

U.S. Department of Homeland Security | Science and Technology Directorate

DHS Secure Shipping Project



Science and
Technology

Jeffrey Barber, Ph.D.
Research Chemist
S&T/OIC/ONL/TSL

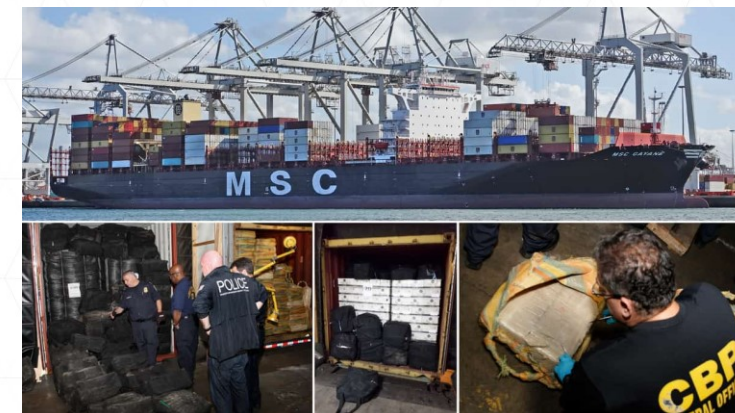
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So What? Who Cares?

- CBP: ~25M containers arrive in U.S. annually (~11M sea, ~14M land/rail)
- Container Security Initiative (CSI)
 - Pre-screening those containers that pose a risk at the port of departure before they arrive at U.S. ports.
 - Using detection technology to quickly pre-screen containers that pose a risk
 - Using smarter, tamper-evident containers
- MSC Gayane – June 17, 2019
 - \$1B cocaine bust in Philadelphia
 - Brought on-board by speedboat while at sea
 - Counterfeit seals



<https://www.cbp.gov/border-security/ports-entry/cargo-security>



<https://www.freightwaves.com/news/shipping-billions-billion-dollar-coke-bust-8-plead-guilty-sentencing-begins>



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What have we been doing?

- Global Secure Shipping and partners
 - Thermoset composite panels in steel frames
 - Intrusion sensors embedded in panels
 - GPS/cellular comms, other sensors
 - Pivot from 1CC (20 ft.) to 1AAA (40 ft.) design
 - (12) door-only 1AAA containers built
 - Limited field trials to-date
 - Expansion of manufacturing facilities (DoD Defense Production Act Title III)
 - Six-sided 1CCs deployed
 - First six-sided 1AAA completed soon



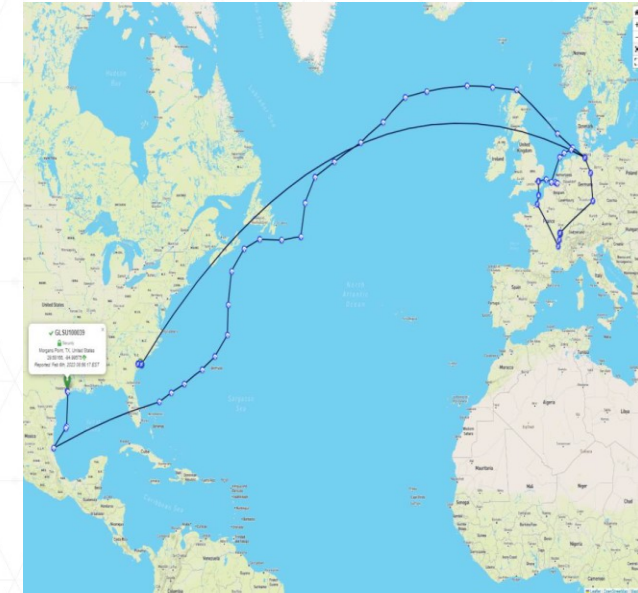
Where do we want to go? NEAR/MID TERM

- Complete development of secure composite containers
 - Additional (48) 1AAA containers (door-only)
 - Statistical analysis
 - Expand field trials at DHS cost (spotting, repairs, etc.)
 - Improve robustness of sensors
 - Test composite materials in real-world conditions
 - Additional R&D towards thermoplastic resins (\$, ♻️)
 - Expansion to six-sided 1AAA containers



Where do we want to go? LONG TERM

- Development of a new National/International Standard for Secure Containers
 - Homeland Security Systems Engineering and Development Institute (HSSEDI) to assist
 - Capture CBP and partner requirements
 - TSA detection standard as model
 - Certification of container designs
 - Automated Commercial Environment (ACE) portal
 - Push inspections further out
 - “FAST PASS” through the port



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scitech.dhs.gov



SandT.Innovation@hq.dhs.gov



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Jeffrey Barber, Ph.D.
Research Chemist
Transportation Security Laboratory
U.S. Department of Homeland Security
Bldg. 315, FAA Technical Center
Atlantic City, NJ 08405
jeffrey.barber@st.dhs.gov