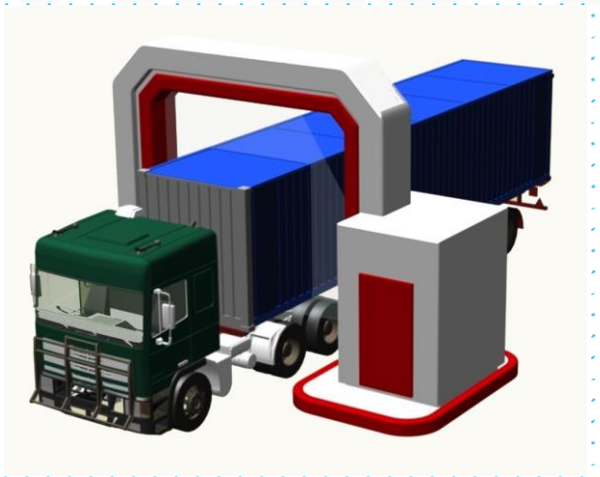
ISBA

HIGH-THROUGHPUT

INSPECTION SYSTEM



ISBA IN BRIEF

Founded in 2014
as a result of consolidation

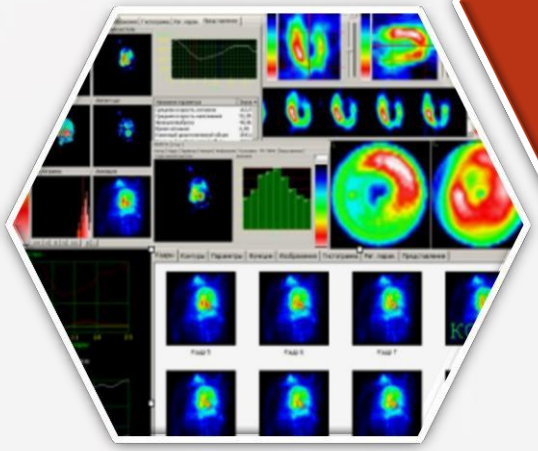
Specializes in developing
X-ray detectors and software

OUR PRODUCT LINE

Detectors

Medical equipment

Electronics and software



High-throughput Inspection Systems ISB-A

ISBA ADDED VALUE

- ✓ Proven in NII technology
- ✓ Customized solutions
- ✓ Highly qualified
- ✓ Services and Training
- ✓ Strategic Partnership with Russian institutions and companies

KEY FEATURES

- Betatron with energy 7.5 MeV
- Penetrate 300 mm of steel
- Dose to cargo is only 2,5 μSv per scan
- Easy mounting and installation
- Scan up to 150 trucks per hour

HIGH-THROUGHPUT INSPECTION SYSTEM

ILLEGAL CARGO RISKS

- Terrorist Threats
- Contraband
- Illegal Migration

  - High throughput inspection system for screening vehicles, sea containers, and other cargo for terrorist threats, trade fraud and contraband

KEY ADVANTAGES

- ✓ High throughput
- ✓ Low radiation dose
- ✓ Compact design
- ✓ High penetration

HIGH-THROUGHPUT
INSPECTION SYSTEM

KEY SOLUTIONS

- Information system
- Inspection flow configuration
- Image processing workplace
- Document processing working place
- Data storage & image retrieving software
- Optical character recognition
- Radiation safety system
- Inspection Plus

HIGH-THROUGHPUT
INSPECTION SYSTEM

IMAGE PROCESSING WORKING PLACE

- Automatic and manual brightness correction
- Automatic and manual contrast
- Dynamic correction of whole image contrast sensitivity for selected image zone
- Positive – negative transformation
- Wide range pseudocolour transformation
- 2x,4x, 8x zoom for selected image zone
- Image edging
- Tips setting for the risk facilities on the image or on the selected image zone
- Vertical and horizontal ruler for linear

Low radiation dose

Scatter radiation dose to the driver per scan at scan speeds up to 12 km/h, less than 0.006µSv*
Radiation dose to the cargo per scan at a scan speed of 12 km/h 2.5 µSv
Natural radiation dose – up to 6µSv / year

***In compliance with the U.S. Nuclear Regulatory Commission (NRC) end International radiation safety authorities, the access controlled area (Maximum radiation boundary) is a distance where the expected maximum cumulative dose is 0.02mSv for any one-hour period.**
In compliance with the requirements of Russian SanPiN 2.6.1.2369-08 (1.0 µSv), NRB-99/2009 and OSPORB-99

TECHNICAL ASSISTANCE

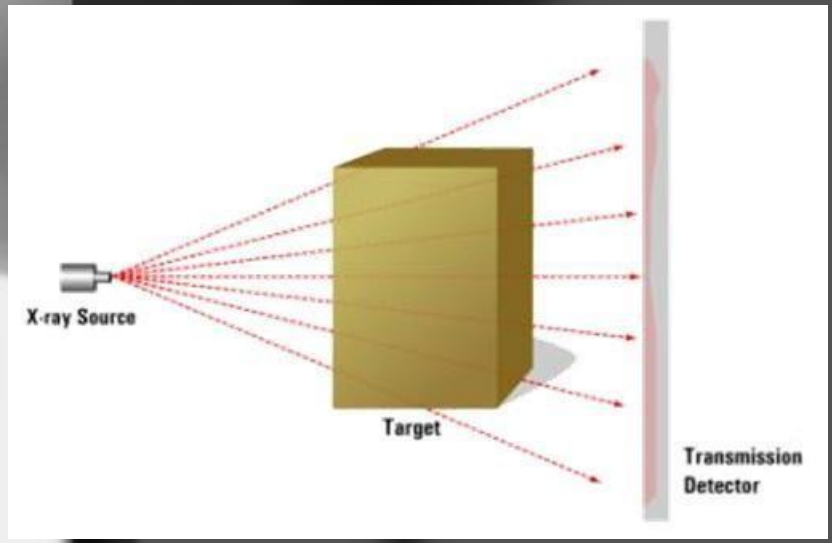
- Feasibility studies
- Assistance to procurement
- Scanner implementation
- Scanner operation
- Scanner and site maintenance
- Training and capacity building
- Audits

HIGH-THROUGHPUT
INSPECTION SYSTEM

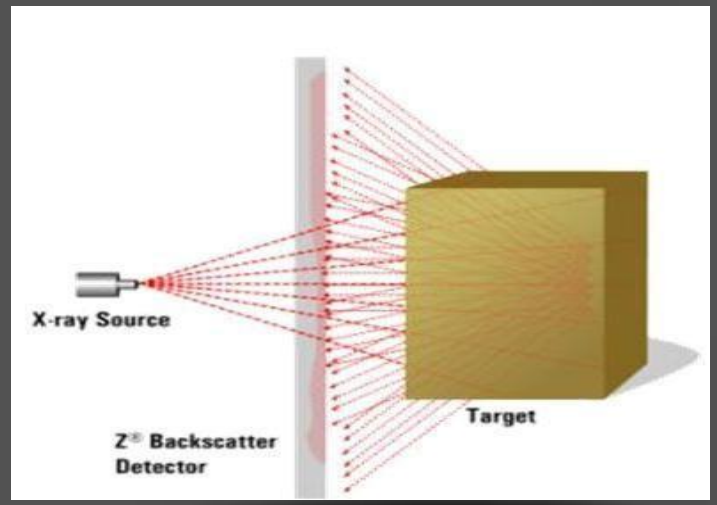
X-Ray Backscatter Systems

Backscatter

Transmission X-ray

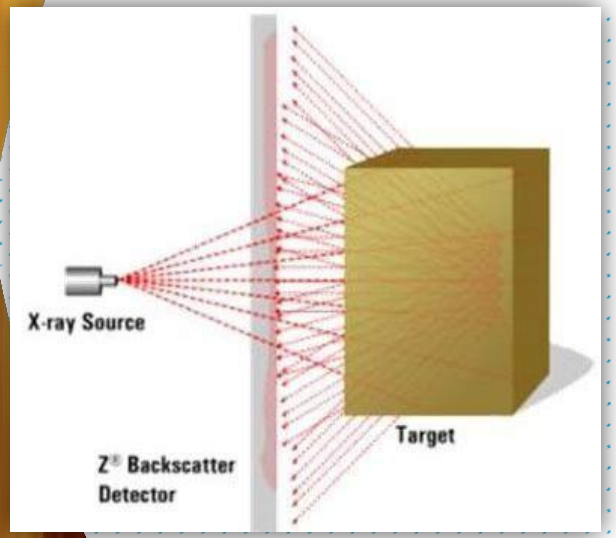


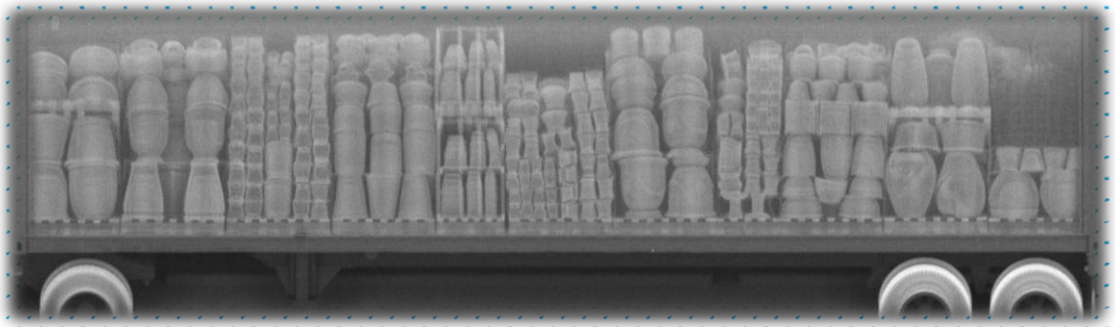
Backscatter X-ray



TECHNOLOGY

SCANNING BY A BEAM OF BRAKING RADIATION (BREMSSTRAHLUNG) GENERATING A SHADOW IMAGE OF THE CONTENTS OF CARGO BEING TESTED IN THE DIGITAL FORM.





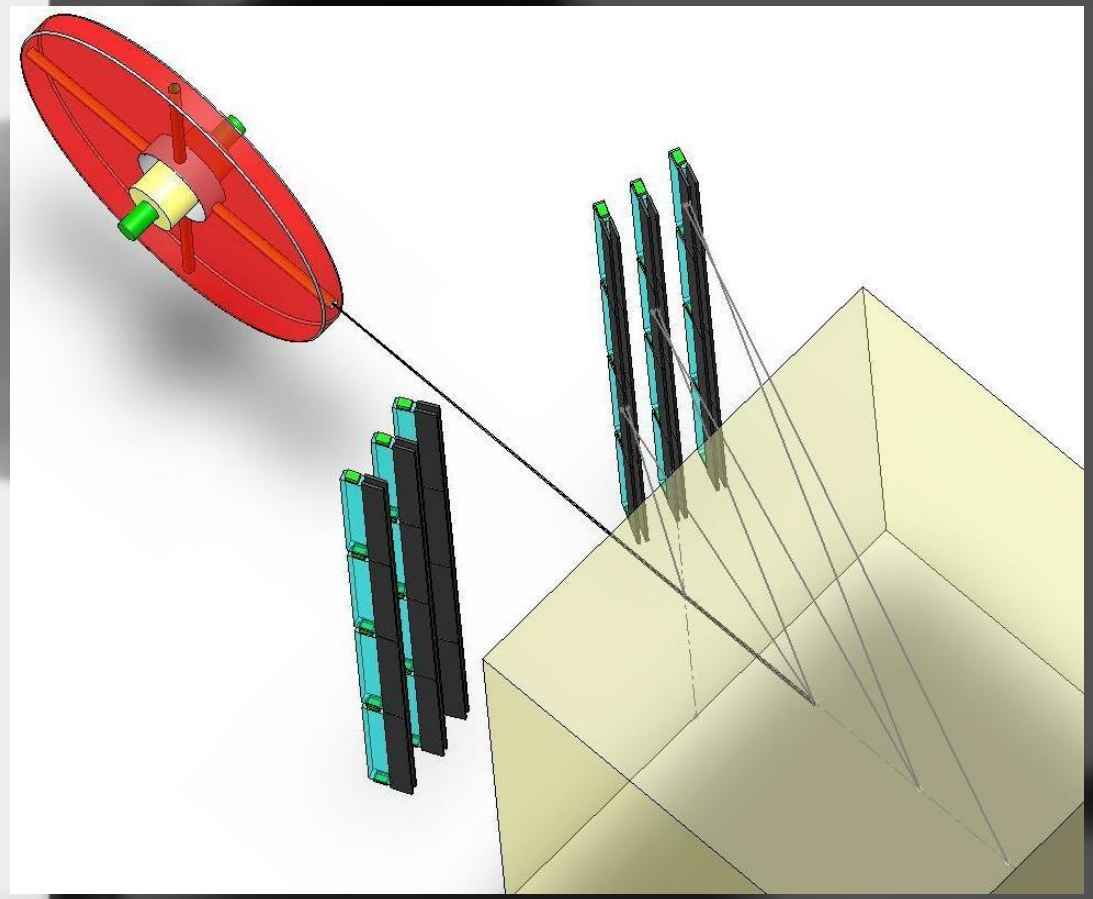
TERRORIST THREATS

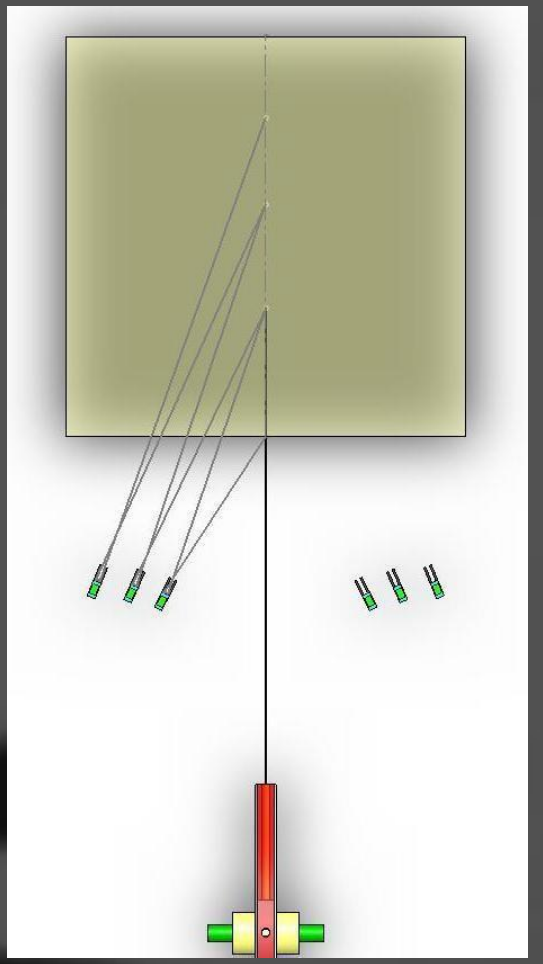
CONTRABAND

ILLEGAL DRUGS

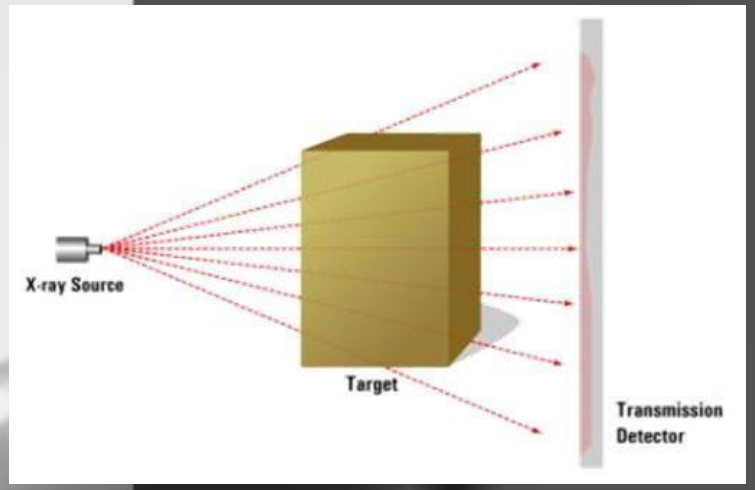
BACKSCATTER

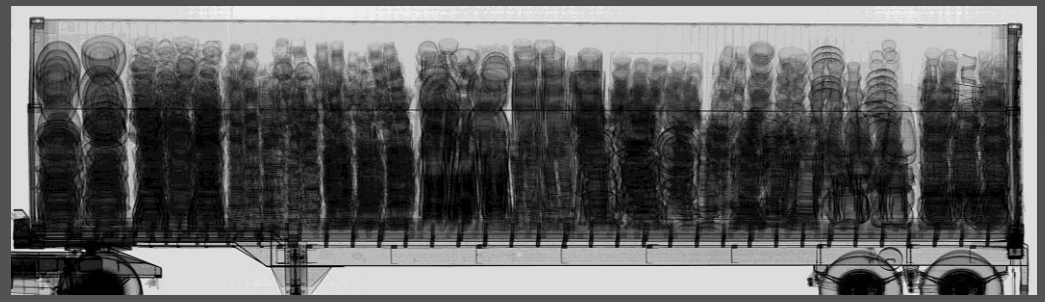
Principle Backscatter



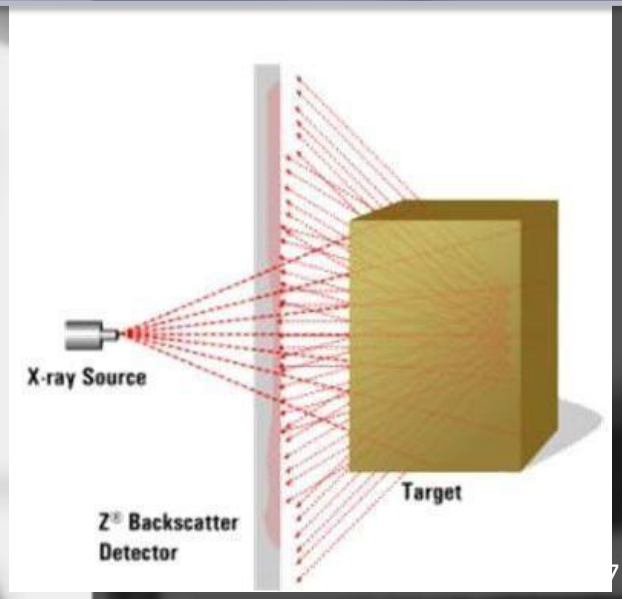


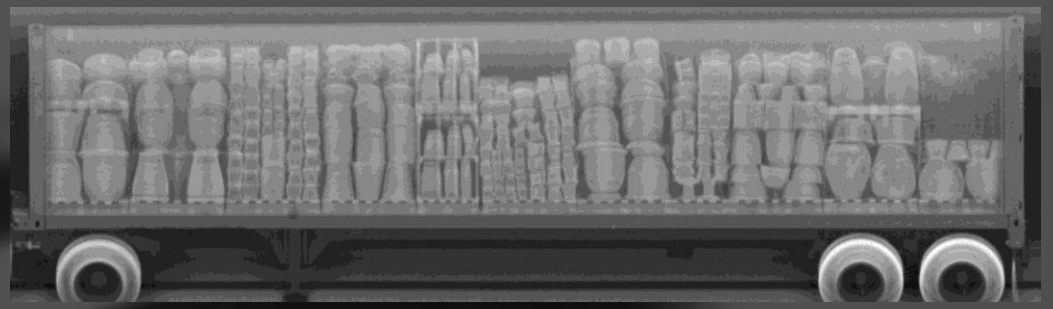
Transmission X-ray





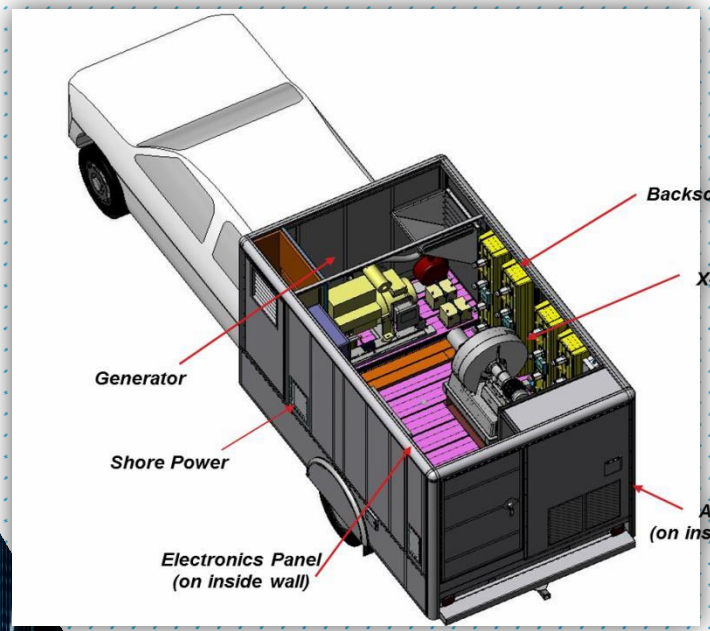
Backscatter X-ray





Mobile unit on backscattering on the basis of car (minivan)

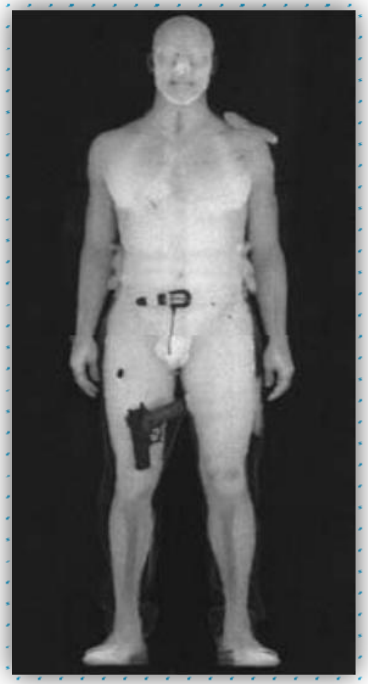
Monitoring system placed in a commercially available camper that allows to inspect the vehicles, containers and other cargoes by means of a unilateral radiation scanning based on the registration of backscattered X-ray radiation.

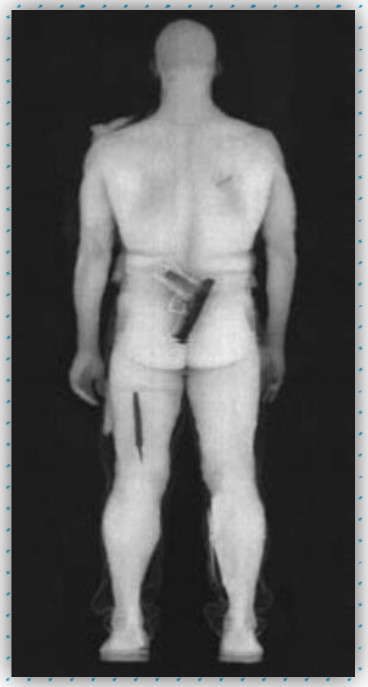


BACKSCATTER

Pipe Bombs, Cocaine, & Plastic Gun Hidden in a Briefcase

Parking lot scan





Body Search

BACKSCATTER

THANK YOU

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HIGH-THROUGHPUT INSPECTION SYSTEM