13th WORLD CARGO SYMPOSIUM

MARINA BAY SANDS – SINGAPORE
12 – 14 March 2019
Cargo Security Track
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Thank you!

Last Night’s Gala Dinner Kindly Sponsored by:

SINGAPORE AIRLINES
Opening Remarks

Jennifer Haigh
Strategic Partner Manager
United Cargo
Welcome Address

Bernard Lim
Senior Director,
International Relations and Security Division
Singapore Ministry of Transport
Cutting Edge Technology Solutions, Non-Technology Based Solutions Such as K9 and Other Methods

Moderator:
• Howard Stone, Vice President Security, UPS

Panelists:
• Justin Kelley, Vice President of Global Operations, MSA Security
• Ken Mann, Senior Director Product Management, Explosive Detection Systems (EDS), Rapiscan
• Douglas Yeo, Senior Deputy Director (Security Policy), Singapore Ministry of Transport
Pre-Departure Information for Cargo Targeting (PreDICT)

- **Darren Hart**, Freight Data and Pre-Load Targeting Lead, UK Border
- **Zak Snowling**, Borders & Aviation Security Unit, OSCT, UK Home Office & Force
Pre-load Data Informed Cargo Targeting (PreDICT)

World Cargo Symposium
12-14 March 2019, Singapore

Darren Hart
Border Force

Zak Snowling
Office for Security & Counter-Terrorism
YEMEN PARCEL BOMB PLOT

Security officials in Britain and Dubai on Friday intercepted parcel bombs being sent from Yemen to the United States in a "credible terrorist threat". Security experts have linked the bombs to al Qaeda.

1. U.S.-bound packages are shipped from Yemen.
2. Dubai, UAE: One package is discovered at a FedEx facility.
3. East Midlands airport, Britain: Another package is taken off a UPS cargo plane.

The packages were addressed to synagogues in Chicago.

Source: News reports

Reuters
Using Customs skills to identify aviation risks

- Customs have skills, processes and systems to identify supply chain anomalies and risks.
- Customs have access to trader history and intelligence systems.
- Data (for example goods description declared, trader history) is usually not available to the physical screener.
- But Customs rarely have deep expertise in aviation security.
- Customs are used to handling airline data.
Pre-Loading Advance Cargo Information (PLACI)

**Pre-load**
- 7+1 data elements
- Aviation security

**Pre-arrival**
- ~30 data elements
- Security and safety

**Arrival**
- Complete customs declaration
- Security, safety, fiscal
Pre-Loading Advance Cargo Information (PLACI)

**Pre-load**

7+1 data elements

Aviation security

- Consignor name
- Consignor address
- Consignee name
- Consignee address
- Cargo description
- Piece count
- Total weight
- +1
- AWB number
<table>
<thead>
<tr>
<th>Country</th>
<th>Global PLACI activity</th>
</tr>
</thead>
</table>
| **US**  | • Air Cargo Advance Screening (ACAS), since 2010.  
          | • Became a regulatory requirement on 12 June 2018 with the issuance of the ACAS Interim Final Rule (19 CFR 122.48b). |
| **EU**  | • Several trials undertaken between regulators and industry.  
          | • EU Pre-Load Capability (ICS2) due March 2021; initially fast parcels and post. |
| **Canada** | • Pre-load Air Cargo Targeting (PACT), since 2013.  
              | • Developing legislation and data analytics, mandated carriers. |
| **UK**  | • Commitments under the UK’s Counter Terrorism Strategy (CONTEST) and the Aviation Security Strategy to develop a pre-load cargo targeting capability.  
          | • First of two pilots completed in 2018.  
          | • Fully active members of the EU ICS2 development. |
PreDICT – UK to US Deployment Pilot

US CBP and TSA offer to host UK customs officers in the NTC, including system and technical support.

Partnership with IATA to help Project Manage and engage carriers.


Carriers and Integrators agree to provide UK nexus data to UK officers and replicate current ACAS processes.
### Key pilot figures

<table>
<thead>
<tr>
<th>Category</th>
<th>Figure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consignments submitted</td>
<td>6,223,645</td>
</tr>
<tr>
<td>Consignments hotlisted</td>
<td>59,868</td>
</tr>
<tr>
<td>Consignments reviewed</td>
<td>150 per day&lt;sup&gt;1&lt;/sup&gt;</td>
</tr>
<tr>
<td>Requests for information (RFI)</td>
<td>74</td>
</tr>
<tr>
<td>Requests for screening (RFS)</td>
<td>35</td>
</tr>
<tr>
<td>UK referrals</td>
<td>35</td>
</tr>
</tbody>
</table>

<sup>1</sup> Approximately; based on data from one full month (November 2018).
PreDICT

Key outcomes and learning points

1. With access to the right intelligence and information systems, data driven customs capabilities can be used to risk assess for aviation security purposes in support of (but not replacing) physical regimes.

2. However, recognising the knowledge gap, customs can only do this with strong support from carriers and national and aviation security experts.

3. Data quality is an issue and leads to nugatory work. 81% of Requests for Information (RFI) were due to insufficient or incomplete data. The US experiences similar ratios so more work globally is required regarding data validation and two way messaging.

4. 7+1 is adequate for targeting but fewer RFI and RFS messages are generated when more data is provided (for example, to identify potential persons of interest.)

5. Data provision is sometimes too late to affect an implementation. Do we need further work on timelines?

6. Carriers respond in different ways to RFI and RFS messages. Further work is required regarding codified messages and standardised responses. Regulatory requirements? Codes of Practice?
PreDICT

Next steps for PLACI development in the UK

- Counter Terrorism funding secured.
- UK Advanced Freight Targeting Capability (AFTC) being developed.
- FY 19/20 Domestic Minimal Viable Product (MVP) Pilot, providing limited cover and testing in a live 24/7/365 environment.
- DHL have volunteered to partner with us in the development of the capability and have provided sample data build an ingest gateway, targeting rules and user interface.
- Strategic Review will determine longer term full capability.
- Continued engagement with the EU ICS2 Programme.
- Even closer collaboration with like minded nations developing processes and standards.
Thank you

Any questions?

Darren Hart
darren.hart@homeoffice.gov.uk

Zak Snowling
zak.snowling@homeoffice.gov.uk
Networking Break
10:30 to 11:15 in Roselle Simpor Ballroom
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France Cargo Handling
Integration of Multiple Platforms for More Efficient Decision Making and Coordination

Moderator:
• Andrew Farrelly, Co-founder, CT Strategies

Panelists:
• Matt Fleming, Manager, Security International Freight, Qantas Airways
• Cameron Mann, Global Head of Aviation, Smiths Detection
• Nicolas Ouakli, Global Solutions Manager, CEIA
Integration of multiple platforms for more efficient decision making and coordination
With the plethora of different screening solution companies’ equipment being utilized throughout the air cargo network, what are some of the collaborative efforts taking place to maximize coordination to meet security goals and mandates?
AIR CARGO THREATS: IMPROVISED EXPLOSIVE DEVICES

- Explosive Matter
- Detonators
- Trigger circuits
- Batteries
Since March 1st, Australia has implemented its latest civil aviation requirement for screening 100% of air cargo goods on all departing international flights.

Collaboration between CEIA and SMITHS to propose to the Australian supply chain stakeholders the most efficient air cargo security checkpoint.

Information campaign on screening regulation and technology conducted with the Department of Home Affairs, Cargo Terminal Operators and the Australian Federation of International Forwarders.
Assessment of stakeholders business models and definition of their screening needs accordingly.

“Multi-platform” approach combining the complementary capacities of the various equipment available.

“Multi-layer” approach in some cases involving automation and data integration.
DUAL VIEW X-RAY TRANSMISSION (NON-COMPUTED TOMOGRAPHY)

Advantages
- Large Aperture Available
- Wide variety of commodities
- "Affordable" purchasing cost

Limitations
- Limited detection capabilities / dark alarms
- Relatively poor performance on IEDs
- Significant maintenance cost
- License for use of ionizing radiation
- Rely on human operator interpretation
EXPLOSIVE DETECTION SYSTEMS (STANDARD 3 and more)

- **Advantages**
  - Automatic Detection
  - No need for human operator interpretation
  - Wide variety of commodities

- **Limitations**
  - Price restrictive / High maintenance cost
  - Shipment size limited (1m x 1m)
  - License for use of ionizing radiation
  - Significant False Alarm Rate
EXPLOSIVE TRACE DETECTION SYSTEMS

- **Advantages**
  - Automatic Detection
  - Affordable
  - Low false alarm rate
  - Very performant as second-level screening

- **Limitations**
  - Need to open shipment / Long processing time
  - Not adapted for all type of commodities
  - Depend on sampling performed by human operator / training required
Advantages

- Automatic Detection
- No need for human intervention
- Affordable / Low maintenance cost
- Very low false alarm rate
- High Throughput

Limitations

- Only for specific metal-free commodities
- Require specific metal-free packaging
X-Ray Images of Perishables and Print Media
MOST RECENT AIR CARGO SECURITY PROGRAM:
AUSTRALIA
Thank you for your attention!
Integration of Multiple Platforms for More Efficient Decision Making and Coordination

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• Nicolas Ouakli, Global Solutions Manager, CEIA
Chairperson Closing Remarks

Jennifer Haigh
Strategic Partner Manager
United Cargo
Cargo Security Track

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