AUTHENTICATED
U.S. GOVERNMENT
INFORMATION
GPO

EFFECTIVENESS OF COUNTERDRUG TECHNOLOGY COORDINATION AT ONDCP

HEARING

BEFORE THE

SUBCOMMITTEE ON NATIONAL SECURITY, INTERNATIONAL AFFAIRS, AND CRIMINAL JUSTICE

OF THE

COMMITTEE ON GOVERNMENT REFORM AND OVERSIGHT
HOUSE OF REPRESENTATIVES

ONE HUNDRED FIFTH CONGRESS

FIRST SESSION

JUNE 25, 1997

Serial No. 105–65

Printed for the use of the Committee on Government Reform and Oversight

U.S. GOVERNMENT PRINTING OFFICE

45–479 CC WASHINGTON : 1998

For sale by the Superintendent of Documents, U.S. Government Printing Office
Internet: bookstore.gpo.gov Phone: toll free (866) 512–1800; DC area (202) 512–1800
Fax: (202) 512–2250 Mail: Stop SSOP, Washington, DC 20402–0001

COMMITTEE ON GOVERNMENT REFORM AND OVERSIGHT

DAN BURTON, Indiana, *Chairman*

BENJAMIN A. GILMAN, New York
J. DENNIS HASTERT, Illinois
CONSTANCE A. MORELLA, Maryland
CHRISTOPHER SHAYS, Connecticut
STEVEN SCHIFF, New Mexico
CHRISTOPHER COX, California
ILEANA ROS-LEHTINEN, Florida
JOHN M. MCHUGH, New York
STEPHEN HORN, California
JOHN L. MICA, Florida
THOMAS M. DAVIS, Virginia
DAVID M. MCINTOSH, Indiana
MARK E. SOUDER, Indiana
JOE SCARBOROUGH, Florida
JOHN B. SHADEGG, Arizona
STEVEN C. LATOURETTE, Ohio
MARSHALL "MARK" SANFORD, South Carolina
JOHN E. SUNUNU, New Hampshire
PETE SESSIONS, Texas
MICHAEL PAPPAS, New Jersey
VINCE SNOWBARGER, Kansas
BOB BARR, Georgia
ROB PORTMAN, Ohio

HENRY A. WAXMAN, California
TOM LANTOS, California
ROBERT E. WISE, JR., West Virginia
MAJOR R. OWENS, New York
EDOLPHUS TOWNS, New York
PAUL E. KANJORSKI, Pennsylvania
GARY A. CONDIT, California
CAROLYN B. MALONEY, New York
THOMAS M. BARRETT, Wisconsin
ELEANOR HOLMES NORTON, Washington, DC
CHAKA FATTAH, Pennsylvania
ELIJAH E. CUMMINGS, Maryland
DENNIS J. KUCINICH, Ohio
ROD R. BLAGOJEVICH, Illinois
DANNY K. DAVIS, Illinois
JOHN F. TIERNEY, Massachusetts
JIM TURNER, Texas
THOMAS H. ALLEN, Maine
HAROLD E. FORD, JR., Tennessee

BERNARD SANDERS, Vermont (Independent)

KEVIN BINGER, *Staff Director*
DANIEL R. MOLL, *Deputy Staff Director*
WILLIAM MOSCHELLA, *Deputy Counsel and Parliamentarian*
JUDITH MCCOY, *Chief Clerk*
PHIL SCHILIRO, *Minority Staff Director*

SUBCOMMITTEE ON NATIONAL SECURITY, INTERNATIONAL AFFAIRS, AND CRIMINAL JUSTICE

J. DENNIS HASTERT, *Chairman*

MARK E. SOUDER, Indiana
CHRISTOPHER SHAYS, Connecticut
STEVEN SCHIFF, New Mexico
ILEANA ROS-LEHTINEN, Florida
JOHN M. MCHUGH, New York
JOHN L. MICA, Florida
JOHN B. SHADEGG, Arizona
STEVEN C. LATOURETTE, Ohio
BOB BARR, Georgia

THOMAS M. BARRETT, Wisconsin
TOM LANTOS, California
ROBERT E. WISE, JR., West Virginia
GARY A. CONDIT, California
ROD R. BLAGOJEVICH, Illinois
CAROLYN B. MALONEY, New York
ELIJAH E. CUMMINGS, Maryland
JIM TURNER, Texas

EX OFFICIO

DAN BURTON, Indiana

HENRY A. WAXMAN, California

ROBERT CHARLES, *Staff Director and Chief Counsel*
IANTHE SAYLOR, *Clerk*
MICHAEL YEAGER, *Minority Counsel*

CONTENTS

	Page
Hearing held on June 25, 1997	1
Statement of:	
Brandenstein, Albert E., Chief Scientist, Counterdrug Technology Assessment Center, Office of National Drug Control Policy; Ray Mintz, Director, Applied Technology Division, U.S. Customs Service; Lennard J. Wolfson, Director, Demand Reduction Systems, DOD Drug Enforcement Policy and Support, Office of the Secretary of Defense; and David Cooper, Associate Director, National Security and International Affairs Division, General Accounting Office	2
Letters, statements, etc., submitted for the record by:	
Brandenstein, Albert E., Chief Scientist, Counterdrug Technology Assessment Center, Office of National Drug Control Policy, prepared statement of	6
Cooper, David, Associate Director, National Security and International Affairs Division, General Accounting Office, prepared statement of	37
Mintz, Ray, Director, Applied Technology Division, U.S. Customs Service, prepared statement of	23
Wolfson, Lennard J., Director, Demand Reduction Systems, DOD Drug Enforcement Policy and Support, Office of the Secretary of Defense, prepared statement of	31

EFFECTIVENESS OF COUNTERDRUG TECHNOLOGY COORDINATION AT ONDCP

WEDNESDAY, JUNE 25, 1997

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON NATIONAL SECURITY, INTERNATIONAL AFFAIRS, AND CRIMINAL JUSTICE,
COMMITTEE ON GOVERNMENT REFORM AND OVERSIGHT,
Washington, DC.

The subcommittee met, pursuant to notice, at 2:03 p.m., in room 2154, Rayburn House Office Building, Hon. J. Dennis Hastert (chairman of the subcommittee) presiding.

Present: Representatives Hastert, Mica, Shadegg, Barr, and Barrett.

Staff present: Robert Charles, staff director and chief counsel; Ianthe Saylor, clerk; Chris Marston, legislative assistant; Michael Yeager, minority counsel; and Ellen Rayner, minority chief clerk.

Mr. HASTERT. The Subcommittee on National Security, International Affairs, and Criminal Justice will come to order.

Today, this subcommittee meets to review the effectiveness of counterdrug technology coordination at the Counterdrug Technology Assessment Center, CTAC, within the Office of National Drug Control Policy, the Drug Czar's technology shop. This hearing is part of our continuing look at the need for reauthorization of ONDCP.

As many of you know, ONDCP's current authorization expires at the end of this fiscal year. CTAC is a small but theoretically important part of ONDCP, since it was tasked by Congress with coordinating the Nation's research and development counterdrug technology development effort.

At present, CTAC is supposed to coordinate the antidrug research and development efforts of 21 Federal agencies. CTAC's role also, theoretically, includes preventing redundance in funding within the counterdrug technology community and, most importantly, recommending to the relevant agencies ways to plug any hole in the antidrug capabilities of law enforcement agencies.

Today, the lessons we learn about coordination at CTAC may lead to insights about the overall coordination mission of ONDCP, something, in fact, that we are very, very interested in and want to be able to emphasize that when doing our reauthorization.

Today's hearing also highlights the importance of advanced technology in our Nation's drug war. The specific technologies we will examine are drug detection technologies. They play a vital role in the production of our Nation's 301 ports of entry, each controlled by the Customs Service. Of special importance are ports of entry

on our southwest border, where last year 300 tons of cocaine, 150 tons of methamphetamine, and 15 tons of heroin entered the United States from Mexico.

The emerging technologies we will review today are capable of some amazing feats. Using the entire suite of technologies, from drug-sniffing canines to advanced x rays and particle detectors, our border agents are increasingly able to detect drugs in containers, trucks, car paneling, and dozens of other hiding places formerly unreachable by detection equipment. Our mission, if we are finally to turn the corner and win this war, is to do better.

What this hearing is about today is basically finding the most cost-effective solutions to stopping drugs from crossing our border and then moving those solutions to the front of the line and implementing them effectively to get results.

I would turn—when he comes in a minute—to our ranking member from Wisconsin, Mr. Barrett, and would recognize anybody else on the panel if they have any opening statements. We will let everybody put their opening statement into the record.

At this time, I would like to introduce our witnesses. First, we have Albert Brandenstein, chief scientist at the Counterdrug Technology Assessment Center, at the Office of National Drug Control Policy. Second, we have Ray Mintz, Director of the Applied Technology Division of the U.S. Customs Service. And next we have Lennard Wolfson, Director of Demand Reduction Systems, in the Department of Defense Drug Enforcement Policy and Support Division. And finally, David Cooper, Associate Director of the National Security and International Affairs Division of the General Accounting Office.

I would like to welcome our distinguished panel today. And, gentlemen, in accordance with House rules, we must swear you in, and please stand and raise your right hands.

[Witnesses sworn.].

Mr. HASTERT. Let the record show that the witnesses answered in the affirmative.

And, Dr. Brandenstein, please proceed with your statement.

STATEMENTS OF ALBERT E. BRANDENSTEIN, CHIEF SCIENTIST, COUNTERDRUG TECHNOLOGY ASSESSMENT CENTER, OFFICE OF NATIONAL DRUG CONTROL POLICY; RAY MINTZ, DIRECTOR, APPLIED TECHNOLOGY DIVISION, U.S. CUSTOMS SERVICE; LENNARD J. WOLFSON, DIRECTOR, DEMAND REDUCTION SYSTEMS, DOD DRUG ENFORCEMENT POLICY AND SUPPORT, OFFICE OF THE SECRETARY OF DEFENSE; AND DAVID COOPER, ASSOCIATE DIRECTOR, NATIONAL SECURITY AND INTERNATIONAL AFFAIRS DIVISION, GENERAL ACCOUNTING OFFICE

Mr. BRANDENSTEIN. Thank you.

Chairman Hastert, other members of the subcommittee, my name is Al Brandenstein. I am the Director of the Counterdrug Technology Assessment Center and chief scientist of the Office of National Drug Control Policy. I am a career professional who began my involvement with counterdrug technology as an office director at the Advanced Research Projects Agency prior to moving over to

head the Counterdrug Technology Assessment Center when it was created in 1991.

I want to begin by thanking you for the opportunity to testify on behalf of counterdrug coordination and the effectiveness of the Office of National Drug Control Policy in carrying out this role.

I have a formal statement that I request be submitted for the record in its entirety.

Mr. HASTERT. Without objection, so ordered.

Mr. BRANDENSTEIN. I will briefly summarize my submitted testimony and limit my remarks to narcotics detection technology.

My organization has the responsibility, within ONDCP for the National Counterdrug Research and Development Program, which supports the five goals of the National Drug Control Strategy. And you can see those goals are listed on the easel to the left, to your right. The topic for discussion today: Narcotics detection technology supports national goals 2 and 4.

CTAC was authorized under the Counternarcotics Technology Act of 1990 as the central counterdrug enforcement, research, and development organization of the U.S. Government. As delineated in the statute, CTAC's mission is to identify, define, and prioritize short, medium, and long-term scientific and technological needs of Federal, State, and local drug enforcement agencies, to oversee and coordinate drug technology initiatives with Federal civilian and military departments, and restructure a national counterdrug enforcement research and development program.

In 1993, the statute was amended to expand CTAC's responsibilities to include technology for addiction and rehabilitation research.

CTAC has sponsored efforts in a broad range of counterdrug technology to meet a broad range of counterdrug technology requirements in the areas of data fusion and secure law enforcement networking, nonintrusive inspection, surveillance and tracking, testing and evaluation, and medical research.

Nonintrusive inspection technology and narcotics detection technology are important areas for technology initiatives, and we have a central role in support and coordination and oversight of these activities. We have developed a balanced R&D program spanning many areas of R&D and technology. Our Director, General McCaffrey, is solidly behind our efforts.

Mr. Chairman, last year, the ONDCP Director challenged the Federal counterdrug research and development community to formulate a comprehensive, proactive, 10-year counterdrug technology development plan. In response to this challenge, CTAC, working with the Science and Technology Committee—and I will speak to more of that in a moment—has undertaken a complete review of the National Counterdrug Research and Development Program.

For the first time, a 10-year technology development plan is being prepared to ensure that the latest advances in medical research, drug detection, communications, surveillance, command control, and information systems are exhaustively exploited to support the goals of the 1997 National Drug Control Strategy. The objective of this planning effort is to formulate a comprehensive 10-year counterdrug technology plan with a 5-year budget which supports the implementation and execution of the National Drug Control Strategy.

Mr. Chairman, to know where we want to go in the future, we must know something about what we have done so far. This chart puts in perspective the past 5 years. During the years 1993 to 1997, CTAC has had an oversight and coordination role of a Federal agency counterdrug law enforcement budget totaling around $390.6 million. The Department of Defense and CTAC, as you can see, comprised the largest share of this spending, some 74 percent.

Now let me shift emphasis to the major oversight and coordination role of CTAC and narcotics detection technology. CTAC coordinates the R&D activities with major drug control agencies and oversees technology development and application through three distinct mechanisms: The Science and Technology Committee, the counterdrug research and development blueprint, and updates which we submit to the Congress and an outreach program. I will concentrate on the CTAC leadership of the S&T Committee.

The S&T Committee, which I chair, is used to develop the scientific and technological needs of 21 agencies and facilitate oversight and coordination through highly focused technology working groups. Individual working groups have been established to focus on specific areas.

For example, CTAC assigned the Contraband Detection Working Group responsibility for coordinating requirements and projects for narcotics detection technology. This group is chaired by the U.S. Customs Service, and it has representatives from DOD, Coast Guard, DEA, Federal Bureau of Investigation, INS, and the FAA.

We work closely with the DOD and the Customs Service, the two leading agencies responsible for using and developing narcotics detection technology. Both of these organizations have entered into a formal MOU, delineating the basic development of all types of narcotics detection technologies. CTAC oversees, develops, and supports the test and evaluation program to assess the performance of these technologies which have been developed from mostly the DOD program, as well as the test of off-the-shelf devices.

Now I will take a moment to explain the different types of narcotics detection technology being developed and how I envision employing this technology. An overall nonintrusive inspection system consists of a mix of subsystems, broken down into automated targeting systems, using computers to prescreen shipments for suspicious trends, physics-based systems, which are generally large scale, fixed-site systems, shown on the left of the chart, to detect illicit substances, using x rays, gamma rays, nuclear magnetic resonance, neutrons, microwaves, acoustic technology systems, which, available today, find large quantities, 50 kilograms or more, of drugs hidden within a conveyance, container, or cargo, and allow this to be done without physically opening the container or shipment.

The systems available today detect density anomalies in the shipment rather than the substance themselves. Systems still in test, such as pulsed fast neutron analysis, will actually discern the contents. Man-portable, often hand-held systems, shown on the right side of the chart, employ immunochemical assays, electrochemical biosensors, and acoustic wave biosensors, as well as mass spectrometry, ion mobility, gas chromatography, optical spectros-

copy, total carbon vapor and preconcentrators, to identify particular quantities down to 1 nanogram or less.

To use such a system, an operator must wipe or vacuum a surface, clothing, packages, et cetera, to obtain a sample to analyze for the presence of drugs. These systems are all small in physical size and generally require that the container or the device be opened, something be opened for examination.

CTAC supports the law enforcement community directly by developing technology prototypes and by developing standard test protocols to replicate a realistic operational environment in which to test these narcotics detection technologies. This program, the Narcotics Detection Technology Assessment Test Series, was created by CTAC in 1992 and has been used to test many of these devices in laboratory and operational environments.

The chart shows where we did some of these tests. On the left, you see portable and hand-held particle and vapor detection devices, tests which were conducted in Miami, while the right side shows a cabinet-level x-ray test performed at Argonne National Laboratory. Since 1992, more than 20 of the tests have been performed at a range of places, from Puerto Rico to Otay Mesa, CA; Houston, TX; several tests in Miami; the one shown on the left, JFK International Airport; as far north as Canada and even in the prisons of Alabama.

Mr. Chairman, that concludes my opening statement, and I will be happy, further on, to answer any questions you may have or the other members of the subcommittee may have.

Thank you very much.

[The prepared statement of Mr. Brandenstein follows:]

Prepared Statement of Dr. Albert E. Brandenstein

Chief Scientist

Counter-Drug Technology Assessment Center

Office of National Drug Control Policy

Before the House Subcommittee on National Security,

International Affairs and Criminal Justice

June 25, 1997

Chairman Hastert and other members of the Subcommittee, it is a pleasure for me to be here today to participate in this hearing on the effectiveness of counter-drug technology coordination at the Office of National Drug Control Policy. Mr. Chairman, I applaud your focus on the technological aspects of the *National Drug Control Strategy*. In order to implement an effective strategy, we must apply technological innovations to our nation's supply and demand reduction activities and provide the drug control agencies with state-of-the art tools to counter illegal drug activities.

CTAC CONGRESSIONAL MANDATE

The "Counternarcotics Technology Act of 1990" established, within the Office of National Drug Control Policy (ONDCP), the Counter-Drug Technology Assessment Center (CTAC) to **"serve as the central counter-drug enforcement research and development organization of the United States Government."** Congress took this action to ensure the

proper coordination and development of a national counter-drug research and development program as part of the *National Drug Control Strategy*. Prior to the establishment of CTAC, technology identification and prioritization was accomplished on an ad hoc basis by each of the more than 50 agencies responsible for implementing drug control programs. Technology development was undertaken as it related to each agency mission and not formulated in the context of an overall strategy.

CTAC's mission is to:

- Identify and define short, medium and long-term scientific and technological needs of Federal, State and local drug enforcement agencies, including advanced surveillance, tracking and radar imaging, electronic support measures, communications, data fusion, advanced computer systems and artificial intelligence, and chemical, biological, radiological (including neutron, electron, and graviton) and other means of detection;

- Examine addiction and rehabilitation research and the application of technology to expanding the effectiveness or availability of drug treatment;

- Make a priority ranking of such needs according to fiscal and technical feasibility, as part of a National Counter-Drug Enforcement Research and Development Strategy;

- Oversee and coordinate counter-drug technology initiatives with related activities of other federal, civilian and military departments; and

- Submit requests to Congress for the reprogramming or transfer of funds appropriated for counter-drug enforcement research and development.

HOW CTAC ACCOMPLISHES ITS MISSION

To support its Congressional mandate and the goals of the *National Drug Control Strategy*, CTAC accomplishes its mission through three principal instruments: the Science and Technology Committee, the Counter-drug Research and Development Blueprint (Updates), and the Outreach Program.

- CTAC obtains the scientific and technological needs from the 21 federal agencies with counter-drug missions and reports them in the appendix to periodic Blueprint Updates; [**Note:** Blueprint Updates provide progress reports on the national counterdrug research and development (R&D) program, document scientific and technological needs and priority rank those needs according to fiscal and technical feasibility. Appendices to Blueprints contain the most current information on federal counter-drug R&D projects and the science and technology (S&D) requirements of the counterdrug enforcement agencies.]

- Oversight and coordination functions are facilitated through the Science and Technology Committee, highly focused technology working groups, and periodic, widely-circulated Blueprint Updates; and

- The Outreach Program consists of regional one-day workshops and periodic major technology symposia and facilitates access to federal, state and local government organizations, industry and academic scientists and engineers, and other targeted community segments.

STRUCTURES AND ACTIVITIES

Federal Law Enforcement and Demand Reduction Oversight and Coordination Functions are Facilitated Through the Science and Technology Committee

The principal structure used for scientific and technological needs coordination of federal agencies with drug control missions is the Science and Technology Committee. This committee existed informally during the days of the National Drug Policy Board and was formalized when ONDCP was established in 1988. Member agencies of the Science and Technology Committee currently include:

Central Intelligence Agency

Department of Agriculture

Department of Defense

Department of Energy

Department of the Interior

Department of Justice

National Institute of Justice

Drug Enforcement Administration

Federal Bureau of Investigation

Immigration and Naturalization Service

U.S. Marshals Service

Department of State

Department of Transportation

U.S. Coast Guard

Federal Aviation Administration

Department of the Treasury

U.S. Customs Service

U.S. Secret Service

Financial Crimes Enforcement Network

National Security Agency

National Institute on Drug Abuse.

When CTAC was authorized, the Chief Scientist at ONDCP was established as the Chairman of the Science and Technology Committee. The full committee meets periodically (approximately every four months) to discuss policy issues, technological needs and opportunities with respect to advancing technologies for improved operations. ONDCP oversight of each agency's drug-related research and development program expenditures is also facilitated at these meetings.

Individual Science and Technology Committee working groups have been established to

address multiple agency needs in specific technical areas. These working groups also serve to identify potential areas for duplicative efforts and preempt duplicative activities at the beginning. Each working group provides updates and reports to the Science and Technology Committee on an ongoing basis.

For example, the Contraband Detection Technology working group is chaired by Customs with members from the Department of Defense (DoD), the U.S. Coast Guard (USCG), the Drug Enforcement Administration (DEA), the Federal Bureau of Investigation (FBI), the Immigration and Naturalization Service (INS), and the Federal Aviation Administration (FAA). This working group is responsible for coordinating requirements and projects related to narcotics detection technology.

Counter-drug Research and Development Blueprint (Updates)

CTAC Blueprint Updates disseminate information on the National Counter-drug Research and Development Program. The Blueprint updates provide the mechanism to inform Congress, all federal, state, and local agencies, the national laboratories, academic institutions, and private industry on the goals, objectives, program progress and future plans for counter-drug technology. For example, the latest Blueprint Update of September 1996, which I will submit for the record clearly shows the coordination on drug detection which takes place among CTAC, Customs, and DoD. Appendices to the September 1996 Blueprint Update provide Customs' Development and Acquisition Plan for Border Inspection Technology and the DoD Counter-drug R&D projects.

Outreach Program

In addition to coordination with federal agencies, CTAC works with the technical development community within industry and academia, and state and local drug enforcement agencies. The development community within industry and academia needs to know how to focus their efforts to best support the national counterdrug R&D program. The state and local drug enforcement agencies also need to know how these technical development projects within the national program can be made available to their organizations.

CTAC has undertaken a number of initiatives to establish formal and informal lines of communications with scientific and technical experts in academia, national laboratories, government agencies and private industry to assist in the identification and development of promising new counterdrug technologies. CTAC sponsors technical symposia to provide a forum for scientists and engineers to present technical results from R&D projects sponsored by government and industry. Interested law enforcement officials have also attended these symposia to stay abreast of the latest advancements in counterdrug technology. Since the program began in 1992, over 1,500 professionals have attended these symposia. The fourth symposia sponsored by CTAC is to be held in Chicago, Illinois August 19-21, the theme of which is the Harnessing of Technology to Support the *National Drug Control Strategy*.

Coordination with state and local drug enforcement agencies is achieved through their attendance at the international symposia as well as through their participation in the regional one-day technology workshops held across the country. The primary purpose of the regional

workshops is to disseminate program information on recent advancements in technology funded by the federal government. At these one-day workshops, law enforcement officers demonstrate results from their CTAC-sponsored pilot projects to an audience of other law enforcement professionals. Through this process, CTAC has been able to educate not only other state and local drug law enforcement agencies of the technology projects underway and available, but also to solicit the views of the participants and identify the need for additional projects which have not been highlighted previously. In addition, this process prevents duplication of effort while providing law enforcement officers an opportunity to exchange information with others in the field. Since the workshops began in June 1996, more than 600 state and local law enforcement professionals have attended six regional workshops. The next one-day regional workshop is planned for San Diego, California on July 15, 1997.

COORDINATION ON NARCOTICS DETECTION TECHNOLOGY

Narcotics detection technology consists of two basic types of equipment: (1) large-scale systems to inspect containers and conveyances for hidden drugs, and (2) detection devices which detect or confirm the presence of illicit drugs by residue (particles or vapor). Customs and DoD, the principal federal agencies responsible for using and developing large-scale, nonintrusive inspection systems, have been working cooperatively on large-scale narcotics detection prototype projects since 1990. CTAC has concentrated funding on developing narcotics detection devices which are usually hand-held, portable in nature.

In Fiscal Years 1990 and 1991, the Congress directed the DoD to ensure that adequate

research and development activities were devoted to technologies designed to improve the ability to detect illicit drugs and other dangerous and illegal substances concealed in containers. At that time, the Defense Advanced Research Projects Agency was designated the Executive Agent for this initiative, and I served as the Director of that program until appointed to the Chief Scientist position at ONDCP in November 1991.

Customs and DoD have entered into a formal Memorandum of Agreement delineating the basic development, testing and operational fielding commitments of each agency in support of nonintrusive inspection technologies. CTAC coordinates directly with these two agencies on planned or ongoing large-scale narcotics detection technology. Although DoD has had primary responsibility for developing expensive, large-scale narcotics detection systems for Customs, CTAC has developed a transportable gamma-ray system to inspect tanker trucks. This system recently has been tested at Nogales, AZ by Customs. Since many of the large-scale drug detection technologies apply to the detection of explosives, chemical agents and nuclear materials as well as narcotics, CTAC also maintains active coordination and oversight interfaces with FAA, DoD, and Customs through representatives from each of those agencies on the Science and Technology Committee.

CTAC coordinates with all federal agencies involved in drug detection technology through the Science and Technology Committee's Contraband Detection Technology working group. For example, since 1992 this working group has been conducting a joint test series to evaluate the performance of emerging prototype and off-the-shelf portable, hand-held chemical vapor and particulate drug detection devices in operational settings. Through this CTAC-

funded test series called the Narcotics Detection Assessment Technology (NDAT) project, each agency having responsibility for contraband detection can participate in the test and evaluation of new or commercially available drug detection equipment. Under this project, test reports on drug detection device assessments have been made available to over 500 U.S. government and law enforcement organizations. Drug law enforcement agencies use the information contained in these reports to help them make informed decisions concerning the procurement of this type drug detection technology.

Under the NDAT test series, CTAC also recently completed a pilot test in conjunction with the Alabama Department of Corrections on drug testing devices. CTAC has received inquiries from other prison systems across the country for copies of the report.

CTAC also works directly with agencies on technology development projects. In the area of narcotics detection technology, CTAC is working directly with Customs to implement several key recommendations of a congressionally-directed study on nonintrusive inspection technology completed by CTAC last fall. One joint CTAC-Customs initiative concerns the improvement of an automated targeting capability for identifying suspicious luggage and containers with hidden drugs. Advancements in this technology area will be suitable for related appliques for explosives and other contraband detection so this initiative also is fully coordinated with FAA counter terrorism efforts.

EVALUATION OF TECHNOLOGY COORDINATION

Counterdrug technology coordination among federal law enforcement agencies has made steady progress since Congress established CTAC. Prior to CTAC, the coordination among agencies was on an ad hoc informal basis at best. Today, through the Science and Technology Committee and its working groups, a structured coordination mechanism is in place to identify a comprehensive set of short-, mid- and long-term counterdrug needs and to develop sound technical approaches to meet those needs. Technical discussions among federal agencies take place in a collegial, frank environment which benefits the community at large. The culture of each agency continues to adapt to permit more open technical discussions. This is the path we intend to follow to improve coordination and move into the future.

MOVING TO THE FUTURE: THE 10-YEAR TECHNOLOGY PLAN

Harnessing Technology to meet the goals of the National Drug Control Strategy

On August 29, 1996, General McCaffrey challenged the Science and Technology Committee to help formulate a comprehensive, proactive 10-year counter-drug technology development plan with a five-year budget request which harnesses technology to support the *National Drug Control Strategy* goal. In response to this challenge and under CTAC leadership, the Science and Technology Committee, comprised of those federal law enforcement agencies with counterdrug missions and the National Institute on Drug Abuse (NIDA), has undertaken a complete review of the national counterdrug research and

development program, including the CTAC's program. For the first time, a 10-year technology development plan is being prepared to ensure that the latest advances in medical research, drug detection, communications, surveillance, command and control, and information systems are exhaustively exploited for demand and supply reduction purposes.

The Chief Scientist has established and chairs a Technology Coordination Working Group of the Science and Technology Committee to develop the plan. Government experts preparing the plan include the Directors of counterdrug R&D from Customs; DoD; National Institute of Justice; DEA; FBI; INS, USCG; the Central Intelligence Agency; and NIDA. A status report will be presented to the technology development community at the CTAC's fourth International Technology Symposium.

Status of the Technology Development Plan

During September 1996 a plan of action was formulated and a kick-off meeting with the Technology Coordination Group was held in December. Since the Technology Coordination Group has met every two weeks to organize and review progress.

The plan will be divided into five areas of emphasis:

Border Technologies: to develop, demonstrate and deploy technologies to improve overall effectiveness in interdicting contraband smuggling at U.S. borders. INS is the lead agency.

Wide Area Surveillance: to develop, demonstrate, deploy and operate long range sensors to detect, monitor and assist in the interdiction of illegal drugs in their growth, manufacture and transportation phase. DoD is the lead agency.

Nonintrusive Inspection: to develop, demonstrate and evaluate technologies to detect drugs and contraband hidden in containers and conveyances at U.S. ports-of-entry. Customs is the lead agency.

Tactical Technologies: to develop a federal strategy to enhance law enforcement in the areas of tracking, communications, audio/visual and information management. DEA is the lead agency.

Medication development, addiction treatment and prevention: to apply advancements in neuroscience research, medications development, methamphetamine and cocaine treatment, and health services research. NIDA is the lead agency.

The working group papers prepared will be integrated into the ten-year technology development plan with specific technology goals and objectives. A five-year budget will then be developed to support the ten year plan. The budget to support the 10 year plan will be updated and included in the President's budget request each year. The first five-year technology development budget will be included in the President's FY 99 budget request to the Congress.

Implementation

The ten-year technology development plan can succeed only with continual and diligent monitoring, close regular reviews, and cooperative coordination among those principal federal agencies with counterdrug missions. In this time of limited dollars to support advancing the technology available to federal, state and local drug law enforcement agencies, CTAC's role in the implementation and coordination of the five-year national drug control R&D technology plan becomes even more important.

To ensure successful implementation, CTAC will be directly involved in preventing unnecessary duplication of effort, testing and evaluating prototype technology, and structuring a vigorous technology transition effort to ensure that technology developed within the national counterdrug R&D program is made available to state and local drug law enforcement agencies throughout the country.

Mr. HASTERT. Thank you.

At this time I would like to welcome the ranking minority member, Mr. Tom Barrett from Wisconsin, who has an opening statement.

Please feel welcome.

Mr. BARRETT. Thank you, Mr. Chairman, and I would like to welcome our witnesses here today as well.

The development and coordination of drug detection technology is vitally important in our fight against illegal drugs. One only has to look at the sheer volume of commercial and tourist traffic entering our country to appreciate the challenge. Every year, the Customs Service and other Federal agencies deal with the entry of 400 million passengers and pedestrians, 10 million cargo containers, 125 million cars and trucks, 600,000 commercial and private aircraft, and 270,000 watercraft. Even if the speed of inspection were not a factor—and it most certainly is—we don't have the manpower or the resources to manually inspect each truck, each ship, and each airline plane entering the country. In reality, less than 5 percent of cargo containers get even a cursory inspection for illicit drugs.

We have to do better than that, and that is why technology development is so important. The Office of National Drug Control Policy, Department of Defense, and Custom Service are on the cutting edge of nonintrusive detection technology. By nonintrusive, we are talking about tools that allow inspectors at ports of entry to locate drugs without spending countless hours opening and manually inspecting vehicles and containers.

Some of these tools, like the advanced automated target systems, are under development and don't actually scan for drugs. They are sophisticated computers which analyze shipping documents and law enforcement data bases to pick and choose which carriers are the ones most likely to be smuggling drugs. Other tools use x rays, gamma rays, and other means to spot anomalies inside vehicles or cargo containers where drugs could be hidden. Others use chemical and biological methods to detect trace amounts of the controlled substance from vapor or residue.

Each of these technologies has advantages and disadvantages. Some are cheaper than others. Some are more mobile, more adaptive, and more readily integrated into existing systems. It is important to learn the costs and benefits of each of these technologies, the new ones over the horizon, and the challenges of coordinating the efforts of multiple Federal agencies.

It is also important to spend some time to discuss a drug detection tool which is decidedly low tech but which has demonstrated time and time again to be cheap, reliable, and effective. It walks on four legs, has a wet nose, and is responsible for more drug busts than any piece of high-technology hardware. I am talking, of course, about drug-sniffing dogs, which are already an important part of our detection arsenal. I would be interested to know how they complement or even outperform their high-tech partners.

Thank you.

Mr. HASTERT. I thank the gentleman from Wisconsin.

At this time, Mr. Mintz.

Mr. MINTZ. Mr. Chairman, members of the subcommittee, thank you for the opportunity to participate in today's hearing on the effectiveness of counterdrug technology coordination at the Office of National Drug Control Policy. I particularly appreciate this opportunity because the words "counterdrug technology and coordination" define the focus of most of my 27-year career with the Customs Service.

Since 1975, I have enjoyed the challenge and the fun of leading the Customs programs to develop our enforcement technologies, from aerostats to x-ray systems, and I am presently the senior Customs official responsible for new counterdrug technology.

While developing technologies for Customs, I was also very involved in coordinating my activities with those of other law enforcement agencies. I helped to form and then became the associate chairman of the Drug Science and Technology Special Committee, established in 1988, under the National Drug Policy Board, and chaired by the Deputy Assistant Secretary of Defense for Drug Policy and Enforcement. Later, I also helped write the charter for the ONDCP Science and Technology Committee and did then oversee the transition of the special committee into the ONDCP structure. Since that time, I have been the senior Customs representative on the ONDCP Science and Technology Committee.

The U.S. Customs Service is this Nation's principal narcotics interdiction border agency. We have a vital role in the National Drug Control Strategy, especially goal 4, to shield America's borders from the drug threat. We also have a responsibility to maintain strong enforcement activities without adversely affecting the flow of legitimate commerce.

For fiscal year 1997, we estimate this flow of commerce to include 451 million people, 125 million vehicles, and millions of tons of cargo. Under these conditions, effective technology is essential. It is for this reason that the Customs Service has become the world leader in the development and use of narcotics detection technologies. Hundreds of pieces of detection equipment, dogs and a variety of automated systems are used every day by Customs inspectors as a routine part of their enforcement activities. Almost all of these technologies are products of Customs' own development programs. And I hope that you and the committee members will have the opportunity to see them in use along our borders.

As indicated by the amount of commerce entering the United States, drug smugglers literally have millions of choices for hiding their goods. Fortunately, the Customs Service is being helped by the efforts of the Department of Defense to develop large-scale systems for the inspection of trucks, containers, and cargo. With the support of the Defense Counterdrug Technology Development Program, we are identifying critical new technologies for our major ports. In my view, this program is giving the Customs Service a dollar's value for every dollar spent.

However, despite the success of our combined national efforts to develop narcotics detection technologies, there are many challenges ahead. Drug smugglers react quickly and creatively to successful enforcement methods. There are still modes of entry into the United States for which there are few technologies available to help

our inspectors. Even if these modes are not employed now, they can become major smuggling problems in the future.

In brief, although we are closing the gaps in technology's ability to meet operational requirements, we still have much to accomplish. As I indicated earlier, national and international interagency coordination has always been a key element of Customs' technology development programs. Cooperation and coordination with agencies, such as DOD, DEA, INS, Coast Guard, FBI, FAA, and Canada Customs, have been hallmarks of our narcotics detection efforts.

More recently, we are working with the FAA, Energy, and other organizations to coordinate the development of technologies to detect drugs, explosives, weapons, and terrorist materials. Our coordination with the ONDCP Counterdrug Technology Assessment Center has been consistent with this practice. We have worked within CTAC's process to keep them informed of our technology needs, knowledgeable of the work we are doing, and aware of our desires and concerns regarding the direction of various technology programs.

We also have been active leaders in many CTAC efforts, including the current definition of the 10-year counterdrug technology strategy. I expect that the preparation of this strategy will further harmonize our efforts and interagency technology coordination.

Mr. Chairman, this concludes my oral statement. You have my written statement, which I would like to submit for the record. I would be pleased to answer any questions you may have.

Thank you.

Mr. HASTERT. Without objection, your written testimony will be entered into the record. So ordered.

[The prepared statement of Mr. Mintz follows:]

Statement by
Raymond D. Mintz
Director, Applied Technology Division
Office of Information and Technology
U. S. Customs Service
to the
House Subcommittee on National Security,
International Affairs, and Criminal Justice
June 25, 1997

Mr. Chairman, Members of the Subcommittee, thank you for the opportunity to appear before you today regarding the "Effectiveness of Counterdrug Technology Coordination at the Office of National Drug Control Policy (ONDCP)." This is a subject with which I have been closely involved and personally consider to be very important to the successful performance of our national counterdrug programs.

Since 1975, I have led the Customs research and development (R&D) programs responsible for the enforcement technologies needed to inspect materials and conveyances passing through our ports, to interdict aircraft and vessels attempting to illegally cross U.S. borders, and to investigate criminal activities. Today, as the Director of the Applied Technology Division, I am the senior Customs manager responsible for the development, evaluation, acquisition, and support of these counterdrug technologies.

During these 22 years I also have been very active in the coordination of counterdrug technology efforts by U.S. and foreign law enforcement agencies. In 1988, I helped to form and was the Associate Chairman of the Drug Science and Technology Special Committee, which then was established under the National Drug Policy Board and chaired by the Deputy Assistant Secretary of Defense for Drug Policy and Enforcement. In 1990, I helped write the charter for the ONDCP Science and Technology Committee and oversaw the transition of the Special Committee into the ONDCP structure. Since that time, I have been the Customs representative on the ONDCP Science and Technology Committee, and continue to be very much involved in the coordination of Federal counterdrug technology programs.

CUSTOMS R&D NEEDS FOR NARCOTICS DETECTION TECHNOLOGY

The mission of the U.S. Customs Service is to ensure that all goods and conveyances entering and exiting the United States do so in accordance with all United States laws and regulations. As the Nation's principal narcotics interdiction border agency, we have an integral and vital role in, among others, Goal Four of the National Drug Control Strategy which is to shield America's air, land and sea frontiers from the drug threat. To meet the responsibilities imposed by our mission and our critical role in the national strategy, Customs must maintain strong enforcement activities while not adversely affecting the flow of legitimate commerce. In FY97, it is estimated that there will be 372 million land border passenger arrivals, 71 million air passenger arrivals, and 8 million sea passenger arrivals. Customs also estimates that 125 million cars, trucks and other vehicles will enter our ports. Under these conditions, the use of effective narcotics detection technology is essential.

It is for this reason that the U.S. Customs Service is the world leader in the development and utilization of narcotics detection technologies to inspect cargo, conveyances, persons, and mail. Over 680 pieces of detection equipment are presently being used by our inspectors as a routine part of their daily enforcement activities, and this equipment inventory is growing every month. In addition, our inspection processes are augmented by a variety of automated systems that collect, analyze, and disseminate information on high-risk targets, potential violators, and smuggling schemes. With few exceptions, these technologies are the product of Customs own research and development programs. It has taken several years to achieve this level of technology acceptance and success, but we are by no means through.

Customs needs for narcotics detection technologies are a function of four factors. Three of these are essentially beyond our control: the workload, measured in millions of disparate items per day; the differing characteristics of over 300 ports of entry, especially the variations in operational environment and facilities; and the ability of the professional smuggler to exploit the opportunities that these conditions provide, from concealing a few ounces of drugs in mail or the human body, to hiding thousands of pounds in clever false compartments in

supposedly empty trucks or within legitimate products. The one factor we control is the inspection process that we employ to deal with the workload, the operational scenario, and the threat.

Our general model of the inspection process employed at all ports of entry has four major elements: pre-primary and primary screening; non-intensive and intensive inspection; physical (intrusive) examination; and exit gate review. Useful technology solutions must meet the needs of one or more of these elements. For example, our current and under-development technologies for pre-primary and primary screening include automated targeting systems, passport readers, license plate readers, and electronic vehicle identification. Current and potential technologies for non-intensive and intensive inspection include the gamma backscatter device or "Buster," truck X-ray, mobile truck X-ray, smaller fixed and mobile X-ray systems, drug particle and vapor detectors, biosensors, higher energy X-ray systems for heavy cargo and sea/air containers, gamma-imager for empty tank trucks, fiberoptic scopes, and portable/handheld computer terminals. For physical examination we use or are considering hand and power tools, medical X-ray units, and biosensors. (It should be noted that in addition to these technologies, Customs also uses narcotic detection dogs in screening processes.) Exit gate review emphasizes physical observation and document examination, and our technology applications are minimal at this time.

The major progress in our narcotics detection R&D program for the last several years has been on technologies to examine trucks, containers, and cargo. We have benefited greatly because of the emphasis and outstanding support provided by the Department of Defense (DoD) Counterdrug Technology Development Program (CTDP). Our involvement with the CTDP began with their efforts to develop high-energy X-ray and neutron systems for container examination, and a lower-energy X-ray system for the examination of empty trucks. The first two systems were demonstrated at DoD and contractor facilities, while the third system was fully integrated into Customs cargo operations at the high-threat land border port of Otay Mesa, California. As these projects proceeded, Customs and DoD gained valuable knowledge and experience regarding both the specific technologies and the critical characteristics that determined whether that technology was truly viable for Customs employment. Based on the lessons learned from these projects, Customs and DoD restructured our

joint agreement for inspection technology development, resulting in the development of some of the most important and innovative narcotics detection technology that the Customs Service could use. The most visible products of this cooperative program are the fixed and mobile truck X-ray systems, and the new generation of sea and air container and cargo inspection systems, but there have been many other mutual benefits as well. In brief, the DoD CTDP truly gives the Customs Service a good value for its money.

However, despite the many useful products coming from DoD's technology development program, our own R&D program, and the programs of the other agencies working with us, we still have R&D challenges. For example, over 282,000 railroad cars entered the United States from Mexico in FY96; Customs and the Border Patrol are presently able to examine just a relatively small number of these rail cars, and only narcotic detector dogs and a few hand held devices are available to help them. While we plan to look at the adaptation of the mobile truck X-ray and the gamma-imager to this problem, there is no R&D effort focused on this requirement. It is evident that we eventually will need technologies to help us detect concealments that may not even be in use today. Clearly, our best approach is to identify and utilize technologies that will have multiple applications. Similarly, we will need inspection technologies for cargo, containers, and vehicles that will be practical, cost-effective, and affordable for our medium-size and smaller ports, as well as in the larger ports where our efforts are currently focused. Finally, we must appreciate that while we expect the technologies being developed and acquired now to remain useful for many years, advances in technology may allow us to consider new solutions that are faster, cheaper, or safer. In brief, while we can continue to close the gap between technology needs that are met versus those that are unmet, our R&D programs for narcotics detection technology still have much to accomplish.

A significant product of our extensive experience to date in developing and deploying successful narcotics detection technology is the realization that sensible technology decisions must be based on a thorough consideration of operational requirements as well as technological capabilities. Operational requirements include the smuggling threat and our vulnerabilities, the types and quantities of objects to be inspected, related screening and examination capabilities, and

external constraints such as facilities, health and safety concerns, and resources. Technological capabilities include the equipment's expected performance in narcotics detection and in complementary roles such as detecting other contraband, as well as its satisfaction of technical criteria such as reliability and maintainability. Although the need to weigh both operational requirements and technological capabilities may appear obvious, understanding their relative importance in technology decisions has been critical not only to the success of our own programs, but also to the success of our coordination with ONDCP and other agencies.

CUSTOMS COORDINATION WITH ONDCP

Interagency and even international coordination regarding the development of enforcement technologies has always been a key element of the Customs technology program. Our Memorandum of Understanding with Canada Customs regarding the coordination of research and development activities for narcotics detection technologies, now in its 14th year, was the first international agreement of its type. Customs practice of cooperation and coordination in technology matters with other Federal agencies such as the Drug Enforcement Administration, Immigration and Naturalization Service, Coast Guard, Federal Bureau of Investigation, and Federal Aviation Administration was a key factor in the rapid formation of the Drug Science and Technology Special Committee and in the subsequent achievements of the Customs-led Contraband Detection Working Group under both the Special Committee and the ONDCP Science and Technology Committee. More recently, we have begun coordinating with the Federal Aviation Administration, the Department of Energy and various counter-terrorism organizations regarding the use of technology for the detection of drugs, explosives, nuclear materials and other items.

Our coordination with the ONDCP Counterdrug Technology Assessment Center (CTAC) has been consistent with this practice. We have worked within CTAC's R&D process and have kept CTAC informed of our technology needs, of the work that we wished to undertake or were performing, and of our desires or concerns about the direction of various technology programs. We have played an active leadership role in many CTAC efforts, including the Science and Technology Committee and special programs.

CTAC's leadership and response to our requests for support have included funding of projects and technical assistance from their contractors. An excellent example of coordination by Customs, CTAC, and DoD is the development of the gamma-imager now being evaluated as the means of detecting concealed narcotics in hard-to-examine tankers and other thick-walled trucks. Customs initially conceived of this idea and funded a small proof of concept demonstration. At our request, CTAC then funded the development of the first prototype with technical direction provided by Customs. When the prototype was completed, the DoD funded and supported the technical evaluation of the gamma-imager and its subsequent deployment for Customs operational evaluation. Finally, the DoD, with our support, now plans to fund the development of an improved system for full operational deployment by Customs.

In other cases, CTAC's support to Customs has been more direct. Examples are the funding provided for continuation of our initial automated targeting system, improvement of the gamma backscatter device, and maintenance of the Community Technical Evaluation Center used by Customs and other counterdrug agencies as a technology test facility.

Although there have been instances where we have disagreed with CTAC, I expect that the current interagency effort to develop and document a 10 year strategy for the development, acquisition, and support of counterdrug technology will further harmonize our efforts with CTAC and other agencies. Establishment of the long-term program and budget for narcotics detection technology will be a cooperative and fully coordinated effort involving CTAC, Customs, Coast Guard, DEA, INS, DoD, and any other agency with a relevant interest.

Mr. Chairman, this concludes my statement. Thank you again for the opportunity to appear before the Subcommittee. I would be happy to answer any questions you may have.

Mr. HASTERT. At this time, I would like to introduce Mr. Wolfson. Please proceed.

Mr. WOLFSON. Mr. Chairman, members of the committee, it is a pleasure to meet with you today to discuss an important national program that can make a real difference in stopping the flow of illegal drugs into the United States. Specifically, I will address the Department of Defense efforts to develop narcotics detection technology for use by Customs and also ONDCP's involvement in support of that effort.

In response to section 1205, National Defense Authorization Act, of fiscal year 1990, Defense focused its counterdrug R&D efforts on rapidly developing technology to detect drugs being smuggled into the United States, secreted inside commercial shipping containers and in other land transport vehicles. Implementing this congressional direction, the Department structured a broad-scope program to rapidly investigate in parallel practical technology approaches. The objective was to develop prototype inspection systems that could be demonstrated in operational environments against realistic targets.

The Department also established an immediate and continuing relationship with Customs, the operational user of these prospective nonintrusive inspection systems. Such interfaces were at the operational level, the technology specialist level, and also included a formal Memorandum of Agreement between the Commissioner of Customs and the Office of the Secretary of Defense detailing how this program was to be implemented.

Over the past 5 years, the joint Defense and Customs effort has been very fruitful. Currently, Customs has available the technical and operational information needed to commercially procure an effective initial operational inspection capability. In addition, the final stages of development are now under way to develop a next generation of inspection systems; that is, mobile and relocatable systems.

Throughout this joint effort, Defense provided development and testing funding and technical program management, while Customs participated in the selection of the technologies to be pursued and provided operational personnel to support operational and technical testing, including stream-of-commerce testing.

During the development period, the Counterdrug Technology Assessment Center, CTAC, of ONDCP was involved in an oversight role and was kept abreast of progress, technical accomplishments, and major program decisions.

Overall, CTAC has provided a very valuable forum, facilitating the interagency exchange of information, on ongoing and planned counterdrug technology programs, thereby eliminating duplication and developing partnerships among the different agencies. In addition, CTAC is uniquely positioned to compile summary documents detailing all counterdrug R&D programs and all counterdrug operational needs.

Focusing back on cargo container inspection systems, from a national perspective, there are many major issues involved in implementing the widespread use of technology solutions at ports of entry. One major hurdle is the very substantial infrastructure and operation and maintenance cost for cargo container inspection.

Placing this in context, as you are aware, there are over 300 ports of entry, and these large inspection systems can cost between $1 million and $15 million apiece.

To assist in high-level concept assessments, CTAC pursued several efforts to provide alternative views on technology fielding options. Defense's position has continued to be that of the technology developer, our objective being to fund the development of technology solutions that were considered by Customs to be operationally suitable for their use. In this regard, we ensured that our development efforts were in lockstep with Customs and endeavored not to pursue the extended development of technology options that Customs did not find suitable to transition to operational use.

In summary, we focused on rapidly developing operational systems that Customs was interested in deploying on the U.S. southwest border and at other ports of entry. This approach has paid dividends. The fixed-site x ray that was tested at Otay Mesa port of entry in San Diego, transitioned to operational use by Customs almost immediately after the development program was completed and is now a continuing valuable inspection asset.

In addition, the first of several next generation relocatable mobile inspection systems has been tested and is also now operational by Customs on the southwest border. These mobile systems will offer a flexibility that is needed, given the changeable drug smuggling threat.

In conclusion, the Department of Defense has responded to congressional guidance to rapidly develop inspection systems that Customs can effectively use at border ports of entry. The technology development effort has been accomplished with a very close and effective relationship with Customs, and key developmental products have transitioned to operational use almost immediately after prototype testing.

As with all concurrent broad-scope development efforts, some technologies investigated were considered but then rejected. Real progress has been made, the technology and inspection systems already developed, and those under development will make a dramatic difference in our national capability to detect illegal drugs smuggled in vehicles and containers. In addition, CTAC's involvement has been very beneficial and has provided a valuable alternative view and assessment of deployment options.

Mr. Chairman, this concludes my opening statement. You have my full testimony. I would like that entered into the record. Thank you very much.

Mr. HASTERT. Without objection, your full opening statement will be entered into the record.

[The prepared statement of Mr. Wolfson follows:]

Mr. Chairman and Members of the Committee:

It is a pleasure to meet with you today to discuss an important national program that will make a real difference in stopping the flow of illegal drugs to the United States. Specifically, I will address the Department of Defense efforts involving the development of narcotics detection technology for use by the U.S. Customs Service, and the Office of National Drug Control Policy's involvement and support of that effort.

In support of the National Drug Control Strategy, the Department of Defense has implemented a very broad-scoped set of projects and activities that support all five goals of the National Strategy. One facet of this Defense Department counterdrug program is a research and development (R&D) effort that supports Defense's different counterdrug responsibilities including: counterdrug detection and monitoring, drug law enforcement support, military demand reduction testing, and the detection of illegal drugs hidden in containers. In accordance with congressional guidance, the funding and programmatic emphasis of the R&D effort has focused on rapidly developing non-intrusive narcotics detection technology--primarily for use by the U.S. Customs Service--to detect drugs being smuggled into the U.S. secreted inside of commercial shipping containers (trucks and maritime) and, also, in other land transport vehicles.

The following is the initial legislative direction for this effort:

Section 1205, National Defense Authorization Act for Fiscal years 1990 and 1991, Public Law No. 101-189 provided the following direction to the Department of Defense:

Section 1205. RESEARCH AND DEVELOPMENT

The Secretary of Defense shall ensure that adequate research and development activities of the Department of Defense, including research and development activities of the Defense Advanced Research Projects Agency, are devoted to technologies designed to improve--

(1) the ability of the Department to carry out the detection and monitoring function of the Department under section 124 of Title 10, United States Code, as added by Section 1202; and

(2) the ability to detect illicit drugs and other dangerous and illegal substances that are concealed in containers.

Subsequent to FY 1990/1991, Congress provided on a continuing basis, in both authorization and appropriation Reports and Act language, additional guidance and direction relating to detection of drugs in sealed containers.

Pursuant to this direction and the continuing congressional interest and appropriations, the Department structured a broad-scoped program to rapidly investigate, in parallel, all reasonable technology approaches. The objective was to develop prototype systems that could be technically and operationally demonstrated in operational environments against realistic targets. In this

context, the Department established an immediate and continuing relationship with the U.S. Customs Service, the operational user of these prospective non-intrusive inspection systems. Defense's relationship with Customs in support of this program involved continuing interfaces at the technology specialist and management levels, and a formal Memorandum of Agreement between the Commissioner of Customs and the Office of the Secretary of Defense delineating the basic development, testing, and operational fielding commitments of each agency.

The result of these joint Defense and Customs efforts over the past five years have been very fruitful. Technology assessment, development, and testing has been accomplished in a rapid manner and, at this time, Customs has available the information to commercially procure an effective initial operational capability. The final stages of the development program are now underway, developing a set of "next generation" inspection systems--mobile and relocatable systems that can be used to detect drugs in fully-loaded maritime containers, in fully-loaded and low-density loaded trucks, in automobiles, and in empty bulk liquid tanker trucks.

In support of these development efforts, Defense provided the development and testing funding and technical program management, while Customs participated in the selection of technologies to be pursued and provided operational personnel to support operational and technical testing (including testing of stream-of-commerce at ports of entry).

Technologies investigated have included: (1) a wide variety of vapor and particulate detection technologies and (2) low, mid, and high energy x-rays and nuclear technologies.

During this time period, the Counterdrug Technology Assessment Center (CTAC) of the Office of National Drug Control Policy (ONDCP) was involved in an oversight role and was kept abreast of progress, technical accomplishments, and major program decisions.

Regarding CTAC's role in counterdrug technology development, we view CTAC as providing a valuable forum to facilitate the exchange of information on on-going and planned counterdrug technology programs throughout the Executive Branch. This eliminates duplication and supports the funding and development of high priority technology that most of the individual agencies do not have the resources to fund. In addition, CTAC is uniquely suited to compile a summary document that details all counterdrug R&D throughout the Executive Branch. In this context, senior technology policy and management representatives of the Executive Branch agencies involved in counterdrug activities meet under CTAC's auspices to discuss new initiatives and plans, and to highlight recent accomplishments. When CTAC was initially formed the intensity of its activities was necessarily greater since no comprehensive review of all counterdrug technology requirements had ever been conducted, and interagency counterdrug coordination and information exchange were just starting. At that time, CTAC formed technology working groups and facilitated the development of comprehensive technology "need" documents. These technology "needs" continue to be considered in the yearly CTAC-published Counterdrug Technology Blueprint which is a very valuable document--highlighting all ongoing counterdrug R&D, compiling technology "needs," and providing an updated listing all counterdrug R&D efforts that have been pursued in the past.

In addition, CTAC has received funding in ONDCP's yearly appropriation for use in counterdrug technology development. These funds have typically been used to fund a CTAC-developed list of projects encompassing the requirements of numerous Executive Branch agencies

(that, unlike Defense, do not have significant counterdrug funds for counterdrug R&D efforts) and the requirements of state and local law enforcement. CTAC has provided an effective mechanism for agencies to present unfunded agency counterdrug technology requirements, and to review of the status of efforts funded by CTAC in support of these agencies.

Regarding the Defense-Customs non-intrusive inspection program, CTAC has provided mostly an oversight role and has appropriately devoted more of their energies to supporting counterdrug technologies needed by other Executive Branch agencies and by state and local law enforcement. This is eminently practical since Defense, in response to congressional direction and appropriation support, has devoted approximately $80M for non-intrusive inspection technology in support of Customs, and Defense (the developer) and Customs (the operational user) have very well established and effective interfaces.

Although acting more in an oversight role, CTAC stayed engaged in this important non-intrusive inspection technology area. From a national perspective there are many major issues involved, including the very substantial infrastructure and operations and maintenance costs for cargo container inspection at all U.S. ports of entry. (It should be noted that there are over 300 ports of entry and each inspection system can cost between $1M and $15M to procure.) To support such high-level concept assessments, CTAC pursued several studies to provide views on which technology options might be most cost effective to field. The Department of Defense's position in such discussions has been that of the technology developer--the objective was to fund and develop technology solutions that were considered by Customs to be operationally suitable for their use. From a time and funding perspective, it was essential that we ensured that our development efforts were in lock step with the user needs (Customs) and that we did not pursue extended development of technology options that Customs did not find suitable to transition to operational use. In summary, we focused on rapidly providing Customs the operational systems that they were interested in fielding on the U.S. Southwest border and at other ports of entry. We did not ignore other technologies, but did not always fully develop them.

This expedited development approach has paid dividends. The Defense developed fixed-site x-ray that was tested at the Otay Mesa port of entry in San Diego, CA, transitioned to operational use by Customs and is now a continuing valuable inspection asset. Moreover, Customs is now planning to field a total of 8 of these systems at southwest border ports of entry. (In FY 1997, Congress appropriated $6M to Defense to procure two of the additional systems needed by Customs). Conversely, several other very expensive system concepts and designs, using nuclear techniques and higher energy x-ray technology, were determined to be unsuitable for complete development based on Customs' assessment of the anticipated or demonstrated technical and operational performance, system costs, and logistics requirements.

Currently, development has been completed on the initial generation of fixed-site systems, and development are continuing on the next generation of relocatable and mobile inspection systems, which offer Customs operational flexibility to address a changing drug smuggling threat. One of the mobile backscatter x-ray systems is currently being operated in support of Customs along the southwest border, and is proving to be very effective. During the next two years the development and technical/operational testing of the following systems will be completed and will conclude the currently planned non-intrusive inspection development efforts by the Department of Defense: (1) a mobile backscatter/transmission x-ray system for inspecting trucks and cars, (2) a backscatter/transmission x-ray for inspecting pallets of cargo, (3) a high energy

backscatter/transmission x-ray for inspecting pallets of cargo, (4) a high energy relocatable x-ray for inspecting fully-loaded maritime containers, (5) a high energy self-contained x-ray for inspecting single and stacked maritime containers, (6) a mobile backscatter and transmission x-ray with a wider field of view for inspecting trucks and cars, and (7) a high resolution cesium (radioactive source) radiography system for inspecting trucks and containers.

In conclusion, the Department of Defense has responded to congressional guidance and appropriations to rapidly develop inspection systems that U.S. Customs can effectively use at U.S. borders ports of entry to detect and stop the flow of illegal drugs into the United States. This technology development effort has been accomplished with a very close and effective relationship with Customs, and key developmental products have transitioned to operational use almost immediately after the completion of prototype testing. As with all concurrent, broad-scoped development efforts, some technologies investigated were considered, but then rejected, based on user assessments of anticipated and demonstrated performance, costs, operational considerations, and threat.

Real progress has been made. The more accurate understanding of the capabilities of detection technology resulting from the Defense development program has enabled Customs to much more effectively develop a technology-based inspection plan for the southwest border ports and the maritime ports of entry. The aggregate of the x-ray systems currently being procured by Customs for the southwest border, plus the developmental prototypes addressed above which will transition to Customs for operational use, will provide a substantial operational capability during the next two years. Moreover, a suite of mature technologies will exist, and Customs will be in a position to commercially buy whatever mix of systems is considered necessary and affordable to address the changing drug smuggling threat.

It is our view that the technology and the inspection systems can make a dramatic difference in our National capability to detect illegal drugs smuggled in vehicles and containers. CTAC's involvement has been beneficial and has provided an independent view and assessment of deployment options for Customs' cargo inspection.

Thank you.

Mr. HASTERT. Mr. Cooper, you may proceed.

Mr. COOPER. Mr. Chairman and members of the subcommittee, it is indeed a pleasure to be here this afternoon to discuss with you the Federal agencies' efforts to develop the important narcotics detection technology programs this country needs.

If there is no objection, I would like my full statement entered into the record and I will summarize.

Mr. HASTERT. Without objection, so ordered.

Mr. COOPER. My testimony today is going to focus on three things: The responsibility of the key Federal agencies involved in developing detection technologies, the differing views that we found among those agencies about which technologies should be developed and deployed, and opportunities to strengthen the national technology efforts.

You have already heard from the representatives of the three agencies today about their roles. I will just save time by adding that we found that OMB has also, in recent years, started to play an increasingly active role in reviewing agency budget submissions and suggesting how those funds should be spent on different technologies. And I can get into that a little bit later on.

Let me move on to the differing views about different technologies. Over the last 6 years, we found Federal agencies spent about $100 million to develop technologies for detecting narcotics. However, the agencies have not always agreed on the most appropriate technologies to be used at the U.S. ports of entry. For example, in 1990, Congress tasked the Department of Defense, in coordination with Customs, to develop technologies for inspecting cargo containers. Cargo containers were recognized as a major threat for importing illegal drugs through U.S. ports of entry.

In response to that congressional direction, DOD developed and tested, at a cost of about $15 million, a high-energy system at Tacoma for detecting narcotics in those containers. DOD and CTAC viewed that system as a key step toward developing an effective, nonintrusive method for inspecting containers. However, the system was not deployed because Customs did not believe it was safe, affordable, or operationally suitable for their purposes.

Based on that Tacoma experience, Customs and DOD modified their Memorandum of Understanding to ensure that DOD would develop only those technologies that Customs would deploy. Based on that understanding, DOD also discontinued work on a pulsed fast neutron analysis project, after spending another $15 million.

Like the Tacoma high energy system, Customs expressed concerns about the safety, affordability, and operational suitability of that system. Despite efforts over the last 6 or 7 years, including that expenditure of $30 million, commercial seaports, and particularly the containerized cargo coming through those seaports, still remains as the greatest unsolved detection requirement according to Customs.

We also found that ONDCP and Customs differ in their views about what detection technologies are needed along the southwest border. ONDCP has recommended that Customs accelerate efforts to develop and acquire an automated targeting system that would identify high-risk cargo for inspection. Customs agrees about the

need for such a targeting system and has begun testing targeting systems, prototype systems at selected sites.

Customs further believes that additional low energy x-ray systems, like that used out of Otay Mesa, should be acquired for inspecting empty trucks crossing the U.S. Border. However, ONDCP is also developing a technology that ONDCP believes may be as effective as the systems that Customs is acquiring and will cost about one-fifth of the estimated $3 million cost of that system.

While development of the current generation of narcotics detection technology is near completion, ONDCP, in a September 1996 study that was mandated by Congress, concluded Customs needed the detailed methodology for determining which technologies should be acquired. ONDCP, recognizing that there are variations among the different ports of entry, recommended that Customs adopt a methodology that would provide a port-by-port analysis of the different technologies needed at each port. Customs disagreed with ONDCP's port-by-port methodology because it felt the methodology did not realistically consider the personnel and funding constraints that Customs faces.

We believe there is an opportunity to strengthen Federal efforts to develop detection technologies. In August of last year, the Director of ONDCP challenged other Federal agencies to work with ONDCP to prepare a comprehensive, proactive, 10-year counterdrug technology development strategy. That strategy would be augmented with a 5-year budget projection. We understand that ONDCP is working with other Federal agencies to meet the Director's challenge. Such a plan, we believe, should provide decision-makers with a road map to guide Federal efforts to develop non-intrusive inspection technologies and upgrade existing systems.

We generally support ONDCP's efforts to prepare a long-range technology plan. It is consistent with ONDCP's broader efforts to develop a long-range plan for achieving the goals and objectives of the U.S. drug control policy. To be effective, however, we believe the technology plan should resolve the differing views between ONDCP and Customs on needed technologies.

At a minimum, we believe the 10-year technology plan should address the use of high-energy x-ray systems for detecting narcotics contained in fully loaded containers, the possible use of explosives detection technologies for detecting drugs in containers coming through our seaports, the use of an automated targeting system for identifying high-risk cargo, the best technologies for detecting drugs in empty trucks, and methodologies for transitioning technologies from development to deployment.

That concludes my statement, Mr. Chairman. I will be glad to answer any questions you or other Members might have.

[The prepared statement of Mr. Cooper follows:]

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.[1] My testimony focuses on (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.

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.

---

[1]For a listing of our reports on narcotics detection technologies, see app. I.

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.

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 five year budget request.

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[2] capable of penetrating fully loaded containers, at a specially constructed port in Tacoma, Washington. DOD and CTAC viewed the system as a key step toward the development of effective, nonintrusive cargo inspection technologies.[3] 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

---

[2]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.

[3]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.

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[4] 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.

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[5] 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

---

[4]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.

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

border technology plan that would focus effective inspection technologies in the areas of greatest need.

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.

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.

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.

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 the 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.

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.

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, Custom's 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 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 provided 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[6] 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.

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.

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 five-year budget projections. To be effective,

---

[6]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.

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

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

- - - - -

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

Related GAO Products

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

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

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

Mr. HASTERT. I thank the gentleman.

Mr. Brandenstein, you have been in your organization—your organization has been in existence at the offset of ONDCP since 1991.

Mr. BRANDENSTEIN. We were established in—I actually came in November 1991, and ONDCP was started in 1988.

Mr. HASTERT. That is correct. So you have a history there.

Mr. BRANDENSTEIN. I have a history because those prior years I was at ARPA working on the same areas.

Mr. HASTERT. In the 10-year plan, what are you doing, or what have you done? I mean, you talk about a 10-year task. I want to move to the prior history. What have you done, and what are you doing, to actually demonstrate coordination? I mean, you have the DEA and Customs Service, FBI, and Agriculture, and DOD, and the Coast Guard, and INS, all on the borders, all trying to fight the drug war one way or another, and with a lot of technology out there. What have you done to coordinate those organizations up to this point?

Mr. BRANDENSTEIN. The major forum to ensure the coordination, a formalized forum, is the Science and Technology Committee, which predates me, as Mr. Mintz said, in some other forms, and I became the chairman when I arrived in 1991. And through that, we meet approximately quarterly. In preparation of the 10-year plan and the 5-year strategy, we have been meeting almost every 2 weeks. We have a series of——

Mr. HASTERT. You missed my question. I said you have been there since 1991, 6 years. What have you done to coordinate up to this point? I am not talking about a 10-year plan. A 10-year plan didn't happen until now.

Mr. BRANDENSTEIN. You want to talk about the past?

Mr. HASTERT. That is what I said when I asked the question.

Mr. BRANDENSTEIN. Yes, sir. We have developed technology initiatives—we have—in conjunction with those organizations that you listed, we collect their S&T requirements, and we publish them within the blueprint so that the entire group understands what—we review those requirements, the entire group understands what the requirements are. It is collectively decided, so that they meet their needs, and then we review the projects that the agencies are planning to do, come up with a program which essentially removes duplication of effort because there are very limited amounts of funds. And publish again, in the appendix of our blueprint, the actual projects that are being conducted by all the Federal agencies.

Mr. HASTERT. Well, one of the things, our goal here is to work with ONDCP, make sure we are effective, and make sure the dollars we spend are spent wisely. What I am just really asking you for is one or two success stories of what you have done?

Mr. BRANDENSTEIN. There are several examples.

Mr. HASTERT. Let's hear them.

Mr. BRANDENSTEIN. One of the examples, from a very tiny example, in terms of what it looks like, is on this table. With the FBI, and through the Contraband Detection Working Group and a couple other working groups, we jointly developed a crack cocaine detection system comprised of some fluids. It replaced existing technology, it costs about $12.50 for a test, and in the first year of its

use, we seized about $7 million worth of drugs with this type of technology.

Another example is the development of VACIS, the development of one of the contraband detection systems that was shown on one of the tables, on one of the charts. That was a joint effort. It is now in the current tests at Nogales. Eventually, some number of these will probably be entering the Customs Service inventory to augment the Otay Mesa type systems.

In the area of medical research, we developed for the Addiction Research Center in Baltimore, the only Federal center dedicated totally to the medical research on drugs of addiction. We built a center, a PET scanning center, and a radiochemistry laboratory.

Mr. HASTERT. PET scanning center?

Mr. BRANDENSTEIN. Positron emission tomography. It is a brain-scanning system so that you can look at the effects of various therapeutic drugs on an addict's brain. This was our single biggest investment of the funds available to CTAC, and that was an investment of about between $6 and $7 million overall. For the prior 7 years before we did this, the Addiction Research Center, which is part of NIDA, had been requesting a new PET scanning center. We did it. It was solely on CTAC funding. It was dedicated in December of this past year. It now allows them to have an intermediate research program, directed by Dr. Leshner, which has greatly increased even in the short time it has been there.

Mr. HASTERT. I am going to reclaim my time. I appreciate that.

But there are agencies there. We have spent $100 million, about $15 million a year, and we also have the Tacoma issue out there—the $30 million mistake, that is pretty expensive, and I really haven't seen evidence of how you coordinate. What we want to make sure is, that those dollars are spent.

And I am going to come back on the second round. My time is up. I would hand this over to the gentleman from Wisconsin, Mr. Barrett.

Mr. BARRETT. Mr. Cooper, maybe you can shed light on this. You made reference to the Tacoma situation. The chairman referred to it as a $30 million mistake. Would you concur with that?

Mr. COOPER. Let me clarify for the record. The Tacoma technology development was $15 million, and then there was a second project, the Pulse Fast Neutron Analysis, which was another $15 million. So there were really two projects there. Nonetheless, in the case of the Tacoma technology, DOD moved smartly. After the congressional direction in 1990, they developed a technology that proved that it could detect narcotics in containers. I think it had like a 90 percent success rate.

But in 1994, after DOD had developed that system and was ready to have it deployed, there was dialog between DOD and the Customs Service, and Customs said, that is good, but that is a high energy system, and it is not operationally suitable for Customs purposes.

And I think that situation illustrates the need for the agencies to work very closely together, and, in fact, they have entered into that Memorandum of Understanding after that Tacoma experience to make sure that doesn't happen again. And I think that is what we are all after, to make sure whatever moneys we invest in tech-

nology, that there is a good chance for those technologies to be applied.

Mr. BARRETT. You mentioned the DOD. I am sorry, I wasn't in Congress in 1990. Maybe you can tell me what Congress's role was here.

Mr. COOPER. I think it was a result of some of the appropriation language that directed DOD to—because of their expertise in developing technologies for weapon systems and other kinds of things, got DOD involved in the drug war, if you will, to develop the kinds of detection technologies that would be useful in inspecting cargoes and containers coming across the borders.

Mr. BARRETT. At that time, was it known that the technology would be turned over to Customs?

Mr. COOPER. That was the purpose for DOD, to help Customs to develop those kind of technologies. As I said in my statement, the threat that that direction focused on was the containers coming through, and there are millions of containers every year that come through.

Mr. BARRETT. In your GAO report, your analysis, did you place blame on one party or the other, or who was asleep at the switch here?

Mr. COOPER. I think there was probably enough blame to go around for everybody. I am not sure it was any particular agency. I think that particular example illustrates what the theme of this hearing is all about, and that is to make sure there is good coordination among all the Federal entities. This happens to be one involving Customs and DOD, and, as I said, in the 10-year plan, if we can get that 10-year plan to where we want to get it to and identify all the different efforts that are being undertaken by Federal agencies and to make sure those efforts are integrated and everybody has a commitment to those efforts, and we have funding identified and timeframes for getting those technologies deployed, I think that would provide a road map for everyone, including the congressional decisionmakers, to see that effort and to have that insight into that effort.

Mr. BARRETT. Mr. Mintz, from your perspective, what has been done to ensure that that will not be repeated?

Mr. MINTZ. Well, I think many things, but let me use the example of Tacoma and the MOU that has been mentioned.

The MOU that Mr. Cooper describes is actually the second MOU we had. When that project was started, the parties involved were myself for Customs and I think Dr. Brandenstein at that time for Defense, and the MOU dealt with who would be responsible for what; when that system went to Tacoma, who was going to be responsible for maintenance; who was going to be responsible for providing test samples, et cetera.

As we got into the system and found that, yes, it worked technically—and I would say in that respect, it was not a mistake, we did learn a lot technically about it, about that kind of high-energy system. But as we learned, it was too expensive at that time and still unsafe for the examination of foodstuffs.

We decided at that point between Mr. Wolfson's office, Mr. Pennella, and myself, that we needed a second MOU. This MOU was much simpler, and I think this is going to be the answer to

your question. This MOU essentially said that the Department of Defense was going to do its best efforts to develop technologies that the Customs Service would employ, and we, the Customs Service, our responsibility was to participate in those programs and ensure that if the technology was developed according to requirements, we would do everything in our power to have that technology implemented. That is the focus of what we are doing now, and I think that is the answer to your question, "What are we doing now?" We are working together much more closely, realizing it is not just the technology that is the focus of our efforts, but rather on making that technology useful. And so we have a much better appreciation for that now, and I think that is what is helping us as we go through the current programs.

Mr. BARRETT. Dr. Brandenstein, I understand you were involved in this as well. What is your analysis?

Mr. BRANDENSTEIN. Yes, I was involved from the very outset because when I was at ARPA, well, I was the executive agent for these programs. I also believe that the knowledge gained from Tacoma was extremely valuable, I think extremely valuable to the Customs Service.

The Customs Service has a tremendous set of requirements that they have to meet when they install an operational system. The knowledge gained was at the technical level and at the level of how a system like this works. When they have to make a consideration of an operational deployment, they have to consider safety of the individual, they have to consider costs and physical space, and in that context, they selected another approach.

But the knowledge gained, we know what 8–MEV systems will do. We have test data now at 8–MEV, which is the Tacoma system, and we have, because of the operational employment and tests that were done prior to the operational employment, test information at 450 KEV, which is the Otay Mesa system.

The Otay Mesa system has less penetrability than a high-energy x-ray system will have. But we also have data that indicates that at 2–MEV, which is considerably higher than 450, there is not as much penetrability difference between a 2–MEV system and an 8–MEV system.

Mr. BARRETT. Thank you. I see the chairman is going to move on, so I thank you for your answer.

Mr. HASTERT. Just a comment. Mr. Cooper, do you agree with the statement that was just made?

Mr. COOPER. Pardon me?

Mr. HASTERT. Do you agree with the gentleman's statement that was just made?

Mr. COOPER. That they learned a lot from that and that 2–MEV has more penetrability? Yes, I would agree they learned a lot from the Tacoma experience, and I think the answers that have been given here indicate that when the technology developer doesn't have all the information that they need about the operational constraints—and that is what they talked about, the safety constraints.

Mr. HASTERT. Do you agree it was worth $30 million to find that out?

Mr. COOPER. It is an expensive lesson to learn.

Mr. HASTERT. The gentleman from Georgia.

Mr. BARR. Thank you, Mr. Chairman.

Mr. Brandenstein, I have a habit of reading things which sometimes people don't like. And I have a couple documents here. Maybe you can help me clear something up. One document is the enabling legislation, section 1008(c)(2), and then your testimony. On pages 9 and 10, you talk about CTAC developing a transportable gamma-ray system to inspect tanker trucks. That is on page 9. CTAC also recently completing a pilot test on drug-testing devices with Alabama, you reference on page 10. And then further down on page 10, improvement of an automated targeting capability for identifying suspicious luggage and containers with hidden drugs.

I don't have any problems at all with those sorts of things. What I am curious about is where the legal authority is for you all to engage in those activities, given the fact that the enabling legislation explicitly provides that the authority of CTAC does not extend to the award of contracts management of individual projects or other operational activities.

And then second, some of the materials that you submitted show that ONDCP, CTAC, has spent, over the last 5 years, 1993 through 1997, somewhat over $74.2 million on R&D.

Now the two figures don't quite add up. One is $73.7, and one is $74.2. But let's not quibble about hundreds of thousands of dollars; let's say approximately $74 million. Here again, what has that $74 million gone for if you cannot use it for the award of contracts management of individual projects or other operational activities?

I have some confusion here. Something just isn't matching up.

Mr. BRANDENSTEIN. I think I can help remove the confusion.

Mr. BARR. Thank you.

Mr. BRANDENSTEIN. In the original legislation for CTAC, the authorization, which was in 1990, followed in 1990—fiscal year 1991—I arrived in November 1991, and fiscal year 1992, the Congress appropriated a budget for CTAC to do startup projects, to help to remove duplication of effort, to do community-wide support projects that have projects that have the greatest use for all the 21 Federal agencies.

Now, none of them helps everybody, but the intent on our sponsoring of projects is to help the largest community.

Now, the other point that you raised is the point in the legislation which says we are not program managers, I believe that is what you are referring to, and that is quite true. I run CTAC's budget and coordinate the activity of what we are going to do. Actual projects sponsored using the CTAC funds with the S&T Committee and with other users. The funds are transferred to an agent. We are not program managers, we are program sponsors, but we do not do the daily program execution, we don't do the monitoring, we don't award the contracts. The technical, everyday oversight management is done, in fact, if you look at the back of one of our blueprints in which all the projects are listed, including the CTAC projects, you see the lead agency. In our case, CTAC is the sponsor, but the lead agency could be Customs Service—it is everyone except the Department of Defense, because they are the only organi-

zation that really has never had a project in which we sponsored it and used the appropriated moneys for that.

Does that answer partially your question?

Mr. BARR. So what you are saying then is, this $74 million I see here, which represents CTAC R&D spending from 1993 to 1997, are moneys that were transferred to other agencies.

Mr. BRANDENSTEIN. In some cases directly to other agencies, which represented at least one of them at this table. In other cases, they would go to our agent, and when we are doing a project to help a State and local organization, if it was a tactical technology project, it was most frequently the leader of the project, the technical leader—which I provided the oversight and coordination; I take a very strong role in examining the technology itself. But the day-to-day management, fiscal—creating the contract, managing every day, with one of the Federal agencies. When we do it for State and local agencies, most are tactical technology type projects. The FBI and DEA, you will notice, if you look at our blueprint, are the lead organizations that are overseeing this at the Federal level, and our agents are Fort Huachuca in Arizona and the Tennessee Valley Authority. Those are the two main agents that we use.

So the funds would go to that agent. They have the responsibility for structure, issuing Broad Agency Announcement or some other type of solicitation to determine what we are going to get in order to respond to what we want to do.

Mr. BARR. When you do that—and I am still a little confused here, because in your written testimony you say CTAC has recently completed a pilot test that also—that CTAC has developed a transportable gamma-ray system to inspect tanker trucks.

I am still curious, and maybe something here is quite impressive that you can magically do this without extending—without awarding contracts, without managing any individual projects or engaging in any operational activities. And if you do it all by taking all of this money and transferring it to the other agencies that are actually doing these enumerated things which you all can't do, is each and every one of those submitted to the Congress pursuant to your reprogramming or transfer of funds authority?

Mr. BRANDENSTEIN. We were asked to provide in the legislation periodic reports, and I think if you read the text—well, it might have been in conference, in conference language. But it is repeated many times in conference reports from year to year.

Mr. BARR. I focus on statutory language, and it says here that you do have authority to submit reprogramming or transfer requests. And it seems to me that in light of the constrictions in you all's enabling legislation according to which you are expressly prohibited from doing these things, if you then have other agencies do it, it would have to require reprogramming requests.

Mr. BRANDENSTEIN. Every year, around August, the S&T Committee meets, usually, sometime in August, and we derive a projected program for the next year. We still don't have a budget. And when the budget comes, when we then put together a program plan of what the projects will be—and I am concentrating on the CTAC projects.

Mr. HASTERT. The gentleman's time has expired.

I would like to followup. Did you say one of the agencies you deal with is Tennessee Valley Authority? Just yes or no.

Mr. BRANDENSTEIN. Yes, and it is an agent.

Mr. HASTERT. An agent.

Mr. BRANDENSTEIN. Yes, an agent, a technical and contracting agent.

Mr. HASTERT. So you are actually prohibited from letting contracts?

Mr. BRANDENSTEIN. Yes, sir.

Mr. HASTERT. What you are doing is circumventing what the law is, and you go to TVA to let the contracts go out. Is that what you are doing? I am just asking the question.

Mr. BRANDENSTEIN. I need to have an organization.

Mr. HASTERT. Can you tell me, yes or no? Are you circumventing?

Mr. BRANDENSTEIN. No. I don't believe so. You are telling me; I am trying to tell you.

Mr. HASTERT. What does the TVA have to do with ONDCP or the drug issues? Anything?

Mr. BRANDENSTEIN. When we were appropriated a budget, we have to have a way to generate that and either directly transfer it to one of the agencies or transfer it to an agency that can award a contract, and that is what we are doing.

Mr. HASTERT. So you are going to the TVA, who has actually nothing to do with this stuff, and you are letting them award the contracts because you don't have the power to do the contracts.

Mr. BRANDENSTEIN. That is true.

Mr. HASTERT. Then there is a problem, isn't there?

Mr. BRANDENSTEIN. I can't do it, not only because of the fact you could—if you wanted to, you could change the regulation and say, Brandenstein, or whoever, you do this contracting directly from the Office of National Drug Control Policy. I—our staff personally couldn't handle that. We don't—we just can't do it.

Mr. HASTERT. We will come back to that. Thank you.

The gentleman from Arizona.

Mr. SHADEGG. Thank you, Mr. Chairman.

My colleague from Georgia has requested a brief yielding. I will yield to him for a moment.

Mr. BARR. Thank you.

I have also reviewed today the administration's proposed reauthorization, and they are not proposing any change in the authorities or the specific prohibitions that I have just stated, so I think that the problem we have identified here—and I think we are seeing a circumvention here—is not addressed in the administration's proposal.

Did you recommend that that be addressed in the reauthorization?

Mr. BRANDENSTEIN. Well, as I said in the very opening statement, I am not trying to——

Mr. BARR. I am just wondering if you asked for that to be changed.

Mr. BRANDENSTEIN. Did I ask internally to ONDCP? I asked that it not be changed, because it would require that we create a much larger organization, and to explain what—why I don't think it

needs to be changed, this may appear to be a strange way, but I came from ARPA, and for 25 years—Advanced Research Projects Agency, within the Department of Defense.

Mr. SHADEGG. Reclaiming my time, if you could be brief, I do have some of my own questions.

Mr. BRANDENSTEIN. For 25 years, ARPA operated with a budget of hundreds of millions of dollars, exactly the way I am telling you we operate. They were smart people who put together a program, and the money was funded through another, not through ARPA.

Mr. SHADEGG. Just to stay on that topic, can you tell me why—candidly, why you picked TVA and not some other organization?

Mr. BRANDENSTEIN. Yes, I can. The reason we picked TVA is because TVA can also award CRADA's and the Fort Huachuca-Arizona U.S. Army contracting office cannot.

What does that mean? It means if you would like to do medical research projects, and you occasionally want to have a—the kind of award that TVA can make.

Mr. SHADEGG. Turning to page 9 of your testimony, you referenced that the system which you say CTAC developed, specifically, a transportable gamma-ray system to inspect tanker trucks, had recently been tested in Nogales, AZ, by Customs.

As I read the GAO report—and maybe there is confusion in my mind as to whether we are talking about the Tacoma project or whether we are talking about this transportable unit. But as I read the GAO report, the GAO report seems to say to me that Customs did not want what you were seeking to develop. Is that correct, with respect to the Tacoma project or both the Tacoma project and the one tested in Nogales?

Mr. BRANDENSTEIN. The Tacoma project was not a CTAC project, it was started before CTAC was even created. The Nogales project, we have been coordinating and talking about the development. The lead agency for the VACIS project, which is the one you are talking about, is the Customs Service. They provide assistance all the time. The tests that are done in Nogales are now being evaluated to see whether there should be some changes in the system.

Mr. SHADEGG. What were the results of those tests—if I might? Did they show the systems to be successful?

Mr. BRANDENSTEIN. I think they show the system to be successful, and—but it is a prototype. Everything requires some change from prototype to become an operational system, especially under the constraints of an organization like the Customs Service must operate.

Mr. SHADEGG. I find it curious, because last year Congressman Souder—who sits on this committee and I think will be here later—and I held a field hearing of this committee in Phoenix, AZ, which is in my district, went into the issue of the drug problem in America, and spent the balance of the day touring the border. We flew by helicopter, went to the border, saw the machine, a transportable machine to do this detection, and got a lengthy briefing about why the machine was not operational and couldn't be used and was shut down and of—at least as of that day and for some time before that and, as far as I knew at that time, sometime ahead of that, not going to be of any value to them, because it was

a combination of nonoperable and protests over whether or not it was safe.

Do you know the outcome of those tests and whether they ever ultimately did do operational tests with it?

Mr. MINTZ. May I answer that question, sir?

Mr. SHADEGG. Certainly.

Mr. MINTZ. I know that what you are describing did happen. I think part of the problem is, you were speaking to Customs inspectors at the time and they have a very short attention and patience span.

That gamma technology is very useful to us. The system that you saw was developed as a prototype. In fact, Customs ourselves, we did the proof of concept and asked CTAC to fund it, which they did. That was a prototype system meant to operate maybe 200 times under controlled conditions. We then put it out into the field where it was subjected to a rigorous operational environment. It broke down then; it has broken down a few times since. It is currently in El Paso, rather than Nogales, and the darn thing stays up and keeps running with Band-Aids and baling wire.

So it is a good system as a prototype, for the purpose, which was primarily to look at tank trucks and thick-walled tankers that the x-ray systems won't penetrate.

Mr. SHADEGG. My time is about to expire. Let me go back to Mr. Brandenstein.

Your statement says you developed this. I take it when you use the word "developed," you mean you did what Mr. Hastert brought out in the testimony, and that is, you kind of went through TVA or some other Federal Government agency to do this work, which is not in, as Congressman Barr tried to bring out, your specific authority.

Mr. BRANDENSTEIN. Yes, we did.

Mr. SHADEGG. Thank you, Mr. Chairman.

Mr. HASTERT. I thank the gentleman from Arizona. I have a question. I just want to go back to this Tacoma project.

Now I think I heard the testimony, Mr. Mintz—and I think you said it—that the problem was, it radiated food, which it was not intended to do. And I also understand that if there is an illegal immigrant in a container, you radiate that person as well, and that would go against the 1983 law, is that correct?

Mr. MINTZ. I am not familiar with the laws on radiating people, but I think you are correct. Currently, the U.S. Food and Drug Administration allows us to only go to about 300,000 KVA for the radiation of foodstuffs. So if we radiated with anything higher, we would have to then dispose of the foodstuffs, and obviously that is not practical.

Mr. HASTERT. And probably what would happen, a lot of the stuff that you are scanning is foodstuffs.

Mr. MINTZ. Yes, sir.

Mr. HASTERT. Good. Then you entered into a contract with DOD; is that correct?

Mr. MINTZ. A Memorandum of Understanding, yes, sir.

Mr. HASTERT. A Memorandum of Understanding is how you are going to work your way out of this problem; is that correct, in a sense?

Mr. MINTZ. I prefer to say how we are going to find good useful technologies, yes, sir.

Mr. HASTERT. Now, in a Memorandum of Understanding, was CTAC involved in this?

Mr. MINTZ. No, sir.

Mr. HASTERT. Now wait a minute. I am trying to put things together here in a logical order. CTAC was supposed to coordinate all these things, and especially the high-tech stuff we need at the border. They weren't involved in getting—finding this problem out. As a matter of fact, if you got something that was used at the border that was created and OKed by CTAC, they actually did something we weren't supposed to do, take that as a role of coordination. But now you are telling me when you do work in coordination, between you and DOD, it was completely outside of the realm of what CTAC did, and that was their job. Is that what you are telling me?

Mr. MINTZ. Essentially, yes, sir, they were, as I am sure you recall, aware of what we were doing, but the MOU was strictly between the Commissioner of Customs and the Assistant Secretary of Defense.

Mr. HASTERT. Now, Mr. Brandenstein, I looked at your mission statement, and to simplify it, it says basically you are supposed to identify and define, you are supposed to examine, you are supposed to make priority rankings, and you are supposed to oversee and coordinate. I don't see anything in there where you are saying you are supposed to let out $74 million worth of contracts. Can you enlighten me on that?

Mr. BRANDENSTEIN. That is the third bullet, execute a plan and budget for the National Counterdrug Research Development Program, including the CTAC portions of it.

In 1992, we were appropriated funds, and we jointly gathered together to develop a project series.

Mr. HASTERT. Well, I want to take one other step and ask you one other question. In the National Narcotics Leadership Act of 1988, it says the authority granted to the Director, meaning you, under this section shall not extend to the award of contracts, management of individual project, or other operational activities.

Now this isn't a rule, this is a statute. So you are actually in violation of the statute, aren't you?

Mr. BRANDENSTEIN. No, sir, we are not. I don't believe we are, because when the Congress appropriated the funds in 1992—and they have appropriated funds every year since then—we had to have a way to derive a program jointly with others, and we either would have transferred the money directly to that agency or we would use a contracting agent. We had no other choice.

Mr. HASTERT. Can't you just direct those funds to be spent directly by the agency?

Mr. BRANDENSTEIN. In some cases, we do that. In some cases, for example, we have projects where the source of CTAC funds are transferred to the DEA and also with the FBI. They have a program manager who does the entire technical—everyday actions on the program.

Mr. HASTERT. Just to back off in just a second, when we look at what you have expended, $74 million, and $30 million has been in a project that hasn't been able to be applicable at the border, and

your job is to coordinate, and in fact the coordination that takes place has been through a Memorandum of Understanding between Customs and DOD, and you are out of the circle, or out of the cycle, I have a problem with that.

Mr. Cooper, have you looked into this issue? Can you enlighten us a little bit here?

Mr. COOPER. I have not been involved in looking at the legal basis for them to award contracts.

Mr. HASTERT. One thing you have looked at is basic overall efficiency of the operation. Do you want to comment on that?

Mr. COOPER. The only thing I would say is, it is clear from the ONDCP Director's call in August 1996 to revitalize that S&T Committee. I think that is a recognition that the agencies need to work more closely together, and, essentially, that is the challenge that the ONDCP Director has put out there.

Mr. HASTERT. And the job of the CTAC then is to do that coordination.

Mr. COOPER. Yes, they are involved in that.

Mr. HASTERT. And they are somewhat lacking. Do you want to make an estimate on that?

Mr. COOPER. I think there is a recognition there is a need for CTAC to do a better job, yes.

Mr. HASTERT. Thank you.

I yield to the gentleman from Wisconsin.

Mr. BARRETT. Mr. Cooper, I think I need your help here a little bit. There obviously is some criticism here of Dr. Brandenstein's operation, and it seems to be coming down two roads. One is whether he has the authority to do what he has, and I understand you don't know enough or didn't do enough analysis of that. The other—and I think this is coming from the chairman's last question—is whether, even assuming they do have the authority, whether they have used the funds that have been appropriated to them effectively. And I would ask you to comment on that, and I know you may have touched on that, but if you could comment on that again.

Mr. COOPER. The work that we did showed, I think, between fiscal year 1991 and 1996, CTAC ONDCP had about $8.4 million for detection technologies, and that is what the focus of our review was. It is an average of about $1.7 million. And I think some of that resulted in the tanker gamma-ray system that was looked at and talked about previously.

Again, where we are coming from is, with this new call for this 10-year integrated coherent strategy, what we are talking about is seeing all the Federal efforts reflected in that plan with priorities established, whether it is a CTAC priority or a Customs priority or whoever, with the appropriate moneys identified for developing those technologies.

And to give you an example, one of the most critical needs today still remains a detection technology for fully loaded containers. Now if this plan were put together, I think the plan needs to identify where the Federal investment is going to be, who is going to be responsible for that investment, what the timeframe is for that investment, so that decisionmakers in ONDCP and all the Federal agencies and in the Congress can have that road map to see where Federal efforts are going and then——

Mr. BARRETT. And should the overseer of that be ONDCP?

Mr. COOPER. I think that is the charge ONDCP has, yes, in their coordinating role, and I think that is what the Director is trying to get to, is a Federal-wide coordinated plan. And in August of last year, in challenging the Federal agencies to come up with that plan, he also said that he needed high-level commitment within the agencies.

Mr. BARRETT. Does it concern you and had you heard before that the Memorandum of Understanding entered into between Customs and DOD did not in any way, from my understanding, include ONDCP.

Mr. COOPER. I knew it did not include ONDCP.

Mr. BARRETT. Do you think that is consistent with its purported role as the overseer of this effort?

Mr. COOPER. I think ONDCP was aware of some of the problems. In fact, if you go back to I think the 1995 Blueprint Update, and you look at that, that update at that time, that blueprint was talking about deploying that technology that was being developed at Tacoma. I think everybody was going down the road at that point to develop, you know, that technology.

Mr. BARRETT. Now, I am talking about the Memoranda of Understanding that came subsequent to Takoma. My understanding from Mr. Mintz's statement was that that was a Memoranda of Understanding entered into between Customs and Defense.

Mr. COOPER. That's right.

Mr. BARRETT. And ONDCP was not involved with that at all. That strikes me as inconsistent with its role or assignment to be coordinating these things.

Mr. COOPER. I think it is inconsistent. And I think maybe you want to ask the other witnesses. But I think DOD and Customs probably didn't see a need for ONDCP to be a part of that.

Mr. BARRETT. Mr. Wolfson.

Mr. WOLFSON. Well, I don't think it's necessarily inconsistent. Basically that MOA, Memoranda of Agreement, was really for the execution of a series of programs, many of which were directed by congressional report language. Specifically, ONDCP was aware of the content from a policy role. They understood fully what was in the MOA. And it was my recollection they thought it was the way to go and had no objection to the content.

Mr. BARRETT. Let's back up just a little bit. You said much of it was in congressional report language. Can you be more specific?

Mr. WOLFSON. Well, backing up a little bit, and I don't have the specific documents here to reference, but many of the technologies that we pursued including, I think, very explicitly the PFNA, a high energy, and these low energy x rays, did appear in report language suggesting or providing guidance that these were things that the Department of Defense should look into, should in essence fund to support this container inspection effort.

Likewise, many of the items included in the MOA, relocatable systems, were also surely in report language that this was part and parcel to what we were to spend R&D dollars on to pursue in support of Customs.

Mr. BARRETT. So in response to that report language, you would start developing this technology.

Mr. WOLFSON. That was very early-on the case, and we followed that lead.

Mr. BARRETT. And at what point would you bring Customs in the loop for that?

Mr. WOLFSON. Customs was involved almost immediately. Once we had this MOA, the one I'm referencing now I think was 1995, we even more formalized it, whereby, Customs actually sits on the selection panel where we actually decide Customs part—actually participates in the decision of what will even be funded.

What we were looking for was to get a clear commitment from Customs that they would be interested in procuring the results of the R&D.

Mr. BARRETT. And if they were not?

Mr. WOLFSON. Then we felt, and I think they feel also, that unless it's—that R&D isn't worth pursuing I think is the clearance.

Mr. BARRETT. That it is worth pursuing?

Mr. WOLFSON. Is not.

Mr. BARRETT. Is not. But if you have the congressional direction to continue pursuing it, did you continue to pursue it?

Mr. WOLFSON. The congressional direction was OK. Congressional direction for the relocatable systems was generic. We are pursuing relocatable mobile systems that satisfy the requirement that Customs is seriously interested in procuring them.

Mr. BARRETT. So for the State you are doing that?

Mr. WOLFSON. Yes. Now prior to that, we had the direction, guidance, I think is a better term, to pursue PFNA, one of the systems that we spoke of earlier, that we cost—that we put in something on the order of $15 million, and also the high energy system. We pursued those. And as we've spoken earlier, those ended up, at the testing phase, resulting in a decision from Customs that they did not want to pursue.

Mr. BARRETT. At any point in the proceedings in the last 6 or 7 years, did DOD say to Congress, no?

Mr. WOLFSON. We've had numerous discussions. I guess my comment would be other than the issues with Tacoma and PFNA, all the other items we're developing look like they're going to have great utility and would be of great operational use to Customs.

Mr. BARRETT. So you were happy to get direction from Congress?

Mr. WOLFSON. I don't know about happy. It was a lot of money from the Defense Department. As we spoke, we spent close to $100 million to support products that Defense would not be fielding but that Customs would be fielding.

Mr. BARRETT. OK. Thank you, Mr. Chairman.

Mr. MICA [presiding]. Thank you. I have a couple of questions. First, let me ask Mr. Cooper of the General Accounting Office, I guess you have done some review of this whole area of technology and its use in detection and spotting drugs as they come in through the various means into the country. In your estimation, and I notice, too, there was a chart here about the R&D spending by the various agencies. We have got a couple of problems. One seems to be coordination of that activity. Another one is duplication. And then deployment of technology. So there are a number of problems here. It looks like DOD does the biggest share in dollars——

Mr. BRANDENSTEIN. Yes.

Mr. MICA [continuing]. Is that correct? Then we drop down to——

Mr. BRANDENSTEIN. CTAC.

Mr. MICA. CTAC, FBI, and others.

Is there any way to first, I guess in the area of coordination, to better have these activities proceed in a more efficient manner? Is the system so legislatively separated, budget separated that we can't achieve any better coordination? At least at first level of activity, which would be I guess your basic R&D.

Mr. COOPER. Let me try to answer your question. Of the $100 million that we identified in the last 6 years that's been spent on detection technologies and is primarily on the nonintrusive technologies, you are correct. DOD is the primary funder of that. Some $86 million of that $100 million was funded by DOD. And the coordination difficulties that you speak of is we believe reflected in that Tacoma experience where the DOD went out and developed a technology and kind of late in the game really started getting a better understanding of what the users' requirements were, the user being Customs. And it became clear, even though that technology was a feasible technology for detecting the narcotics, that it had some difficulties with safety, with operational deployment, and that's where we think there's an opportunity for better coordination through the called for ONDCP's 10-year technology plan.

Mr. MICA. Now, was there anyone else duplicating that R&D?

Mr. COOPER. No.

Mr. MICA. That was pretty much pinpointed to that one project.

Mr. COOPER. Right. We did not see any duplication. We have not reported any duplication.

Mr. BRANDENSTEIN. May I?

Mr. MICA. Yes.

Mr. BRANDENSTEIN. In the case of the PFNA, there was only one PFNA prototype in existence in the world. And that is the one that was developed within this program. And it was—that particular device people are looking—I think, have learned a considerable amount from that prototype, which we need to know, because it is the only type technology that will actually discern on a large scale system. It's extremely expensive, and probably unless that can be overcome, the Customs Service, in my view, and I don't think Ray would disagree with that, probably could never afford to have this. But currently, in the 1990—I believe in the 1997 Department of Defense budget for the counterterrorism, they're also building another version of the PFNA system.

Mr. MICA. Well, in the area of research and development of either technologies, has there been specific duplication? Did you identify, Mr. Cooper, have you seen a problem in that area where, because we have many agencies, is there duplication? What I am trying to do is go through each of these levels and say is there a problem. And, first, the R&D stage.

Mr. BRANDENSTEIN. Do you want me——

Mr. MICA. Yes.

Mr. BRANDENSTEIN. If you are—in my view, there has been no unnecessary duplication in any part of the national counterdrug R&D program.

Mr. MICA. Mr. Cooper.

Mr. COOPER. We did not identify any duplication.

Mr. MICA. OK. So the next question would be of what technologies are—well, maybe my question is this is—are we finding success out of the R&D? And is that—where are we finding the most success and in what projects? Doctor.

Mr. BRANDENSTEIN. If we're concentrating on drug detection technology, which is the subject of this, the—I feel that the most—many improvements have been made in the technology that an individual operator will use. The hand-held devices that he uses are—the Customs inspectors at the various border crossing points. That's been some amount of money dedicated to that. And there I think that I—that there's been a tremendous improvement in that, the quality of that technology that has come out of this program.

In the case of the very large scale systems, which has really been where most of the DOD funds have gone, they're now looking at, and developing, some prototypes for transportble and relocatable x-ray systems, which can be very effective and at a reasonable cost.

Mr. MICA. So——

Mr. BRANDENSTEIN. I think there have been limited cases. I cannot really find any of unnecessary duplication. There really has not—$100 million over a period of—since 1990 is about, you know, $13, $14 million a year.

Mr. MICA. And your office is charged with the coordination of all of these efforts. I mean, you have had authority through the drug czars' office, correct?

Mr. BRANDENSTEIN. Yes, sir.

Mr. MICA. Well, one of my questions is it is my understanding that you get somewhere between $15 and $18 million a year for coordinating that effort.

Mr. BRANDENSTEIN. For actual execution of a program which fills the gaps in the technology development programs of the other Federal law enforcement agencies. And for assisting in the test and evaluation of the more successful—of the technologies that are coming out—the NDAT test is a continuing series of tests.

If you look at the amount of money of CTAC's, out of CTAC's appropriation from the period of 1993 to 1997, approximately $10.4 million of that total has gone to support the Customs Service, the drug detection technologies. And of that number, $10.4, approximately $4 plus million has been in test and evaluation of the prototypes and in a replicated operational environment. That needs to be done. Everybody recognizes that. It's a broader service that we perform than strictly for the Customs Service, because the Customs provides—contributes to this. They're involved in this. Everyone is involved in this. And it's a service that no single organization owns in terms of, you don't want to, you don't want to pay for test and evaluation of someone else's twice. That's what CTAC is attempting to do as a service to the community.

Mr. MICA. Now how much—now we are talking about $15 to $18 million a year times 5 years. We are looking at close to $100 million.

Mr. BRANDENSTEIN. It's $84 million, from the beginning, approximately.

Mr. MICA. OK. Well, my math is fair.

Mr. BRANDENSTEIN. We got $7½ million in 1995, I believe.

Mr. MICA. But you are saying that is not all used for administration.

Mr. BRANDENSTEIN. No, sir, it's not. No, it's not. It's used for projects which we coordinate through the S&T Committee on what those projects are going to be.

Mr. MICA. And that is a most effective manner—Mr. Cooper, is this a good assessment of a most effective manner?

Mr. COOPER. Let me provide some clarification. When you are talking about the $84 million——

Mr. MICA. Yes.

Mr. COOPER [continuing]. For CTAC, that's for all technology development——

Mr. BRANDENSTEIN. Yes.

Mr. COOPER [continuing]. That they're trying to coordinate not just the nonintrusive technologies I referred to in my statement.

When I'm talking about $100 million over the last 6 years, that's only on technologies for nonintrusive inspections like containers and for trucks and things like that, most of which the Defense Department has funded for Customs.

Mr. MICA. What we are trying to find out is there a more efficient way of achieving the same objective, and do we have too much administrative overhead? Is there duplication events, or some of the duplication question? I am trying to look at the administration of the project.

Mr. BRANDENSTEIN. Could I speak——

Mr. MICA. Yes.

Mr. BRANDENSTEIN [continuing]. About administrative overhead for a second?

Mr. MICA. Go ahead.

Mr. BRANDENSTEIN. Do you know—sir, there is one person that's—that I have an office—I'm the chief scientist.

Mr. MICA. Right.

Mr. BRANDENSTEIN. And I have two people from the Department of Defense who are in my office helping me. And one person from the U.S. Navy helping me, and a secretary.

Mr. MICA. Right.

Mr. BRANDENSTEIN. So that's five people.

Now I augment that too in specialty areas to get technical support of people who actually know the in-depths of some particular technology by going out and getting consultants.

Mr. MICA. And Mr. Cooper, your assessment, I mean you have reviewed the way some of the funds are expended for these projects. Does your assessment pretty much jibe with what I am hearing?

Mr. COOPER. Well, my assessment, as I've reflected in our statement, is we see some opportunities for improvement. And that opportunity for improvement is——

Mr. MICA. One.

Mr. COOPER. I'm sorry?

Mr. MICA. Two. I will give you two.

Mr. COOPER. Right. I mean, what we're talking about is this 10-year technology plan that ONDCP is in the process of trying to develop. We think that will bring together—it should bring together, I hope it will bring together all the Federal efforts that are out

there in the technology area, so that you and other Members of Congress can have clear visibility on what kind of technology efforts are under way.

Mr. MICA. Well, another major question I have is that GAO has recommended in several reports that a long-term commitment and supporting budget are essential ingredients to winning the drug war. As an expert in Defense acquisitions, what do you think a 10-year technology strategy should include to make it successful?

Mr. COOPER. OK.

Mr. MICA. And I am interested in your comments generally, but specifically on decision methodologies.

Mr. COOPER. OK. What I would see as essential ingredients in that 10-year plan is an integration, if you will, of a coherent strategy, Federal strategy for developing technologies, so we can see what DOD is doing to develop inspection technologies, what Customs is involved in, what their requirements are, what the funding needs are by some 5-year period or so, and also a timetable for deploying these technologies so we can get these technologies fielded. I think if we have that road map, it will provide a model for accountability so that we can track and know whether we're achieving what that strategy is. And I—and so I think they are the essential ingredients for that 10-year plan.

Mr. MICA. Dr. Brandenstein, we are all aware that a great deal of money has been spent on development. But that is really not the last technology issue. Deployment is really an even more expensive question.

Mr. BRANDENSTEIN. Yes, sir.

Mr. MICA. I know that deployment expense is one factor in the Customs' decision not to deploy the high energy system developed at Tacoma. How does the long-term technology plan in the 5-year budget currently being developed at the ONDCP take deployment expenses into account?

Mr. BRANDENSTEIN. We're in the process of writing the plan right now. And some sections of the plan are almost complete. The emphasis will be on the R&D aspects as you would expect. And the emphasis following on from that when a prototype is developed will be that there is some acquisition plan; if the prototypes are successful, that there will be an attempt to ensure that the various end user agencies will put into their budgets some planning factors for the out years when it will be necessary for them to come to the Congress and request the funds to acquire these as operational systems. This has never been done before by the agencies other than the Department of Defense, which regularly does this.

The other agencies, many of them are not familiar with this type of out year planning and the technology development plan, the 5-year budget and the 10-year strategy will definitely address that, because that has been a persistent problem ever since the creation of CTAC.

At the very first S&T meeting that we ever had the need for acquisition plans came up as an issue. Everyone that was present was reiterating that as a problem. We have attempted in many ways to get agreements, good faith in many cases, have to be simply good faith agreements because the budget process within these other agencies, other than DOD, does not recognize in most cases

a process of transitioning from R&D to system procurement. They don't have—the budgets are not appropriated in that fashion.

Mr. MICA. Well, you have outlined some of the problems and some of the transitioning from a development to deployment. Is it Dr. Mintz? You are the Director of Applied Technology Division of Customs. How do you view what has just been described, as workable or——

Mr. MINTZ. I——

Mr. MICA [continuing]. Practical?

Mr. MINTZ. I still have some concerns. I mean, I know that all of us from an interagency point of view are going to be working the problem as hard as we can. I guess there are two aspects of it because we are dealing with technologies. And quite honestly, if I step back in time, 10 years from today in the past, or even 5 years from today in the past, if I had tried to predict the technologies that we would be employing today, I think I would miss by a fairly wide mark. So I'm a little nervous about our ability to be specific about those things 5 to 10 years from now.

The other issue is the one that was just discussed and that is the funding of the acquisition. Development means little unless the systems are bought. I can easily see $500, $600, maybe even a—$600 million or maybe even $1 billion worth of technology for Customs over the next few years, whatever they may be, and I really don't know how the budget process will accommodate that. And that really is my main concern.

Mr. MICA. Is there any reason why agencies can't do all of this and plan all of this on their own? Or do they need the coordination of ONDCP as you have heard outlined?

Mr. MINTZ. I think it's important that we do coordinate. And I think CTAC and ONDCP can provide that leadership for us. It's important, for example, that all the plans be consistent and based on the same assumptions, the same threat, et cetera. I think what we are finding, as we've done before, that CTAC helps greatly in this area. Customs really depends on DEA and FBI to work in certain areas. It's useful for us to know what they're doing so that we don't have to pursue that. So I think that the kind of coordination that's happening now and that we look for in the future is the right way to do it. As I said, concerned about our collective abilities to come up with that plan that will be used in the way that we would like it to be used.

Mr. MICA. Let me ask you, Dr. Mintz, another question. The Customs Service faces a formidable task. I was just in Miami. The amount of cargo—I think there is a million tons of cargo, container cargo now coming through Miami just at the airport. I don't know about the other port. It's just awesome. And we have a number of personnel down there. We have increased some personnel down there. But it is almost, I mean, an impossible task.

Do you think that there is hope and that we should continue to pursue both the R&D and put resources, and to what extent, into this effort, or are we just whistling Dixie, or just it can't be done?

I am one of those people, I went down there and I said, well, why can't we—isn't there the technology in this great age, in this time of doing every kind of thing that Buck Rogers could have ever

dreamed about that we couldn't come up with some technology to detect drugs in these containers or in other cargo or passengers.

What is your candid assessment?

Mr. MINTZ. Well, candidly, speaking for myself, although I've shared this opinion and others have had it in agencies over the years. We don't have any choice but to keep going with the technologies. But we are not going to win this war or cure this sickness with detection technologies or trying to stop supply. It's got to be at the other end, at the demand side. In the meantime, I think Customs and the other agencies have no choice but to keep trying to do what we're doing. It is an overwhelming task.

Mr. MICA. Is there a possibility for a technological breakthrough here, or?

Mr. MINTZ. No.

Mr. MICA. I mean, maybe we should be offering a reward, you know, here's $1 million, a firm that comes in with a technology that will do this the quickest. We just leave it to good, old fashioned ingenuity. Do we have any—I mean are there any creative approaches?

Mr. MINTZ. I think we have tried a lot of creative ways. And CTAC has sponsored technology symposiums. They've been holding symposiums by Customs' agencies worldwide to try to do this. I think part of the problem is that it is not just a single method, a single approach that the smuggler can use. We need something that works on cars, on people, on trucks for cocaine, for heroin, for methamphetamine, et cetera.

So when you look at issues like cost and mobility and everything else, I think we've tried very hard. There may be a family of solutions but no single solution I think is likely to be found.

Mr. MICA. Do we have programs with our institutions of higher learning, a substantial commitment there, folks looking at this?

Mr. BRANDENSTEIN. Yes.

Mr. MICA. We do?

Mr. BRANDENSTEIN. Yes. The entire program consists of projects going on within industry, research going on within industry, academia, and the national laboratories, and has been going on—that's been happening since 1990, formally.

Mr. MICA. I have another question, maybe. Let's see, RDO, I am not sure who was involved in this at DOD or Customs. Since I have got you all here, down in south Florida, having spent some time down there looking at the situation, I got involved in this back in the 1980's, and you know we did the—they did the overflight. I think we even did U–2. And then that is expensive. We put the aerostats up. And we put all kinds of folks there for detection. And every time you do something, the smugglers respond in some other way.

But I was told the latest thing is these Jamaican war canoes that are built out of wood so they are not detectable. But I was told that, and now they are taking about 1,000—1 ton, 2,000 pounds, of cocaine in the night, dropping it in the Bahamas in different islands, and then bringing in fast boats. And the fast boats are detectable in the day visually. At night, they aren't. But I am told that a small ring of sound buoys, and one of the universities that I think was down there looking at this said they could be quickly

put out, could form a ring around, therefore, detection of this stuff coming in.

Is anyone familiar with that project? Mr. Wolfson, you are smiling.

Mr. WOLFSON. I'm not sure I'm familiar with that project.

Mr. MICA. How do I get a project like this done? Who do I see?

Mr. WOLFSON. I think there's several issues—let me just raise since you're raising it. One is a question of how much of a threat do you really have of that nature.

Mr. MICA. Threat?

Mr. WOLFSON. Of large amounts. You're talking metric-tons being moved by fast boats from the Bahamas. There are fast boats moving large amounts, but——

Mr. MICA. Coming in at incredible quantities. I have been tracking this stuff for 17 years. And as fast as we chop them off at one end, they find a new one. That this is their lightest.

Mr. WOLFSON. This is positively the case.

Mr. MICA. So how quickly can we get them out there like that? No one is aware of that project.

Mr. WOLFSON. I'm aware of technology to do that.

Mr. MICA. Sound buoy.

Mr. WOLFSON. The issue has become, with all the boats that are in that area, one has to look at, can I detect the boats I'm interested in, or do I just detect every boat that goes near the buoy or——

Mr. MICA. They told me that this is primarily for the night, and you don't have too many people coming from the Bahamas at night. They can't detect them. And now they are putting them on fast boats. They are coming in all along the coast. I mean, it is not the end all answer. But for the amount of money that they had mentioned to me, it seems like we could deploy something and cut them off at another pass.

Mr. WOLFSON. There are lots of ways to address the problem, including airborne ways.

Mr. MICA. All right. And you are going to be in my office in the next 2 weeks to make sure we discuss that and find another method to stay ahead of this.

Mr. WOLFSON. Truly.

Mr. MICA. I mean, I would love to just say that we could educate everybody and we could convince people not to consume this stuff, and the demand is the problem, and it is only education. We held down in my district in October, a hearing, I think you were there. I don't think you were there. And I had the families of city council members—we are not talking gheto, we are not talking Detroit, New York, Miami, we are talking central Orlando, these kids that were on cocaine.

I just had last week my ninth heroin death of a teenager I think in like 12 months. Cocaine is absolutely rampant; methamphetamine, all these other things. And then I will take you to the prisons and I will show you some of these dudes, and you can talk to them and educate them and everything you want about not doing dope and how it is bad for their body and their health and their mind and their physical being and their work ethic. And you could talk to one of these pictures of the former chairmen, and your

breath will be able to warp the paint faster than you get results in trying to convert them. So I am convinced it takes a multifacetted approach.

Mr. WOLFSON. Yes, it does.

Mr. MICA. We let down some of our guard. Whatever it takes. If you guys can find a breakthrough in technology, I am prepared to commit whatever resources we need toward that effort, as long as the money is spent wisely, efficiently, as long as the R&D is an intelligent approach, the deployment, the coordination. We are here of the people that are paying the bill, expect no less, and they are working pretty hard for the money they send us.

And this isn't a Republican or Democrat issue, it is an issue that affects every one of our communities now. So we will work with you. And I am serious on that other issue of staying one step ahead of these folks. And I appreciate your coming. Let me see if the ranking member——

Mr. BARRETT. See if Mr. Souder has any questions.

Mr. MICA. Mr. Souder. Thank you.

Mr. SOUDER. I just wanted to make a few comments and apologize first off for not being here. I feel like I have been on a race track this afternoon. We have been having these 19 to 18 votes over in the Education Committee, and bouncing between multiple things.

But I strongly support the comments that Mr. Mica just made on the importance of the detection technologies. I have been down to the border a number of times, as we have been in Central and South America a number of times. Having this type of equipment is essential, just like having people who provide the tips are essential, the ability to have effective random searches are essential as well, and to find it when we have a decent tip.

I wanted to react to one comment I heard in the brief period that I was here and that is the solution to all of this is reducing demand, not supply. Not suggesting that we weren't going to focus on the supply, but the fact is that the evidence in every single category that we can reduce it isn't good. In other words, the education programs aren't working, the treatment programs aren't working in data, and interdiction programs are having a problem. What we need to do is keep up the pressure on all of them. But there is no sign that the education and treatment is going to work any better than the interdiction.

And part of our concern here today and what we are trying to draw out in this hearing, and I would like to followup with Mr. Mintz with this question, because, as one of the budget hawks here, I have been supportive of the funding in the drug area, because it is like Mr. Mica said in his district with the heroin deaths, in my district crack is the biggest problem. Our murder rate in Fort Wayne, IN, is higher this year than last year already, almost all drug related in one form or another. And it has us all troubled.

Having worked over in the Senate side, as we put in the Office for Planning and a lot of these different things, the goal was to take all of these diverse agencies and try to coordinate. But if all that means is another layer of bureaucracy, and we aren't effective, then we need to start looking hard in the public pressure, given the news media stories that are out there right now about ineffective-

ness of certain things anyway that is in dispute. If we are not effective with the dollars, then everything is going to be hit.

And things like this question related to the Tacoma development where there wasn't enough coordination to make sure that it could be used at the end leads to some concerns on part of it.

Do you believe that, and I know this is difficult given the nature of the panel here, but do you believe that the planning function is working through the CTAC, or do you believe that, in fact, the individual agencies now that they know the importance of the coordination could do it? They weren't before. I grant that they weren't before.

The question is have we learned our lesson? Is the pressure there? Or is there useful function with that? And I know it is a tough political question but it is one we have to ask, because some of this is coming down to a question if it isn't done right and we see waste, then everybody loses.

Mr. MINTZ. I think that the agencies can do the coordination. But at the same time, I think we also need a focal point; not someone to do the coordination for us, but maybe to help guide us a little, and to be a central spokesperson for what the coordinated groups produce.

Because I think the key thing is that the product should not be an agency product where we get one agency then battling with another, if you will, over different kinds of issues. But to have a concerted cohesive plan that's the national strategy. And I think that's the role that CTAC should perform. To be the focal point, to be the spokesperson. I think that's the key issue.

I would like, if I may, just perhaps to correct an impression I may have left. I do not advocate by any extent that we should stop our efforts in interdiction in order to go over on the demand side. We need both clearly. We're just not going to do it on the supply side. We're not going to do it on technology alone.

Mr. Mica, if I may, in Miami you're probably familiar with the issue of cut flowers. I almost cried one night years ago on the tarmac watching our inspectors poke holes in those flower boxes. We still don't have a technology solution. But by working with the flower importers and by working carrier initiatives, we've helped solve that problem. So it's not always a technology solution. There are other ways to get at the problem.

What we're really trying to do is stop drugs. We're not trying to develop technology. Our focus is to stop drugs. We'll do it any way we can. And I think we've got to keep doing that. And I think CTAC can help us, and as I said, be the central point of reference, if you will, for the things that are going on in the Government.

Mr. SOUDER. Let me followup with my question with Dr. Brandenstein; is that correct——

Mr. BRANDENSTEIN. Yes, sir.

Mr. SOUDER [continuing]. And let you comment on the coordination question. And let me put two specifics with it and then the answers if anybody wants to join in. I yield back.

Yes, we don't have to do this all with technology, but we spent about $100 million in technology. And the question is that, have we provided anything new for detecting drugs?

It looks a lot on the border like we are still at the drug dogs. And I know at the Mexican border, often, they are being tipped off if the dogs are there and they send a decoy in.

We have some in the trucking industry that are doing some searches; some in the Coast Guard. But what type of technology breakthroughs are we seeing for our money? Because it is one thing saying yes, we may not find it. On the other hand, if we are spending money, hopefully we are finding something. Or is it just hoping to hit the big one? While having been down in Colombia and just met with the flower people, I realize that they are trying to cooperate, because they realize if they don't, there are not going to be flowers coming into this country.

At the same time, it just seems that with all the type of technology around this country, that we ought to be able to find some things. Sometimes we feel like unless we have a tip you don't know where to start.

Could you field both a little of the coordination question and the technology question of have we found something for this $100 million and where do you see this going?

Mr. BRANDENSTEIN. For the $100 million that you mentioned, of which some $84 million of it was spent within the Department of Defense, and of which some of it was congressionally directed to look at—it's my opinion that there has been an exhaustive look in every type of phenomena that you could possibly consider for a piece of hardware that eventually end up in something either man can hold in his hand and do an examination with or, as it shows on the charts over there, a vehicle could go through and there be a major system that it is being used to exploit, to determine whether there's something in the cargo. And now they're looking at transportable versions of some of these systems on the left and relocatable versions.

At the Department of Defense, the major group that has been funding these programs has looked at about everything that you could possibly consider. That plus the work—and with the total conjunction and coordination with us and with the Customs Service, Customs Service being the end user, I cannot think, from a physical phenomena point of view, as an engineer, of things that remain—that should be looked at that haven't been looked at. And becomes, at that time, making selections of what you—what optimizes the detection probability, how well it will actually detect a drug against a system tradeoff sort of a study, examination of how much it will cost, and how much space it's going to take up, is it safe for an inspector to use, and various considerations of these factors. And we're now in the stage that that is exactly what is happening.

And that is what the Customs Service is doing. They're making decisions. And they have made some decisions. They made a considerable number of decisions. In the back of our most recent blue print is a technology development plan that the Customs Services had. That plan is the basis, I believe, of what we are going to modify, change, and put into the 10-year—the 5-year budget plan and 10-year strategy plan. Everything you can think of.

And when I started the—many of these programs that they're talking about actually when I was at ARPA, the origination of

those programs were with me, because I have the person doing this in 1990 within the—at the Department of Defense over at ARPA. We had some of the best—we've had the best minds in the country. We've had academics spend weeks in summer study determining what should we look at. These programs—these ideas became the basis of many of the projects that were done over the last 5 or so years.

We now have I think exhausted the phenomena. And you're into the stage of making selections based on these engineering and system acquisition and cost factors. And we need a mix.

The importance of a nonintrusive inspection system, which is where all these drug detection technologies end up, as part of a system, is that as has been stated here earlier, you do one thing, the druggy is going to do something else. And so it's like any problem, that you have an interactive response, and they're doing everything they can to defy you, to find—to get their drugs through.

You're going to need a mix, because the operational scenario will change from the confronting the Customs Service, from year to year, month to month, as soon as they determine what you're doing, and in one sense they will attempt to confound it and get around it. So you need systems that have flexibility. You need to be able to adjust how you do things. And that's what is happening.

Mr. SOUDER. I have to go cast another vote. But I want to say again thank you for coming. This subcommittee is probably the—and I am on a lot of them, like six or something—probably the most active of the subcommittees I am with, and also a sense of unity on our side where we play tag team. But we talk more, we are more cohesive because we have a commitment to try to get what we need in this country, to fund it if we see the action. And we strongly see ourselves—unless we can find some breakthrough technology, we are very concerned in some of these areas.

So with that I yield back and thank the gentleman.

Mr. MICA. I thank you, Mr. Souder.

I just have one or two concluding questions here.

Looking through the way some of the, I guess, research money is spent here, and I noticed, and it may not all be contained in this, but at the Department of Agriculture, the theory of eradication, you know you look at the levels of stopping drugs, and of course you know you would love to stop it and educate and everybody would be aware of it, that they shouldn't use it. But the other end is where drugs are produced. And as I read this, we have spent about $5 million in the Department of Agriculture actually looking for ways to deal with crop eradication or doing something to destroy the production.

Mr. BRANDENSTEIN. Yes.

Mr. MICA. That is a very small amount. Is that adequate?

Mr. BRANDENSTEIN. I think it is. The agricultural——

Mr. MICA. Is this the total money or is it mixed into other things that I don't see?

Mr. BRANDENSTEIN. If you want to help me. If you'll point to the page, he'll get with you.

Mr. MICA. I am on B–4.

Mr. BRANDENSTEIN. Yes, sir.

Mr. MICA. In the blueprint.

Mr. BRANDENSTEIN. Yes. I'm looking at the blueprint.

Mr. MICA. And you have got in 1994 it says you spent $5.5, almost $5.6.

Mr. BRANDENSTEIN. And each year.

Mr. MICA. Five point three, it was actually going down in 1995.

Mr. BRANDENSTEIN. I think if you looked at the 1996 number, I think you'll find the 1996 number—we didn't have the 1996 number at the time we did this. We have those numbers now. I think you'll begin the 1996 numbers actually probably even a little bit less.

The USDA has been working this problem—this is only in the 1994, 1995 number. They've been working this problem probably since 1989.

Mr. MICA. But are we putting enough resources in there, in your estimation?

Mr. BRANDENSTEIN. Well—see, we know how to eradicate the crops. The Agricultural Research Service work has lead to various chemicals that will allow crop eradication.

Mr. MICA. But there is a great reluctance on the part of the country for that method.

Mr. BRANDENSTEIN. Yes.

Mr. MICA. Now there are other ways of either making the end product not usable or indestruction of the crop. Now we know cocaine or coca is produced Peru, Bolivia, and a little bit in Colombia. I mean, it is not like it is produced in 48 countries and regions and everything. That is where it is being produced period.

Mr. BRANDENSTEIN. Yes, sir.

Mr. MICA. And if you can stop it at its source or interfere in that production in some fashion, that is much more cost effective than our Customs folks——

Mr. BRANDENSTEIN. Yes, it is.

Mr. MICA [continuing]. Or our DOD folks or our law enforcement folks or any education folks, because it isn't going to—it isn't going to pop up anywhere else.

Mr. BRANDENSTEIN. The——

Mr. MICA. They produce there.

Mr. BRANDENSTEIN. The eradication of the coca plant——

Mr. MICA. We spent $5 million on that total.

Mr. BRANDENSTEIN. Well, that's every year. The chemistry to do this is they have several different approaches. The problem you would have is there are some international diplomatic problems involved with attempting to do this. You have to get the cooperation of the host government because, as you said, we're going outside the United States to do this. And we certainly, diplomatically—and I'm speaking not of a technical person, I'm just giving you my opinion, it would be very difficult to get some of these arrangements in place.

Mr. MICA. But you know I have been down there. I dealt with those folks in the 1980's. And there is great reluctance to some of the chemical spraying and——

Mr. BRANDENSTEIN. Yes.

Mr. MICA. But there are other methods of destroying crops.

Mr. BRANDENSTEIN. Yes, there are.

Mr. MICA. And I am just wondering if those are being adequately pursued so we can get—your job isn't to negotiate internationally with, you know, these folks. That is going to be our task. Your job is to come up with the creative ways of destroying this stuff——

Mr. BRANDENSTEIN. Yes.

Mr. MICA [continuing]. At its source and production. So I am wondering again if this is enough, if it is adequate. Maybe you should take——

Mr. BRANDENSTEIN. I would be glad to get back to you with some indications from the Agriculture Research Service if they feel that the program that we have with them——

Mr. MICA. I think it is worth looking at.

Mr. BRANDENSTEIN. Yes, sir.

Mr. MICA. Because I think if you can stop it, because the other one—that is, cocaine and coca. And I have been in the field. I helped create the Andean strategy back in the 1980's, and helped draft this certification along all of that and those things.

So if you look at creative approaches and go back to these people, and some of them are you hop to when you have got somebody that is hot to trot like Fujimori or someone like that, and the timing is right, and Hugo Bonnsar is a good old friend of mine. He would love to have something that would do away with that and make his bananas bloom or something. So we need to look at some creative agricultural production methods.

The other one that scares me is poppy production. And when we were down last year, and they were just down recently this year, we heard there are 10,000 hectares of poppies now being produced. And if you are familiar with Colombia, it is the flower growing capital of the world. In fact, it looks like a flower production center from almost anywhere you fly over it. Tremendous capability of producing cheap heroin, which is now flooding the streets. So poppy is another area. And I am not sure that we have done enough there. And the Mexican heroin is now becoming a significant problem.

So maybe those two, targeting in a bit on some more technology——

Mr. BRANDENSTEIN. I would be more than pleased to come back to you or to the committee in general with some options to pursue in this area.

Mr. MICA. Well, obviously we don't have all the answers. And we appreciate your——

Mr. BRANDENSTEIN. I will provide some more current information than I have at my fingertips right now.

Mr. MICA. We just have some suggestions from looking at it and observing it over the years and again from our legislative perspective.

Is there anything legislatively standing in your way either for technology development, for deployment, for research, that anyone can mention?

Mr. BRANDENSTEIN. Well, I think I'm the one that has to say something about that. Because earlier in this deliberation, this committee hearing, I believe you might have been out of the room, the chairman was concerned about whether we actually had the authority to use the appropriated budget that Congress gave us

each year since 1992. And I would like only to comment that I firmly believe we have been able to do this using the method that we have, which was to operate exactly the way ARPA operated for 25 years, the Department's Advanced Research Projects Agency, spent a budget of $600 million a year without a contracting office. Their appropriated funds were sent to a technical and contracting agent, which is exactly what I do. And they are not program managers in the sense that we have the technical oversight because I help select the projects and try to monitor the technical performance, but the technical workings of the project are being done by a contractor. And the overseer at the everyday level is one of the lead agencies of the 21 agencies that we work with and coordinate our activity through the—through CTAC. So if there's additional legislation to clarify that, because I think it is—I thought from the very, and I still feel, that from the very beginning it was important for CTAC to have a budget because it gives us a voice at the table. It makes us able to be current and to do the prototype developments where there are holes in the plans of the other agencies. And many of these holes are because the need is greater than one single agency.

And nobody likes to pay someone else's bill. And the need for testing is a function that transcends the agencies. And somebody has to do this. And that was—that's essentially how we form up a program through the S&T panel—S&T Committee. And we have to put the money someplace.

Mr. MICA. Well, we are not a legislative committee and we are not an appropriations committee. We are investigations and oversight. We want to make certain that the money is properly expended, that if we have administrative costs, that they are sufficient but not excessive, and that if we have 21 agencies involved in a project, that there isn't duplication, that in fact there is coordination and the best utilization of taxpayer moneys.

And if we are spending $15 to $18 million in your area, and it could be spent somewhere else, that is our job to sort through that. And we are here today to question you about how we are proceeding on this and then to review the longer term plan that has been proposed.

So I want to tell you that I appreciate your coming and testifying. I welcome and solicit your additional comments either for the record formally or informally. Sometimes you don't want to put some comments in writing. But we are here only to get the job done.

Again, it is not a partisan issue. It is an issue that we have 2 million of our fellow Americans, 70 percent of them are in prisons and jails, because of drugs. We have the latest statistics, I think, being released even this week, that the alarming rate of use by our young people, even with more education dollars—we are spending one six-hundredth I believe of our budget we spend on education and treatment on the development of counterdrug technology. And we want to make sure that that is properly expended.

If you need more money, if you need double your budget and it would help, I am the biggest fiscal conservative next to just one or two Members of Congress, and I will be glad to appropriate, find

the funds you need to do your job, whatever, as long as we have something to show for it.

So that is why we are all here today. We appreciate your being here, your testimony, and your future cooperation to make this thing work. So if you will let us know.

There being no further business to come before the subcommittee, I will also ask unanimous consent that the record be left open for 2 weeks for additional submissions.

Without objection, so ordered.

I thank you, gentlemen. I thank others who are interested in being with us again on this important subject, and we look forward, as I said, to working with you in the future.

Again, no further business before the National Security, International Affairs, and Criminal Justice Subcommittee, this meeting is adjourned.

[Whereupon, at 4:18 p.m., the subcommittee was adjourned.]