

**MSA
SECURITY®**

A Presentation for



*Asian Logistics and
Maritime Conference*
亞洲物流及航運會議

November, 2018



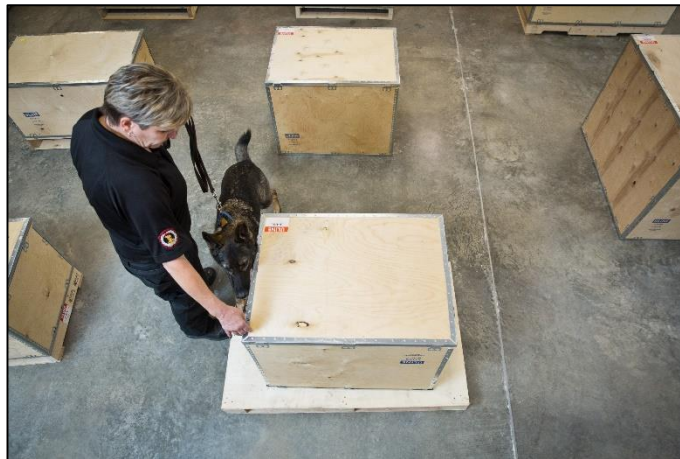
Introduction

- MSA Security
 - Global leader in explosive detection solutions
 - Provide high-consequence threat protection
 - Over 1,400 employees with elite law enforcement or military backgrounds
 - 10+ years experience with canines in cargo screening
 - HQ in New York with an APAC regional office in Hong Kong
- Justin Kelley, Vice President of Global Operations
 - Oversee global operations for MSA canine program and additional security offerings
 - 24 year veteran of the Connecticut State Police Department
 - Commanding Officer of the Emergency Services Unit
 - Bomb Squad Commander
 - Coordinated State & Federal response to explosive incidents



Air Cargo Threat Environment

- Terrorists have used cargo to conceal and transport improvised explosive devices (IEDs)
 - 2010 Printer Cartridge Bomb
 - 2017 Meat Grinder Bomb
 - *Replicated device undetectable by X-ray*
- Significant threat to the aviation industry & public safety



Explosive Detection Canine Effectiveness

- US Department of Defense Research
 - *Well-trained canines are the single most effective method of explosive detection – their success is irreplicable*
- 300 Million Olfactory Receptors
 - *50 x human capacity*
- Canines can detect parts per trillion
 - *They can detect one rotten apple out of 2 million barrels*
- Hone in on trace amounts of explosives without contact, in a non-invasive manner



Explosive Detection Canine Effectiveness

- Effective training is a critical component of canine success
 - **Imprintation** on all commercial explosives & homemade explosives.
 - **Operational Training** must be methodically conducted in an air cargo environment.
 - **Master Trainers & Chemists** should be central to the training process.
 - **Handlers** must maintain an effective working bond with the canine.
 - **Sustainment Training** is critical to maintain detection capabilities.
- Teams must meet rigorous independent testing standards
 - *TSA testing is beginning in the United States*
 - *ICAO standards anticipated 2021*



Explosive Detection Canine Efficiency



- MSA deployed to an Air Cargo client site in Hong Kong in 2018
- Within weeks the client reported cargo was successfully screened at **5 x the rate of previous methods**
- With additional adjustments tailored to this deployment environment, MSA anticipates we will be screening at **10 x the rate of previous methods** within the next few months.

Explosive Detection Canine Efficiency

- Avoids disruption to the sort process
- Mobility
 - *With X-ray, you must move your cargo to accommodate a stationary screening method. With canines, your screening method moves around your cargo.*
- Space Limitations
 - *Canines do not require the footprint of an X-ray machine. This leaves more floor space for operational use.*



Alarm Resolution Process

- When a canine indicates, an alarm resolution process must be implemented using a secondary method of screening
- MSA Security's Patented Advanced Alarm Resolution Process involves the following steps:

EDC

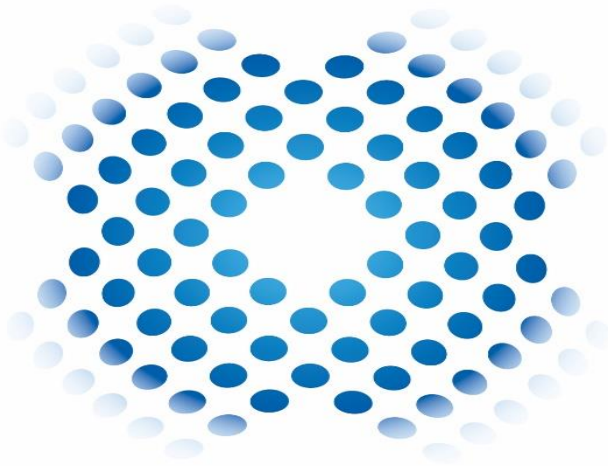
- EDC searches build of the container during loading
- Upon indication, packages are extracted, lined up next to the container, and a second sweep is conducted

X-Ray Screening

- The package on which the canine indicated is run through X-ray machine for further inspection

SmartTech®

- X-ray image is immediately transmitted to remote command center for expert analysis and resolution



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