

# Overview of Technologies & Techniques



**INTERNATIONAL BORDER  
MANAGEMENT SYSTEMS**

# Detection Goals

## Human Challenges

	Routine	Non-routine
Non-threatening	<ul style="list-style-type: none"> <li>• Cross-border nomads/ tribal movement</li> <li>• Traders</li> <li>• Travelers and tourists</li> </ul>	<ul style="list-style-type: none"> <li>• Refugees</li> <li>• Illegal immigrants</li> </ul>
Threatening	<ul style="list-style-type: none"> <li>• Criminal</li> <li>• Smugglers</li> <li>• Illicit traffickers</li> </ul>	<p><b>Non-state national security threats</b></p> <ul style="list-style-type: none"> <li>• Terrorists</li> <li>• Insurgents</li> </ul>

## Commodity Challenges

- **Fraudulent Documents**
- **Tariff/License Avoidance Products**
- **Contraband**
- **Currency**
- **Human Beings**
- **Conventional Weapons**
- **Weapons of Mass Destruction**

Define what we are trying to detect and in what domain to apply appropriate sensor technologies.

# Techniques & Technologies

## Surveillance, Monitoring, Screening

- Visual/Cognitive
- Chokepoint Management
- Sensors
  - Remote Wide Area
  - Hand-held
  - Screening Portals
- Cameras
- Random Inspections
- Manifests
- Watch Lists



# Infrastructure/Facilities

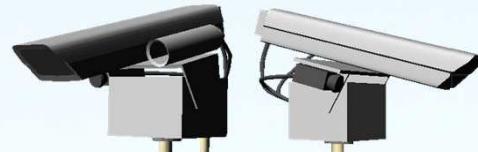
- Fences / vehicle barriers
- Floodlighting, spotlights
- Observation posts
- Conveyances/vehicles
- Electrical power sources



# Wide Area Sensors



Portable Ground  
Radars



Cameras



Magnetic Sensors



Conveyance



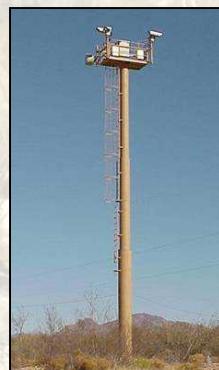
Buried Fiber  
Optic Sensors



Seismic  
Sensors



Mobile Sensor  
Platforms



Sensor Towers



CBP Hermes 450 UAV

Aerial/Satellite  
Remote Sensing

# Land Point of Entry



**Detection  
Portals**



**Package  
Scanners**



**Metal  
Detectors**



**Vehicle Inspection  
Technologies**



**X-Ray  
Scanners**



**Radiation  
Detectors**



**Fiber Optic  
Inspection Tools**



**Handheld  
Contraband  
Detection Equipment**

# Techniques & Technologies

## Detection, Inspection, Assessment

- Sensor Alarm Assessment
- Secondary Inspections
- Watch Lists
- Reachback



# Techniques & Technologies

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## Engagement, Arrest, Confiscation

- Training
- Weapons
- Conveyances



# Techniques & Technologies

## Prosecution, Disposition, Deportation

- Chain of custody protocols
- Supporting legal system
- Reachback
- International Agreements
- Containment Chambers



# Techniques & Technologies

## Communications

- Data display and review
  - Text-Based
  - Graphical
  - Real-Time or Delayed Retrieval
- Data analysis and decision support
- Archiving of data
- Initiation of response to event
- Reporting
- Musters



# Keys to Success

- Legal Authorizations
- Training – People & Equipment
- Technology Test & Evaluation Capability
- Technology Maintenance Programs
- Contingency Planning



# Discussion

- What is the nature of the normal flow of goods and people through your points of entry?
- What do you see coming through areas between points of entry?
- What differences are in your land, water, and air systems?
- In your opinion, what technologies and techniques have proven most useful to you?

