



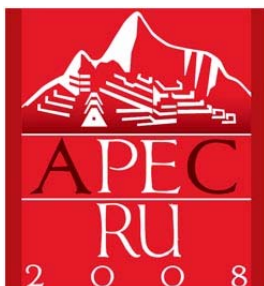
**Asia-Pacific
Economic Cooperation**

2008/SOM3/CTTF/STAR/003

Session: 6

Technological Solutions: Towards a Convergence of Technologies

Submitted by: American Science and Engineering, Inc. (AS&E)



6th Secure Trade in APEC Region Conference
Lima, Peru
20-21 August 2008

Technological Solutions: Towards a Convergence of Technologies

John Hooper
Director of E.U., CALA
21 August 2008



AMERICAN SCIENCE AND ENGINEERING, INC.

AS&E



Cargo Inspection Product Offerings

AS&E



AS&E 2008, USA FortSerra 3D Render Project
DUGA 08 - DreamLight.com

Threats



- Drugs
- Contraband
- Stowaways
- Security Threats

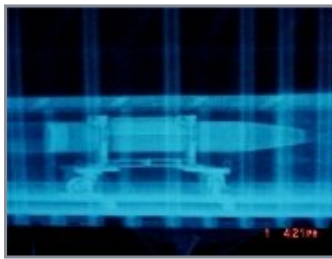


Customer Needs

Different Missions for Different Customers



Security Threats vs. Drugs / Trade Fraud



Regulations Affecting Scanning Requirements



USA TODAY Home News Travel Money Sports Life Tech

News Washington Government Guide Gallup Guru New Politics Chuck Raesch

Bush signs homeland security bill

June 23 2006 11:00 AM



planes within three years and sets a five-year goal of scanning all container ships for nuclear devices before they leave foreign ports. It also elevates the

The bill requires screening of all cargo on passenger planes within three years and sets a five-year goal of scanning all container ships for nuclear devices before they leave foreign ports. It also elevates the importance of risk factors in determining which states and cities get federal security funds. That would mean more money for such cities as New York and Washington. It also puts money into a new program to ensure that security officials



Standard 3 – Modern Technology in Inspection Equipment

Non-intrusive inspection equipment and radiation detection equipment should be available and used for conducting inspections, where available and in accordance with risk assessment. This equipment is necessary to inspect high-risk containers or cargo quickly, without disrupting the flow of legitimate trade.

Comparison Chart

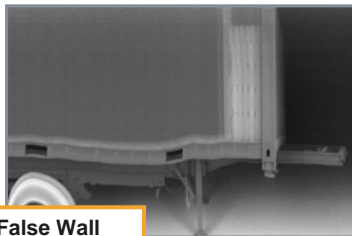


	Truck Scanner 1	Truck Scanner 2	Truck Scanner 3	Truck Scanner 4
WMD Detection	✓ ✓ ✓ ✓	✓	✓ ✓	✓ ✓ ✓
Security Threats	✓ ✓ ✓ ✓	✓ ✓	✓ ✓ ✓	✓ ✓ ✓
Trade Fraud	✓ ✓ ✓	✓ ✓ ✓ ✓	✓ ✓ ✓ ✓	✓ ✓ ✓
High Throughput Inspection	✓ ✓	✓ ✓ ✓ ✓	✓ ✓ ✓ ✓	✓ ✓ ✓ ✓
Re-locatable	✓ ✓ ✓ ✓	✓ ✓ ✓ ✓	✓ ✓	✓ ✓ ✓ ✓
Inspecting Dense Cargo	✓ ✓ ✓ ✓	✓	✓ ✓	✓ ✓ ✓
Primary Screening	✓ ✓	✓ ✓ ✓ ✓	✓ ✓ ✓ ✓	✓ ✓ ✓
Stowaways	✓	✓ ✓ ✓ ✓	✓ ✓ ✓ ✓	✓ ✓

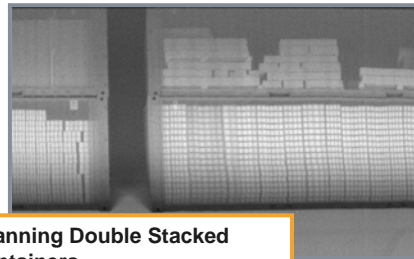
ZBV Scanning Cargo Containers



- ZBV offers flexibility for customs agents when scanning containers
 - **Double stacked containers don't need to be moved**
- Highly effective at finding false compartments
- Mobility allows ZBV to be deployed quickly and easily, to scan all cargo



False Wall



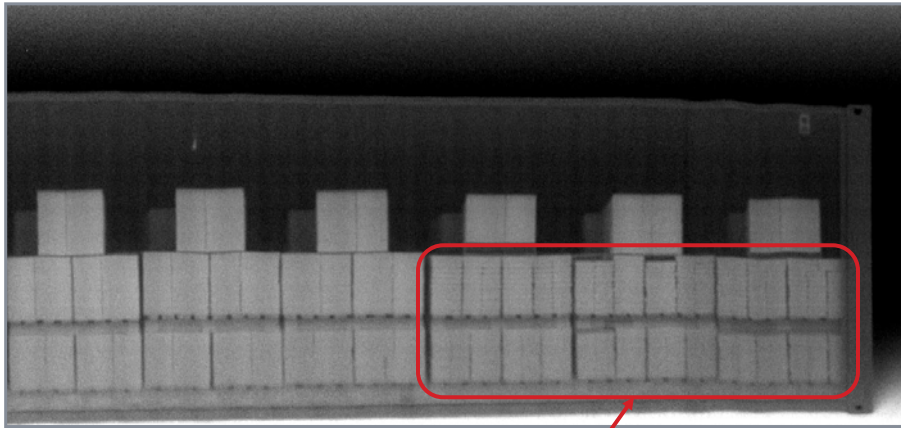
Scanning Double Stacked Containers

ZBV in Port Environment



Image of a Drug Seizure

AS&E



Smuggled cocaine

4.2 Tons of Cocaine in Cargo Container

Image of a Currency Seizure

AS&E



\$850,000 in a Vehicle Being Exported

Alcohol Seizures

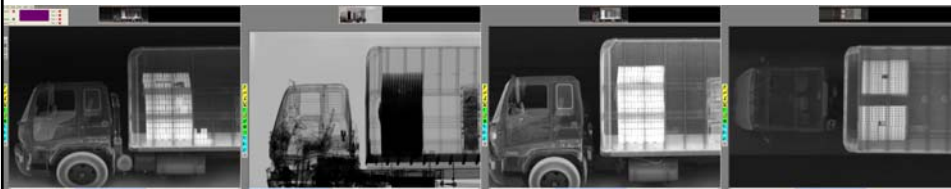
AS&E



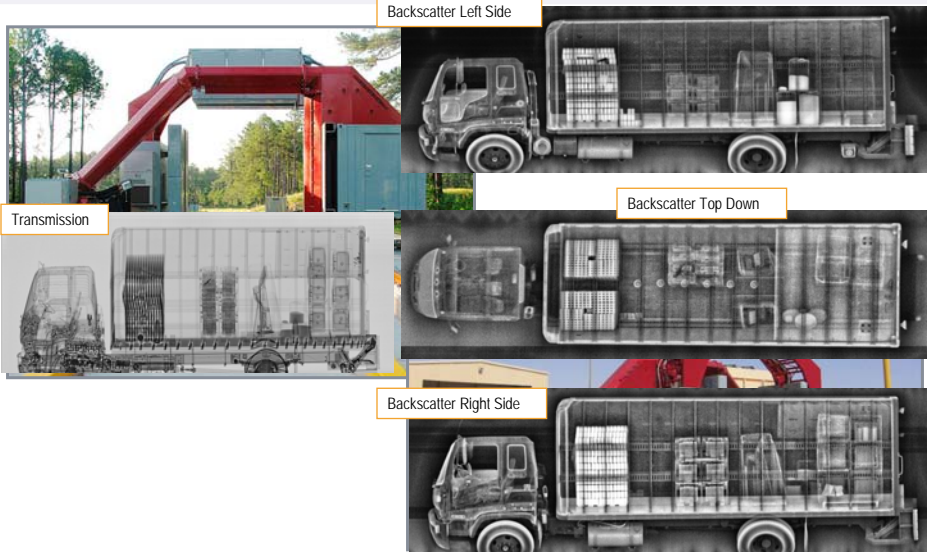
Benefits of Multi-View Imaging

AS&E

- Create images from left, right and top of cargo and vehicles for improved detection
- Speeds image interpretation and image analysis time increasing the overall throughput of the system
- More comprehensive inspection leads to better detection capabilities
- Top down backscatter image allows for improved cargo recognition and positioning information



OmniView Gantry - Multi-View, Multi-Technology Imaging



OmniView Gantry: Transmission + Backscatter



OmniView Gantry at Port of Charleston

AS&E

CBP.gov
Securing America's Borders

About CBP Newsroom Border Security Trade

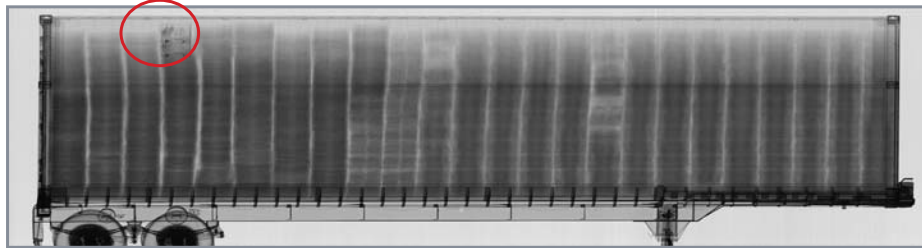
Suspicious item identified in shipment of clothing

through exam process at the Charleston, S. C. seaport and will greatly increase the speed of processing.

see also:
in Technology:
New Electronic Manifest Policy Strengthens Southern Border

The high-powered OmniView produces power equivalent to nearly 6 million volts of electricity enabling it to visually penetrate through approximately 14 inches of steel. An entire 40-foot container can be scanned in under a minute. This new system is ideally suited for inspecting high density cargo such as refrigerated containers of frozen foods.

2,075 pounds of Marijuana smuggled in shipment of clay pottery

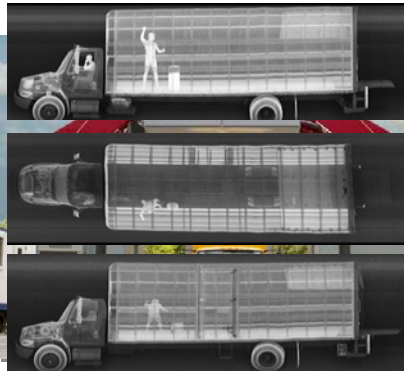


Z Portal for Trucks and Passenger Vehicles

AS&E

- Provides improved detection by imaging all sides of the vehicles
- Offers high-throughput with drive through configuration
- Safe for drivers and passengers

Truck Portal



Car Portal

