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## Testimony

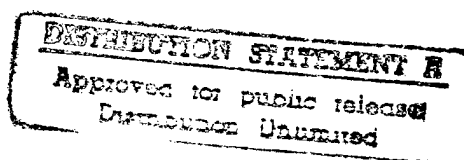
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International Affairs, and Criminal Justice, Committee on  
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# DRUG TRAFFICKING

## Responsibilities for Developing Narcotics Detection Technologies

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Mr. Chairman and Members of the Subcommittee

It is a pleasure to be here today to discuss federal agencies' efforts to develop technologies for detecting narcotics.<sup>1</sup> My testimony focuses on the (1) responsibilities of those agencies primarily involved in developing narcotics detection technologies, (2) differences in views between the Office of National Drug Control Policy (ONDCP) and the U.S. Customs Service in developing and deploying these technologies, and (3) opportunities to strengthen federal detection technology development efforts.

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## Summary

Four agencies—ONDCP, Customs, Department of Defense (DOD), and Office of Management Budget (OMB)—are primarily responsible for coordinating or developing narcotics detection technologies. However, ONDCP and Customs have differing views on the need for various detection technologies. For example, ONDCP and Customs have differing views regarding the types of technologies needed along the southwest border. These differing views should be resolved as they work with other agencies in preparing a long-term technology development plan. At the close of our testimony, we would like to suggest areas that should be addressed by the plan. With this overview, let me go back and provide more details in each of those areas.

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## Agencies Involved in Developing Narcotics Detection Technologies

Numerous federal agencies are involved in developing technologies for detecting narcotics. However, four agencies—ONDCP, Customs, DOD, and OMB—are primarily responsible for coordinating or developing narcotics detection technologies. The congressionally established Counterdrug Technology Assessment Center (CTAC) within ONDCP is responsible, among other things, for coordinating federal counterdrug technology efforts and assessing and recommending narcotics detection technologies. Customs, because of its mission to interdict drugs at U.S. ports of entry, is ultimately responsible for deciding on the types of technologies to be developed and used. As congressionally directed, DOD has been primarily responsible for funding and developing most of the innovative narcotics detection technologies for Customs. OMB is also involved in overseeing Customs' plans for developing and deploying narcotics detection technologies.

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<sup>1</sup>For a listing of our reports on narcotics detection technologies, see our list of Related GAO Products at the end of this testimony.

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## CTAC Coordinates Development of Narcotics Detection Technologies

Our work shows that federal agencies have spent about \$100 million since 1990 to develop technology for detecting narcotics. In coordinating the counterdrug research and development program, CTAC attempts to prevent duplication of effort and to ensure that, whenever possible, those efforts provide capabilities that transcend the needs of any single agency. CTAC relies on its interagency Science and Technology Committee to help prioritize projects supported with CTAC funds. The projects are generally managed by a member agency. In addition, a Contraband Detection Working Group was established under this committee to provide an interagency forum to focus other agencies' research activities on technology areas that support the contraband detection requirements of law enforcement agencies.

In August 1996, the Director, ONDCP, committed himself to revitalizing the Science and Technology Committee and its working groups. Among other things, the Director proposed that the committee act as a steering body, with membership at a level senior enough to make commitments to research and development policy decisions. An ONDCP official informed us that by December 1997, the Committee expects to complete preparation of a 10-year technology development plan with a 5-year budget request.

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## Customs Relies on DOD to Develop Most Narcotics Detection Technologies

While Customs has the operational need for detection technologies, Congress tasked DOD to develop most of these technologies because DOD was already developing technologies that could be adapted for narcotics detection. During fiscal years 1992-96, DOD provided a total of \$73 million for the development of detection technologies, or an average of about \$14.6 million per year. Over the same period, Customs provided \$3.1 million for the detection technologies, or an average of about \$620,000 per year.

In 1990, the House Appropriations Committee tasked DOD, in coordination with Customs, to develop a comprehensive plan for developing drug detection technology for use in inspecting cargo containers. The Committee cited cargo containers as a major threat for the import of illegal drugs into the United States and identified specific technologies that should be pursued.

In April 1994, DOD began testing a high-energy X-ray system<sup>2</sup> capable of penetrating fully loaded containers, at a specially constructed port in

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<sup>2</sup>The system scans a target with X-ray at an energy level of 8 million electron volts, or about 50 to 70 times the energy of a typical airport passenger X-ray.

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Tacoma, Washington. DOD and CTAC viewed the system as a key step toward the development of effective, nonintrusive cargo inspection technologies.<sup>3</sup> The tests showed that high-energy X-ray technology could be an effective tool in detecting drugs in a broad range of vehicles and in containers carrying varying types of cargo. DOD expended about \$15 million for facility construction and system testing. However, ONDCP, Customs, and DOD agreed in December 1994 to dismantle the site because Customs did not believe that the system was affordable, safe, or operationally suitable for its needs.

Based on experiences with the Tacoma high-energy system, Customs and DOD entered into an agreement to ensure that DOD would develop only those technologies that Customs would transition into an operational environment. Based on this understanding, DOD also discontinued work on a Pulsed Fast Neutron Analysis project<sup>4</sup> after spending about \$15 million because Customs was likewise concerned about its affordability, safety, and operational suitability. According to DOD and Customs officials, future efforts in container inspection will include developing less expensive X-ray systems with a lower energy level, mobile X-ray systems, and more capable hand-held trace detection systems.

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## OMB Oversees Narcotics Detection Technology Funding Requests

OMB has traditionally reviewed agencies' budgets to ensure they meet presidential priorities and are adequately justified. For fiscal years 1996 and 1997, OMB questioned Customs' funding requests for truck X-ray systems to be placed at U.S. ports of entry along the southwest border. These systems use a low-energy X-ray source<sup>5</sup> capable of penetrating empty trucks and other conveyances. OMB limited Customs' use of the funds until certain conditions were met, citing its concern that a low-energy system had limited capabilities for inspecting fully loaded containers. OMB requested a comprehensive border technology plan that would focus effective inspection technologies in the areas of greatest need.

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<sup>3</sup>Nonintrusive inspection technology refers to a variety of advanced systems that will permit Customs officials to inspect cargo and conveyances for the presence of narcotics without physically opening or entering the shipment.

<sup>4</sup>The Pulsed Fast Neutron Analysis probes targets, using neutrons, for the presence of explosives or narcotics. It uses high-energy neutrons, allowing reliable detection of carbon and oxygen found in narcotics as well as nitrogen found in explosives.

<sup>5</sup>Rated at 450 thousand electron volts, about three or four times the energy of a typical passenger X-ray system at an airport.

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In response, Customs prepared a plan favoring the use of fixed-site truck X-ray systems as well as mobile or relocatable systems. Customs stated that the large number of empty trucks crossing the southwest border presents a very high threat because they sometimes carry drugs. As a result, Customs wanted a system to inspect for drugs concealed within the structure of the truck. According to Customs officials, the low-energy X-ray system has been effective in detecting drugs concealed in these empty trucks, is safe, and fits into available space. In addition, acquisition costs are estimated at \$3 million, operating expenses are low, and training requirements are minimal compared to the high-energy X-ray system built at Tacoma and the Pulsed Fast Neutron Analysis system.

OMB continues to believe that Customs needs a range of technologies for the southwest border. Thus, OMB plans to stay informed on issues dealing with the development of those technologies and has started attending ONDCP meetings on developing narcotics detection technologies so that it can become aware of emerging issues.

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## Differences in Views Between ONDCP and Customs

Federal agencies have not always agreed on the most appropriate technologies to detect narcotics at U.S. ports of entry. As noted earlier, two technologies funded at about \$30 million have been developed but not deployed. More recently, differing views between ONDCP and Customs regarding the type of systems needed along the southwest border led to varying directions from congressional committees.

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## Effect of Differences Between ONDCP and Customs on Congressional Direction

Congressional committees have provided differing direction regarding the development and acquisition of narcotics detection technologies. One committee, supporting Customs needs, recommended funding for a certain technology, while another committee, responding to ONDCP concerns, directed a moratorium on the purchase of such technology. The differences stem, in part, from recommendations presented in a congressionally mandated study on costs and benefits of specific technologies.

In September 1994, Congress mandated a study on the cost and benefit tradeoffs in different nonintrusive inspection systems. The study, conducted by ONDCP, was released in September 1996. It concluded that Customs should accelerate the development of an automated system for screening documents to target cargo for further inspection to be deployed at land ports.

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The National Defense Appropriations Act for 1997 provided \$6 million for DOD's purchase of low-energy truck X-ray systems to be used by Customs. However, the conference report relating to the 1997 Treasury, Postal Service, and General Appropriations Act directed a moratorium on the purchase of the low-energy systems until Customs reevaluated its plans regarding the acquisition of an automated targeting system, low-energy, and high-energy X-ray systems. The conference report further directed that Customs present Congress with an integrated plan responding to the recommendations in ONDCP's September 1996 study.

Customs' February 6, 1997, response stated that empty trucks crossing the southwest border are a very high threat. As a result, Customs wanted a system to examine trucks returning empty to the United States. Customs also stated that it would work with DOD and ONDCP to identify and evaluate new inspection technologies that would complement the capabilities of the low-energy system. According to ONDCP, a promising technology currently under development may be as effective. This system, which will be mobile, is expected to cost about \$600,000 compared to the estimated \$3 million cost of the low-energy system. Customs and DOD are to evaluate this new technology to inspect empty trucks.

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## Opportunities to Strengthen Detection Technology Development

ONDCP, in coordination with other federal agencies, is preparing a 10-year plan for developing detection technologies. Customs is among the agencies working on this plan and intends to develop a deployment methodology acceptable to ONDCP. In addition, Customs has indicated that it now intends to participate in the interagency development of a relocatable explosives detection system that may have counterdrug application.

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## Customs Supports a Methodology for Deployment and a Plan for Development

Development of the current generation of narcotics detection technologies is nearing completion, but Customs does not have a detailed methodology for selecting the technologies to be acquired. Nonetheless, Customs' future development efforts are expected to be integrated in ONDCP's 10-year technology development plan.

ONDCP's September 1996 study recommended that Customs adopt a methodology similar to the one ONDCP used for assessing procurement options. The study also pointed out that the variation among the ports require a port-by-port analysis to assess the specific technology needs at each port. Customs has acknowledged that a methodology was needed but

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noted that the methodology presented in the study was only one of several possible approaches and did not realistically consider personnel and funding constraints.

The 10-year technology development plan is expected to provide a road map for developing nonintrusive inspection technologies and upgrading existing systems. For example, Customs and DOD are expected to set out their plans for developing mobile or relocatable high-energy systems<sup>6</sup> for drug interdiction. Both Customs and DOD plan to evaluate the capabilities of the high-energy X-ray system for its ability to detect narcotics concealed in cargo containers. ONDCP plans to review the results of this evaluation.

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## Explosives Detection System That May Have a Counterdrug Application

Customs advised an interagency working group on counterterrorism that it would participate in the development of a explosives detection system that may have counterdrug application. In addition, a Customs official is monitoring the system's development. However, as now being developed, the explosives detection system will not include requirements unique to a narcotics detection application. ONDCP believes that Customs' involvement with the system will be a worthwhile effort.

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## Conclusion

We endorse the concept of preparing a long-term technology plan for developing and deploying narcotics detection technologies. This effort is consistent with ONDCP's broader efforts to develop a long range plan for achieving the administration's 10-year National Drug Control Strategy with 5-year budget projections. To be effective, ONDCP's technology plan should address the differing views between ONDCP and Customs on needed technologies.

At a minimum, the technology plan should address

- a methodology for transitioning technologies from development to deployment,
- the status of the automated targeting system's development as the first line of defense against drug trafficking,
- the best technologies for detecting drugs in empty trucks,
- the capabilities of the high-energy X-ray system for its ability to detect narcotics concealed in fully loaded cargo containers, and

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<sup>6</sup>High energy systems are defined as having an energy level of at least 2 million electron volts, about 13 to 18 times the energy of a typical X-ray system found at an airport.

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- the possible use of explosive detection technologies for detecting drugs in a seaport environment.

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Mr. Chairman, that concludes my statement. I will be glad to answer any questions you or other members of the subcommittee might have.



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# Related GAO Products

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Terrorism and Drug Trafficking: Responsibilities for Developing Explosives and Narcotics Detection Technologies  
(GAO/NSIAD-97-95, Apr. 15, 1997).

Terrorism and Drug Trafficking: Technologies for Detecting Explosives and Narcotics (GAO/NSIAD/RCED-96-252, Sept. 4, 1996).

Terrorism and Drug Trafficking: Threats and Roles of Explosives and Narcotics Detection Technology (GAO/NSIAD/RCED-96-76BR, Mar. 27, 1996).

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