Homeland Security
Science and Technology

Cross-Border Threat Screening and Supply Chain Defense (CBTS)
A Nationwide Consortium Led By Texas A&M University

A DHS Center of Excellence

CBTS researches and develops solutions, protocols, and capabilities to support DHS operations that detect, assess, and respond to known and unknown biological threats and hazards that could adversely impact the Nation's people, agriculture, and economy. Learning from and developing partnerships with stakeholders are the keys to success
The project often focus on:
***Improving Data** collection, applications and management ;*
***Assessing Risk** to extend the frontier our borders; and*
***Advancing Workforce Development** opportunities*

Research and Education Capabilities

- Detection of threats and disruptions to people and global supply chains
- Data integration and analytics
- Novel operational methods and emerging tools to reduce risk
- Systematic risk assessment
- Workforce development
- Time-critical response support

About CBTS

LAUNCH	2018
PARTNERS	More than 25 universities, public- and private-sector partners
EXPERTISE	Research support to aid in the prevention, detection and response to biological threats and hazards for transportation, agriculture, public health, biodefense and supply chain defense; operational logistics; workforce health; and related sectors
DHS ALIGNMENT	U.S. Immigration and Customs Enforcement (ICE), U.S. Customs and Border Protection (CBP), Cybersecurity and Infrastructure Security Agency (CISA), Countering Weapons of Mass Destruction (CWMD)

Feedback from Our Partners

"The CBTS COE and UW team's low-cost, high-throughput method using dogs to detect contraband has all the makings of a real game changer for law enforcement. This pilot project is developing an apparatus and methodology for searching shipping containers with minimal disruption to port operations. Their work also complements HSI's mission responsibilities of investigating transnational crime and, specifically, criminal organizations that exploit the global infrastructure through which global trade moves. Elliot Harbin, HSI-ICE-DHS

" Working closely with CBTS and the U.S. Mexico Taskforce has yielded important insights about the development of tools, data, and dashboards needed to understand and respond to medical and public health issues along the border. Thomas M. Wilkinson, MD, CMO -CWMD- DHS

Contact Us: ✉ cbts@ag.tamu.edu   🌐 cbts.tamu.edu   📞 (979) 314 -2032

University Partners

Bethune-Cookman University*
Boston University
Brown University
Duke University
Harvard University
Iowa State University
North Carolina Central University*
Texas A&M AgriLife
Texas A&M University - Kingsville*
Texas A&M Transportation Institute
    Texas A&M University - Galveston
    Tufts University
University of California - Davis
University of Chicago
University of Missouri - Food and
    Agricultural Policy Research Institute
University of Nevada at Las Vegas
University of Washington
University of Wisconsin-Madison

*Minority Serving Institution (MSI)

Enterprise Partners

Anneal Initiative, Inc.
Biomeme
Center for Research in Geography and
    Geomatics (CentroGeo)
Federal Reserve Bank of NY
Mathematics Research Center, A.C.
    (CIMAT)
National Bureau of Economic
    Research
National Institute of Statistics and
    Geography (INEGI)
Orion Integrated Biosciences Inc.

For more information on CBTS,
please visit **cbts.tamu.edu**

For more information on DHS
Centers of Excellence, please visit
**dhs.gov/science-and-technology/
centers-excellence**

Impacts

Help ensure that Customs and Border Protection training curriculum is addressing most up-to-date biothreats

Biological threats impact our nation's health, critical infrastructure and economy in a globalized world of cross-border trade and flow of goods, services, people and technologies. It is this convergence of humans, agricultural products and other cargo that increases the potential for introduction of pathogens and invasive species. DHS Customs and Border Protection (CBP) Officers, Agricultural Specialists and Border Patrol Agents are at the front lines, safeguarding our nation from infectious diseases, invasive species, harmful insects, and other pest threats. CBTS is evaluating and improving the education and training of current and future CBP personnel on detection, interception, and deterrence of these biological threats and hazards, which is of paramount importance.

Application of distributed ledger technologies to mitigate illicit trade

CBP's vision is to be a leader among global customs agencies with harmonization of innovative 21st century platforms. However, illicit activities in the harvest-to-consumer continuum can be rendered unclear from trading partners through manipulation of records throughout the supply chain. To prevent illegal activities, CBTS is building a testbed system for commercial and regulatory processes, from foreign fishing vessels through to customs brokerage at US ports, in coordination with existing CBP efforts and standards and partner agencies.

Developing an effective scent-detection method and processing system for container screening

Millions of cargo containers stream into U.S. ports each year. Efficient methods for processing and screening these containers are crucial to maintaining our nation's security while permitting the flow of trade. CBTS is developing noninvasive screening methods allowing for searching of containers for contraband with minimal disruption to port operations, and provide criminal invesigators with another tool to fight illegal imports.