensing and inspection practices.

DOE-MinAtom MPC&A Agreement

DOE has been negotiating with MinAtom to upgrade and replace the DoD-MinAtom MPC&A Agreement that expired in September 1998.

Fissile Material Disposition Program

Fabrication of MOX Fuel for Thermal Reactors

This program assists and encourages Russia to develop a MOX fuel fabrication process that is compatible with surplus weapons-grade plutonium, test the resulting fuel, and qualify it for use in a VVER-1000 water reactor.

Validating the Performance of MOX-Fuel Nuclear Reactors

Considerable work is required to make sure VVER-1000 water reactors can be fueled with mixed plutonium oxide and uranium oxide fuel.

Converting the Russian Fast Neutron Reactor to a Plutonium Burner

DOE is helping Russia assess the feasibility of converting Russia's BN-6000 reactor, fast-neutron reactor, into a net burner of plutonium.

Plutonium Conversion Technology and Plutonium Disposition

This work is to design and build a facility for converting weapons-origin plutonium metal into an oxide form suitable for use in MOX fuel and for international inspection.

Plutonium Immobilization

This research and development is to implement immobilization as part of its hybrid plutonium disposition strategy.

U.S. - Russian—Canadian Project to Burn Oxide (MOX) Fuel in a Canadian Nuclear Reactor

This program will examine the technical feasibility of burning MOX fuel made from surplus U.S. and Russian weapons plutonium in existing Canadian Deuterium Uranium (CANDU) reactors.

Gas Reactor Technology Development

This will provide for joint U.S. - Russian development of gas reactor technology to dispose of excess weapons-derived plutonium.

Reduced Enrichment for Research and Test Reactors (RERTR)

This joint U.S. - Russian program will further reduce the international commerce in highly enriched uranium through the conversion of Soviet-designed research and test reactors from HEU to low-enriched uranium fuel.

Export Control Assistance/Second Line of Defense

This involves multilateral cooperation among donor states to optimize limited funding and take advantage of activities in a multilateral setting.

Initiatives for Proliferation Prevention

This program identifies and develops non-military applications for defense technologies and creates long-term jobs for NIS weapons scientists and engineers in the high-technology commercial marketplace.

Nuclear Cities Initiative

This program will enhance global security by promoting economic opportunities and social support for displaced scientists, engineers, and technicians in the Russian nuclear weapons complex.

U.S. - China Lab to Lab Technical Exchange Program[15]

This program promotes scientific interactions with China in support of U.S. arms control and non-proliferation policy.

Department of Commerce Efforts

Special American Business Internship Training Program (SABIT)

This program places scientists from the NIS with American companies for a period of three to six months. Such scientists can apply their skills to peaceful

[15] This includes verification technologies, MPC&A, nuclear export control, remote monitoring, and energy and environment programs.

research and development in areas such as defense conversion, energy, pharmaceuticals, and the environment.

Non-proliferation and Export Control Cooperation

This program is designed to help NIS countries develop effective export control systems of their own. In each country, the program is designed to establish political interest and commitment at senior government levels, establish and automate licensing procedures, support enforcement and encourage cooperation between industry and government. In 1998, there were 41 exchanges with the NIS.

U.S. Multilateral Export Control Regimes

Australia Group

Zangger Committee

Nuclear Suppliers Group

Missile Technology Control Regime

International Organizations Engaged in Proliferation-related Activities

International Atomic Energy Agency (IAEA)

Korean Peninsula Energy Development Organization (KEDO)

Organization for the Prohibition of Chemical Weapons (OPCW)

North Atlantic Treaty Organization (NATO)

Comprehensive Nuclear Test Ban Treaty Organization (CTBTO) Preparatory Commission[16]

The Group of Eight Industrial Countries (G-8)

The International Science and Technology Center (ISTC)

United Nations Special Commission on Iraq (UNSCOM)

Science and Technology Center (STCU)

[16] This body has not yet achieved the status of an international organization.

Department of Defense

Introduction

Of all U.S. Government agencies, the Department of Defense (DoD) has the largest and most comprehensive effort to combat the proliferation of weapons of mass destruction, with a reported WMD-related investment in fiscal year 1999 of about $5.9 billion. The Department of Defense approaches the challenge of weapons of mass destruction through both non-proliferation and counter-proliferation efforts. Non-proliferation refers to the use of political, economic, informational, and military tools to prevent proliferation, reverse it diplomatically, or protect U.S. interests against the use of WMD. Counter-proliferation refers to the activities of the Department of Defense to combat proliferation, including (1) the application of military power to protect U.S. forces and interests, (2) intelligence collection and analysis, and (3) support to diplomacy, arms control, and export controls. The Department of Defense is the only agency involved in all areas of response to the threat, including prevention, deterrence, defense, and limiting the damage in case of their use.

This appendix covers four main areas for the Department of Defense. It:

- Identifies the existing guidance and sources used for formal weapons of mass destruction planning,
- Describes the current organizational structure for combating proliferation,
- Partially describes the intra- and interagency coordination process, and
- Provides supporting documentation for the issues discussed in the Department of Defense section of Chapter 5.

The intra- and interagency coordination section is not intended to be an inclusive, encyclopedia-like reference. Rather, it is intended to illustrate the numerous committees associated with combating the proliferation of weapons of mass destruction, both to establish requirements and to develop program execution plans to address those requirements. Nowhere within the Department of Defense is there a single, integrated priority list and accompanying program execution plan for combating the proliferation of weapons of mass destruction.

Guidance and Sources for Weapons of Mass Destruction Planning

Three documents, the National Security Strategy, Presidential Decision Directive 13, and the Counter-proliferation Policy Guidance of the Secretary of Defense, provide the framework for counter-proliferation planning within Department of Defense. Formal WMD

warfighting plans are developed in DoD by the Commanders-in-Chief. Three documents provide the prerequisites for beginning the Commanders'-in-Chief formal WMD planning process: the Chairman of the Joint Chiefs of Staff's ***Missions and Functions Study***, the ***Counter-proliferation Charter***, and the ***Counter-proliferation*** *CONPLAN 0400*.

The Department of Defense's WMD effort is also influenced by a number of major organizational initiatives and studies within the department. This includes the Quadrennial Defense Review, issued in May 1997, and the Defense Reform Initiative (DRI), announced in November 1997 with the goal of achieving major reform in the way DoD does business.

The Quadrennial Defense Review identified threats posed by the proliferation of nuclear, biological, chemical/missiles and associated capabilities, and stressed the need for the Department of Defense to:

- Institutionalize counter-proliferation as an organizing principle in every facet of military activity, and
- Internationalize counter-proliferation efforts to encourage participation by our allies in addressing the nuclear, biological, and chemical threat (i.e., to train, equip, and prepare forces).

Organizational Structure

The implementation of the Defense Reform Initiative is having a significant impact on the weapons of mass destruction effort. Based on the analysis in the Quadrennial Defense Review, the Department of Defense designed a comprehensive defense strategy with three central elements:

- Shaping the international security environment,
- Responding to the full spectrum of crises that threaten U.S. interests, and
- Preparing now for an uncertain future.

As a result, there has been a personnel reduction and associated reorganization of the Department of Defense to include re-engineering the Office of the Secretary of Defense, the Defense Agencies, the Department of Defense Field Activities, the Defense Support Activities, and the Joint Staff. This has had an impact on these organizations combating proliferation, including a reorganization of the Policy Secretariat and a consolidation of several of DoD's WMD-related organizations into a new Defense Threat Reduction Agency, which came into existence in October 1998. The Defense Threat Reduction Agency was formed by consolidating the On-Site Inspection Agency, the Defense Special Weapons Agency, and the Defense Technology Security Administration. In addition,

functions of the Office of the Secretary of Defense staff associated with managing related programs were moved into the Defense Threat Reduction Agency. This included: program management staff from the Under Secretary of Defense for Policy and subordinate positions under the Assistant to the Secretary of Defense for Nuclear, Chemical and Biological Defense, including the Deputy for Counter-proliferation and Chemical/Biological Defense. The Defense Reform Initiative also called for the elimination of the Assistant to the Secretary of Defense for Nuclear, Chemical and Biological Defense position, which serves as the Executive Secretary of the Counter-proliferation Program Review Council and Chairman of the Counter-proliferation Program Review Council Standing Committee. However, the 1999 Defense Authorization Bill required that the Office of the Secretary of Defense retain oversight of this office.

As identified in the DRI, the Department of Defense structure for combating proliferation involves elements from the Under Secretary of Defense for Policy, the Under Secretary of Defense for Acquisition and Technology, and the Services through the Joint Staff.

***Policy*:** The Defense Reform Initiative called for a three-Assistant Secretary of Defense structure as shown below.

The office of the Assistant Secretary of Defense for International Security Affairs continues to formulate and coordinate international security strategy and policy, including political-military policy on issues that relate to foreign regions and nations.

The office of the Assistant Secretary of Defense for Strategy and Threat Reduction is responsible for national security strategy, including reducing and countering nuclear, biological, chemical, and missile threats to the United States and its forces and allies; arms control negotiations, implementation, and verification policy; denuclearization, threat reduction, and nuclear safety, security, and dismantlement in the former Soviet Union; counter-proliferation; policy and strategy for U.S. nuclear weapons and selected advanced conventional weapons; technology transfer; and relations with Russia, Ukraine, and other New Independent States.

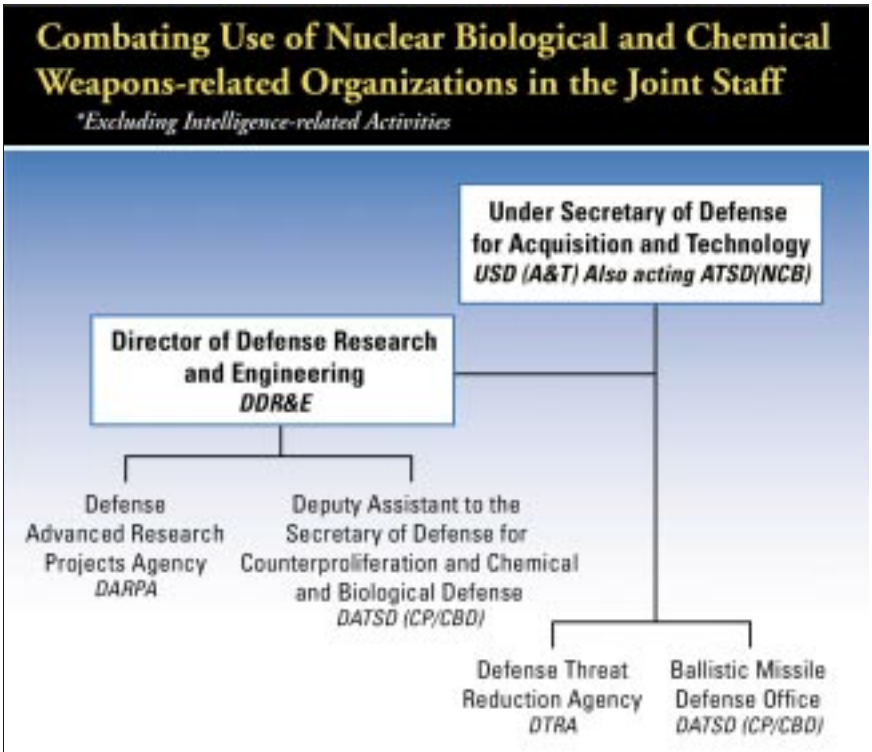
The Assistant Secretary of Defense for Special Operations and Humanitarian Assistance (continued as the Assistant Secretary of Defense for Special Operations and Low-Intensity Conflict) is responsible for the overall supervision of special operations and low intensity conflict activities as well as peacekeeping and humanitarian assistance affairs.

Acquisition and Technology: The Defense Reform Initiative called for the elimination of the Assistant to the Secretary of Defense for Nuclear, Chemical & Biological Defense and the creation of a new Defense Threat Reduction and Treaty Compliance Agency under the Director of Defense Research & Engineering. However, the 1999 Defense Appropriation Authorization required a modification to this plan, as Congress effectively blocked the elimination of the Assistant to the Secretary of Defense for Nuclear, Chemical & Biological Defense (ATSD(NCB)). As implemented, the organizations for combating weapons of mass destruction within the office of the Under Secretary of Defense for Acquisition and Technology are shown below.

The Director of Defense Research and Engineering (DDR&E) exercises oversight and overall coordination and integration of all Department of Defense science and technology research and development. The DDR&E oversees the preparation of three key documents detailing these efforts including the Joint Warfighting Science and Technology Plan; the Defense Technology Area Plan, and the Basic Research Plan. (These documents are below.)

There are two organizations with combating-proliferation responsibilities under the Director of Defense Research and Engineering.

- The Deputy Assistant to the Secretary of Defense for Counter-proliferation & Chemical and Biological Defense has oversight and overall coordination and integration of all Department of Defense chemical and biological defense research, development, and acquisition efforts. Additionally, this office provides the guidance for planning, programming, budgeting, and executing of the chemical and biological defense program.
- The Defense Advanced Research Projects Agency is charged with seeking breakthrough concepts and technologies. The Defense Sciences Office within the Defense Advanced Research Projects Agency manages its biological warfare defense program, which is intended to support the



Department of Defense's chemical and biological defense program. The primary investments are in early, technology development phases with rapidly decreasing involvement in the succeeding stages that lead to system development.

The Defense Threat Reduction Agency is a new organization established to reduce the threat to the United States and its allies from nuclear, biological, chemical, conventional, and other special weapons, through the execution of technology security activities, cooperative threat reduction programs, arms control treaty monitoring and on-site inspection, force protection, nuclear, biological, and chemical defense, and counter-proliferation; to support the United States nuclear deterrent; and to provide technical support on weapons of mass destruction matters to the DoD components.[17]

The Ballistic Missile Defense Office supports U.S defense and counter-proliferation objectives for deterrence and active defense. As an example, effective boost phase defense serves as a deterrent against the use of nuclear biological and chemical missiles because of the potential for nuclear, biological or chemical contaminant debris to fall back on the aggressor's own territory.[18] This office was established by Department of Defense

[17] Department of Defense Directive 5105.62, dated September 30, 1998.

Directive 5134.9, and is responsible for managing, directing, and executing the Ballistic Missile Defense Program. This program's objective is to: first, develop and deploy increasingly capable Theater Missile Defenses to meet the existing missile threat to deployed U.S. and allied forces; second, as a hedge against the emergence of long-range ballistic missile threats, develop options to deploy a National Missile Defense for the United States; and third, continue to support research on more advanced ballistic missile defense technologies to keep pace with the threat and improve the performance of theater and national missile defense systems.

The Services through the Joint Staff: The Defense Reform Initiative does not alter the existing structure of the Joint Staff and its relationships to the Commanders-in-Chief and Services. The two primary Joint Staff organizations that have combating-proliferation responsibilities are shown below.

The Joint Warfighting Capabilities Assessment working group on Combating Terrorism assesses antiterrorism and force protection requirements, which include policy, operations, intelligence, information, training, technology, and resources.

The Joint Warfighting Capabilities Assessment working group on Deterring and Countering Proliferation of WMD assesses warfighting capabilities and requirements to address the range of DoD efforts to deter and defend against potential adversaries' decision to acquire, threaten the use of, or employ WMD to achieve political or military goals.

Additionally, the Army has been assigned executive agent responsibilities for two areas that relate to combating the proliferation of weapons of mass destruction.

[18] Report on Activities and Programs for Countering Proliferation and NBC Terrorism, Counter-proliferation Program Review Committee, May 1998.

- The United States Army Nuclear and Chemical Agency is responsible for the publication of the doctrine on employment of nuclear weapons found in the Joint Chiefs of Staff publication 3-12 series and for the integrated specific military requirements list for nuclear research activities that is revalidated and published annually. However, there is no intraagency coordination of this priority list with the Joint Warfighting Capabilities Assessment priority list process.

- The Soldier Biological and Chemical Defense Command receives its responsibilities for the execution of DoD's chemical and biological defense program initiatives from Public Law 103-160. Intraagency coordination is accomplished through the Office of the Secretary of Defense's Nuclear Biological and Chemical Steering Committee/Sub-organization structure described below.

Intra- and Interagency Activities for Combating WMD Proliferation

As there are many committees and sub-groups that participate in preparing requirements for and executing the DoD programs to combat proliferation, the Commission believes that those identified below only constitute a partial list. Nowhere in this process does there appear to be anyone "in charge" with the charter and necessary resources to develop an overall architecture to assure that DoD can accomplish its primary mission in the face of the proliferation threat. This has implications for the larger architectural issues that confront the Federal Government, including its responsibilities to the states and local "first responders" (e.g., via the National Guard and Reserves) that would be critically important in a crisis event involving chemical, biological, or nuclear weapons. Furthermore, this defocused process is not well-framed as a means of stimulating change in an often-resistant bureaucracy responsible for formulating policy, requirements, plans, and programs.

- **The Counter-proliferation Council**, chaired by the Deputy Secretary of Defense, provides senior-level oversight of Department of Defense-wide efforts to train, exercise, and equip U.S. forces for the counter-proliferation mission. The Council also oversees Department of Defense counter-proliferation activities in interagency and international forums. The efforts with the international community focus on the North Atlantic Treaty Organization's (NATO) Joint Committee on Proliferation; and concentrate on: improved intelligence/information sharing, coordination of threat reduction efforts in the former Soviet Union, improving defense and deterrence programs, and response to chemical and biological warfare attacks against civilian populations.

- **The Counter-proliferation Program Review Committee (CPRC)** is a congressionally mandated committee that was created to identify, review, and foster interagency program integration with several proliferation-related purposes including the specific charter to include efforts to stem the proliferation of weapons of mass destruction. One of the major products of the Counter-proliferation Program Review Committee is the Areas for Capabilities Enhancements with priorities from the Department of Defense, Department of Energy (DoE) and Intelligence Community (IC). Should the Commission's recommendation for an Assistant Secretary of Defense for Combating Proliferation be adopted, the legislative requirements for the CPRC should be re-examined. For 1999, the Areas for Capabilities Enhancements are shown in the table below.

ACE Priorities			**Areas For Capability Enhancements for 1999**
Department of Defense	DoE	IC	
1	**-**	**-**	Individual and Collective Protection Against NBC Agents to Enable Sustained Operations on the NBC Battlefield
2	**-**	**-**	Medical Protection Against NBC Agents, to Include Vaccine Stockpile Availability
3	**3**	**2**	Detection, Identification, Characterization, and Warning of CW/BW Agents
4	**-**	**8**	Ballistic Missile Active Defense
5	**-**	**-**	Provide Decontamination Capabilities on the Battlefield and in the Joint Rear Area
6	**2**	**5**	Support for Special Operations Forces and Defense Against Paramilitary, Covert Delivery and Terrorist NBC Threats
7	**-**	**12**	Cruise Missile Defense
8	**7**	**1**	Collection, Analysis, and Dissemination of Actionable Intelligence to Counter Proliferation
9	**1**	**4**	Detection, Tracking, and Protection of NBC/M and NBC/M-Related Materials and Components
10	**-**	**6**	Target Planning for NBC/M Targets
11	**-**	**7**	Detection, Characterization, and Defeat of Underground Facilities with Minimal Collateral Effects
12	**6**	**3**	Detection, Characterization, and Defeat of NBC/M Facilities with Minimal Collateral Effects
13	**-**	**11**	Prompt Mobile Target Detection and Defeat
14	**4**	**-**	Provide Consequence Management for Terrorist Use of NBC Weapons (Including Support to Domestic Consequence Management)
15	**8**	**10**	Support Export Control Activities of the U.S. Government
16	**5**	**9**	Support Inspection and Monitoring Activities of Arms Control Agreements and Regimes

The annual report to Congress indicates that where there is an Area for Capability Enhancement that has no priority for the Department of Energy or for the Intelligence Community, then that organization does not have any effort for that Area of Capability Enhancement. The Counter-proliferation Program Review Committee has two sub-committees:

* The Counter-proliferation Capabilities Working Group co-chaired by the Joint Staff (J3) and the Deputy Assistant to the Secretary of Defense for Counter-proliferation and Chemical and Biological Defense (DASTD(CP/CBD)), which develops and coordinates Department of Defense policy, operational concepts/requirements, and related Program Operating Memorandum efforts; and

* The Counter-proliferation Intelligence Integration Support Initiative (CPI^{2}SP) to establish critical linkages with the Intelligence Community.

- **The Nonproliferation and Arms Control Technology Working Group (NPAC TWG)**, established by Presidential Decision Directive 27, advises the Counter-proliferation Program Review Committee on investment priorities, reviews Research and Development programs and provides a forum for information exchange.

- **The Joint Staff's Joint Requirements Oversight Council (JROC)** assesses and prioritizes Military requirements into the Planning, Programming and Budgeting System cycle; and includes a Joint Warfighting Capabilities Assessment working group on deterrence and counter-proliferation. In 1996, the Commanders-in-Chief endorsed a list of 16 counter-proliferation "required capabilities", which they considered necessary to conduct the counter-proliferation mission from a warfighting perspective. This list currently contains 19 required capabilities and is under periodic formal review within the Department. The Joint Requirements Oversight Council addresses weapons of mass destruction issues through requirements and acquisition and Joint Warfighting Capabilities Assessment processes. These processes serve to incorporate Commanders-in-Chief requirements, integrate needs into the Program Operating Memorandum and planning cycle, and establish advocacy for counter-proliferation products. For 1999, the Commanders-in Chief counter-proliferation requirements are shown in the table below.

Priority	**Commanders-in-Chief Counter-proliferation Requirements for 1999**
1	Provide Individual Protection to Forces and Assist Allies/Coalition Partners with Relief from the Effects of NBC
2	Intercept the Conventional Delivery of WMD and Control Collateral Effects
3	Provide Collective Protection to Forces and Assist Allies/Coalition Partners with relief from the Effects of NBC

4	Mitigate the Effects of WMD Use
5	Detect/Monitor Development, Production, Deployment, Employment of WMD
6	Communicate the Ability/Will to Employ Interdiction/Response Capabilities
7	Determine Vulnerabilities in WMD Development, Production, Transfer, Deployment, and Employment
8	Conduct Off-site Attack to Destroy, Disable, and Deny WMD Targets
9	Establish and Maintain Relations with Allies, and Potential Adversaries to Discourage Development, Production and Use of WMD
10	Seize, Destroy, Disable, and Deny Transport of WMD
11	Communicate the Ability/Will to Employ Defensive Capabilities
12	Determine Vulnerabilities in Decision-Making Processes Related to WMD
13	Conduct Information Warfare to Destroy, Disable and Deny WMD
14	Support Treaties, Export Controls, And Political/Diplomatic Efforts
15	Provide Alternatives to the Pursuit of WMD
16	Provide Intelligence Collection Capabilities in Support of USG NP Efforts
17	Conduct On-Site Attack to Seize, Destroy, Disable, Deny WMD Targets
18	Provide Personnel, Training, Materiel, Equipment, to Support Security Assistance
19	Destroy, Disable, and Deny Actor's Non-WMD Resources and Capabilities

It is of particular note that with this year's cycle, this Joint Warfighting Capabilities Assessment's prioritized requirements list was also used by some of the other relevant committees as a part of their requirements-generation process. The Commission commends the Joint Staff's Joint Warfighting Capabilities Assessment working group on deterrence and counter-proliferation as a positive step in the development of an end-to-end planning process. The extensive effort to collect the Department of Defense requirements, combine them into an overall priority list, and then integrate the results into specific operational plans is exemplary. Indeed, this results in a de facto intra-Department of Defense coordination mechanism of potentially high value, although it is not yet effectively replicated throughout the department's broad efforts to combat weapons of mass destruction proliferation.

- **The United States Army Nuclear and Chemical Agency (USANCA)** is a U.S. Army Training and Doctrine Command organization responsible for maintaining the United States doctrine for the employment of nuclear weapons and for personnel risk and casualty criteria to nuclear weapons effects. While it is not directly a counter-proliferation organization, much of its integrated research priorities are directly related to the deterrence, defense and consequence mitigation categories of combating weapons of mass destruction proliferation. The Army Nuclear and Chemical Agency hosts an annual review and validation of nuclear research priorities inviting nuclear community experts and users across the Department of Defense and the Department of Energy to attend. The nuclear weapons effects research is categorized into a number of topical chapters and then into

sections. Requirements are then sub-categorized for each section. Once ranked in importance for each section, the overall list is rank-ordered to create a numerical priority for use by research and development organizations that develop products in response to the identified needs. While the list has over one hundred requirements, only the top twenty ranked specific military requirements for fiscal years 1999 and 2000 are shown in the table below.

U.S. Army Top Ranked Specific Military Requirements (SMRs) for Nuclear Weapons Effects Research Fiscal Years 1999/2000		
Pri	SMR	Topic Description
1	**2.3.1a**	Incorporate nuclear weapons effects information into simulation and distributed interactive simulation systems
2	**4.3.2a**	Develop procedures and equipment for low-level radiation doses
3	**3.2.2b**	Create commanders dose-level guidance for operations in low-level radiation environments
4	**3.5.3a**	Identify or develop low-cost, individual-issue physical dosimetry and field biodosimetry to measure radiation levels
5	**4.5.2a**	Develop procedures to predict system responses to electromagnetic environments
6	**4.1.2a**	Investigate the non-ideal air blast phenomenon
7	**4.3.4a**	Add capabilities for current system protection factor prediction codes
8	**2.1.2a**	Expand and maintain a database of equipment performance and automate targeting data
9	**3.3.2a**	Estimate combined effects of ionizing radiation and other stressors
10	**4.5.2l**	Exercise new validation procedures to assess Army digitized battlefield acquisitions
11	**3.2.2a**	Decrease the long-term health effects of radiation, using drugs
12	**3.4.2a**	Develop data and models to predict performance degradation from effects of lasers
13	**4.3.4b**	Estimate initial-and residual-radiation protection factors for military shelters and equipment
14	**4.3.2c**	Evaluate the accuracy of aerial survey
15	**3.8.1a**	Develop treatment protocols and a field screening kit for depleted uranium in urine
16	**4.5.2h**	Develop electromagnetic test validation procedure(s)/simulator(s) to replace current techniques
17	**4.3.2b**	Enhance and maintain radiation transport codes
18	**3.6.3a**	Provide integrated medical assessment tools
19	**4.1.6a**	Test and analyze composites for response to thermal-blast synergistic effects
20	**2.2.1a**	Develop methodology and analytic tools for nuclear survivability analyses

The Under Secretary of Defense for Acquisition and Technology

The Under Secretary of Defense for Acquisition and Technology (USD(A&T)) has three interlocking processes for identification and prioritization of research, development, and acquisition of science and technology for combating the proliferation of weapons of mass destruction:

- The Office of the Secretary of Defense's Nuclear, Biological, and Chemical Defense Steering Committee, presumably chaired by the acting Assistant to the Secretary of Defense for Nuclear, Chemical and Biological Defense. It provides oversight of the chemical and biological defense program and sets overall guidance to the Joint Nuclear, Biological and Chemical Defense Board. It is composed of the Director for Defense Research and Engineering, the Defense Threat Reduction Agency, the Chemical and Biological Defense Directorate from the Defense Threat Reduction Agency

and the Deputy Assistant to the Secretary of Defense for Counter-proliferation/Chemical and Biological Defense. The chemical and biological defense program is divided into the following topical areas: contamination avoidance, individual protection, collective protection, decontamination, medical chemical defense, medical biological defense and modeling and simulation. It is of note that there are few nuclear or radiological defense elements in spite of the committee's name. For 1999, the capabilities supported by the chemical and biological defense program are shown in the table below

Capabilities Supported by the Chemical and Biological Defense Program for 1999 Cross-referenced to the Commander-in-Chief's Counter-proliferation Capabilities Priority List	
Pri	Description
1	Provide individual protection to forces and assist allies/coalition partners
3	Provide collective protection to forces and assist allies/coalition partners
4	Mitigate the effects of WMD use
5	Detect employment of WMD

- The Joint NBC Defense Board, which works the Program Operating Memorandum and provides overall management, is co-chaired by the Army Vice Chief of Staff and the Assistant Secretary of the Army for Research and Development; It has two sub-elements, one for requirements and one for execution management:

*The Joint Service Integration Group—led by the Army—which works on Service/SOF requirements, and reviews doctrine, training, plans and Service Program Operating Memoranda. It includes a medical program sub-panel chaired by the Senior Clinical Consultant for the Army Medical Department Center and School and serves to identify chemical and biological defense-based medical programs identified by the Department of Defense's medical community, and

*The Joint Service Management Group—led by the Army—which coordinates research and development planning, provides technical oversight, develops Program Operating Memoranda strategy, and reviews research, development, and acquisition and technology base programs.

There are a series of "commodity areas" led by program managers from the various services: the Army leads contamination avoidance and medical issues; the Air Force leads decontamination; the Marines lead in individual protection; and the Navy leads in collective protection (in ships, aircraft, building complexes, etc.) and modeling and simulation. The modeling and simulation commodity area reports to the Joint Service Integration Group, presumably to help establish requirements; all others report in to the Joint Service Material Group;

- The Director, Defense Research and Engineering's Defense Science and Technology Advisory Group Steering Committee develops plans to provide programming guidance for the Department of Defense Science and Technology community, including NBC defense research. The three plans are the:

*Basic Research Plan (BRP), which presents the Department of Defense objectives and investment strategy for the Department-sponsored Basic Research (6.1) performed by universities, industry, and service laboratories. In addition, it presents the planned investment in each of ten technical disciplines. They include Physics, Chemistry, Mathematics and Computer Sciences, Electronics, Materials Science, Mechanics, Ocean and Terrestrial Sciences, Atmospheric and Space Sciences, Biological Sciences, and Cognitive and Neural Science;

*Joint Warfighting Science and Technology Plan (JWSTP), a joint perspective horizontally across the Applied Research (6.2) and Advanced Technology Development (6.3) plans of the services and defense to ensure that the Science and Technology program supports priority future joint warfighting capabilities. The Joint Requirements Oversight Council has endorsed the Joint Warfighting Science and Technology Plan planning process and methodology and the Joint Warfighting Capability Objectives used in the development of the Joint Warfighting Science and Technology Plan; and

*Defense Technology Area Plan (DTAP), which presents the Department of Defense objectives and the Applied Research (6.2) and Advanced Technology Development (6.3) investment strategy for technologies critical to Department of Defense acquisition plans, service warfighter capabilities, and the JWSTP. It also takes a horizontal perspective across the service and defense agency efforts, thereby charting the total Department of Defense investment for a given technology. The Defense Technology Area Plan documents the focus, content, and principal objectives of the overall Department of Defense science and technology efforts. This plan provides a sound basis for acquisition decisions and is structured to respond to the Deputy Under Secretary of Defense for Science and Technology's emphasis on rapid transition of technology to the operational forces.

It is reported in the 1999 Department of Defense's Annual report to Congress on Nuclear Biological and Chemical Defense that the Defense Threat Reduction Agency's Chemical and Biological Defense Directorate prepares relevant portions of the these three documents by March of each year. This implies that as a member of the Office of the Secretary of Defense's Nuclear, Biological and Chemical Defense Steering Committee, the activities of the chemical and biological defense program are reflected in the development process for the defense technology objectives (shown below). However, the correlation of the investment strategies of the Defense Technology Area Plan with those

of the chemical and biological defense program is not apparent.

1999 Defense Technology Objectives (DTOs)— Counter Weapons of Mass Destruction	
DTO	**Topic Description**
I.02	Joint Biological Remote Early Warning System Advanced Concepts Technology Demonstration
I.03	Airbase/Port Biological Detection Advanced Concepts Technology Demonstration
I.04	Integrated Biodetection Advanced Technology Demonstration
I.05	Chemical Add-On to Airbase/Port Biological Detection Advanced Concepts Technology Demonstration
J.03	Counter-proliferation I Advanced Concepts Technology Demonstration
J.04	Counter-proliferation II Advanced Concepts Technology Demonstration
CB.02	Joint Warning and Reporting Network
CB.06	Advanced Lightweight Chemical Protection
CB.07	Laser Standoff Chemical Detection Technology
CB.08	Advanced Adsorbents for Protection Applications
CB.09	Enzymatic Decontamination
CB.19	Chemical Imaging Sensor
CB.20	Biological Sample Preparation System for Biological Identification
CB.21	Chemical Agent Prophylaxes
CB.22	Medical Countermeasures for Vesicant Agents
CB.23	Medical Countermeasures for Staphylococcal Enterotoxin B
CB.24	Medical Countermeasures for Encephalitis Viruses
CB.25	Multiagent Vaccines for Biological Threat Agents
CB.26	Common Diagnostic Systems for Biological Threats and Endemic Infectious Diseases
L.07	Terrorist Chemical/Biological Countermeasures
NT.01	Nuclear Operability and Survivability Testing technologies
NT.02	Electronic System Radiation Hardening
NT.03	Hard-Target Defeat
NT.04	Prediction and Mitigation of Collateral Hazards
NT.05	Balanced Electromagnetic Hardening Technology
NT.06	Survivability Assessments Technology
NT.07	Integrated Comprehensive Weaponeering Capability
NT.08	Nuclear Weapon Safety and Reliability
NT.09	Nuclear Phenomenology

The Under Secretary of Defense for Policy

The Under Secretary of Defense for Acquisition and Technology does not bear the responsibility for all acquisition programs pertinent to counter-proliferation activities. For example, the Assistant Secretary of Defense for Special Operations and Low-Intensity Conflict—which has no apparent connection to the chemical and biological defense committee process under the Under Secretary of Defense for Acquisition and

Technology—has primary oversight of force-protection activities, even though the Defense Threat Reduction Agency and the Joint Staff (J-34) are both supporting and executing agents. This partly explains why ongoing force-protection assessments lack sufficient integration with technology development programs for chemical and biological weapon defense.

The Technical Support Working Group

Jointly chaired by the Under Secretary of Defense for Policy and the Department of State, the Technical Support Working Group (TSWG) addresses research and development efforts to meet the threat posed by domestic and international terrorism, and includes a working group on Chemical, Biological, Radiological, and Nuclear Countermeasures.

Technical Support Working Group: Chemical, Biological, Radiological, and Nuclear Countermeasures Subgroup	
Pri	Description of Prioritized Fiscal Year 2000 Requirements
1	Non-Intrusive Detection, Stand-off Chemical/Biological/Explosive Detector
2	Non-Intrusive Detection of Chemical and Biological Agents
3	Validation of Chemical, Biological and Radiological Mass Decontamination Process
4	Improved Communications System for the Individual Protective Mask
5	Micro Fluidic Biodetector
6	Chemical Warfare Agent/Toxic Industrial Chemical Mask Filter Cannister
7	SOF Chemical Agent Detector
8	Rapid Screening Test for Multiple Biological Agents in a Variety of Matrices
9	Lossless Image Compression x100
10	Contamination Mapping and Detection Tool for Chemical, Biological and Radiological Agents
11	Chemical and Biological Protective Gloves with Dexterity
12	Urban Dispersion Modeling
13	Lightweight Level A Cooling System
14	Expedient Hazard Reduction System
15	Urban Chemical and Biological Countermeasures
16	Field-Deployable Decontamination System
17	Nuclear Material Classification System
18	First Responder Individual Protective Mask
19	Chemical, Biological, Radiological and Nuclear Counter-Terrorism Training Support
20	Anti-crop/animal Biological Agent Characterization and Database
21	Urban Chemical Relation Test Bed
22	Chemical and Biological Agent Forensic Protocols
23	Non-Hazardous Decontamination – Peptides and Proteins
24	Improved Techniques for Rapid Biological Warfare Agent Identification
25	Sensitive Equipment Decontamination
26	Chemical and Biological IED Containment
27	Parametric Modeling of Chemical and Biological Incidents

28	Interface between Individual Protective Mask and NVG

The Department of Defense's Baseline Survey Response

As of this printing, the Commission has not yet received the official unclassifed copy of the Department of Defense's Baseline Survey Response. However, three comments can be made about their classified response. First, the response was not integrated. The answers were made by the individual agencies within the Department of Defense and sequentially attached to the respective questions. The absence of an integrated Department of Defense answer reflects the lack of a single integrating office within the Department of Defense for combating the proliferation of weapons of mass destruction. Second, not all of the agencies with counter-proliferation activities provided answers in the Department of Defense's baseline survey response. Notably absent were the Defense Advanced Research and Projects Agency and the Ballistic Missile Defense Office. And third, their response highlighted three pertinent issues the for the impact of the Defense Reform Initiative on policy:

- the waning role/atrophy of the Office of Nonproliferation Policy;
- the reliance on contractors/external groups for policy planning/research; and
- the specified challenge of matching adequate resources (human and financial) to expanding needs.

Arguably, defense policy planning should not be the sole purview of Defense Science Board, National Defense University, Commission, and contractor/FFRDC studies. Rather, OSD should harness its current capabilities and, rather than always contract-out, be capable to perform work in-house. Clearly, the current Department of Defense structure could be strengthened to meet the needs of the Secretary and Deputy Secretary of Defense with respect to combating proliferation.

Erosion of Nuclear Expertise

Many of the recommendations from the Commission on Maintaining United States Nuclear Weapons Expertise (the Chiles Commission) are applicable to the Department of Defense. The most notable recommendations that could be considered by the proposed nuclear office under the Assistant Secretary of Defense for Combating Proliferation (Recommendation 5.2) are:

- Recommendation 1 to reinforce the national commitment and fortify the sense of mission: “The Administration and Congress, through actions and words, could make a concerted and continuing effort to convey to the nuclear weapons community that their mission is vital to the security of the nation and will remain vital well beyond the planning horizons normally associated with programmatic decisions. This message should be unequivocal, clear, and periodically reinforced”;

- Recommendation 3 on Strengthening the Department of Energy (DOE)-Department of Defense (Department of Defense) Relationship: “Create a true partnership that forges both a shared commitment to meet national security needs for nuclear weapons”;

- Recommendation 7 on establishing and implementing plans on a priority basis for replenishing essential technical workforce needs in critical skills: “Large numbers of the nuclear weapons workforce are reaching retirement and a new generation of essential scientific, engineering and technical workers must be hired and trained in order to preserve essential skills”;

- Recommendation 9 on expanding training and career planning programs which are adapted to the dramatically changed workforce environment;

- Recommendation 10 on expanding the use of former nuclear weapons program employees: “Institute a small, select Nuclear Weapons Workers Reserve from those with key skills to maintain the ability to increase experienced staff rapidly, when and if required”;

- Recommendation 11 on creating a permanent Defense Programs Advisory Committee: “formed of senior, experienced personnel capable of assessing stockpile integration and priorities.”; and

- Recommendation 12 on enhancing congressional oversight: “Provide positive explicit reinforcement of the public service character of the mission to maintain a safe and reliable nuclear weapons stockpile.”

In sum, the lack of a single focus for weapons of mass destruction with sufficient seniority and necessary resources has resulted in “pockets” of programs within the Department of Defense (like the chemical and biological defense program) that tend to operate independently of each other and cannot be traced to a single integrated Department-wide program plan. There is an urgent need for a single policy and a single acquisition authority for programs to combat the proliferation of weapons of mass destruction within the Department of Defense

Department of Energy

Historical Background

The history of the Department of Energy (DOE) is intimately linked to the development of U.S. nuclear proliferation-related policy. Even before the first detonation of an atomic bomb, the scientists of the Manhattan Project warned the War Department about the potential dangers of proliferation. In 1945, the War Department's Interim Committee on post-war nuclear policy debated the alternative virtues of international cooperation versus strict control over information about nuclear technology.

As part of the reorganization of defense activities after the end of World War II, the U.S. Government decided that production of nuclear weapons should be the responsibility of a civilian agency rather than of the military establishment. The Atomic Energy Act of 1946 established a five-member civilian Atomic Energy Commission (AEC) to take over the assets and responsibilities of the Manhattan Project on January 1, 1947.

The 1946 Act also sought to prevent the proliferation of nuclear weapons by establishing strict controls over fissionable material. Ownership of all fissionable material was vested in the AEC, and its possession was forbidden to persons outside the jurisdiction and control of the United States. The Act also prohibited the direct or indirect production of fissionable material outside the United States. These provisions made it very difficult for the AEC to authorize peaceful nuclear cooperation with other nations.

A major policy change was announced in President Eisenhower's 1953 "Atoms for Peace" speech to the United Nations. Recognizing that the United States no longer had a monopoly on nuclear technology, the President proposed to share nuclear materials and technology with other nations, provided that they undertook an obligation not to develop nuclear weapons. As originally proposed, this cooperation was to be carried out under the control of an international organization that eventually became the International Atomic Energy Agency (IAEA).

In 1954, Congress enacted amendments to the Atomic Energy Act to permit implementation of the Atoms for Peace program. Beginning in the late 1950s, a network of peaceful nuclear cooperation agreements was negotiated, setting a pattern later followed by other nuclear supplier states. Initially, these agreements provided for safeguards inspections to be conducted by the United States to verify that nuclear material of U.S. origin was not being diverted to military purposes. To carry out this responsibility, the Atomic Energy Commission developed the material accounting and control concepts and inspections techniques that underlie international safeguards to this day. In the late 1950s and early 1960s, the AEC worked closely with the IAEA to help the latter develop its own safeguards capability. This assistance to IAEA safeguards has been maintained by the

AEC's successor agencies, the Department of Energy and the Nuclear Regulatory Commission. By the end of the 1960s, the United States had transferred all safeguards responsibilities under its peaceful nuclear cooperation agreements to the IAEA.

The Energy Reorganization Act of 1974 abolished the Atomic Energy Commission, transferring its regulatory functions to the Nuclear Regulatory Commission. Its military, proliferation-related, and other responsibilities were allocated to the new Energy Research and Development Administration. This agency was itself abolished only three years later when Congress transferred its functions to the newly created Department of Energy (DOE). The Department officially came into existence on October 1, 1977.

Since 1977, three additional pieces of legislation have had major importance for the Department's proliferation-related programs. The Nuclear Non-Proliferation Act of 1978 placed stringent new restrictions on nuclear trade and peaceful nuclear cooperation with other nations. Responsibility for implementing many of these fell on the Department of Energy. The Energy Policy Act of 1992 privatized the Department's civil uranium enrichment capability by transferring it to the newly created U.S. Enrichment Corporation. Finally, under the Nunn-Lugar Act, the Department has played a major role in cooperative threat reduction with the former Soviet Union.

Organization

The Department of Energy's role in proliferation derives from its experience in developing and maintaining the U.S. nuclear weapons stockpile. These weapons, designed, built and tested by DOE and its predecessor agencies, have formed the deterrent that has been the cornerstone of American national security for the past 50 years. Stewardship of the nuclear weapons complex continues to be one of DOE's core missions. However, as the post-Cold War global environment has presented new challenges, DOE's security role has broadened to include a range of arms control and non-proliferation activities focused on reducing the threat posed by the spread of nuclear weapons and weapons-usable fissile materials.

To meet these challenges, most of the Department's arms control and proliferation-related work, including research and development, has been consolidated into one organization, the Office of Nonproliferation and National Security (NN). Other proliferation-related activities are carried out by the Office of Fissile Materials Disposition and the Office of Intelligence.[19]

The Office of Nonproliferation and National Security is the focal point of the Department's proliferation-related efforts. The director of NN, an assistant secretary, reports directly to the Secretary of Energy and represents DOE at all senior-level arms control and proliferation-related forums within the United States. Key program offices of NN include the following: the Office of Arms Control and Nonproliferation (NN-40), the Office of International Nuclear Safety and Cooperation (NN-30), and the Office of Research and Development (NN-20). [20] Also reporting directly to the assistant secretary is the Russia/ NIS Nuclear Materials Security Task Force, which oversees the Material Protection, Control, and Accounting (MPC&A) program, whose goal is to enhance the safety and security of nuclear weapons materials in the former Soviet Union (FSU), and to improve the ability of FSU authorities to account for quantities of nuclear materials stored at active and former Ministry of Atomic Power and Ministry of Defense facilities. The Office of Nonproliferation and National Security's fiscal year 2000 budget request is $747.3 mission, representing an 11 percent increase over its fiscal year 1999 appropriation.

The Office of Arms Control and Nonproliferation (NN-40) oversees a wide range of international proliferation-related activities in support of U.S. Government policy. Some of these activities include assisting former Soviet republics in establishing and strengthening nuclear material export control systems, providing technical support to and improving the effectiveness of IAEA nuclear safeguards, promoting research and development of technologies relevant to proliferation-related treaty verification and monitoring, and building constituencies for regional arms control and non-proliferation in areas of instability and tension.

[19] On May 11, 1999, Secretary of Energy Bill Richardson announced a sweeping reorganization of DOE security programs. The reorganization calls for the creation of a new Office of Security and Emergency Operations, which will be responsible for "all safeguards and security, cyber-security and emergency operations functions throughout the DOE complex" and will "oversee all security-related functions which previously were handled by different DOE program offices." As part of this plan, three components of the Office of Nonproliferation and National Security that are responsible for various security and emergency management activities, will be transferred to the new Office of Security and Emergency Operations. These components include the following: the Office of Security Affairs (NN-50), which is responsible for directing Department-wide safeguards and security, and classification/declassification programs; the Office of Emergency Management (NN-60), which is the Department's focal point for all emergency management activities; and the Unclassified Foreign Visits and Assignments Program, within the Office of Resource Management (NN-10), which directs policy for, and management of, vital information on foreign visitors and assignees to DOE and DOE contractor facilities (the rest of NN-10 will remain intact). In addition, the Commission was informed that responsibility for tracking U.S. nuclear material inventories and transactions is expected to be transferred from the International Safeguards Division (NN-44) of the Office of Nonproliferation and National Security and consolidated in the newly created Office of Plutonium, Uranium and Special Material Inventory within the Office of Security and Emergency Operations. The Office of Emergency Response (DP-23), within the Office of Defense Programs (DP), will also be transferred to the newly created Office of Security and Emergency Operations. DP is responsible for the operation of the nuclear weapons complex, including design, manufacture, testing, stockpile stewardship, and disposition, as required. Its role in combating proliferation consists primarily in providing a technical capability, through DP-23, to respond to nuclear and radiological accidents and other emergencies. DP-23, which works closely with NN's Office of Emergency Management, sponsors the Nuclear Emergency Search Team and related assets to deal with the possibility of terrorist use of a weapon of mass destruction.

[20] NN also includes the Office of Resource Management (NN-10), which is responsible for cross-cutting budget, personnel, resource, and financial management issues, and procurement and contracting issues affecting NN--activities it coordinates with appropriate departmental offices, the national laboratories, other USG agencies, and Congress.

Components of NN-40 include the International Policy and Analysis Division (NN-42), the Nuclear Transfer and Supplier Policy Division (NN-43), and the International Safeguards Division (NN-44). In addition, NN-40 administers two separate, but complementary, programs concerned with reducing the nuclear threat from the FSU: Initiatives for Proliferation Prevention, which seeks to engage FSU weapons scientists in the development of non-military, commercial applications for defense technologies, and the Nuclear Cities Initiative, which seeks to create job opportunities for displaced weapons scientists and engineers in Russia's ten closed nuclear cities, and, over the longer term, to provide assistance to the Russian Federation as it downsizes its nuclear weapons complex.

The International Policy and Analysis Division (NN-42) develops, coordinates, and implements DOE positions, policies, and plans relating to a broad range of international arms control and nuclear proliferation-related security matters. In fulfillment of this mission, it performs the following functions:

- coordinates DOE treaty implementation, compliance, and verification activities;
- represents DOE in international arms control and proliferation-related negotiations and consultations, and provides technical support to such delegations;
- supports U.S. and international regional proliferation-related and confidence- and security-building efforts, a program it manages for the Cooperative Monitoring Center at Sandia National Laboratories;
- serves as DOE point of contact for other U.S. Government agencies on technical matters related to arms control and proliferation-related policy;
- manages efforts to limit the use of weapons-usable fissile materials worldwide, including the Reduced Enrichment for Research and Test Reactors (RERTR) program, which seeks to convert foreign research reactors from the use of highly enriched uranium (HEU) to advanced low-enriched uranium (LEU) fuels;
- manages proliferation-related support for DOE's policy to accept foreign research reactor spent nuclear fuel containing uranium enriched in the United States;
- processes subsequent arrangements governing the transfer of nuclear materials subject to U.S. consent rights under our agreements for peaceful nuclear cooperation;

The Nuclear Transfer and Supplier Policy Division (NN-43) develops, coordinates, and implements policies, regulations, and procedures governing the transfer or export of nuclear and nuclear-related materials, equipment, and technologies in accordance with national security and nuclear proliferation-related objectives and international treaty obligations. In fulfillment of its mission, it performs the following functions:

- administers U.S. transfers of nuclear technology and technical assistance to foreign nuclear programs,
- serves as Secretariat of the interagency Sub-group on Nuclear Export Coordination,
- provides technical analysis and export policy formulation for proposed U.S. nuclear-related commodity exports for DOE,
- represents DOE in the negotiation and administration of multilateral supplier arrangements, such as the Nuclear Suppliers Group and the Zangger Committee,
- conducts training and informational seminars in the United States and abroad on nuclear proliferation, technical assistance, and supplier issues,
- represents DOE in bilateral and multilateral meetings on nuclear supplier issues,
- provides assistance to U.S. efforts to prevent illegal trafficking in nuclear technology and materials,
- provides a computerized information sharing system to provide technical assistance to members of the Nuclear Suppliers Group, and
- maintains a comprehensive computer network to share proliferation-related data products for use by staff in license reviews and for proliferation-related analysis to support policy.

The International Safeguards Division (NN-44) supports the development and implementation of U.S. nuclear proliferation-related policies, particularly with respect to nuclear safeguards implementation, treaty verification, and materials protection, control, and accounting. Through its programs, NN-44:

- formulates and implements U.S. safeguards policy, develops technologies to verify excess fissile material, and negotiates verification regimes to

ensure excess fissile material no longer needed for defense programs is removed irreversibly from nuclear weapon use;

- leads DOE interactions with the IAEA and supports U.S. policy and technical cooperation consistent with U.S. obligations under the Nuclear Nonproliferation Treaty (NPT);

- manages technology research and development programs to strengthen IAEA safeguards and improve nuclear material security worldwide;

- helps ensure physical protection of U.S. and non-U.S. origin nuclear material against theft and sabotage through technical and training support in physical protection and MPC&A to foreign countries and international organizations, notably the IAEA;

- tracks and analyzes domestic and foreign nuclear material inventories and transactions, and

- cooperates with global partners to share safeguards technology.

Another component of NN, the Office of International Nuclear Safety and Cooperation (NN-30) provides technical leadership, expertise, and program management for cooperative international programs to promote nuclear safety and nuclear technology development. These include cooperative programs to reduce the threat posed by the operation of aging civilian nuclear facilities in the former Soviet Union, Ukraine, and Central and Eastern Europe. NN-30 also represents DOE in international forums, such as the IAEA, on matters concerning nuclear safety, the safety of Soviet-designed reactors, and the development of advanced nuclear technologies. Additional safety-related activities include its management of DOE's efforts in support of implementation of the G-7 Memorandum of Understanding with the Ukraine to secure the closure of the Chernobyl nuclear power plant. These activities include technical management of the Chernobyl sarcophagus and decontamination and decommissioning work.

NN-30 also leads the Department's program to shut down Russia's three remaining plutonium production reactors in Tomsk-7 and Krasnoyarsk-26 and to convert them to a non-plutonium producing mode by 2001. It also manages activities to implement the HEU Transparency Program, which monitors the down-blending of Russian HEU into LEU and assures that Russian HEU from dismantled nuclear weapons is converted to LEU and delivered to the U.S. Enrichment Corporation. These transparency monitoring activities are scheduled to continue through 2013.

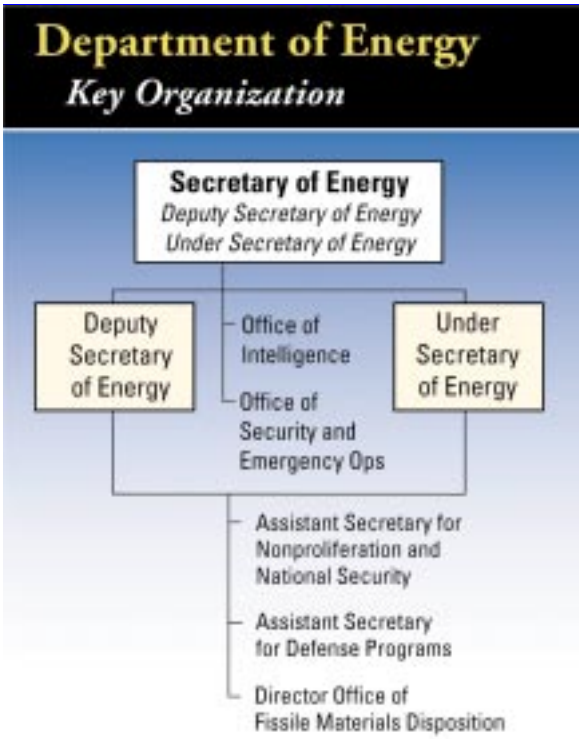
The Office of Research and Development (NN-20) is responsible for a full-spectrum systems and technology program for reducing the threats to U.S. national security posed by nuclear, chemical and biological weapons proliferation and illicit materials trafficking. The program addresses technologies in four principal thrust areas: (1) nuclear treaty monitoring, (2) early detection of proliferation activities, (3) detection/deterrence of the

diversion of weapons of mass destruction and constituent materials, and (4) countering the potential use of chemical and biological weapons. The program develops applicable technologies, demonstrates and validates fieldable prototypes, and, in the treaty monitoring area, provides actual operational hardware and software. Most of the technologies developed within the program are intended to support the operational needs of other USG agencies. The program also provides the science and technology base that enables other DOE Nonproliferation and National Security organizations to accomplish their missions.

The Office of Fissile Materials Disposition (MD) was created in October 1994 to oversee DOE's activities to dispose of inventories of U.S. weapons-usable plutonium and highly enriched uranium declared excess to national defense needs and to provide technical support for Administration efforts to obtain Russia's agreement to reciprocal actions for the disposition of its surplus plutonium. The Office is headed by a director who reports to both the Under and Deputy Secretaries of Energy. Key programs administered by MD involve transferring surplus HEU to the U.S. Enrichment Corporation for downblending and use as commercial reactor fuel, designing a plutonium pit disassembly and conversion facility and a mixed oxide fuel fabrication facility, reducing the number of sites where surplus plutonium is stored, and conducting small-scale tests and demonstrations of plutonium disposition technologies with Russia. Through these activities, MD plays an important role in helping to reduce the nuclear danger associated with increases in stockpiles of surplus weapons materials resulting from downsizing of the nuclear weapons complex and weapons dismantling. The fiscal year 2000 budget request for these activities is $200 million, an increase of $32.5 million over the fiscal year 1999 comparable amount. This increase is primarily to allow the program to begin design of a key U.S. plutonium disposition facility to immobilize surplus non-pit plutonium, to procure lead test assembly equipment required for mixed oxide fuel irradiation tests, and to hire the field staff necessary to oversee plutonium disposition facility design activities at the selected DOE site.

The Office of Intelligence (IN) provides technical nuclear weapons expertise, nuclear proliferation-related analysis, and intelligence collection support to the intelligence and policy communities, as well as operational support to defense and civilian operational teams. In addition to its headquarters team, it draws upon the resource base of the national laboratories to provide technical analysis of all aspects of foreign nuclear programs, and to solve especially difficult and intractable intelligence questions. Two units within IN have primary responsibility for non-proliferation issues: the Nuclear Nonproliferation Division (NND) and the Special Technologies Program (STP), which seeks to develop and field quick-turnaround, specialized technology applications to meet the needs of the intelligence, special operations and law-enforcement communities. The director of the IN reports directly to the Secretary of Energy.

Executive Order 12333 identifies DOE as a member of the Intelligence Community and expressly charges the Secretary of Energy to:



- participate with the Department of State in overtly collecting information with respect to foreign energy matters,
- produce and disseminate foreign intelligence necessary for the Secretary's responsibilities,
- participate in formulating intelligence collection and analysis requirements where the special capability of the Department can contribute, and
- provide expert technical, analytical, and research capability to other agencies within the Intelligence Community.

The Office of Intelligence implements the Department's intelligence responsibilities through a variety of activities:

- producing and coordinating intelligence analyses,
- tasking in-depth technical analyses and preliminary technology development to DOE's field organizations,
- managing Intelligence Work for Others at these organizations,

- working with intelligence collectors to ensure that DOE requirements are met,
- providing technical training and other support for the greater intelligence and policy communities,
- managing departmental intelligence policy, and
- serving as interlocutor between the Intelligence Community and the resources and requirements of DOE and its national laboratories.

Nuclear Regulatory Commission

Background

The Nuclear Regulatory Commission (NRC) was established by the Energy Reorganization Act of 1974, which abolished the old Atomic Energy Commission (AEC). The fundamental premise of the Act was that the AEC faced an inherent conflict of interest since it both promoted civil nuclear energy programs and regulated them in the interest of public safety. In broad terms, then, the NRC inherited the Atomic Energy Commission's regulatory functions, while its other functions were passed to the Energy Research and Development Administration, and later to the Department of Energy.

The five NRC Commissioners are appointed for set terms of office, and cannot be removed except for cause. Appointments are made by the President with Senate confirmation. The Chairman of the Commission is designated by the President, and serves as its principal executive officer. As an independent regulatory commission, the NRC does not report to the President and is not (with one exception noted below) subject to direction from the executive branch of government. The general NRC budget does not come from appropriated funds, but from license fees. (Some proliferation-related activity, such as assistance to civil nuclear activities in the former Soviet Union, is paid for through appropriated funds.)

Congress modeled the NRC on other federal regulatory commissions, such as the Interstate Commerce Commission, the Federal Communications Commission, or the Federal Trade Commission. Many such commissions were created in the Progressive and New Deal eras, with broad powers to regulate specific sectors of the economy. The theory was that the subject matter dealt with by each commission required the application of expert judgment that could only be developed over time. The public interest, it was believed, also required that this expert judgment be exercised free of political influence or conflicts of interest. Former NRC Commissioner Victor Gilinsky, testifying before the Commission, pointed to this independence of judgment as the primary strength of the NRC. He noted, for example, that as early as 1981, the NRC was able to raise questions about the adequacy of IAEA safeguards, at a time when such questions were virtually taboo elsewhere in the federal bureaucracy.

Historically, independent regulatory commissions gave much of their attention to rate-fixing and other economic regulation. Over the last 20 years, however, economic regulation has passed out of favor and free-market pricing has been extended to formerly regulated economic sectors. The work of some independent commissions has been cut back, while others, including the Interstate Commerce Commission and the Civil Aeronautics Board, have been abolished.

Had nuclear power expanded to the extent many experts predicted in the 1960s, the NRC might have had a major role in its economic regulation. This development never occurred, however, and the bulk of the regulatory work done by NRC focuses on safety, physical security and environmental protection.

The NRC staff consists of approximately 3,000 employees in the headquarters and four regional offices in the United States. The headquarters staff is divided into 11 principal offices. Five of these formally report to the Commission as a whole, including the Office of International Programs. Six offices report directly to the Chairman, including the Executive Director for Operations. The four NRC regional offices report to the Chairman through the Executive Director for Operations.

NRC Proliferation-related Activities

The proliferation-related role of the NRC is concentrated in two headquarters offices—the Office of Nuclear Material Safety and Safeguards, under the Executive Director for Operations, and the Office of International Programs.

Office of Nuclear Material Safety and Safeguards. The United States has a long history of assisting and supporting IAEA safeguards. Many of the fundamental safeguards concepts used by the IAEA were first developed by the AEC in the 1950s and 1960s. The Office of Nuclear Material Safety and Safeguards is a principal heir to this expertise. It participates in the interagency formulation and an international implementation of U.S. policy on safeguards and the physical protection of nuclear material.

As a nuclear weapon state, the United States is not routinely subject to international safeguards at all its peaceful nuclear facilities. Within the United States, NRC funds and enforces a nuclear material management safeguards system to ensure that U.S. civil nuclear material is not diverted. On those rare occasions when the IAEA does apply safeguards to NRC-licensed facilities in the United States, the NRC assists the IAEA (e.g, during the blending down of highly enriched uranium from Kazakhstan in 1997-98).

At the international level, personnel from the Office of Nuclear Material Safety and Safeguards participate in advisory committees to strengthen IAEA safeguards. They have also played a major role in supporting cooperative threat reduction activities in the former Soviet Union. These have included the development of nuclear material protection, control, and accounting (MPC&A) regulations in Kazakhstan, assisting the development of an MPC&A inspection program in Russia, and developing physical protection regulations in the Ukraine.

Office of International Programs. The Office of International Programs is the NRC focal point for export controls. This Office has both a policy-making role and a role in deciding on certain specific export licenses. Under the Atomic Energy Act, the NRC, after coordination with the executive branch, licenses exports of the following commodities:

- Nuclear reactors,
- Fuel cycle facilities,
- Components of the above,
- Reactor-grade graphite,
- Uranium,
- Plutonium, and
- "Byproduct material" from reactor operations (e.g., tritium; radioactive waste).

In general, the NRC licenses exports of materials and commodities that are "specially designed and prepared" for nuclear use, as that term is used in Article III of the Nuclear Non-Proliferation Treaty. NRC export regulations therefore closely follow the Zangger Committee trigger list, intended to implement Article III.

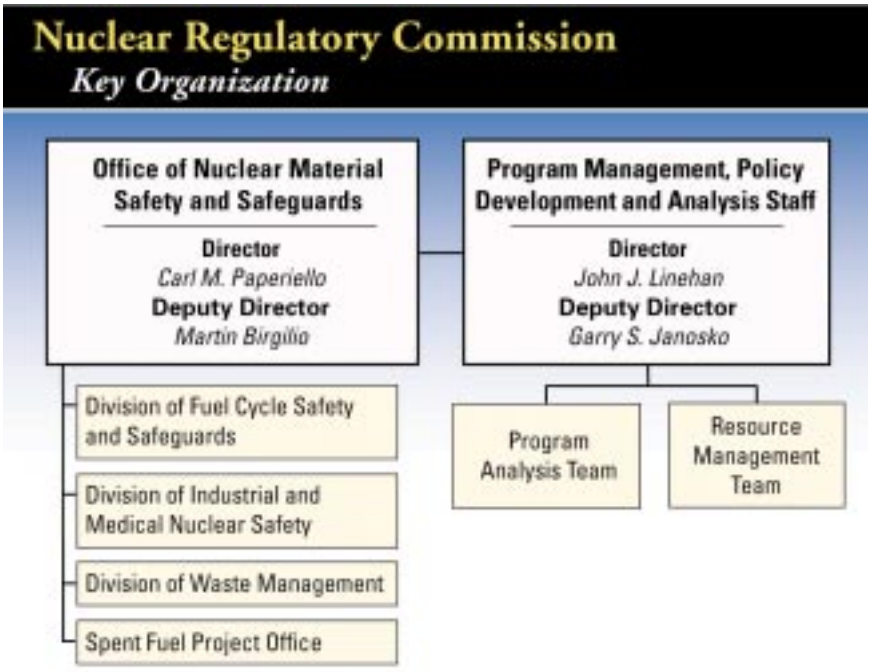
Once these commodities and materials leave the United States, NRC loses jurisdiction over them, even though the U.S. Government retains certain rights over them. For example, nuclear fuel exported from the United States, or any fuel used in a U.S.-origin reactor, may not be reprocessed without the consent of the United States. Similarly, a reactor or fuel exported from the United States under NRC license may not be transferred to a third state without U.S. consent. Such "consent rights" are not processed as NRC licenses, but rather by the "subsequent arrangement" process administered by the Department of Energy.

By law the NRC cannot license an export if the executive branch, through the State Department, objects. The reverse is not true; in theory, the NRC could refuse to license an export even though the executive branch strongly supported the exporter's application. No witness appearing before this Commission or its staff could recall an instance when that had occurred. Should it ever happen, the Atomic Energy Act gives the President the power to authorize the export over the NRC's objection. (This is the one instance, mentioned above, in which the NRC is subject to executive branch control.)

The NRC must be consulted on the following export-related programs administered by other agencies:

- Proposed agreements for peaceful nuclear cooperation, concluded by the Department of State under section 123 of the Atomic Energy Act;
- "Subsequent arrangements" by the Department of Energy under section 131 of the Atomic Energy Act;
- Transfers of technology authorized by the Secretary of Energy under section 57b of the Atomic Energy Act; and
- Commerce Department regulations controlling dual-use exports with potential nuclear applications, under section 309c of the Nuclear Non-Proliferation Act.

Export controls are not a major priority for the NRC, and few resources are allocated to this function. Less than one percent of the NRC staff deals with export issues, and the workload of NRC licenses is expected to remain constant at only 75 to 100 applications per year. For technical expertise, the Office of International Programs primarily relies on the Department of Energy and its national laboratories. (On safeguards issues, it also relies on the NRC Office of Nuclear Material Safety and Safeguards.)



The Intelligence Community

The Intelligence Community (IC) consists of the 13 executive branch organizations that conduct the range of intelligence activities constituting the total U.S. national intelligence effort. The IC is headed by the Director of Central Intelligence, who simultaneously serves as Director of the Central Intelligence Agency (CIA). In addition to the CIA, the IC includes the Defense Intelligence Agency, the National Security Agency, Army Intelligence, Navy Intelligence, Air Force Intelligence, Marine Corps Intelligence, the National Imagery and Mapping Agency, the National Reconnaissance Office, the Federal Bureau of Investigation, the Department of the Treasury, the Department of Energy, and the Department of State.

One component of the IC worthy of special mention is the DCI Nonproliferation Center, which is responsible for managing and coordinating U.S. intelligence support to proliferation-related policy.

DCI Nonproliferation Center (NPC): Background

Originally established on September 17, 1991, within the Directorate of Intelligence and administratively subordinated to the Office of Scientific and Weapons Research (OSWR), the Nonproliferation Center's mission was to track the worldwide development and acquisition of production technology, designs, components, or complete military systems in the areas of weapons of mass destruction and advanced conventional weaponry. On behalf of the DCI, the NPC provided IC-coordinated assessments to U.S. policy agencies responsible for these issues and support to proliferation-related monitoring and compliance activities, such as UN inspection teams. The Center was also tasked with developing requirements, strategies, and data bases for IC support to U.S. policy and enforcement agencies.

In April 1992, then-DCI Robert Gates raised NPC's stature by making it a DCI Center and removing it from OSWR's administrative control. The Director of the NPC, Gordon Oehler, became the senior IC spokesperson on proliferation-related issues. At the time, the NPC was directed to plan and execute a proliferation-related strategic plan that actively involved all elements of the IC. On March 25, 1993, DCI R. James Woolsey designated the Director of the NPC as his Special Assistant for Nonproliferation. The DCI also broadened the NPC's mission, assigning it principal responsibility for ensuring the coordination of IC proliferation-related analysis and support to the policy, export licensing, law-enforcement, military, and operations communities. Specific areas were identified so that the NPC could improve the planning, coordination, management, and effectiveness of IC proliferation-related activities.

NPC: Current Authorities and Responsibilities

The NPC's current structure was established by DCI George Tenet in October 1997. This latest reorganization added to the Center five analytic elements involved in the analysis of transfer networks and foreign missile, nuclear, chemical, and biological weapons programs. Director of Central Intelligence Directive (DCID) 7/2, effective May 7, 1999, sets forth the role of the Special Assistant to the DCI for Nonproliferation and the mission of the NPC as follows:

The Special Assistant to the DCI for Nonproliferation shall:

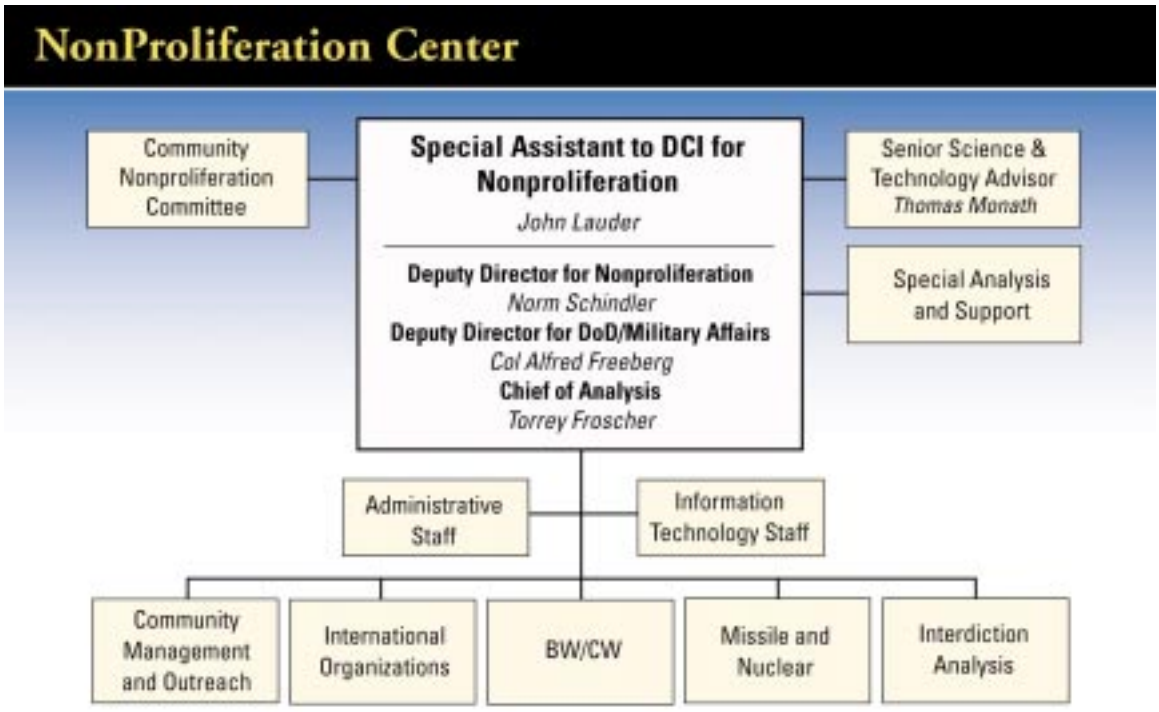
- Be the DCI's principal advisor, senior spokesperson, substantive leader, and focal point on proliferation, and interrelated WMD issues both inside and outside the Intelligence Community;
- Serve as the Non-proliferation and Counter-proliferation Issue Manager for the Intelligence Community;
- Serve as the Director of the DCI Nonproliferation Center;
- Represent the DCI on interagency and international policy formulation and implementation bodies concerned with combating proliferation;
- Establish and maintain regular and close contact with consumers to understand their needs and how intelligence can support them, prioritize consumer needs for intelligence collection, analysis, R&D, and other support, identify intelligence shortfalls, and develop comprehensive response strategies;
- Establish and maintain regular and close contact with collection, operations, R&D, exploitation, and analytical organizations in the Intelligence Community to understand their capabilities and limitations, to develop comprehensive strategies, and to represent their interests, as appropriate, in the planning, programming, and budget cycle;
- Advise the DCI, the Secretary of Defense (in consultation with the Director of DIA), and other senior intelligence managers on the value and effectiveness of current and future program activities and investments related to supporting U.S. objectives for combating proliferation; and
- Serve as Chairman of the Community Nonproliferation Committee, established under DCI Directive 3/13, and such other committees as might be established to facilitate collaboration among the intelligence, policy, law-enforcement, public health, and related communities.

The DCI Nonproliferation Center, under the guidance of the DCI, shall:

- Oversee the critical role of the Intelligence Community in supporting the formulation and implementation of U.S. policies for combating proliferation;
- Conduct timely and succinct all-source analysis on proliferation and interrelated WMD issues;
- As directed by the DCI, and in consultation with other components as appropriate, oversee the development and facilitate the implementation of an Intelligence Community strategy for supporting U.S. efforts to combat proliferation, including support to counter-proliferation activities;
- Coordinate IC support to counter-proliferation efforts, including support to law enforcement, counterintelligence, and military operations;
- Coordinate the development of Community-wide analytic and collection strategies, provide guidance, and establish priorities for the Intelligence Community, based on consumer needs to increase knowledge and understanding of the proliferation of weapons of mass destruction and their delivery means;
- Evaluate Intelligence Community performance, as required by the DCI and Congress, in supporting U.S. policy objectives to combat proliferation and in meeting consumer needs, and, in consultation with the Community Management Staff, recommend investment changes or develop options to optimize Intelligence Community performance;
- Oversee the identification of shortfalls and the development of strategies, and provide guidance and priorities to the Intelligence Community's research and development efforts to improve intelligence capabilities for combating proliferation;
- In coordination with the Intelligence Community, provide Congress, as appropriate, with intelligence assessments on all aspects of proliferation and proliferation-related Intelligence Community capabilities;
- Maintain effective relationships on issues of common concern with other Intelligence Community Issue Managers and organizations; and

- Develop and implement plans for facilitating the scientific and technical relationships between Intelligence Community components and organizations outside the IC, including private industry, academia, the national laboratories, and the public health community, on all aspects of combating proliferation.

As a high priority responsibility, the NPC will facilitate the Intelligence Community's collection, analysis, operations, and R&D efforts against foreign offensive biological warfare (BW) and chemical warfare (CW) activities. It also will work with the Community to develop plans, priorities, and guidance to significantly enhance and expand U.S. capabilities to anticipate, assess, and counter BW and CW activities. In particular, the NPC will undertake critically needed all-source analysis on the development, acquisition, and spread of BW and CW capabilities by foreign state and non-state entities and will stimulate collaborative and supplementary efforts within the Intelligence Community.



Findings of the Aspin-Brown and Jeremiah Commissions

The Aspin-Brown Commission (formally the Commission on the Roles and Capabilities of the United States Intelligence Community), chartered in 1994 to review American intelligence, made a number of points that bear on this Commission's findings. Although the Intelligence Community makes a vital contribution to U.S. national security through its mission of countering WMD proliferation, the Aspin-Brown report argued that:

- intelligence agencies need better direction from the policy level regarding the roles they perform and what they collect and analyze;
- intelligence must be integrated with other functions of the government, such as law enforcement, to achieve shared objectives;
- present organizational arrangements do not provide sufficiently strong central direction, as authority is dispersed and administrative barriers impede cooperation; and

- greater use must be made of experts from outside the government.

The Jeremiah Commission, chartered to evaluate the actions taken by the IC leading up to India's nuclear test in May 1998, provided additional perspectives and suggestions that this Commission feels still need to be addressed. The Jeremiah Commission recognized that the Indian tests posed a difficult collection and analysis problem, that India took measures to avoid detection, and that only a handful of Indian leaders was aware of the plans. Despite those impediments, several critical issues were raised (some of which had already been addressed by the Aspin-Brown Commission):

- an underlying mindset that India and other proliferators would behave as we would marked intelligence thinking prior to the tests and must be avoided in the future;
- outside substantive expertise must be systematically tapped, especially during times of transition, or when new challenges emerge;
- analysts need to consider more than their own "stovepipe" of information;
- comprehensive coverage of unfriendly states must not push out analysis of high-priority issues in other countries;
- because technical collection outstrips analytical resources, better tools are need to exploit the data;
- senior-level attention must be paid to intelligence requirements; and
- the IC needs to improve the clarity of its structure, fix responsibilities, and provide appropriate tools for analysts.

Department of Commerce

The Bureau of Export Administration (BXA), within the Department of Commerce, establishes, manages, and enforces export controls on dual-use goods and technologies. These export controls are established and implemented for reasons of national security and foreign policy, including combating the proliferation of weapons of mass destruction. In addition, these export controls are established pursuant to our role as signatory to proliferation-related treaties (the Nuclear Nonproliferation Treaty and the Chemical Weapons Convention) and membership in various proliferation-related regimes (e.g., the Nuclear Supplier's Group and the Missile Technology Control Regime).

The underlying statutory authority stems from the Export Administration Act of 1979, as amended (50 U.S.C app. §2401-2420). In an effort to separate the export control function from the trade promotion function, the EAA was amended in July 1985 to designate the position of Under Secretary of Commerce for Export Administration to carry out all functions of the Secretary of Commerce as set forth in the EAA. This change gave an independent voice to Commerce's export control agency and elevated the agency to the bureau level.

The EAA expired on September 30, 1990, and except for two short periods when the EAA was extended (3/27/93-6/30/94 and 7/5/94-8/20/94), the Export Administration Regulations (effective 3/25/96, 15 CFR §§734-774) have been continued in force by a series of executive orders issued by Presidents Bush and Clinton under the authority invested in them by the International Emergency Economic Powers Act.

The Bureau of Export Administration, with the exception of the Critical Infrastructure Assurance Office and the Office of Antiboycott Compliance, is almost exclusively devoted to non-proliferation efforts. There are approximately 320 employees of BXA who administer and enforce the U.S government's dual-use export control regime. BXA's funding for non-proliferation activities is approximately $43.7 million for fiscal year 1999, with a request for approximately $51.1 million for fiscal year 2000.

BXA is divided into two major organizations, Export Administration and Export Enforcement. In addition, within the Office of the Under Secretary for Export Administration, there is the Non-proliferation and Export Control Cooperation Office (NEC).

Export Administration

The Export Administration Act directs the Secretary of Commerce to establish and maintain a list of goods and technologies which require an export license for export from the United States. Export Administration (EA) is responsible for formulating a list of

controlled items, the Commerce Control List, in consultation with other U.S. Government agencies, and formulating and implementing export license policy. EA promulgates the Export Administration Regulations (EAR) which implement this policy.

Since 1991, EA has worked to refine the Commerce Control List to reflect the shift from East-West controls to controls based on the non-proliferation efforts of the U.S. Many commodities were decontrolled based on advances of technology and there was a realignment of remaining controls along the proliferation-related regimes. In 1994, EA underwent a major reorganization to reflect the state of export controls in the post-Cold War period. This reorganization reflected changing U.S. national security, foreign policy, non-proliferation and economic security objectives. In 1991, EA undertook a major effort to implement these new objectives and rewrote the Export Administration Regulations entirely to streamline the export licensing process.

Export Administration is now divided into five offices, four of which are devoted largely or exclusively to activities related to combating proliferation:[21]

- Office of Exporter Services
- Office of Strategic Trade and Foreign Policy Controls
- Office of Nuclear and Missile Technology
- Office of Chemical and Biological Controls and Treaty Compliance

There are approximately 140 employees in these four offices.

EA receives, reviews, and decides export license applications for items on the Commerce Control List. EA received about 11,000 export license applications in fiscal year 1998. Processing requires assessing the potential proliferation and strategic uses of an item, verifying the end-use and end-user, and consulting with other agencies who review these applications, including the Departments of State, Defense (DoD), Energy (DOE), and the DCI Nonproliferation Center (NPC) (as well as the Federal Bureau of Investigation for encryption and foreign national technology transfer cases).

In 1998, to comply with the provisions of the NDAA regarding the export of high-performance computers, EA revised the EAR to reflect the new ten-day notification requirement prior to the export of HPCs to Tier 3 countries, which include most countries of proliferation concern. This change resulted in about a ten percent increase in the number of applications received by EA.

[21] The Office of Strategic Industries and Economic Analysis is tangentially related to proliferation by working to assure the competitiveness of U.S. defense industries.

Office of Exporter Services. In addition to staff at Commerce headquarters, the Office of Exporter Services (OExS) maintains a Western Regional Office in Irvine, CA, and has one employee resident in the Silicon Valley. These offices provide advice and consultation to the exporting community on compliance with the EAR. OExS develops Export Management System Guidelines that companies use to ensure compliance with the EAR and conducts export licensing workshops in the U.S. and internationally. These seminars provide training to U.S. exporters, freight forwarders, foreign distributors and foreign re-sellers of U.S. origin technology. This office also chairs the Operating Committee Informed, the interagency process by which U.S. exporters are informed of special licensing requirements for foreign entities of proliferation concern (the Entity List, Supp. 4 to Part 744).

Office of Strategic Trade and Foreign Policy Controls, Office of Nuclear and Missile Technology, Office of Chemical and Biological Controls and Treaty Compliance. These offices relate directly to combating proliferation and are organized according to the multilateral proliferation-related regimes. These offices are responsible for the development, implementation, and modification of proliferation-related export controls, as well as controls related to sanctions and regional stability. Personnel from these offices represent Commerce in interagency export control policy deliberations, international multilateral export control deliberations (Wassenaar, AG, NSG and MTCR), and international treaty deliberations (CWC and BWC).

The Office of Strategic Trade and Foreign Policy Controls administers national security export controls, which include items also controlled proliferation reasons, e.g., high performance computers. OSTFP also includes the encryption licensing division. Export controls on encryption are not considered to be proliferation-related.

The Office of Chemical and Biological Controls and Treaty Compliance will be responsible for industry compliance under the CWC, including receiving data declarations from U.S. companies and facilitating domestic visits of international inspection teams. New staff, hardware and software have been acquired to meet these new responsibilities.

These three offices are responsible for responding to classification requests from the exporting community and processing applications for export licenses. The licensing officers (LO's) include technical personnel and analysts. Many of those with technical skills were hired during the Cold War era and reflect that era's focus on strategic technologies. Licensing officers who have special technical expertise or are supervisors are GS-14s and GS-15s, while others are GS-13s. BXA is recruiting personnel with technical expertise related to proliferation technologies and some of these positions will be higher grades, but it is still difficult to match salaries such individuals can command in the private sector.

These licensing officers are responsible for the processing of export license applications for dual-use commodities and technologies. They do initial review of export license applications, ensuring the proper classification of the items on the application, assessing

the appropriateness of the items on the application to the stated end use, and determining potential proliferation or strategic uses of the items. The LOs develop a Commerce position on the approval or denial of the application, along with any conditions for approval which might be required. They then electronically refer the applications, along with Commerce's recommendation, to State, DoD, DOE, FBI and NPC for review and monitor these referrals for completion within the required time frames. In fiscal year 1998, Commerce forwarded 85 percent of all applications for interagency review. Those applications not referred to other agencies included applications which contained errors and were returned to the applicant, as well as applications for commodities which the reviewing agencies had re-delegated review authority to Commerce.

The NPC is responsible for providing intelligence information about the involvement of parties to the application in any proliferation activities. License applications are received electronically by the NPC and reporting, classified up to the secret level, is returned electronically (information classified above secret is communicated in hard copy form). Licensing Officers generally have secret-level security clearances. When information received from NPC is classified above the secret level, it must be referred to and reviewed by an official at BXA with the appropriate clearance.

The other agencies review the license applications referred to them for strategic or proliferation concerns. Each agency electronically communicates its position on the approval or denial of the application back to BXA. The reviewing agencies are required to respond within 30 days; if no position is received from an agency within that time frame, it is assumed their position is one of approval. The LOs communicate with the exporter to obtain any additional information required by the reviewing agencies to support the application. If, after review of the intelligence information and the positions of the reviewing agencies, there is a dispute among the agencies as to approval or denial, the application for export license is raised to the Operating Committee.

The Operating Committee. The Operating Committee, positioned within the Office of the Assistant Secretary for Export Administration, is a sub-committee of the Advisory Committee on Export Policy (ACEP) and is the first step in the interagency dispute-resolution process. The OC is comprised of the agencies with review authority (NPC participates as an observer) and is chaired by BXA. The Chair decides whether to approve or deny an application for export license which has been escalated to the OC. The OC has a staff of four and anticipates handling about 2000 applications in fiscal year1999.

The OC conducts weekly meetings where the disputed applications are discussed among the representatives of the agencies. Licensing officers from the appropriate BXA licensing office also participate in the discussions. The agencies express their concerns about specific export license applications and discuss how and whether such concerns can be adequately addressed by obtaining additional information or imposing conditions on the export. Decisions focus on two major proliferation issues: the utility of the item in proliferation projects and the proliferation activity of the end user.

The OC weighs the intelligence information provided by the NPC and the other agencies, e.g., DoD intelligence concerning national security matters and DoE intelligence concerning nuclear end-uses and end-users. The reviewing agencies expressed that NPC intelligence information provided to the OC is somewhat less useful in the interagency review process. Older information may not take into account conversion of former defense facilities to peaceful activities or may miss more recent activities of proliferation programs of concern. Some intelligence community units do not include NPC in the distribution of their reports and this raises the possibility that a licensing decision will be made in ignorance of current, relevant intelligence.

The OC chair has said more information about end users is often necessary to supplement the intelligence information. In addition, the exclusive use of intelligence information may limit its usefulness in taking final export control actions because of the necessity to protect sources and methods. The wealth of information now available from open sources would greatly assist the OC in vetting end users in escalated cases. When open source research yields adequate information, export license decisions can be made without harm to intelligence sources and methods. However, neither the OC nor the NPC has adequate staff to conduct extensive open source research. The NPC currently examines approximately 10,000 export licenses, and has recently been given additional responsibilities regarding the export of commercial satellite. The NPC has advised BXA they cannot review all export licenses, and that they cannot review high-performance computer exports due to resource constraints. The Operating Committee, with a staff of four to process 2000 escalated applications, has extremely limited resources.

After discussion, the chair polls the agencies for their positions and then renders a decision, which ranges from tabling the application while additional information is obtained to approval or denial. If any agency dissents from the OC's decision, they may escalate the application to the full ACEP.

Export Enforcement

Export Enforcement (EE) is charged with preventing and investigating dual-use export control violations. As part of this mission, EE works to ensure that controls on dual-use items useful in the development of nuclear, chemical and biological weapons and missile delivery systems are enforced.

Within the Office of the Assistant Secretary for Export Enforcement, senior analysts work with the State Department on a regular basis on foreign export control developments. Enforcement also participates in a number of interagency working groups chaired by State, including the Technology Transfer Working Group, the Missile Trade Analysis Group, SHIELD and the Nuclear Export Violations Working Group.

Export Enforcement is comprised of three offices: The Office of Export Enforcement, the Office of Enforcement Analysis, and the Office of Antiboycott Compliance. The Office of Antiboycott Compliance has no duties related to combating proliferation. Export Enforcement has about 150 employees who have direct responsibility for non-proliferation activities; 107 are special agents with full police powers whose sole responsibility is the enforcement of the Export Administration Regulations. The Office of Enforcement Analysis is located in headquarters. The Office of Export Enforcement headquarters includes the Intelligence and Field Support Division. This division is comprised of special agents and analysts and interfaces on a daily basis with EA and with other government agencies, including the Intelligence Community. One special agent from OEE headquarters is detailed to the NPC. The Office of Export Enforcement has eight field offices staffed by special agents and located near major ports and technology centers.

Office of Export Enforcement

There has been a change in the nature and direction of EE's work over the past ten years with the end of CoCom, the deregulation of many dual-use items and the globalization of trade. Within the Office of Export Enforcement (OEE), non-proliferation efforts are carried out on a regular basis. The Office of Export Enforcement has developed proliferation-related cases by focusing on end users and end uses of items subject to the EAA and the EAR.

OEE's efforts are primarily focused on investigating and interdicting illegal transactions, as well as prosecutions for violations. OEE's special agents receive information about potential or past violations from a variety of sources, including the intelligence community, other law enforcement agencies and to a significant degree, the exporting community. OEE's special agents have full police powers granted by the Export Administration Act; upon expiration of the Act however, OEE special agents have had to be deputized by the U.S. Marshal's Service in order to continue their law enforcement powers. OEE's special agents conduct and participate in criminal investigations using all investigative resources, including undercover operations, detention and seizure of illicit exports, execution of search warrants, arrest, and criminal prosecution. In fiscal year 1998, OEE had 40 detentions, executed 11 search warrants, arrested 5 individuals, indicted 7 individuals and 5 companies, and convicted 13 individuals and 4 companies. So far in fiscal year 1999, OEE has executed 8 search warrants and arrested 7. Criminal penalties totaled $11,473,00 in fiscal year 1998. While many investigations are successfully concluded by OEE alone, some investigations are worked jointly with the U.S. Customs Service which shares jurisdiction of the EAA with OEE. Some investigations are joint cases with the FBI when transactions fall under the jurisdictions of both the FBI and OEE.

OEE special agents also investigate and refer for administrative sanctions violations of the EAR which do not meet the level of a criminal prosecution. In fiscal year 1998, Commerce levied $2,549,000 in administrative penalties. Denial of export privileges is a very

important weapon in BXA's arsenal. Prohibiting a company from engaging in or benefiting from any U.S. export transaction is a penalty too high for many companies. In fiscal year 1998, 29 individuals and companies were denied export privileges.

Because Export Enforcement can interface with Export Administration regarding export license applications, EE is able to detect, prevent and interdict illegal exports of WMD-related goods and technology. EA's export licensing database is also a source of information about potential illicit transactions. All OEE personnel have the ability to review, and make a recommendation on, any application for export license. Special agents can flag companies who produce targeted technologies, parties who are under investigation, or parties who have been identified either by the IC or through investigation as front companies for entities of concern. Once notified an application has been filed, special agents can request a pre-license check be conducted to determine the bona fides of the purchaser. If the legitimacy of the transaction cannot be established, OEE special agents can recommend rejection of the application. In fiscal year 1998, OEE reviewed 5,500 applications for export licenses, conducted 275 pre-license checks and recommended rejection or return without action of 164 applications, thirty of which were based on unfavorable pre-license checks.

OEE also requests and performs post-shipment verifications for commodities exported from the U.S. to verify the goods were received by the declared end-user and are being used in accordance with the conditions of the license. As part of OEE's safeguards program, pairs of special agents visited various countries identified as being of concern because they are either countries of proliferation concern or potential diversion locations. The special agents conduct in-person site visits in those countries to inspect commodities received from the U.S. During 12 visits to 21 countries in fiscal year 1998, OEE conducted 289 post-shipment verifications. An additional 111 post-shipment verifications were performed by personnel at American embassies at the request of OEE or other units within BXA. Six post-shipment verifications resulted in information that required further enforcement action.

The NDAA of 1998 mandated that BXA conduct post-shipment verification of all high-performance computers exported to Tier 3 destinations. OEE established a five-person unit to coordinate and supervise all enforcement responsibilities under the NDAA, including receiving the post-shipment reporting for these exports. Due to the large number of required high-performance computer post-shipment verifications, OEE has had to devote significant resources to conduct those checks. Four of the twelve Export Enforcement safeguards visits were devoted primarily to NDAA-mandated post-shipment verifications of high performance computers. Thus fewer resources and less flexibility are available to conduct post-shipment verifications on commodities and technologies that might have a more direct impact on proliferation projects.

Because OEE has a larger national field presence than EA, special agents conduct outreach activities to educate the exporting community about its responsibility to comply with U.S. export laws. Special agents not only participate in the export control seminars conducted by EA but also visit exporters and freight forwarders on a regular basis. Each year, OEE conducts Business Executive Enforcement Team meetings in several locations around the country. This visibility within the exporting community provides exporters with a face and a name to contact when they have concerns and OEE special agents receive a large number of tips and leads regarding suspicious transactions from industry sources. OEE special agents conducted over 1,200 outreach contacts in fiscal year 1998.

Office of Enforcement Analysis. The Office of Enforcement Analysis (OEA) is staffed with analysts who conduct data analysis from a variety of sources to stem the proliferation of goods and technology which would contribute to WMD projects. Two major initiatives are the Shipper's Export Declaration (SED) Review program and the Visa Review program.

The Foreign Trade Statistics Regulations (15 CFR Part 30) and the Export Administration Regulations require the filing of a Shipper's Export Declaration for almost all exports from the U.S. These declarations identify the exporter; the consignee; the Schedule B identifying code, which generally describes the commodity being exported; the license designation or license exception; and the country of destination. Currently SEDs are received by the U.S. Government primarily on a post shipment basis and largely in paper form. The current system is very limited as an interdiction tool and would benefit hugely from mandatory participation in an automated export clearance process. (See below.)

While EE's special agents conduct periodic reviews of SEDs at freight forwarders and at the ports, OEA conducts SED reviews on a post-shipment basis. OEA receives a computerized index of select SED information from the Census Bureau which collects and retains the information from the SEDs. The index allows a search based on targeted fields. With the search results, analysts can examine transactions for further review, focusing on certain license exception shipments, shipments of commodities of proliferation concern, and shipments bound for certain destinations. When SEDs indicate a possible violation, OEA analysts refer the matter to special agents in the field. In fiscal year 1998, OEA analysts referred 363 SED review cases to the field.

Enforcement initiated the Visa Review Program in 1990, which examines applications for visas from an export control and technology transfer perspective. In fiscal year 1998, Enforcement restructured the program developing new criteria and thresholds against which incoming visa applications are evaluated. The focus is narrower and concentrates on specific technologies targeted for use in WMD projects. When a specific visa application raises concerns, OEA analysts can request special agents in the field conduct additional investigation into the proposed visit. Based on OEA and OEE information and recommendations, the State Department has in the past declined to issue visas due to the risk of transfer of sensitive technology and in a few cases, analysts have uncovered visa fraud which was referred to State's Fraud Unit for further investigation.

Non-proliferation and Export Control Cooperation. The Non-proliferation and Export Control Cooperation (NEC) unit, within the Under Secretary's office, develops and strengthens foreign national export control systems to prevent terrorists and unfriendly states acquiring nuclear, biological, and chemical weapons; missile delivery systems; and other sensitive materials. Currently, the NEC effort engages the governments of 23 countries in the Baltics, Central Europe and the New Independent States (NIS). The goal of BXA's export control cooperation mission is to foster high-level political commitment; sound legal, regulatory, and organizational infrastructures; and a cadre of capable, well-trained government officials to administer effective national export control systems in the NIS. The NEC strategy is to work cooperatively with foreign governments and assist them in strengthening and implementing their own export control systems.

In fiscal year 1998, NEC conducted 41 technical exchanges in 23 countries. The central theme for these technical exchange programs was to familiarize the countries with the elements that constitute an effective export control system and assist them in developing their own export control systems. Toward this goal, licensing procedures and processes were shared, preventive enforcement techniques were explained, and case studies were presented. The need for government and industry cooperation on export control matters was emphasized and demonstrated. NEC also presented automation program techniques to simplify a country's export control system.

The NEC has a dedicated staff of nine individuals and draws on the skills and talents from other units in BXA when needed, e.g., enforcement personnel for exchanges with foreign enforcement personnel. Funds for NEC's activities are currently derived from the State Department's Nonproliferation, Antiterrorism, De-Mining and Related Activities account. However, these funds are not used to justify positions or pay government salaries. Thus BXA directly funds a small staff without a direct appropriation for this purpose. Attempts to obtain direct funding in the last two years have failed. In addition, only recently has State changed its policy to allow up to 4 percent of the funds to be used to cover travel by U.S. Government employees.

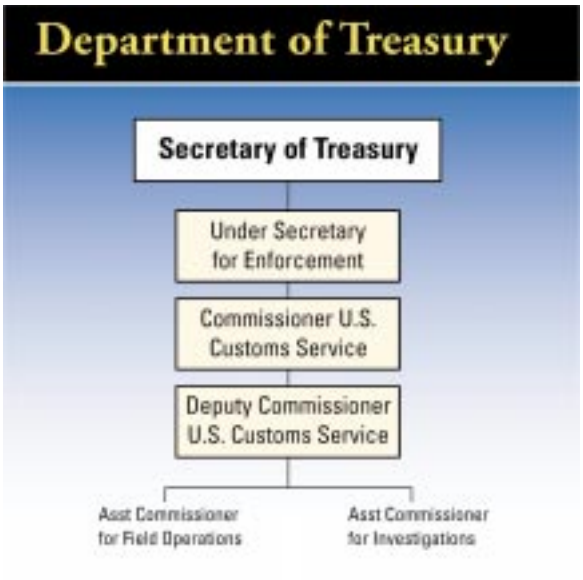
When funds are approved by State for BXA/NEC's activities, the timing of receipt of the funds complicates NEC's efforts to work with these countries. In fiscal year 1999, NEC has established a goal of 45 technical exchanges, including several industry-government programs. However, such industry-government programs require the development and preparation of written internal compliance programs reflecting the host country's laws, regulations and processes and must be translated into the country's language. Such projects require a six-month lead time. However, as of April 1999, BXA had not received funding for fiscal year 1999 projects. Such a delay makes it very difficult to plan a full year's activities.

Department of the Treasury

United States Customs Service

The United States Customs Service was established in 1789 by the first Congress of the United States. Customs became part of the Treasury Department in 1875. The Commissioner of the Customs Service reports to the Under Secretary of the Treasury (Enforcement).

The Customs Service ensures that all imports and exports comply with U.S. laws and regulations. Customs conducts investigations into possible violations of laws and regulations relating to imports and exports. It is also responsible for the interdiction and seizing of contraband, including WMD-related material. Customs currently has about 7,400 inspectors working at 300 ports of entry and exit, along with 2,800 special agents who investigate possible violations of law. The inspectors are housed in Customs's Office of Field Operations, while the special agents are located in the Office of Investigations. These two offices, each of which is headed by an Assistant Commissioner, handle the bulk of Customs's WMD-related activities.



To ensure that Customs can fulfill its responsibilities, Congress has granted Customs officers broad border-search authority. Customs agents can conduct warrantless searches of any person or package that is entering or leaving the United States. They can also detain merchandise to ensure compliance with U.S. laws and regulations.

The Customs Service's response to the Commission's baseline survey stated that Customs currently has "few programs exclusively devoted to non-proliferation." Unsurprisingly, no Customs officials are dedicated to WMD detection and interdiction. The baseline survey response also states that "Customs accounting system does not allow for direct identification of non-proliferation activities."

Although awareness of the WMD threat has grown in recent years, most people continue to regard the detection and interdiction of narcotics as Customs's primary duty. This can lead to situations in which WMD issues do not receive the attention (and the resources) they require and in which WMD-related skills and expertise are not as highly valued as they ought to be. The Commission's recommendation that Customs create an office devoted to WMD detection and interdiction is intended to prevent such situations.

Automated Export System

The Automated Export System (AES) is a voluntary program designed both to facilitate the clearance of goods being exported from the United States and to provide better, more timely reporting to the U.S. Government. AES allows for the electronic completion and submission of information that must otherwise be submitted on a shipper's export declaration (SED). There over 1 million exports from the United States each month, yet only about 3 percent of all exports are cleared through AES. The remainder are split between manual filing and reporting through the Automated Export Reporting Program (AERP), the Commerce Department's monthly electronic SED filing program.

The information that exporters must report, whether on a paper SED or through AES, includes the identities of foreign and domestic parties to the transaction, a description (including number, weight, and value) of the commodities to be exported, license authority for the export, the port of export, the carrier, and the port of unloading. In contrast to the current paper-based system, which allows exporters to submit export data up to four days after departure, AES is designed to clear shipments on a pre-departure basis.

The information required by AES would be useful in the identification and interdiction of illicit WMD-related exports. Customs has a companion system to AES, known as the Automated Targeting System—Anti-Terrorism (ATS-AT), which was initially designed to screen air shipments for possible threats to aviation safety.[22] The ATS-AT, however, has certain rules and validations programmed in against which AES will match incoming AES records. There are now approximately 1,500 rules that include such factors as the Denied Parties List, the Entities List, State Department Registrants, and chemical precursors for

[22] There is currently a pilot program at New York's John F. Kennedy Airport, with plans to expand it to 14 other ports in the next year.

narcotics. When AES matches shipments against these rules, the shipments are assigned a score based on weight associated with the rules. Inspectors can search through shipments and see the scores automatically assigned by ATS-AT.

In addition, ATS-AT allows inspectors and other law-enforcement officials to enter search criteria that can be matched to outbound shipments. For example, an agent could input the name of a foreign party that investigative or intelligence information has identified as a front company for a proliferation end user. The agent could also enter the likely port of export and the value, weight and description of a shipment, if known. If shipments addressed to that foreign party were filed through the AES, the shipments would be flagged. Law enforcement would then have the opportunity to hold and examine the flagged shipments, thus facilitating interdiction.

The information collected by AES would be particularly useful in analyzing the acquisition methods and networks of proliferators. If officials noted the export of a combination of WMD-related items to a particular country of concern, that knowledge would be useful in supporting either counter-proliferation efforts or diplomatic efforts with that country. Such information would also provide information about the degree of development of a country's WMD programs.

Customs does not require exporters to use AES, and participation levels remain extremely low. With the significant technological advances that have been made since 1995, it is appropriate now to begin phasing in mandatory participation in AES. There is an initial cost to businesses to develop or obtain AES software or to contract with a service to file via AES. If there is concern about the burden mandatory participation would have on small business, however, it might be more appropriate to create an exemption for such businesses than to define the entire process around their concerns. In addition, some resistance to participation in AES is based on a long-standing situation in which exporters have been allowed to file on a post-departure basis, either on a de facto basis because carriers can file up to four days after departure, or through the AERP, the Commerce Department's monthly electronic SED filing program, which is set to expire on December 31, 1999. Therefore, there is currently little or no incentive to participate in AES.

Only about 30,000 exports per month are processed through AES and the program is basically funded for the current level of participation. Beginning in fiscal year 1999, the Customs Service has a separate line-item appropriation for AES. Customs is expecting many of the participants in the Department of Commerce's electronic filing program to convert to AES when the Commerce program expires. Significantly higher participation rates will tax the AES system, which suffers from occasional hardware problems even at its current low level of participation. However, as participation in AES increases, there will be a corresponding decrease in the data entry burden for the Bureau of Census, which now manually enters information from 500,000 paper SEDs into the Foreign Trade Statistics database each month in addition to electronic filings.

An additional benefit to the Bureau of Census will be a significant reduction in errors on the SEDs. Several reviews of SEDs have revealed that one of every two SEDs contains some type of error. Due to the built-in validation functions of the AES, shipments cleared through AES have an error rate of about 7 percent.

Customs International Programs

The U.S. Customs Service runs a number of programs with the customs services of other countries. These usually involve the provision of training, equipment, or both to members of foreign customs agencies

Under Project Amber, which first received funding in 1994, the Customs Service offers basic and advanced training courses to customs officials in Eastern Europe and the Baltic states. These courses stress identification, detection, interdiction, and investigations. The courses include both classroom work and exercises in the field, and they are tailored to take into account the specific problems of the target country. The State Department's Non-Proliferation and Disarmament Fund, established by the Freedom Support Act, provides funding for the program. In 1996, Congress authorized the purchase of specialized x-ray vans with nuclear detection capabilities. The United States provides these vans to customs agencies in Eastern Europe and the former Soviet Union.

The countries that have received training under Project Amber include the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, and Slovakia. X-ray van training has been completed in all of those countries as well as in Bulgaria, Cyprus, Kazakhstan, Malta, Romania, and Slovenia.

Project Amber is scheduled to terminate at the end of fiscal year 2000, although there are some efforts underway to extend it.

The Department of Defense/U.S. Customs Service Counterproliferation Training Program was authorized by the fiscal year 1997 National Defense Authorization Act. Its basic training course builds on Project Amber, stressing border interdiction methods and the proper use of interdiction equipment.

The program also includes a course at the Pacific Northwest National Laboratory, where the Department of Energy's Hazardous Materials Management and Emergency Response Training Center is located. Officials from six former Soviet republics and four Eastern European countries have taken the course, which is called the RADACAD International Border Security Training. These officials have returned to their countries equipped to pass on their training to their colleagues.

The Counterproliferation program also assigns U.S. Customs officials, when requested by another country, to serve as advisors to that country's law-enforcement agencies. Advisors are drawn from the Customs Service's senior ranks, and serve for up to five months. Bulgaria and Romania are among the countries that have participated in this part of the program.

The Georgian Border Security Program began in 1998. It seeks to enhance the quality of border controls in a country that both contains an important oil pipeline and is a major transit corridor for smugglers who move material from Russia to Europe and to the Middle East. In addition to the standard detection and interdiction training, the program includes "integrity classes" that seek to minimize corruption among Georgian customs agents and border guards. It also involves the provision of equipment, including (among other things) 32 vehicles for the Georgian Border Guard, seven vehicles for the Georgian Customs Department, bulletproof vests, radiation detector pagers, and uniforms.

Committee on Foreign Investment in the United States

The Committee on Foreign Investment in the United States (CFIUS) is an interagency group that was created in 1975. The Secretary of the Treasury chairs the eleven-member body. The other members are the Secretaries of State, Defense, and Commerce; the Attorney General; the Director of the Office of Science and Technology Policy; the Director of the Office of Management and Budget; the Assistant to the President for National Security Affairs; the U.S. Trade Representative; the Assistant to the President for Economic Policy, and the Chair of the Council of Economic Advisers.

In 1988, Congress passed and President Reagan signed the Omnibus Trade and Competitiveness Act of 1988. Section 5021 of the Act, which is known as the Exon-Florio provision, amends Section 721 of the Defense Production Act of 1950. As amended, Section 721 authorizes the President to suspend or prohibit any foreign acquisition of, or merger with, a U.S. corporation if he finds "credible evidence that the foreign entity exercising control might take action that threatens [U.S.] national security."

Since 1988, CFIUS has administered the Exon-Florio provision. Once CFIUS is notified of a proposed purchase or merger, it has 30 days to conduct a preliminary review. If CFIUS concludes from that the proposed purchase or merger could have implications for national security, it has 45 days in which to conduct a thorough investigation. At the conclusion of an investigation CFIUS must provide a report and recommendation to the President. The President then has 15 days to make a final decision on whether to permit the proposed purchase or merger to go forward. The President must communicate these decisions to Congress.

The Exon-Florio provision does not define “national security,” but the conference report that accompanied it noted that the term was to be interpreted broadly. Exon-Florio does provide that the government may consider, among other factors, the “potential effects of the proposed or pending transaction on sales of military goods, equipment, or technology to any country” identified by the Secretary of State as a “country of concern regarding missile proliferation,” or “the proliferation of chemical and biological weapons” or the sale of military goods, equipment, or technology to a country on the “Nuclear Non-Proliferation Special Country List.” This indicates that WMD proliferation should be considered within CFIUS’s jurisdiction. However, the reference to sales of “military goods, equipment, or technology” could be interpreted to mean that dual-use equipment and technology is not within the Committee’s purview. Moreover, the use of the term “sales” is troubling, since most countries that pursue WMD programs attempt to develop an indigenous capability to produce such weapons, rather than seeking to buy WMD outright. The “sales” reference also overlooks the possibility that countries or groups will acquire WMD technology through espionage rather than commercial channels.