



DRONESHIELD

Investor Presentation (ASX:DRO)  
February 2019



# DroneShield at a Glance

- DroneShield is a global leader in drone security technology, selling both drone detection and drone countermeasure products.
- The drone security market is becoming significant and is fast growing, with the Company estimating the size of its addressable market to be worth over US\$12bn with circa 12 million drones to be operating, often in metropolitan airspaces, by 2020.
- Since listing, DroneShield has grown from a single acoustic detection solution to a Company providing a full detection and countermeasure package utilising the latest radiofrequency, radar and other technologies.
- DroneShield is now experiencing rapidly growing revenues and is well positioned in competitive tenders, and direct non-competitive sales processes with military, law enforcement, civil infrastructure and head of state/presidential customers with 90 potential contracts valuing up to US\$45m.



## Location

Sydney, Australia  
Virginia, USA  
Washington DC, USA



## Team

15  
Employees



## Patented



## Deployed

Multiple deployments  
by government users  
globally



## International

60  
Distributors across 50  
countries



# Corporate Overview

## Enterprise Value

DRO shares	A\$0.145 / share <sup>1</sup>	A\$26.40m <sup>2</sup>
Cash	As at 31 Dec 2018	(A\$1.23m)
Debt	As at 31 Dec 2018	nil
<b>Enterprise Value</b>		<b>A\$25m</b>

<sup>1</sup> As at 12 February 2019

<sup>2</sup> Excluding unlisted options and performance shares

## Major Shareholders

Long Hill Capital*	55,582,102	30.53%
Eagle's View*	22,928,466	12.59%
BNP Paribas Nominees	15,902,910	8.73%
John Franklin	14,438,334	7.93%

\* Includes related entities

## Shares (ASX:DRO)

182,077,076

## Unlisted Options

60,127,717\*

## Performance Shares

30,000,000

\* Exercisable at various dates and prices

## Share Price Chart





# Investment Highlights

- **Growing Revenue** – Record 4Q2018 with \$500k in customer cash receipts. Record month of January 2019 with \$730k in customer cash receipts received in first 3 weeks alone.
- **Expanding Sales** – Recently received orders from the Middle Eastern Ministry of Defence for 70 DroneGuns valued at A\$3.2m. Other smaller contracts include multiple DroneGun units for major Asian and Western Government Agencies, DroneSentry and DroneGun units for a government security agency in Central America.
- **Zain Group Partnership** – The Company have executed a Teaming Agreement with Kuwait's Zain Group, a US\$7 billion leader in telecommunications in the Middle East. Zain has now placed its first order.
- **NATO Stock Number** – DroneGun Tactical has been given a NATO Stock Number allowing any of the 29 NATO militaries to purchase DroneGun Tactical on a 'military catalogue' basis, simplifying the procurement process.
- **Established Market Position** – DroneShield products have been used by Queensland Police at the Commonwealth Games in Queensland, Texas State Department at the NASCAR, the ADF at the ASEAN-Australia Special Summit 2018 in Sydney and by local authorities at the 2018 Olympic Games. Other users include special forces of a G7 NATO country, Asian homeland security and the Turkish Prime Ministry.
- **Substantial Sales Pipeline** - The Company is well positioned in competitive tenders, and direct non-competitive sales processes with military, law enforcement, civil infrastructure and head of state and presidential customers with 90 potential contracts.
- **US GSA Approval** – DroneShield products have been approved by the U.S Government for placement on the General Services Administration schedule, a list of products pre-approved for purchase by U.S government agencies.
- **Significant competitive advantage** - DroneShield's detection technology displays strong advantages over other competitors, including non line-of-sight detection, night-time detection, an increase in detection ranges and effective coverage area.



# Highly Capable Team with Extensive Industry Experience and the Support of an Accomplished Board of Directors

## Board of Directors



**Peter James**  
*Independent Non-  
Executive Chairman*



**Oleg Vornik**  
*CEO / Managing Director*



**Bradley Buswell**  
*Independent  
Non-Executive Director*



**Robert Clisdell**  
*Non-Executive Director*





# DroneShield Solution

## 1 | Detection

- DroneShield offers an enterprise-grade sensor network with proprietary multi-sensor detection technology.

## 2 | Analysis & Identification

- DroneShield utilises a multi-sensor approach to analyse and identify incoming drone threats.
- The radar sensor tracks a moving object, separating it from the background clutter such as trees or birds.
- The radio frequency sensor provides a direction of bearing to the target, matching a set of RF signatures, which are regularly updated.
- Camera and thermal sensors allow for a visual confirmation to the user, with an ability for high definition zoom during day or night.
- This multi-sensor analysis allows us to detect drones with high accuracy, delivering low false-alarm rates.

## 3 | Alerting

- Instant alerts are delivered independently through a variety of methods, including SMS, email, or existing video or incident management systems. DroneShield easily integrates into your established security system.
- Our detection system also include a browser-based visual interface, giving you live visibility to surrounding drone activity.

## 4 | Response

- DroneShield also offers safe and highly effective countermeasures once a drone threat has been identified.
- DroneShield countermeasures allow for the controlled management of drone payload such as explosives, with no damage to common drone models or the surrounding environment. Countermeasures have been developed for long range coverage in a wide range of environmental conditions.



# DroneGun Tactical™

**DroneGun Tactical** provides a safe countermeasure against a wide range of commonly used drone models. It allows for a controlled management of a threatening drone, with or without a payload (such as explosives), causing the drone to conduct a vertical controlled landing on the spot or returning back to its starting point (assisting to track the operator), without causing damage to the drone or the surrounding environment.

- **Effective coverage:** Allows for an up to 2km coverage, in a wide range of environmental conditions
- **Fully Integrated:** Battery powered single rifle style solution, one person operation
- **Easy to use:** no technical training for set up or use required, highly portable design
- **Immediate video cease:** immediately ceases video transmission back to the drone operator
- **Enables investigation:** drone remains intact and available for forensic investigation
- **Certified:** NATO Stock Number allows NATO militaries to order the product off the catalogue without additional testing





**DroneSentry** integrates DroneShield's suite of sensors and countermeasures in a unified platform deployable in permanent or temporary installations. Incorporating RadarZero radar, RFOne RF detectors, and DroneOpt cameras, DroneSentry correlates available data for users and provides maximum situational awareness and the quickest response to airborne threats. DroneSentry also includes the DroneCannon RF countermeasure, providing an end-to-end detection and response capability which forces threatening drones land or return to their origin.

- **Integrated Detect and Defeat Solution:** Automatically detects and disables incoming drone threats
- **Anti-Swarming Capability:** Effectively disables multiple incoming drone threats within its effective range
- **Modular:** A compact design allows for effective transport and assembly
- **Durable:** Weather-resistant and rugged design protects the technology in harsh environments
- **Range:** 5km detection and 2km defeat



*Demonstration for a law enforcement customer*





**DroneSentinel** provides the fully integrated sensor suite of DroneSentry without the DroneCannon RF countermeasure capability. With integrated data from all available sensors, users can rapidly detect and assess potential threats. An intuitive user interface provides live and historical data from all sensors, and broadcasts configurable alerts based on user-defined criteria.

- **Integrated Detection:** Combining all of DroneShield's detection sensors into one product
- **Modular:** A compact design allows for effective transport and assembly
- **Durable:** Weather-resistant and rugged design protects the technology in harsh environments





**DroneNode** is a highly portable and inconspicuous counter-drone solution that can be set up in seconds and requires very little training to operate. Drones will either return to their point of origin or land on the spot. DroneNode's covert design makes it the perfect counter-drone solution for public events where protection from drone threats is a priority.

- **Inconspicuous Design:** Subtle, non threatening form factor provides protection without inciting public concern.
- **Rapid Deployment:** DroneNode can be deployed, activated and packed away in seconds. The perfect choice for drone defence on the go
- **Extended Range:** Up to 1km defeat range
- **Swarm Ready:** DroneNode will engage and neutralise a swarm of multiple drones simultaneously
- **Battery Powered:** DroneNode is powered by a NATO approved self contained battery with room for a second battery stored in the accessories tray

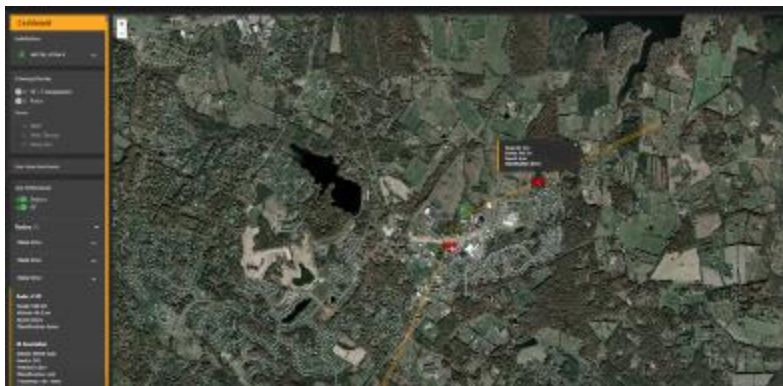




# DroneShieldComplete™

**DroneShieldComplete** includes a graphic user interface (GUI) that compiles and analyses vast amounts of environmental data to display to user seamlessly and effectively. The GUI harnesses the advantages of each detection technology, providing the user with an early warning system and growing detection threat level as more data is gathered and processed.

- **Scalable & Flexible:** Platform is built to scale horizontally and vertically, on-premise or the cloud. Can be used for single multi-sensor sites or several multi-sensor nodes working together
- **Immediate Evidence Collection:** Displays live drone activity, providing alerts to the user about the environment, inbuilt tools for detailed, precise report generation
- **Convenient:** Can be accessed and configured remotely from a web browser, wherever there is Internet connectivity or as standalone desktop application. Alerts are configured through the GUI to send via SMS or Email for remote operators
- **Compatible:** Allows easy integration into existing security systems





# Demonstrated Progression from Development to Sales

## Dominos are starting to fall

Product	Launch	Product Release	First Demo	First Sale	First Large Sale	Multiple Sales	Substantial Market Share
 DroneGun™	Nov 2016	Dec 2016	Jan 2017	Nov 2017	\$3.2m Jun 2018	Dec 2018	Being Secured.  US\$1.6bn market by 2023**
 DroneSentinel™	Jul 2017	Sep 2017	Nov 2017	Mar 2018	Multiple Sales Being Advanced*		
 DroneSentry™	Jul 2017	Oct 2017	Nov 2017	Sep 2018	Multiple Sales Being Advanced*	Dec 2018	

\*Necessarily, not all (and there can be no assurance that any) of the Company's sales opportunities will result in sales.

\*\*<https://www.marketsandmarkets.com/PressReleases/anti-drone.asp>



# Large Addressable Market with Numerous Applications

## Military



## Law Enforcement



## Critical Infrastructure



*(including 65,000 powerplants)*

## Prisons



*(20,000 globally)*

## Airports



*(42,000 globally)*

## Special Events



*(11,000+ outdoor stadiums)*

## Commercial Venues



*(including 41,000+ hotels)*

## VIP Residences



*(200,000+ high net worth individuals)*

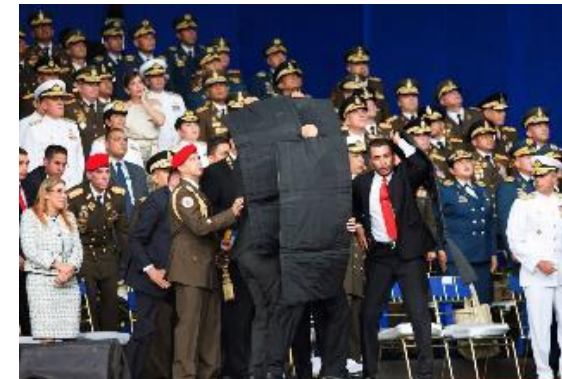




# Case Studies

*DroneShield products have the capability to not only detect drones in real time, but also land the drone safely and lead authorities to the pilots location*

- Between 19 and 21 December 2018, hundreds of flights were cancelled at Gatwick airport following reports of a drone sighting close to the runway.
  - The 48 hour closure of Gatwick Airport during the holiday season caused 140,000 people to be stranded causing hundreds of millions of dollars of damage to a range of companies.
  - The British army was reported to have been called and it was noted that there were a limited range of options available to remedy the situation.
- 
- On 4 August 2018, at least two drones detonated explosives near where Nicolas Maduro, the President of Venezuela, was addressing the Bolivarian National Guard.
  - The Venezuela government claims the event was a targeted attempt to assassinate the President.





# An Established Player in the Market

- Limited number of readily-available competing products.
- Significant first mover advantage.
- Multiple end-user trials have been and are being undertaken by governmental organizations globally with many converting to sales.
- Products have been modified in response to end-user requirements.
- Dozens of contracts being pursued.

**\$3,000,000+**



Has made early international sales, including a \$3m+ order in June 2018 from a Middle Eastern Ministry of Defence - the largest known global order for tactical drone mitigation equipment



Unique global positioning in a growing market – an Australian company with operations in the U.S. and support from the Australian Government



*South Korean military reviews DroneGun™*

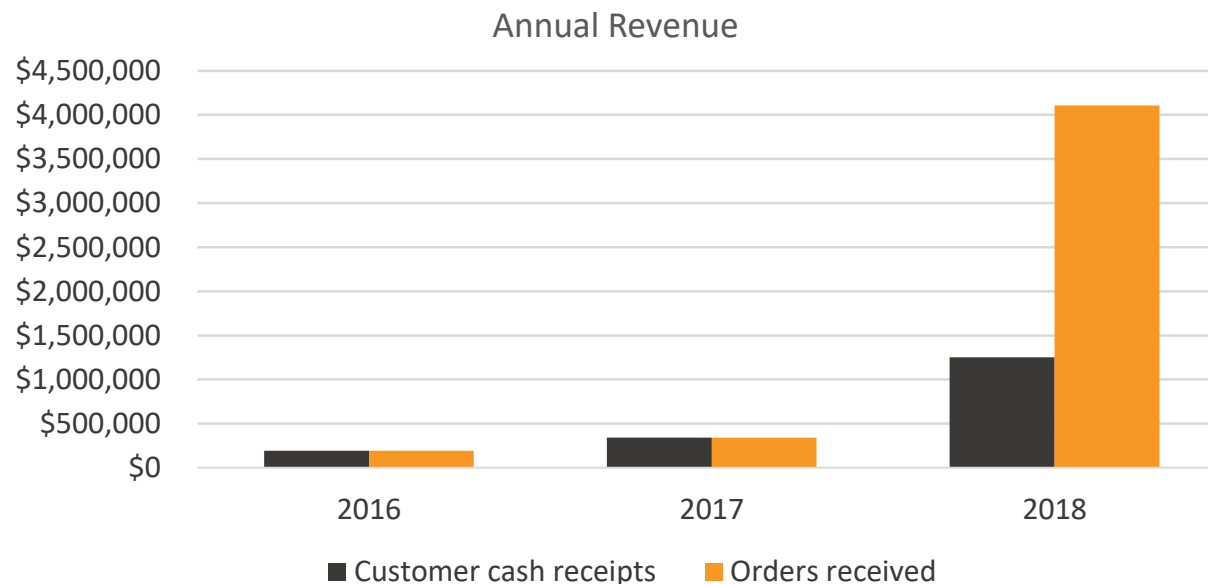


*Queensland Police Service officer with DroneGun MKII™ during Commonwealth Games in Brisbane*



# Rapidly Growing Revenues

- DroneShield generated total customer cash inflows of \$489,209 during the 31 December 2018 quarter, the highest quarterly cash inflows for DroneShield to date.
- DroneShield's total customer cash receipts for the calendar 2018 were \$1,252,123, the highest annual cash receipts to date.
- DroneShield's cash receipts for the first three weeks of January 2019 were \$728,628. In other words, following the Gatwick events, in the first three weeks of the 2019 calendar year, DroneShield received approximately 50% more in cash than it did during the entire previous quarter.
- This equates to an annualised revenue run-rate of \$8.4 million (actual revenues for 2019 will necessarily vary).





# Rapid Sales Growth

2016	2017	2018	
<ul style="list-style-type: none"><li>• 2016 Boston Marathon</li><li>• US</li><li>• UK</li><li>• Small sales</li></ul>	<ul style="list-style-type: none"><li>• 2017 Boston Marathon</li><li>• USA</li><li>• Spain</li><li>• 2017 Hawaii IRONMAN</li><li>• Canberra – Various Australian Govt</li><li>• UK</li><li>• France</li><li>• Poland</li><li>• Japan</li><li>• Turkey Prime Minister</li><li>• Paraguay Military</li><li>• Asian Homeland Security</li></ul>	<ul style="list-style-type: none"><li>• 2018 Olympics</li><li>• 2018 Commonwealth Games</li><li>• US Military trials</li><li>• ASEAN Australia</li><li>• Switzerland</li><li>• Estonia</li><li>• Lithuania</li><li>• South Korea</li><li>• Mexico</li><li>• Canada</li><li>• Malaysia (DSA)</li><li>• Italy</li><li>• Japan</li><li>• South Africa</li></ul>	<ul style="list-style-type: none"><li>• NASCAR, Texas USA</li><li>• Spain</li><li>• France</li><li>• Poland</li><li>• Czech Republic</li><li>• Slovakia</li><li>• Norway</li><li>• Denmark</li><li>• Finland</li><li>• Netherlands</li><li>• Central America</li><li>• Asian Govt</li><li>• \$3.2m Sale to Middle Eastern Ministry of Defence</li></ul>

\*Yellow refers to sales, black refers to trials. Not an exhaustive list.



## Deployments throughout Q4 2018 include:

- A U.S. Department of Defense evaluation
- Inclusion in 2019 Australian Military Sales Catalogue
- A Western government purchased DroneGuns
- A major Asian security agency purchased DroneGuns
- A Central American government security agency order
- Evaluation by the British Army
- Partnership with Thales, a global defence major
- Partnership with Zain, a major Middle East telco

## Additional Sales Opportunities

- Recent customers expected to make substantially larger purchases in near term
- Middle East will remain a major contributor
- US market penetration being advanced
- Numerous European opportunities
- Leadership in Central and South American market now converted into initial sales with potential further sales
- Successful recent Australian deployments - first sale took place in October 2018 following a successful trial
- A number of Asian tenders underway and first DroneGun sale into the region





# Middle East Update

- The Middle East remain one of DroneShield's leading customers due to its recognition of consumer drones being unlawfully used in warfare
- A major government agency in the Middle East is in the process of taking delivery of a large order of DroneGuns
- Nepharious drone activity is intensifying in the region
- Dozens of recently reported drone attacks include:
  - Israel intercepted an Iranian drone
  - UAE intercepted an Iranian drone
  - Yemen's Houthi rebels attacked a Saudi Aramco facility
  - Saudi Arabia shot down (using conventional small arms) a drone in the vicinity of a royal palace
  - An attempt to attack a Saudi Arabian airport
- Australian Government has designated Middle East as a priority market in the 2018 Defence Export Strategy





Watch DroneShield's Corporate Video



## Appendices (continued)

Watch later Share  
**Guardian**



**Planes were grounded  
after reports of another  
drone on Friday evening.**

December 2018 - Gatwick Airport Stops Flights Due to  
Drones





# Appendices (continued)

- DroneGun™ – portable rifle style drone countermeasure
- DroneNode™ – portable covert drone countermeasure
- DroneSentinel™ – multi-sensor drone detection
- DroneSentry™ – DroneSentinel™ with defeat capability







## Appendices (continued)



U.S. Secretary of Defense Discusses Threat of Drones





## Appendices (continued)



Video of Drone Attack on Venezuelan President



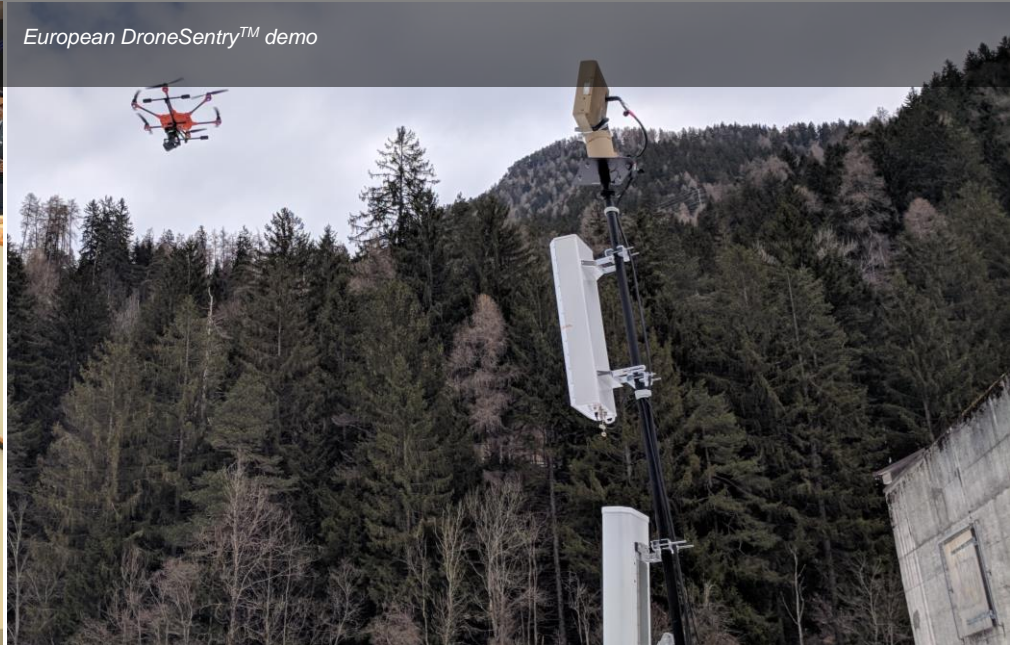


# Appendices (continued)

Australian Ambassador to France Hon Brendan Berne reviewing DroneGun Tactical™ at Eurosatori 2018



European DroneSentry™ demo



Distributor training session, Warrenton VA facility



DroneShield's installation at Winter Olympics 2018







# Appendices (continued)



Australian Ambassador to US Hon Joe Hockey reviewing DroneGun Tactical™ at AUSA 2018



DroneShield receiving CivSec 2018 award for DroneGun™ design



Demonstration for a law enforcement customer

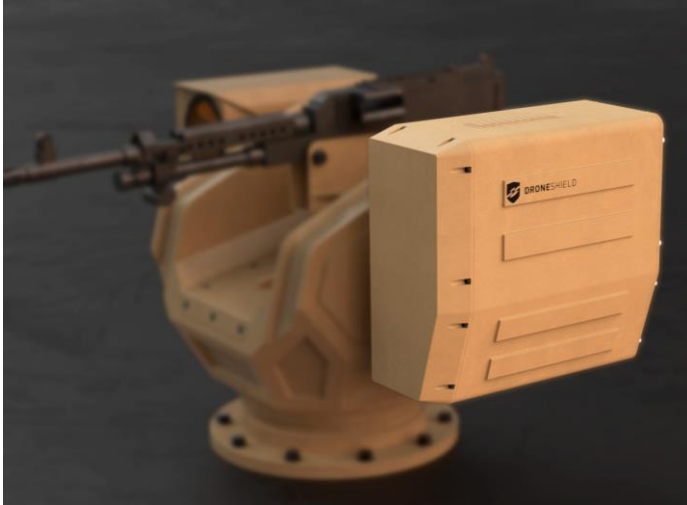


Hon Christopher Pyne (Australian Minister for Defence) with DroneGun Tactical™





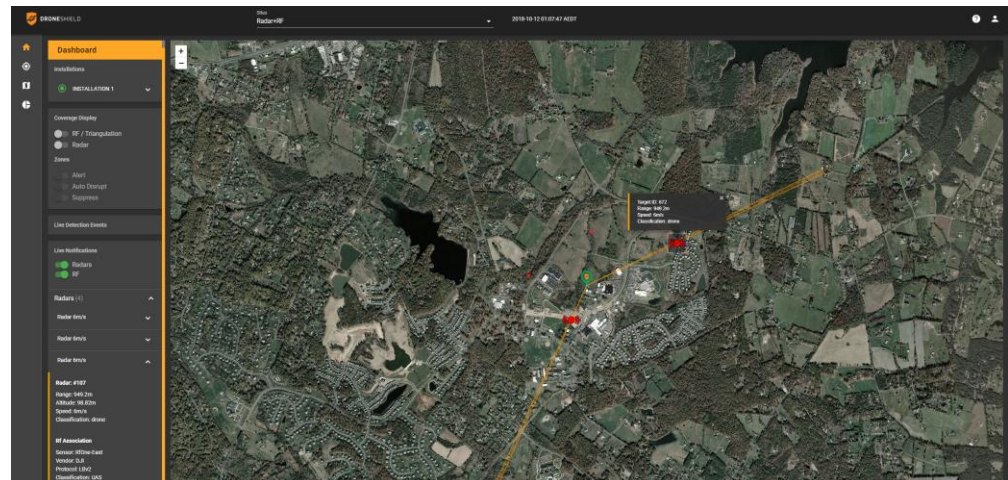
# Appendices (continued)



DroneCannon RW™ counterdrone solution for remote weapon stations



DroneSentry European prison trials



DroneShield software engine interface



# Contact Details

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*DroneSentinel™*



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