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**SOUTHWEST BORDER
TECHNOLOGY PROGRAM**

**Report of Activities
for
1999-2001 Program Planning Grants**

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Prepared by
The University of Arizona
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Tucson, Arizona

October 2001

SOUTHWEST BORDER TECHNOLOGY PROGRAM

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Report of Activities

1999-2001 Planning Grants for the Southwest Border Technology Program

This report is a review of activities of the Southwest Border Technology Program (SWBTP) for the period 1999-2001. The project is administered by the University of Arizona Office of Economic Development (UAOED).

Statement of Need

Since the ratification of the North American Free Trade Agreement (NAFTA) in 1994, commercial activity through the U.S.-Mexico border has more than doubled. This increase in cross-border trade has placed significant pressure on state and federal agencies to inspect and process increasingly greater volumes of commercial traffic without compromising the effectiveness of inspection procedures.

These agencies have not been able to update procedures and enhance/expand physical resources at a rate commensurate with increased trade flows. Southwest border ports-of-entry frequently experience delays in the processing of commercial traffic and a queuing of trucks at border crossings, thereby impeding trade and increasing the cost of doing business.

The pressures of increasing trade present a rising conflict between the goals of NAFTA and those of state and federal agencies charged with the safe and lawful movement of commercial traffic. The Southwest Border Technology Program will assist in accelerating the process for evaluation and deployment of new technologies and information systems at border ports-of-entry. These activities serve to minimize and/or eliminate impediments to commercial trade flows while increasing the effectiveness of inspection and detection procedures. The use of technology at U.S. border ports-of entry also results in tremendous benefit to law enforcement and drug interdiction efforts.

Program Goals

The goal of the Southwest Border Technology Program is to increase the efficiency and effectiveness of inspection, detection, and commercial processing procedures along the U.S.-Mexico border. The project aims to reconcile the missions and duties of customs, law enforcement, immigration and transportation agencies through the sharing of information and coordinated use of border management technologies. The project will address all stages in the cargo shipment process, from the point of origin to the point of destination.

Program Objectives

The project has three principal objectives:

1. Identify the needs of border management and law enforcement agencies,
2. Serve as a national and international clearinghouse for border management information and maintain a comprehensive database of developing and active border technologies, and
3. Establish a platform for the identification, evaluation and implementation of technologies that expedite cross-border trade and improve the interception of illegal activity.

Program Funding

A total of \$150,936 was spent for the planning and establishment of the Southwest Border Technology Program. The Program received an initial \$20,000 planning grant from the National Institute of Justice. These funds were matched by \$20,000 from the Arizona Department of Transportation Arizona Port Efficiency Study (APES). The State of Arizona's Arizona-Mexico Commission also contributed \$7,500 to the project planning efforts. The University of Arizona Office of Economic Development contributed the balance of \$103,436 in direct funds and/or in-kind contributions.

Planning funds were used to develop the project through five principal activities:

1. Establish the administrative structure and scope of work for the project
2. Assemble the project team and recruit strategic partners
3. Conduct a needs assessment
4. Establish the SWBTP website
5. Organize and host the SWBTP Conference and Technology Fair

Through the completion of these activities and upon receiving widespread endorsement from team members and strategic partners, UAOED concludes that the project is a feasible one and should move forward beyond the initial planning phase and create a permanent organization to carry out its intended mission and objectives.

Review of Program Planning Activities

Administrative Structure

The Southwest Border Technology Program is administered by the University of Arizona Office of Economic Development. The Office is housed in Tucson, Arizona at the University of Arizona Science and Technology Park.

SWBTP was conceived as a result of UAOED's participation in the Arizona-Sonora Program, a program that seeks to enhance the economic integration and competitive position of the Arizona-Sonora region.

As project planning formally ensued, SWBTP was initially incorporated as a non-profit 501 (c)(3) corporation. Discussions and feedback from strategic partners and project team members determined that the project would be best served by residing within the University of Arizona Office of Economic Development. The project's non-profit 501 (c)(3) status has since dissolved.

By being located in and a part of the University, the project is able to leverage its resources to achieve greater success in meeting its objectives. In addition, it has the ability to capitalize on research and development and laboratory resources that exist both at the University of Arizona and elsewhere in the University system.

The Program will operate in partnership with university affiliates, U.S. government agencies and laboratories, state and local law enforcement agencies, state and local governments and agencies, non-governmental organizations, private enterprise and federal and state agencies in Mexico.

Scope of Work

SWBTP has established a scope of work consisting of the following eighteen (18) activities.

1. Establish an Advisory Council and Technology Review Committee. These committees will be composed of law enforcement representatives, federal and state agency officials (National Institute of Justice, U.S. Customs, Arizona Department of Transportation, U.S. Department of Agriculture, etc.), and technical experts from the business and academic community.
2. Identify technologies currently in place at commercial border ports-of-entry in California, Arizona, New Mexico and Texas. Examine the technologies and processes employed in the U.S. – Canada border areas. Organize information into a web-based database.
3. Work with partners to understand and illustrate a systems approach to the cargo shipment process, from the point of origin to the point of destination (both northbound and southbound). Identify the process for two sample shipments: agriculture and maquiladora manufacturing. Describe the process. Identify the process graphically (diagram or flowchart). Develop this information into a brochure document format for large distribution to provide widespread understanding of the entire process.
4. Conduct document research and field trips to identify the challenges that face individual border port-of-entry. Conduct field trips to San Ysidro and Otay-Mesa border ports-of entry in San Diego and to the Mariposa border port-of-entry in

- Nogales. Visit the Calexico and Laredo border areas, noted for their strong presence of maquiladora manufacturing activity. Write a brief report stating the findings.
5. Work with the Advisory Council in assessing the challenges facing individual agencies (e.g. U.S. Customs, ADOT, etc.).
 6. Create a matrix or flowchart identifying the role of each agency in the border-crossing process. Identify who is in charge of what and at which governmental level, from local to federal.
 7. Identify private industry enterprises involved in the research, development, and manufacturing of border technologies. Incorporate private industry contacts and links into the SWBTP website.
 8. Update website and web-based database identifying developing and active technologies, the inspection agencies using them, and the enterprises manufacturing them.
 9. Organize and host the SWBTP annual conference and technology fair. Disseminate information regarding technology assessments and challenges through conference proceedings and website.
 10. Convene Advisory Council to identify challenges and inform future direction of the project. Issue interim report: a comprehensive review and assessment of research and inventory findings.
 11. Convene Technical Advisory Committee to establish measures by which to evaluate technologies. Establish a formal testing protocol. Identify test sites. Develop application for submitting a technology for review/evaluation. Topical areas for technology testing might include:
 - Design and operation of inspection facilities
 - Cargo container design
 - Cargo management
 - Monitoring and tracking of cargo and commercial vehicles
 - Inspection procedures and detection methods
 - Information management
 - Personnel training
 12. Identify test sites and participating laboratories.
 13. Solicit applications for evaluation of candidate technologies from state and federal inspection agencies as well as commercial enterprises.

14. Review of applications by the Technical advisory committee. Selection of one or more technologies to be evaluated. Establish terms and conditions for the awarding of a contract for evaluation of each particular technology. Distribute a Request for Proposal (RFP).
15. Award contract to evaluation agency/agencies to begin test phase/monitoring of technology (the period of evaluation will vary dependent on each technology).
16. Post results and evaluation reports on SWBTP website at conclusion of the testing and evaluation process.
17. Convene Advisory Council to evaluate past successes and inform future direction.
18. Continue solicitation and review of candidate technologies to be disseminated annually through the SWBTP conference and website.

One-Year Program Timeline

	2001		2002										
	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov
Establish Advisory Council and Technical Review Committee													
Identify technologies currently in place at Southwest border points-of-entry													
Develop and map a systems approach to the cargo shipment process													
Identify challenges facing border ports-of entry													
Identify challenges facing customs, law enforcement, immigration & transportation agencies													
Identify private industry enterprises engaged in border technology R&D and manufacturing													
Website and database development													
Organize and host annual SWBTP Conference and Technology Fair													
Issue annual progress report													

Direct Involvement
 Planning / Update

Program Team Members and Strategic Partners

SWBTP is a multi-agency, collaborative project where broad-based partnerships are essential. As the chief administrator of the project, UAOED will maintain working relationships with a variety of government, private and public organizations as well as civic leaders. A great deal of time and resources of the initial planning phase was devoted to travel, meetings and conference organization through which to develop these

relationships and commitments of support (See Appendix A: Letters of Endorsement). Each selected team member and strategic partner plays a significant role in advancing the goals and objectives of SWBTP.

Program team members and strategic partners are listed below, followed by a brief description of each organization and its relevant activities. Team members played a primary role in project planning and development and will continue to do so in the administration of the project. Strategic partners are those organizations and individuals who are committed to supporting the project and who will serve in an advisory capacity throughout the project's development.

Program Team Members

- University of Arizona Office of Economic Development (UAOED)
- National Institute of Justice Office of Science and Technology (NIJOST)
- G & H International Services LLC (GHIS)
- Border Research & Technology Center (BRTC) - San Diego, California
- White House Office of National Drug Control Policy, Counter drug Technology Assessment Center (ONDCCP-CTAC)
- National Law Center for Inter-American Free Trade

The University of Arizona Office of Economic Development

The University of Arizona Office of Economic Development will serve as chief administrator of the Southwest Border Technology Program. The University of Arizona, as one of the nation's top research universities, brings a significant level of expertise to the project. More than 200 faculty members at the University are involved in research in Mexico and Latin America.

UAOED has been coordinating the work of researchers in the Arizona-Sonora region for the past nine years. These researchers have been evaluating traffic flows and trade patterns in the Arizona-Sonora region as part of an ambitious regional planning process sponsored by the governments of Arizona and Sonora. A variety of factors relative to cross-border trade have been examined including physical infrastructure, banking and legal rules and regulations, inspection procedures, information management systems, and business practices. Studies have included comprehensive analyses of key sectors of the regional economy including agribusiness, business services, health services, manufacturing, mining, and transportation/distribution.

For the past four years, UAOED has been involved in a project that analyzes the trade flow and trade patterns at Germany's Sweicko Border Port of Entry and which evaluates trade relations between the cities of Frankfurt (Oder), Germany and Slubice, Poland. The German Marshall Fund and the United States Information Agency (USIA) have already funded elements of the project and are in support of applying the project's research findings in Central Europe (Germany, Poland, and the Czech Republic).

The University of Arizona has several internationally recognized areas of excellence, such as systems engineering, management information systems and optical science, that will provide the basis for conducting research into a broad array of new inspection and detection technologies. For instance, research conducted by the Department of Systems Engineering in traffic engineering has received widespread attention from the Federal Highway Administration, the Arizona Department of Transportation, the Arizona Department of Commerce, the Pima Association of Governments, the City of Tucson and the Nogales U.S. Customs District.

National Institute of Justice Office of Science and Technology (NIJOST)

The National Institute of Justice is authorized to support research, evaluation and demonstration programs, development of technology, and national and international information dissemination.

In recent years, NIJ has greatly expanded its initiatives including the six regional National Law Enforcement and Corrections Technology Centers and a Border Research and Technology Center. The Border Research and Technology Center has responsibility for technologies that provide increased capabilities in border surveillance, security and identification. Located in San Diego, California, the center works closely with the U.S. Customs Service and the U.S. Border Patrol.

The National Institute of Justice's Office of Science and Technology is the focal point for the development of standards, testing and dissemination of information on law enforcement equipment and technologies. The Office funds approximately 20 projects a year and works with the Department of Defense and other federal agencies to fund and develop new innovative technologies to support the criminal justice community.

In recent years, tremendous focus has been directed for technology research and development to support local and state law enforcement. Through the Office of Science and Technology, effective partnerships have been forged between law enforcement, industry and federal agencies.

G & H International Services, LLC (GHIS)

G & H International Services (GHIS) LLC is a Washington D.C.-based consulting firm specializing in law enforcement and defense-related technologies. GHIS has worked extensively with the National Institute of Justice's Office of Science and Technology and with NIJ's Technology Centers Program

GHIS, partnered with a major University, has assisted the Moscow Police in designing courses of instruction for police officers. GHIS continues to assist the Moscow and St. Petersburg police departments in the development of specialized training.

Border Research and Technology Center (BRTC)

BRTC works with various law enforcement, corrections and public safety agencies along the southwest border to provide a point of contact for access to technology assistance and engineering support for border management activities.

BRTC is primarily involved in the development and implementation of SENTRI (Secured Electronic Network for Traveler's Rapid Inspection) technology. BRTC is also involved in human presence detection, seismic sensor upgrade demonstrations, evaluation of night vision, and thermal imaging technologies.

Office Of National Drug Control Policy -- Counterdrug Technology Assessment Center (ONDCP--CTAC)

The Counterdrug Technology Assessment Center (CTAC) is the central counterdrug enforcement research and development organization of the U.S. Government. It develops and implements the National Counterdrug Enforcement Research and Development Strategy, which identifies and defines the scientific and technological needs of federal, state, and local drug enforcement agencies. CTAC also is responsible for conducting research and development activities related to drug abuse addiction and rehabilitation.

CTAC oversees and coordinates counterdrug technology initiatives with related federal civilian and military departments and conducts research and development activities for drug abuse addiction and rehabilitation research.

The National Law Center for Inter-American Free Trade

The National Law Center for Inter-American Free Trade, an affiliate of the University of Arizona College of Law and sponsored by the U. S. State Department and the State of Arizona. The Center coordinates efforts to harmonize banking, legal and commercial regulations and procedures under NAFTA. The expertise of the National Law Center will be directed toward integrating new inspection and detection technologies with customs and immigration procedures and requirements.

Strategic Partners

- United States Customs Service
- Southwest Border Economic Development Initiative
- National Border Technology Partnership Program
- Border Trade Alliance
- State of Arizona
 - Arizona-Mexico Commission (AMC)
 - Governor's CANAMEX Task Force
- Arizona Department of Transportation (ADOT)
- State of Sonora, Mexico
 - La Comisión Sonora-Arizona
- Sinaloa-Culiacan Development Council
- Santa Teresa Border Technology Applications Project (New Mexico)
- City of Tucson
 - Puerto Nuevo Project
 - Tucson-Mexico Project
- Tucson Airport Authority

U.S. Customs Service

U.S. Customs Service is the primary enforcement agency that accounts for and controls the flow of goods through the U.S. border. It is the only border agency with an extensive air, land, and marine interdiction force and with an investigative component supported by its own intelligence branch.

As the primary border interdiction agency, U.S. Customs faces a complex, multifaceted drug threat. The staggering number of conveyances, cargo, and passengers arriving into the United States each year continues to present Customs with complex targeting and interdiction challenges. Customs is confronting these challenges head-on through a variety of intelligence, investigative, and operational approaches.

Customs relies on vigilance and technology to properly control and manage the movement of goods. A new automated commercial environment is under development that will rely on account management to streamline the commercial import process, lower the cost of trade compliance, and increase customer service for the trade community. Inspectors will use this system to make paperless cargo clearances and to target non-compliant cargo for examinations.

Innovative enforcement technology is also a valuable tool for the U.S. Customs Service. Technology is used in a variety of anti-drug efforts from high-performance aircraft to mobile and fixed truck x-ray systems and hand-held contraband detection devices. Customs' laboratories continually check imports to ensure that they comply with the myriad of laws involving public health, safety, and protection of intellectual property rights.

Southwest Border Economic Development Initiative

This effort is a product of the Presidential Interagency Task Force on the Southwest Border Region. The mission of the Task Force is to coordinate the Administration's efforts that address the southwest border region.

The Task Force has the following goals: 1) maximize the efficiency, responsiveness, coordination and impact of current federal government initiatives related to the southwest border, 2) identify and develop new options that fill current gaps in federal government efforts, and 3) advance innovative alternatives for sustainable development of the southwest border region.

The focus of the Economic Development Initiative is on community planning and investment, development of human capital, sustainable development and infrastructure, and international cooperation and law enforcement.

National Border Technology Partnership Program

The NBTPP is a program managed and implemented by the U.S. Department of Energy Carlsbad Field Office in Carlsbad, New Mexico. The program focuses on deploying federal technologies throughout the U.S. – Mexico border region to protect public health and safety and to enhance environmental and economic security.

The NBTPP seeks to address environmental and health concerns through the application of innovative technologies, particularly improved hazardous waste management and materials technologies and procedures. The program serves to focus Department of Energy's existing mission to commercialize science and technology consistent with the Technology Commercialization Act of 1989.

Border Trade Alliance

The BTA is an international forum advocating issues pertaining to trade in the Americas. Recently, it has increased its focus on NAFTA and potential expansion to other countries in the hemisphere.

BTA is a recognized leader and authority for the facilitation of international trade and commerce in the Americas. This is accomplished through research and analysis, strategic planning, issue development, education and advocacy.

The Alliance is a network of public and private sector representatives, including chambers of commerce and industry, economic development corporations, industrial parks, transport companies, customs brokers and federal, state and local government officials and agencies.

Arizona-Mexico Commission (AMC)

Established in 1959, the Arizona-Mexico Commission is a membership-based non-profit 501(c)(4) corporation that consists of 13 working committees that formulate programs and action items relating to issues that impact the Arizona-Mexico relationship.

AMC is recognized for excellence in leadership, innovation, and public-private collaboration improving the economy and quality of life in the region. AMC strives to promote goodwill, understanding, and the overall development of the Arizona-Sonora region by utilizing cultural, economic, human, natural, and technical resources.

Since its inception, the Arizona-Mexico Commission and the Comisión Sonora-Arizona have had a pioneering partnership recognized as a global role model in binational relations. The two commissions pursue the common objective of encouraging private enterprise, economic development, and an improved quality of life throughout the Arizona-Sonora region.

In 1993, the Arizona-Mexico Commission and the Comisión Sonora-Arizona initiated a bi-national strategic economic planning process to analyze how the two neighboring states could increase their regional competitiveness in the world economy. This idea, which began as a strategic economic development vision for the Arizona-Sonora region, has matured into the exciting and commanding *Arizona-Sonora Project*, now administered by the University of Arizona Office of Economic Development.

The Arizona-Sonora Project provides economic development professionals, decision-makers, researchers and other interested parties with information about the opportunities

and challenges for developing a more powerful binational economic region. The project conducts and coordinates research on the economic complementarities between the two states, supports post-study policy and economic development activities and serves as a liaison to the Arizona-Mexico Commission and its members.

Governor's CANAMEX Task Force

Defined as a High Priority Corridor by the National Highway Systems Designation Act in 1995, CANAMEX is a north-south trade corridor that encompasses a broad region in the western United States, Canada, and Mexico. In the United States, the region consists of Arizona, Nevada, Utah, Idaho, and Montana. In Mexico, it covers the states of Sonora, Sinaloa, Nayarit, Jalisco, Guanajuato, Queretaro, Estado de Mexico, and Mexico D.F. In Canada, the corridor covers the province of Alberta.

The goal of CANAMEX is to streamline trade and to facilitate the safe and efficient movement of people, goods and information.

The CANAMEX Corridor Project is a joint project of states whose primary objective is to develop a corridor plan to stimulate investment and economic growth in the region of the corridor. A comprehensive and coordinated corridor plan will ensure the efficient allocation of resources along the corridor necessary to maximize the economic potential for all three countries.

CANAMEX includes transportation, commerce and communications components. The transportation component calls for the development of a continuous four-lane roadway from Mexico City, Mexico to Alberta, Canada. It intends to foster trade, stimulate investment, and provide opportunities for accelerated economic development throughout the region. The Corridor will provide physical commercial infrastructure, trade enhancements and business and social linkages throughout the region. The ranges of economic opportunities will vary from state to state and will include the expansion of professional services and high tech industries as well as recreational, tourism and transportation-related industries.

CANAMEX focuses on opportunities for innovation in the following areas:

- Development of safe and efficient multi-modal transportation network
- Enhancement of global competitiveness
- A shared commitment to maintain and protect the region's quality of life

Since its creation, the Governor's CANAMEX Task Force has been the catalyst for much of the activity that has been taking place in the Region. It is involved in developing a solid basis for identifying the development needs for the communities along and adjacent to the corridor.

Arizona Department of Transportation (ADOT)

The Arizona Department of Transportation Research Center evaluates, promotes, and implements cost-effective new products and technologies. It provides timely and useful consulting services and continuously improves internal processes and resources.

ADOT's Intelligent Transportation Systems (ITS) Program promotes cooperation and fosters a statewide public, private, and academic partnerships. The ITS Program identifies, develops and deploys useful technologies that improve the overall safety and efficiency of the state's transportation network.

Comisión Sonora-Arizona, State of Sonora, Mexico

For the past seven years, the Government of Sonora, through the Comisión Sonora-Arizona, has been cooperating in an effort to improve trade and business development with Arizona. This partnership has resulted in an integrated regional economic development strategy with a principal focus on improving the flow of trade across the Arizona-Sonora border.

Sinaloa – Culiacan Development Council – Consejo para el Desarrollo de Sinaloa (CODESIN)

The main objective of CODESIN is to provide assistance and support to investors interested in doing business in Sinaloa. CODESIN is a highly efficient negotiator between investors and state government and is authorized to grant fiscal economic development incentives.

Located on the Pacific Northwest of Mexico, Sinaloa has direct access to Pacific Rim countries through its two commercial ports on the Pacific Ocean (Mazatlan and Topolobampo). Sinaloa's Port of Mazatlan is considered Mexico's most important port on the northwest coast.

Santa Teresa Border Technology Applications Project

The Santa Teresa project is part of the University of New Mexico Alliance for Transportation Research Institute (ATRI). Its primary goal of ATRI is to create realistic, workable transportation solutions that address current needs and anticipate future demand. The institute develops strategies with a specific focus on practicality and realistic implementation.

The Santa Teresa border technology project is intended to test two specific components at a new Port-of-Entry Facility being completed in Santa Teresa, NM. The project will develop and implement a web-based application for New Mexico Temporary Fuel Permit (trip permits) for Mexican carriers entering the United States through the Santa Teresa border crossing. The project also aims to develop and implement enhancements to the New Mexico Department of Public Safety's POE 2000 system to support multiple trip permit issuance, permit tracking and information exchange for electronic screening.

City of Tucson Puerto Nuevo Project

The mission of the City of Tucson's Puerto Nuevo Project is to create a multi-modal, regional distribution center designed to reach a worldwide marketplace. The project was conceived to capitalize on Tucson's key geographic position on current and developing trade routes and provide existing and emerging industries a mechanism for accessing

global markets. The City of Tucson is committed to applying technology and expanding infrastructure in Arizona's major border ports-of-entry.

Puerto Nuevo Tucson consists of a strategic location where plane, truck and train transportation can intersect with direct access between the three. It is intended as an important component of the CANAMEX Trade Corridor and will allow for inbound and outbound cargo to be consolidated and distributed efficiently. There are currently 305 maquiladoras from all over the world operating in the state of Sonora. Puerto Nuevo will serve this existing maquiladora industry and attract new investment to the region.

City of Tucson Tucson-Mexico Project

The Tucson-Mexico Project enhances the relationship between Tucson and Mexico via a public-private effort that seeks to recapture and strengthen economic, social and cultural ties. The Project hopes to create an economic region encompassing Arizona and Mexico for which Tucson will serve as the gateway.

Tucson Airport Authority (TAA)

The Tucson Airport Authority is engaged in the development and promotion of transportation and commerce by air in Arizona and North America. It manages the operation and maintenance of airports, air depots, landing fields, hangars, beacons, and all aircraft fields and strips for landing in southern Arizona.

TAA is involved in the advocacy and support of all projects, activities and legislation for the benefit of commerce by air. The Tucson International Airport is the central component to Puerto Nuevo Tucson and presents an ideal site where inspection and detection technologies can be tested and eventually implemented.

Potential Testing Entities

UAOED has identified the following facilities and/or institutions for testing and/or evaluation of selected technologies.

1. SANDIA Labs (New Mexico)
2. University of Arizona Systems Engineering Department
3. University of Arizona Management Information Systems Department
4. New Mexico State –Border Technology Deployment Center
5. Naval Aerospace and Warfare Center
6. Arizona Department of Transportation Research Center/ Materials lab
7. VOLPE Institute – Intermodal Logistics Systems Planning & Integration
8. Other qualified entities & labs

Program Travel

As part of the SWBTP's initial planning and development phase, a significant amount of travel was conducted between the period of September 1998 and June 2001. The travel had the following four primary objectives:

1. Promote the Program- it is important and essential to begin to promote the overall objectives of the SWBTP. This was accomplished through one-on-one meetings with key and relevant organizations and government entities both in the U.S. and abroad. SWBTP was also introduced and highlighted at other conferences and industry meetings.
2. Partnership Development- The SWBTP staff met with numerous individuals and groups to introduce the project as well as to develop their support and working partnership. The meetings were intended to exchange organizational information and identify areas of mutual interest and cooperation. These meetings were quite fruitful as our list of partners and letters of support attest.
3. Needs Assessment – The meetings were also intended to review SWBTP’s stated mission and goals to identify any areas of redundancy and/or areas which SWBTP should emphasize as its objectives.
4. Foreign Borders – The SWBTP will be working with European, Canadian and of course, Mexican counter parts of relevant and mutual interests regarding border transit and trade activities.

The following travel schedule was executed in order to assess agency and governmental needs, promote the project, and develop affiliate partners. A significant portion of all travel identified below directly addressed the promotion and development of the Southwest Border Technology Program.

Date	Description	Location
09/01/98	CANAMEX Meeting	Phoenix, Arizona
09/29/98	CANAMEX Meeting	Phoenix, Arizona
10/20/98	CANAMEX Meeting	Phoenix, Arizona
11/12/98	Arizona-Mexico Commission	San Carlos, Mexico
01/05/99	Maquiladora Industry Meeting	Tempe, Arizona
01/09/99	Border Regions in Transition III	San Diego, California
04/22/99	Border Issues Conference	Tampere, Finland
06/10/99	Arizona-Mexico Commission	Phoenix, Arizona
07/09/99	Border Academy Meeting	Rio Rico, Arizona
09/02/99	CANAMEX Meeting	Phoenix, Arizona
10/12/99	Trip w/Arizona Governor	Mexico City, Mexico
10/27/99	European Border Trip	Germany, Poland, Moscow
11/17/99	CANAMEX Meeting	Phoenix, Arizona
03/18/00	Border Issues Meeting	Nogales, Arizona
05/30/00	Germany / Poland Border Trip	Frankfurt (Oder) / Sweiko
06/15/00	Arizona-Mexico Commission	Tucson, Arizona
08/01/00	CANAMEX Meeting	Phoenix, Arizona
08/02/00	Border Issues Meeting	Nogales, Arizona

09/29/00	Economic Development Group	Nogales, Arizona
10/26/00	Trip to Mexico	Guadalajara, Mexico
10/29/00	Border Research & Tech. Center	San Diego, California
11/09/00	Arizona-Mexico Commission	Obregon, Mexico
11/15/00	Trip with Mayor of Tucson	Culiacan, Mexico
<hr/>		
01/12/01	CANAMEX Meeting	Rio Rico, Arizona
02/09/01	CANAMEX Meeting	Phoenix, Arizona
03/06/01	ITS/CVO Conference	Las Vegas, Nevada
03/14/01	Trip to Mexico	Guadalajara, Mexico
06/28/01	Arizona-Mexico Commission	Tucson, Arizona

A total of twenty-eight (28) formal meetings were attended to address project needs assessment and feasibility. These meetings were in addition to the numerous follow-up discussions and informational exchanges conducted with various organizations.

It is important to note that a total of eight meetings were held abroad, including a meeting in Mexico City with the Governor of Arizona. Three meetings were held in Europe (Finland, Russia and Germany) to discuss and review U.S.-Mexico border issues and assess European border crossing processes. An additional five meetings were held in other Mexican cities to garner support and develop working partnerships.

SWBTP Website

SWBTP has established the project's temporary website at <http://oed.arizona.edu/swbtp.htm>. The website currently provides information on the project's background, mission, and approach. The website identifies the potential benefits of the project, its locational advantages, and project partners.

The website will soon be updated and changed to the following addresses: www.bordertech.org and www.swbtp.org. Both the format and content of the website will be substantially expanded. Full implementation of the project will develop the website as the primary vehicle for information dissemination. It will serve as a comprehensive clearinghouse for data, links, and information regarding the application and success of border management technologies. The website will also provide the point of access to the web-based database of developing and active border technologies. Technology evaluations and test results will be displayed in both English and Spanish.

SWBTP Conference and Technology Fair

On August 8, 2000, UAOED hosted the first annual SWBTP Conference and Technology Fair at the University of Arizona Science and Technology Park in Tucson, Arizona. The objective of the conference was to 1) introduce the SWBTP to the attending participants, 2) gauge interest and garner support for the project, and 3) discuss the inherent conflict that exists between the goals of NAFTA and the need to protect the U.S. border against illegal activity.

Additionally, the conference served as a litmus test to determine the feasibility of SWBTP and its objectives. Attending the conference were state and local officials, business leaders, state and federal trade officials, law enforcement officials, customs brokers, freight forwarders, representatives of the maquiladora and agriculture industries, and technology vendors and suppliers.

The Technology Fair showcased a wide variety of new technologies and provided on-site demonstrations of inspection and detection systems and procedures. These different technologies presented a sampling of those that SWBTP intends to identify, test and evaluate. SWBTP will continue to serve as a central hub for information dissemination to all interested in the application new and emerging border technologies. The Conference highlighted a series of distinguished speakers from local, state, and federal agencies as well as private industry. Among those speaking at the conference were (in order of address):

Bruce A. Wright	Vice President for Economic Development, University of Arizona
Dr. David Boyd	Director, Office of Science and Technology, National Institute of Justice
Marisa Paula Walker	Senior Program Coordinator, Arizona-Sonora Project, University of Arizona Office of Economic Development
Carol Sanger	Executive Director, Governor's CANAMEX Task Force, Arizona Department of Transportation
Dave Naugle	Government Affairs Specialist, Southwest Gas Corporation
Margie Emmerman	Governor's Policy Advisor for Mexico, State of Arizona
Art Macias	Director, Community and Economic Development, City of Douglas, Arizona
Ernesto Ojeda	District Manager, Public Works, City of Nogales, Arizona
Augustine Garcia	Director, Tucson-Mexico Project, City of Tucson
Michael Gurriere	U.S. Department of Justice, Bureau of Justice Assistance
Dr. Albert Brandenstein	Chief Scientist, White House Office of National Drug Control Policy, Counterdrug Technology Assessment Center
Representative Jim Kolbe	United States Congress, Arizona's 5th District

One of the major accomplishments of the conference and individuals present was to establish and/or solidify the commitment and support from the various entities at the conference. The widespread support of all who participated in the conference was successful in determining the project's need and potential viability.

Conclusion

Ever since NAFTA was ratified and implemented in 1994, the 2,000-mile Border Region between the United States and Mexico has seen tremendous increases in both commercial and non-commercial traffic crossing the border. This increase in cross-border traffic has resulted in a significant strain upon law enforcement's efforts to protect the border from illegal commercial activity.

Under pressure to accelerate transboundary trade and increase inspection and interdiction efforts, Federal law enforcement agencies are currently constrained by inspection processes that are reliant heavily on human resources. The use of first-rate intelligence and non-intrusive inspection technologies are examples of ways in which the implementation of new technology in the border-crossing process can result in more efficient and effective border management.

The University of Arizona's Office of Economic Development received an initial planning grant from the National Institute of Justice to create the Southwest Border Technology Program (SWBTP). The purpose is to establish an organization that will identify, evaluate and assist in the implementation of technologies along border ports-of-entry that will expedite commercial cross-border transactions and increase the effectiveness of contraband interception.

As a result of the initial planning grant, UAOED developed a detailed program of work designed to implement the program's mission and objectives. In addition to program development, extensive travel was conducted to inform potential operational and testing partners and garner their support and commitment. Twenty-eight trips were made throughout North America and Europe. An extensive list of partners have indicated their willingness to work with and support the overall objectives of SWBTP.

Finally, UAOED hosted the first annual SWBTP technology fair and conference. This event brought together many of the partners from government agencies, the private sector, and testing laboratories to discuss the merits and potential benefits of the Southwest Border Technology Program.

Upon completing the aforementioned program planning activities, UAOED has identified the following conclusions:

1. There are no research facilities that currently focus specifically on cargo, commercial/trade processes and related law enforcement activities. While there are a number of agencies and research centers whose primary objectives run

parallel to SWBTP, none exist whose mission is wholly dedicated to the specific activities of this kind.

2. There currently exists no central repository for the collection and dissemination of information related to cargo and commercial trade processes as well as related law enforcement activities. SWBTP proposes to serve as the central information clearinghouse to share a comprehensive inventory of developing and active border technologies.
3. The benefits of increasing the efficiency and effectiveness of border management and commercial shipping procedures span far beyond the U.S.-Mexico border. Border ports-of-entry along the U.S.-Canada border and throughout Europe and the Middle East can benefit greatly from the potential technological applications put forth with the assistance of SWBTP.
4. There is a demonstrated need for a systems approach to identifying and evaluating the challenges presented at all stages in the commercial shipment process, from the point of origin to the point of destination. SWBTP proposes to employ such an approach in assessing where and how various technologies may be applied in the commercial shipment and border inspection process.
5. The existence of a nationally respected, independent platform for testing and evaluating emerging technologies provides great value to private enterprise involved in the research and development and manufacturing of such technologies. Independent and authoritative approval of new technological applications facilitates the implementation of these technologies in both the public and private arena.
6. Significant economic development opportunities exist in the commercialization of approved and implemented technologies. The development of the high-tech sector and supporting industries as well as the creation of new spin-off businesses serves to strengthen both regional and national economies.
7. There is a demonstrated need for interoperability among regional, national, and international trade corridors. As each corridor is unique in its abilities and function, consistency in procedures and linkages among corridors are necessary in maintaining uninhibited trade flows while ensuring safe and lawful activity.

UAOED feels it has achieved a major success in leveraging the initial planning funds not only to demonstrate the feasibility of the project, but in hosting conference activities and generating a significant amount of support.

UAOED has demonstrated that there is, in fact, a need for this project and it can play a significant role in assisting the NAFTA countries to meet its trade and commerce objectives while maintaining the integrity of U.S. border management operations.

APPENDIX A

Letters of Endorsement

Governor Jane Dee Hull
State of Arizona

Dave Naugle
Southwest Gas

Augustine P. Garcia
City of Tucson, Tucson-Mexico Project

John C. Camper
Tucson Metropolitan Chamber of Commerce

Dale Buskirk
Arizona Department of Transportation

Carol Sanger
Governor's Canamex Corridor Project

Roberto de Jesus Avena Bustillos
Instituto Tecnologico de Culiacan

Jose A. Cardenas
Arizona-Mexico Commission

Sally Garza Fernandez
Southern Arizona Industry and Aerospace Alliance

Mayor Robert E. Walkup
City of Tucson

Beth E. Daley
Nogales-Santa Cruz County Chamber of Commerce

Walter A. Burg
Tucson Airport Authority

Mayor Ricardo Bours Castelo
Ciudad Obregon, Sonora

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