



AMIR NEEMAN
CONSULTING

CARGO SCREENING AND TUNNEL DETECTION IN ISRAEL

Risk-Based Cargo
Screening at it's core

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So What? Why do we care?

- **Intel-based risk-driven cargo screening at the deepest core**
 - Upfront quality intel on shippers, freight forwarders drives more lenient screening measures (e.g. Israel defense industries).
- **Strict management of the entire supply chain**
 - From tightly regulated and audited shipper security plans, through electronic seals to shipment tracking systems to maintain chain-of-custody
- **Highly tailored RBS screening measures**
 - Risk analysis using documentation and interviews similar to TSA BDA and CBP/TSA ACAS pilot for inbound cargo screening.
 - Tailored use of EDS, X-Ray, EMD, ETD, physical search, scales, pressure chamber.
- **Growing cargo demand (est. 3% p.a.) coupled with industry and Gov budget and resource constraints in a highly competitive market requires us to rethink the use of RBS in Cargo screening!**



Outbound Cargo Screening

- **Tight regulation of known shippers**
 - Many large shippers (e.g. defense industries) are already regulated under a strict and comprehensive security management plan.
 - Compliance with security plan allows accepting physical search during manufacturing process for primary screening.
 - Comprehensive shipper database regularly updated
- **Strict maintenance of chain-of-custody**
 - Examples: electronic seals, tracking of shipments, electronic manifests, use of scales.
- **Tailored screening measures**
 - EDS, X-Ray, EMD, ETD, physical search, scales, pressure chamber per cargo risk score and commodity type.
- **Challenges**
 - Scalability and supply chain vulnerabilities



Inbound Cargo Screening (EL-AL Stations)

- **Less intel on shippers and consigners**
 - BDA-type of interviewing coupled with extensive documentation review for determination of suspicious signs.
 - Stricter screening measures compared to outbound.
- **Challenges to maintain chain-of-custody drive almost no screening measures at shippers locations.**
- **Tailored screening measures coupled with risk-reduction methods to refute suspicious signs:**
 - EDS, X-Ray, EMD, ETD, physical search, scales, pressure chamber per risk score and commodity type.
 - Combination of orthogonal technologies
 - High-risk cargo can be transferred other modalities or refused.
- **Challenges**
 - Scalability and privacy rights



Tunnel Detection Mission

- [Hamas Tunnel Diggers Perspective](#)
- During 2014, 32 tunnels between Gaza and Israel were detected and destroyed.
- Tunnel Detection—“Underground Iron Dome”
 - System components developed by over 100 Israeli Defense companies with a ~\$180M joint U.S.-Israeli R&D investment.
 - Goal was to develop anti-tunnel capabilities to detect, map, and neutralize underground tunnels that threaten the U.S. or Israel.
 - Sensor data (seismic, acoustic, etc.) fed to algorithms with output on location and length of tunnels*.
 - The highly classified system became operational in 2011
 - In 2017 Israel started building an underground counter-tunnel barrier along the Israel-Gaza border (~37 miles long) at \$833M cost.
 - Above-ground fence, sensors, observation balloons, see-shoot systems, and an advanced below-ground protection system.



* Sources: <http://nocamels.com/2017/11/israel-anti-tunnel-technology-hamas/>;
https://www.washingtonpost.com/news/checkpoint/wp/2018/03/06/israeli-official-bets-advances-in-anti-tunnel-technology-will-secure-gaza-border/?utm_term=.2daae6553a99

