Explosives Detection Dogs for Air Cargo Screening

Jennifer L Haigh K2 Solutions, Inc.

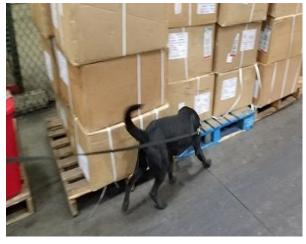


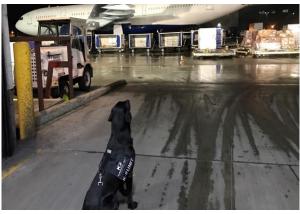
Why Canine?

- Problem: Need faster, more efficient way to screen cargo at both bulk and piece level.
- Solution: Adding canine provides an additional layer to already approved screening technologies.

> Why:

- Large amounts of cargo can be screened in a short period of time
- Trained canines are able to detect odorant concentration levels at parts per trillion levels.
- A new target odor can be added to a mature / trained EDC in a very short amount of time.
- The use of canine as a primary screening tool, allows the screening of skids, break bulk, ULD and others more effectively and reliably for quicker turn around times than traditional screening methods







Company Profile

Large enough to do the work, small enough to care

- Owned, Led, and Managed by Operational Subject Matter Experts (SME)
- Service-Disabled Veteran-Owned Small Business
- > 28% Employee-Owned
- Over 200 classified and unclassified contracts awarded to date:
 - First contracts were focused on Government Research and Development and Counter-Improvised Explosive Device Detection
 - Over 14 years constant deployment to high-threat Areas of Operations (AO) armed for self-defense with zero fatalities, one traffic-related injury, and zero media faux pas
 - Top Secret Facility Clearance with Superior Rating from DSS Inspection
- Proven track record in strategic, tactical, and practical application of operationally-focused methods in high-threat environments – operational and intelligence support systems



Licenses, Logistics, & Explosives







 International Code of Conduct Association (ICoCA) Member, 2017



 Defense Contract Management Agency (DCMA) compliant for explosives storage



 Support for embarkation and distribution management at client specified locations



Ammunition Management for inspecting, forecasting, handling, transporting, and storing ammunition, explosives, missiles, toxic chemicals and other HAZMAT material

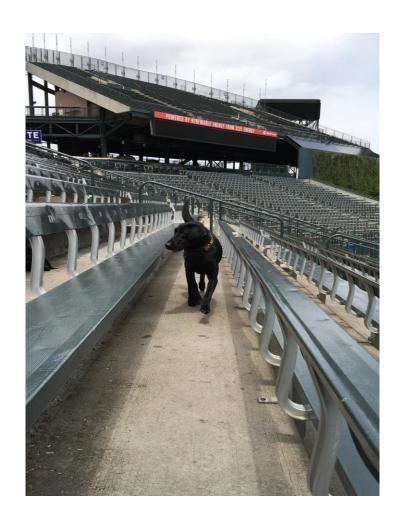


- Bureau of Alcohol, Tobacco, Firearms, and Explosives (ATF) Licenses
 - > Type 1: Dealer in Firearms other than Destructive Devices
 - > Type 9: Dealer in Destructive Devices
 - > Type 10: Manufacturer of Destructive Devices
 - Type 20: Manufacturer of Explosives
- U.S. DOT Registration No. 2040142 for interstate commerce
 - DOT Hazmat: 090116 550 021Y
- DEA License No. RK0419071 for narcotics possession
- Third-Party Certification through the International Police Work Dog Association (IPWDA)



Our Dogs

- Explosive Detection Canines (EDC; Traditional): detects explosive odor placed in a static location
- Stand-Off Detection Dogs (SODD): conducts EDC tasks autonomously allowing the handler safe separation from a found device
- Person-Borne™ Explosive Detection Dogs (PB-EDD): EDCs trained to detect and follow a chemical scent trail from a moving person to its source
- An Single Purpose Explosives Detection Canine (SP-EDC) Team is capable of detecting and indicating on all commercial and homemade explosives on which it is imprinted.





Evolution of Canine



Past....Present and Future

- Introduction of Certified Cargo Screening Program (CCSP)
 - ➤ Use of Explosives Trace Detection, X-Ray, Physical Search
 - > Improvements to existing technologies
- ➤ Decade after the 9/11 Commission Act, Congress has at last earmarked funding for the Third-Party Canine Program (3PK9-C). Introduction of Certified Cargo Screening Program (CCSP)
- Last 7-ish Years TSA, Industry and K9 Providers:
 - Development of standards for qualification and certification
 - Identification of non-federal entities to test and certify the canine teams that meet those standards.
 - Establishment of an audit and compliance system.
- > Release of certifying party requirements in May 2018
- Estimated certification of Third Party K9 Providers in Q3 2018



Canine Training

Live odors

 Allow dogs to discriminate extremely faint target odors against a very noisy background (masking odors).

Canine Trainers

 Condition dogs to disregard surrounding distractors as they search for, detect, and give a final response to a target odor.







Considerations

- Facility Layout: How best to stage the cargo for efficient screening and palletization/containerization
- Does the operation demand contractual or Ad-Hoc K-9 services depending on projected volume?
- Peak times
- Service provider selection: Can the service provider meet the needs of a multi-hub, large-scale operation?
- Where are the dogs sourced from and the training curriculum utilized (who are their employees?)



Conclusion

- Large amounts of cargo can be screened in a short period of time
- Reduces the number of man-hours and resources needed under current screening systems.

Competitive Advantage:

- Tender times can be reduced due to faster screening capabilities
- K-9 teams can be dispatched during peak flow to facilitate the screening of cargo



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