

## **Quarterly Report**

For the period ending 31 March 2021



DroneShield Limited (ASX:DRO)

ASX Release ABN 26 608 915 859



**DroneShield Ltd (ASX:DRO)** ("DroneShield" or the "Company") is pleased to provide the following update on its activities during the three-month period ended 31 March 2021 and its Appendix 4C quarterly cash flow report for the same period.

The key highlights during and subsequent to the quarter are as follows.

- √ 1Q21 quarterly customer receipts of \$1.7 million, due to a substantial shift of receipts into 2Q21
- ✓ Multiple orders announced in recent weeks, expected to be delivered and paid for in the current 2Q21 quarter
- √ \$2.3 million cash receipt in mid-April from the Middle Eastern Ministry of Defence customer, with the Company progressing the \$60 million+ order with the same customer
- ✓ Scale-up of manufacturing and supply chain processes substantially complete, with inventory and long lead items on hand to support faster fulfilment of near term pipeline
- ✓ DroneSentry-X<sup>TM</sup> on-the-go C-UAS system has commenced shipments, with a strong demand for system demonstrations and an existing order book of purchases globally
- ✓ Macro environment continuing to be positive for DroneShield, with an increasing global use of drones in conflict zones, and increasing investment in the C-UAS capabilities by Governments and militaries globally

#### **Financial Performance and Outlook**

For 1Q21, DroneShield recorded customer cash receipts of approximately \$1.7 million. Several orders were delayed into 2Q21 which have now been received as of the date of this report (announced to ASX in March and April), and expected to be delivered and paid for, during this 2Q21 quarter.

Together with the \$2.3 million<sup>1</sup> received for an order delivered previously to the Middle Eastern MOD customer, and the two \$1 million and \$1.1 million Five Eye country Government Agency repeat orders announced on 15 March and 7 April 2021, amongst other orders with payment received or pending, the Company expects 2Q21 to be a record quarter for cash receipts.

The Company's high conviction pipeline is estimated at over \$100 million<sup>2</sup>, with a substantial rise in the US opportunity pipeline. In addition to the high conviction pipeline, there are a number of further tenders and other processes in the *full project pipeline* that DroneShield is participating in, which are not referred to in the *high conviction pipeline*, due to the Company having lesser visibility of the probability of winning the project.

Continuing from the 4Q20, the Company has continued to make a substantial investment in ready-to-ship inventory for existing and future orders, as well as stocking up of long lead components, taking the Company's cash balance to \$13.6 million as at 31 March 2021. The Company expects to have cashflow positive quarters starting from 2Q21, subject to inventory planning cycles and any one-off expenses.

 $<sup>^{</sup>m 1}$  A\$2.3m represents the entire US\$1.8 million owing by the customer under that contract

<sup>&</sup>lt;sup>2</sup> Necessarily, not all, and there can be no assurance that any, of the Company's sales opportunities will result in sales



#### Sales

At the macro level, Western and allied Governments and their militaries are continuing the rampup of their defence budgets in countering the asymmetric warfare, which counterdrone forms a part of.

The Company currently offers its products in over 120 countries through a combination of in-country partners and on-the-ground presence (in Australia, US and UK), and the diversity of its pipeline is one of its key strengths. The main drivers of the pipeline are summarised in the sections below, with each pipeline segment currently experiencing a substantial amount of momentum.

Importantly, with a wide distribution network and a history of orders from a variety of customers, DroneShield is not dependent on any one customer or any one existing or potential contract for its success.

The update below does not seek to cover each of the Company's sales opportunities or even each type of Company's sales opportunities, which are numerous. Rather, it highlights a limited number of near-term themes that are some of the main sales drivers for the Company.



Image: DroneGun MKIII<sup>™</sup> units ready for shipment

#### Five Eyes Community

As an Australian defence manufacturer with an on the ground presence in the US and the UK, DroneShield is closely aligned with the Five Eyes (a signals intelligence alliance between the US, Canada, Australia, UK and New Zealand). During the quarter, the Company announced two separate repeat orders, for \$1 million and \$1.1 million, from a high profile Five Eyes Government



agency, following up a smaller evaluation purchase in mid 2020. Additional orders are currently being discussed<sup>3</sup>.

#### The United States Department of Defense and other U.S. government agencies

The United States government, through a wide variety of its agencies and departments, is the largest counterdrone customer globally.

During the quarter, DroneShield continued to expand its US operations, in its new and larger US premises within the same Warrenton precinct in Virginia as its previous office. The Company has also continued to expand its US team, including hiring of a second Field Service Engineer who commenced earlier this month.



Image: US Government agency DroneSentry trials

In February, the Company entered into a new Cooperative Research and Development Agreement (CRADA) with the U.S. Department of Homeland Security Science and Technology Directorate ("DHS S&T"). The research will involve DroneShield's multi-sensor Unmanned Aerial System ("UAS") detection and mitigation capabilities, with the primary focus on DroneSentry<sup>TM</sup> and DroneSentry-C2<sup>TM</sup> solutions for fixed and semi-fixed site applications.

DroneSentry<sup>TM</sup> is a modular system that integrates multiple sensors – radiofrequency (RF), radar, EO/IR camera, and acoustic for layered detection, classification, identification, and tracking of UAS. DroneSentry<sup>TM</sup> leverages DroneShield's latest advancements in Artificial Intelligence ("AI") based RF detection, long-range sensing, and expanded multi-sensor data fusion capabilities.

DroneSentry-C2<sup>TM</sup> provides end users with an interoperable common operating picture for the counter-UAS mission. DroneSentry-C2<sup>TM</sup>'s pairing of advanced sensor fusion with an intuitive enterprise level visual platform, enables users to easily deploy a complete detection and threat assessment capability of unmanned systems for their critical infrastructure and base protection needs.

<sup>&</sup>lt;sup>3</sup> Necessarily, not all, and there can be no assurance that any, of the Company's sales opportunities will result in sales





Image: DroneSentry™ system deployed in the US

The Company has also continued to work with Cassidy & Associates, Inc. ("Cassidy"), a preeminent Washington, DC government relations firm, during the quarter, whereby Cassidy advises the Company on contracting with U.S. government agencies, contracts in connection with U.S. federal government budgetary allocations, and other U.S. federal government relations matters.

During the quarter DroneShield continued to undertake product demonstrations and meetings with the U.S. Department of Defense and other Government agencies, which are expected to translate into sales as the agency adoption of DroneShield products grows.



Image: Deployment at US Department of Homeland Security Science and Technology (DHS S&T)



In addition to the defence work, DroneShield was shortlisted for a major state-wide prison rollout in the US, with an expected total value of about \$15 million, with DroneShield bidding to act as the primary contractor for the deployment and operations. During 1Q21, DroneShield had a shortlisted tenderer meeting with the customer, and is waiting to be notified regarding next steps.

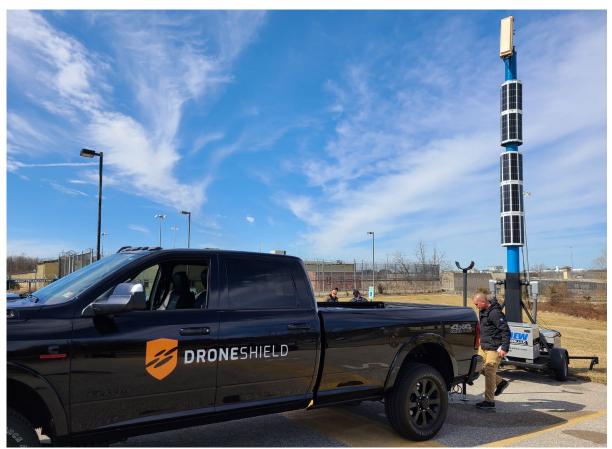


Image: DroneShield's DroneSentry™ system in a mobile setup in the US

In the law enforcement sector, DroneShield received an initial order from a high-profile US agency.

The order comprised of two passive/non-emitting UAS detection sensors, deployed in a mobile configuration, enabling rapid system setup, for detection and tracking of nefarious UAS. It is expected to lead to further orders with this and other US law enforcement agencies.

#### Australian Department of Defence and other government agencies

Being an Australian sovereign industrial defence capability business, DroneShield is well positioned for work with the Australian Department of Defence ("DoD") and other Government agencies. During the quarter, the Company continued working on an ongoing \$630,000 contract with the Department of Defence, meeting the required milestones. The contract is expected to be completed this quarter, with follow up work currently being discussed.

As part of the ongoing engagement with the DoD, as DroneShield is in the business of understanding, and minimising defence and Government customer vulnerabilities, secret clearances are important for closer and more productive customer engagements as the Company scales its business. The Company anticipates completing its Defence Industry Security Program ("DISP") process and becoming eligible for a defence clearance, in mid 2021. Meanwhile, a number of key DroneShield employees have already been granted individual clearances by the DoD.



#### The Middle East

DroneShield received in mid-April, the outstanding \$2.3 million (in addition to the funds previously received by DroneShield under this order) for a shipment of the remaining DroneGun Tactical™ units under a prior Middle Eastern Ministry of Defence order. Receipt of the payment successful concludes the contract.

Completion of the contract has been an important milestone, demonstrating DroneShield's ability to successfully navigate doing business in one of the most challenging yet most lucrative regions globally for Western companies, in terms of successful management of stakeholders and achieving outcomes.

It also highlighted the global leadership positioning of DroneShield products, and its best-in-breed performance, as confirmed by this customer who faces daily UAS threats on their home soil, like no other customer globally.

DroneShield also continues to pursue the \$60 million to \$70 million<sup>4</sup> potential order, with a fully completed form of contract awaiting execution by the sovereign customer. During the quarter, DroneShield's in-country partner held multiple discussions with the customer and work continues to arrange near term execution of the contract.<sup>5</sup>



Image: DroneGun Tactical™

#### **Europe**

During the quarter, DroneShield conducted multiple deployments and trials through Europe, participating in a number of military, airport and prison opportunities. It expects additional European orders, including linkage to the European Union Police framework agreement, in the current quarter.

Further, DroneShield is presently in the process of delivering several large orders to Europe across its product range, including portables, vehicle and fixed site solutions. These orders are expected to be delivered to the customers prior to end of the current June quarter.

<sup>&</sup>lt;sup>4</sup> Corresponding to US\$45-55 million. Movement from previously reported amount due to AUD/USD FX fluctuations

<sup>&</sup>lt;sup>5</sup> Necessarily, there can be no assurance that any of the Company's sales opportunities will result in sales. There is no assurance that the bid referenced in this paragraph will result in a sale



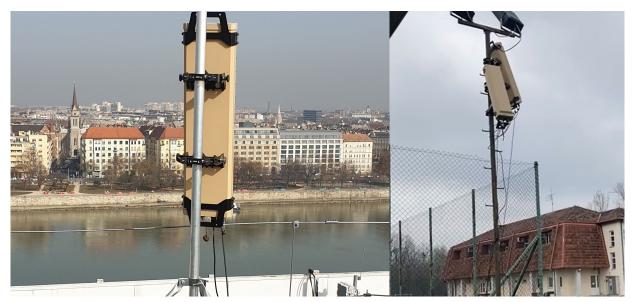


Image: DroneSentry™ deployments in Europe

#### The United Kingdom - Partnership with BT

DroneShield continues its partnership with BT on its counterdrone pipeline. UK Ministry of Defence ("UK MOD") continues to be the prime focus for the partnership, along with law enforcement and airport customers. DroneShield and BT have made substantial inroads within the UK MOD and other UK customers over last 12 months, despite the COVID-19 slowdown. The Company is scheduled to conduct extensive additional end user evaluations this quarter, as the UK emerges from the lockdown, to continue progressing the conversation of the pipeline into sales. DroneShield has made several smaller trial sales in the UK during the quarter across multiple products.

#### **Airports**

DroneShield has continued its airport work during 1Q21, including a major European airport trial.



Image: DroneShield system deployment (RfOne™ on the right) at a major European airport

Despite COVID-19 slowdown, the Company expects airports to commence counterdrone system rollouts this year, with FAA in the US announcing system trials at 5 airports across the country.



#### DroneSentry-X<sup>TM</sup> sales

During the quarter, DroneShield received multiple first orders for its latest product, DroneSentry-X<sup>TM</sup>, an on-the-move C-UAS system. The orders included both detection-only and detect-and-defeat variants, for North America and South East Asia regions. Detection-only variant is purchased by customers who are legally restricted in their ability to defeat UAS.

The orders, with approximately \$500,000 in proceeds, are the initial trial purchases of the system, in two separate countries, in anticipation of larger procurements. Additional follow up orders are currently being discussed, with the amounts to be confirmed. Further, the Company has received substantial demand to evaluate DroneSentry-X<sup>TM</sup> units with a wide variety of high-profile customers globally, which will be taking place over the next several months, and expected to lead to sales this year.

DroneSentry-X<sup>TM</sup> offers a truly unique capability for directional awareness of asymmetric warfare vectors such as nefarious UAS used for reconnaissance and payload delivery. With DroneShield's expertise in waveform design, it provides a complete bubble of surveillance around the deployed area. The devices utilise DroneShield's unique Al-based RF software, also deployed across our other platforms such as RfPatrol<sup>TM</sup>, RfZero<sup>TM</sup> and DroneSentry<sup>TM</sup>.



Image: DroneShield's DroneSentry-X<sup>TM</sup> system on a vehicle



#### **Team and Operations**

Following the transformative capital raise in 3Q20, DroneShield continued to expand the team, including additions to its engineering and operations staff in its Australian office, and sales and engineering field support staff in the US office. The current headcount is approximately 40 staff across Australia, the US and the UK. In January, DroneShield completed the move to a larger facility in Sydney, bringing its R&D, corporate and manufacturing under one roof.

Earlier this month, DroneShield promoted Lyle Halliday to Chief Operating Officer. Lyle was previously a Systems Engineer, successfully running a number of the Company's processes including its DISP/security clearance and ISO9001 certifications.

Katherine Stapels has joined as General Counsel, based in the Sydney office. Her previous positions include Legal Counsel at CEA Technologies, one of Australia's leaders in advanced radar technologies for defence.

The Company is continuing to recruit for a number of vacancies across various roles in its Australian and US office, and continues to receive a high degree of interest from high calibre applicants due to its unique cutting edge technology positioning in the defence space.



Lyle Halliday, DroneShield COO



Katherine Staples, DroneShield General Counsel



Image: Opening function of the new DroneShield Sydney office



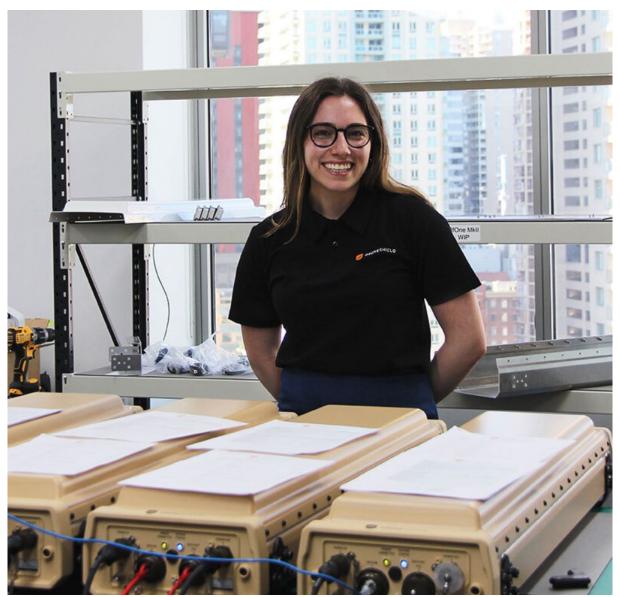


Image: DroneShield Sydney-based engineering intern Georgia Kirkpatrick-Jones

During the quarter, DroneShield commenced initial production batches with an experienced defence manufacturing contractor in Australia (a fully Australian owned and operated medium size specialised electronics manufacturer), for some of its product lines. DroneShield continues to do its own manufacturing of products which continue to be further developed (co-located with its main R&D premises in Sydney, enabling agile product development).

#### Marketing

While most trade shows continued to be postponed or held virtually due to COVID-19 during the quarter, DroneShield is planning to participate in events still going ahead in 2021, directly or via local partners. This includes the Australian Army Robotics Exposition (ARX) which was held in Brisbane on 20 April, and will include the Land Forces Expo, also in Brisbane, in early June, where the Company expects to exhibit both in its own stand, and within the stands of its exhibiting partners.

With COVID-19 travel restrictions, the Company commenced a program of "virtual demonstrations" from its US facilities, enabling prospective customers to familiarise themselves with the



DroneShield offering remotely.

DroneSentry-X<sup>TM</sup> product video was release during the quarter, and can be viewed here:



Video: DroneSentry-X<sup>TM</sup> promotional reel

Additionally, DroneShield continued marketing via an extensive in-country demo program via its on-the-ground local partner network.

DroneShield has continued to receive local recognition for the calibre of its team, with its Artificial Intelligence/Machine Learning software engineer Guillaume Jounel winning the NSW Young Achiever Award and being recognised at the National event in Canberra earlier in the year.



Image: DroneShield's Guillaume Jounel (second on the right) at the AIDN National Young Achiever Awards, with Chief of the Defence Force Angus Campbell (first on the left)



#### **Partnerships**

DroneShield's partnership with Trakka Systems has commenced with a successful demonstration of the TIPS-C (Trakka Interceptor Package Solution) at Eglin Air Force Base in the US. The TIPS-C is designed to better serve the ISR, inspection, UAS and C-UAS marketplaces.

The combined system carries DroneShield's DroneSentry-C2<sup>TM</sup> integrated with its RadarZero<sup>TM</sup> radar, TrakkaCam TC-300 camera, and DroneOptID <sup>TM</sup> Al-based computer vision engine to provide real-time drone detection and tracking with slew-to-cue camera for visual threat assessment and video evidence recording. The system also optionally includes DroneShield's DroneSentry-XTM on-vehicle detect-and-defeat system.

In January, executive teams from Trakka Systems and DroneShield met with the Tampa Police Department Special Operations Division's Chief Pilot and five members of the TPD Special Ops Groups, plus a Technical Liaison to the FBI, for the premiere demonstration of the TIPS-C at the Tampa Police Training Facility in Tampa, FL. The TIPS-C trial was a sweeping success.

Following that in February, the DroneShield and Trakka team met with multiple key decision makers and members from Hanscom and Eglin AFB at the Northwest Florida Fairgrounds to demonstrate the unmatched capabilities of the TIPS-C total package solution.



Image: combined DroneShield and Trakka system at a US Government agency demo

The demonstration was an excellent success. Additional feedback from the demonstration has included:





"The proposed **TIPS-C** total solution package for the UAS threat is currently unmatched."

"No OEM has been able to successfully demonstrate an integrated system that detects UAS, slews optical sensor onto target and tracks, then classifies the UAS."

"Setup time from covert to up and detecting was less than 10 minutes. For a mobile, multi-sensor system that's unprecedented."

"Integrated capability allows operators to detect and protect while on the move and at the halt in a low-SWaP form factor."

"The autonomous nature of not only multi-sensor detection, but fusion and continuous tracking of the UAV with little to no cognitive burden on the analyst or operator."

Image: DroneShield and TRAKKA's combined on-vehicle TIPS-C system

#### **Product Development**

DroneShield continues to position itself at the cutting edge of solutions for detection and response to a wide variety of asymmetric multi-domain threats, as the greyzone conflict continues to rapidly rise, at both non-State actor level and State-on-State warfare.

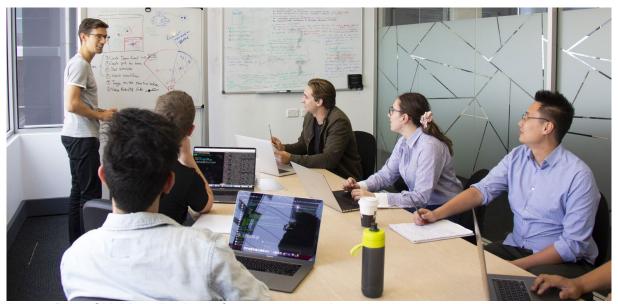


Image: DroneShield application software team meeting



#### Next Gen Artificial Intelligence Software Rollout

In February, DroneShield announced the rollout of its first fully Machine Learning/Al based detection and classification software to all of its existing customer systems, with the April quarterly update continuing to build on this world leading platform, with a number of break-through enhancements.

The April updates have included an increase in ruggedness and versatility of the system, and incorporates a number of user-suggested features from the global deployment base of DroneShield's body-worn, on-the-move and base protection systems. The update also includes compatibility of the DroneSentry-C2<sup>TM</sup> command-and-control ecosystem with additional partner sensor products.

DroneShield utilises its proprietary techniques in signal processing and Machine Learning/Al to do near-real time detection and identification of unmanned robotic systems and, more broadly, other potential threats in the Electronic Warfare fields. The result is a dramatic increase in detection responsiveness, lower false positives and a significant increase in the speed at which new threats are detected, classified and tracked by the DroneShield systems.

One of the key achievements that sets DroneShield's technology substantially ahead of the existing technologies globally, is a very lightweight machine learning architecture designed to run on low power FPGA (Field-Programable Gate Array) hardware. This enables the system to be deployed for long term periods in power scarce, air-gapped environments.



Image: DroneShield RF embedded team undertaking software field testing

The software is designed to run on all DroneShield platforms including RfPatrol<sup>TM</sup>, DroneSentry<sup>TM</sup> and DroneSentry-X<sup>TM</sup>.

Future device software updates will build on this system architecture and increase performance and the number of detectable threats.

DroneShield customers receive regular software updates via enrolling in a Subscription-as-a-Service (SaaS) model at the time of purchase of their systems. Importantly, the software also has capabilities for deployment outside of the C-UAS space, on a hardware agnostic basis. DroneShield is currently engaging in such deployments with its Five Eye country military customers.





Image: DroneSentry™ system

#### DroneCannon MKII<sup>TM</sup>

In March, DroneShield announced the release of the DroneCannon  $MKII^{TM}$ , the next generation fixed site UAS/drone disruption device.

Following on the numerous successful deployments of the first generation DroneCannon<sup>TM</sup> around the world, the DroneCannon MKII<sup>TM</sup> is substantially lighter and more portable, with increased durability and versatility made possible through significant advancements in DroneShield's proprietary waveform technologies, mechanical design and customised electronics.



Image: DroneCannon MKII™

A non-kinetic countermeasure, the DroneCannon MKII<sup>TM</sup> can disrupt UAS at significant ranges, enabling users to cover large sites with minimal installation points. Through DroneShield's



DroneSentry- $C2^{TM}$  software the DroneCannon MKII<sup>TM</sup> can be paired with DroneShield's DroneSentry<sup>TM</sup> fixed site detection sensors such as the RfOne MKII<sup>TM</sup>, enabling it to disrupt UAS threats autonomously, removing the need for a "man in the loop" system.

With the capability to disrupt multiple bands simultaneously including GNSS, the DroneCannon MKII<sup>TM</sup> ensures customers are protected from commercial off-the-shelf drones as well as custom threats, now commonplace in asymmetric warfare in global conflicts. RF disruption is especially effective against "UAS swarm" attacks and wide antenna azimuth and elevation provide complete coverage from threats including drones directly above the sensor. Frequency bands can be individually activated and de-activated providing more control to the user and reducing the collateral effects of RF disruption.

Each DroneCannon MKII<sup>TM</sup> is individually RF chamber tested (much like every DroneShield product, being a high value/high performance item) prior to shipment.

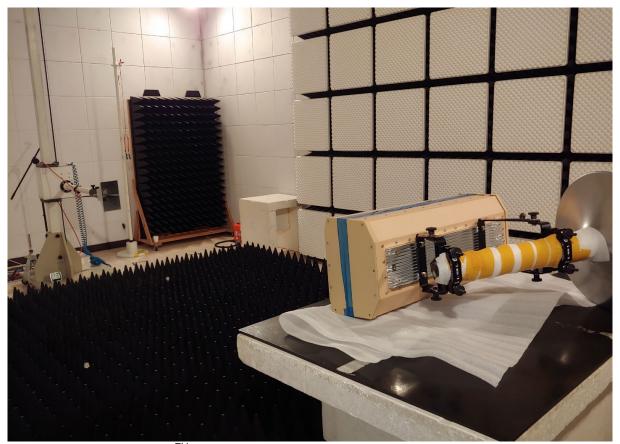


Image: DroneCannon MKII<sup>TM</sup> chamber testing prior to product sealing and shipping

#### RfPatrol<sup>TM</sup> and MPU5 Create an Integrated Soldier System

During the quarter, the Company announced the integration of its body-worn UAS passive detection device RfPatrol with the Persistent Systems MPU5 – the worlds most advanced, scalable, and efficient Mobile Ad Hoc Networking (MANET) soldier radio system. The MPU5 is offered in Australia by CISTECH Solutions, the premier Radio over IP and Network Services integrator.

Together, RfPatrol<sup>™</sup> and the MPU5 offer a body-worn passive detection capability, with RfPatrol<sup>™</sup> output via its Battle Management System securely relayed in real time to a central command point via the MPU5, for a common operating picture showing location of the dismounted forces carrying the RfPatrol<sup>™</sup> devices, displaying UAS and other threat alerts in real time and locations.



The Company considers this to be world's first capability of its kind, enabling a common operating picture of C-UAS and other improvised threat detection from dismounted units in the field.



Image: RfPatrol™ and MPU5



Image: RfPatrol<sup>™</sup> teamed with MPU5 tracking on the DroneSentry-C2<sup>™</sup> system



#### **Press Coverage**

DroneShield continued to be reported as the leading edge of the counterdrone industry in the media. Coverage of DroneShield included the following:

- DroneShield C-sUAS Technology Supports U.S. Army Exercise<sup>6</sup>
- Successful U.S. Air Force Base Demonstration of Counter UAS System<sup>7</sup>
- DroneShield receives follow-up order from a Five Eyes government<sup>8</sup>
- A Five Eyes country has upped its recent order for DroneShield's DroneGun<sup>9</sup>
- DroneShield wins 1 million repeat deal from a five eyes country<sup>10</sup>
- Counter-Drone Technology Supports U.S. Army Exercise<sup>11</sup>
- DroneShield receives first order under EU Police Contract<sup>12</sup>
- Pyne signs up third defence client<sup>13</sup>
- Release of DroneCannon MKII<sup>14</sup>
- New weapon in the anti-drone wars 15
- DroneShield joins SCEC and SOSSEC16
- DroneShield (ASX:DRO) receives \$2.3M multi-option payment from Middle East<sup>17</sup>
- DroneShield aims for India<sup>18</sup>
- DroneShield (ASX:DRO) receives first orders for counter-drone system<sup>19</sup>
- DroneShield aims to further exploit AI for C-UAS development, introduces updated products<sup>20</sup>
- DroneShield, Trakka test integrated counter-drone system at Eglin Air Force Base<sup>21</sup>
- DroneShield demonstrates its TIPS-C counter-drone solution<sup>22</sup>
- DroneShield Al System Detects New Potential Threats<sup>23</sup>
- DroneShield integrates new Al software<sup>24</sup>
- DroneShield (ASX:DRO) share price rises on new customer order<sup>25</sup>

#### DroneShield appeared on Ausbiz earlier in April:

<sup>&</sup>lt;sup>6</sup> https://uasweekly.com/2020/12/28/droneshield-c-suas-technology-supports-u-s-army-exercise/

<sup>7</sup> https://sldinfo.com/whitepapers/successful-u-s-air-force-base-demonstration-of-counter-uas-system/

<sup>8</sup> https://dronedj.com/2020/12/29/droneshield-receives-follow-up-order-from-a-five-eyes-government/

<sup>9</sup> https://stockhead.com.au/tech/a-five-eyes-country-has-upped-its-recent-order-for-droneshields-dronegun/

<sup>10</sup> https://stockhead.com.au/tech/droneshield-wins-1-million-repeat-deal-from-a-five-eyes-country/

<sup>11</sup> https://www.unmannedsystemstechnology.com/2020/12/counter-drone-technology-supports-u-s-army-exercise/

<sup>12</sup> https://www.defenceconnect.com.au/key-enablers/7502-droneshield-receives-first-order-under-eu-police-contract

<sup>13</sup> https://www.afr.com/rear-window/pyne-signs-up-third-defence-client-20210131-p56y5n

<sup>14</sup> https://www.suasnews.com/2021/03/release-of-dronecannon-mkii/

<sup>15</sup> https://www.spatialsource.com.au/unmanned/new-weapon-in-the-drone-wars

<sup>16</sup> https://uasweekly.com/2021/03/08/droneshield-joins-scec-and-sossec/

 $<sup>\</sup>frac{17}{https://themarketherald.com.au/droneshield-asxdro-receives-2-3m-multi-option-payment-from-middle-east-2021-04-13/2012-04-14/2012-04-14/2012-04-14/2012-04-14/2012-04-14/2012-04-14/2012-04-14/2012-04-14/2012-04-14/2012-04-14/2012-04-14/2012-04-14/2012-04/2012-04-14/2012-04-14/2012-04-14/2012-04-14/2012-04-14/2012-04/2012-04/2012-04/2012-04/2012-04/2012-04/2012-04/2012-04/2012-04/2012-04/2012-04/2012-04/2012-04/2012-04/2012-04/2012-04/2012-04$ 

<sup>18</sup> https://www.australiandefence.com.au/business/droneshield-aims-for-india

 $<sup>\</sup>frac{20}{\text{https://www.janes.com/defence-news/news-detail/droneshield-aims-to-further-exploit-ai-for-c-uas-development-introduces-updated-products}$ 

<sup>21</sup> https://blog.executivebiz.com/2021/03/droneshield-trakka-test-integrated-counter-drone-system-at-eglin-air-force-base/

<sup>22</sup> https://dronedj.com/2021/03/22/droneshield-demonstrates-its-tips-c-counter-drone-solution/

<sup>23</sup> https://www.suasnews.com/2021/03/droneshield-ai-system-detects-new-potential-threats/

https://www.defenceconnect.com.au/key-enablers/7637-droneshield-integrates-new-ai-software

<sup>25</sup> https://www.fool.com.au/2021/04/06/droneshield-asxdro-share-price-rises-on-new-customer-order/





Video: DroneShield CEO Oleg Vornik on Ausbiz

#### **Environment**

The start of 2021 saw continued global development into compact, swarm ready UAS to be deployed in asymmetric warfare environments, by Government and terrorist groups. The U.S. Army has recognised the role that UAS plays in current and future warfare, as well as highlighting the challenges associated with identifying, responding and eliminating non-human threats. General John Murray, head of the U.S. Army Futures Command, emphasised that responding to highly agile and responsive UAS swarms will need to incorporate AI based technologies. The speed and scale in which AI technologies operate are best placed to mitigate or eliminate complex UAS threats.



Image: The USS Kidd warship, subject of a drone swarm incident, with unknown culprits



The U.S. Navy confirmed that the USS Kidd, a modern destroyer warship, was swarmed and followed by multiple unknown UAS off the coast of California. Further details have since emerged, outlining how the drones were spotted by lookout personnel and followed the ship for a period of 90 minutes. Despite a vast array of sensors, including radar, thermal imaging and electro-optical systems, they were not able to track or identify the swarm as it left the ship. The incident has similar characteristics to an incident at the Palo Verde US nuclear power plant, where multiple drones flew freely over the facility.

January saw the Indian Army showcase their latest developments in drone swarming technology. 75 drones flew in an autonomous exercise in a scenario which simulated penetrating contested and restricted airspace. Some of the drones featured were carriers for smaller kamikaze drones, loaded with explosives to be detonated upon reaching their target.



Image: Demonstration by the Indian Army, featuring 75 drones operating in simulated swarm missions

Large scale coordinated attacks continued in the Middle Eastern region, with multiple incidents affecting the Oil and Gas industry.

- In early January, an Oil facility on the border of Turkey and Syria was struck by an unknown number of drones. The attack caused significant damage to the facility, which was subject to similar attacks in December 2020.
- In March, Houthi rebels launched six bomb-laden drones, striking a Saudi oil refinery. Drone
  attacks between Houthi rebels and Saudi infrastructure have continued to escalate over
  recent months.
- Global oil prices rose above \$70 a barrel for the first time in 14 months after Saudi Arabia's energy facilities were targeted in a March attack. The drone was launched at sea, before striking energy infrastructure and a large petroleum storage tank in the Ras Tanura shipping port.





Image: In January, a Syrian oil facility on the border with Turkey was targeted by an unidentified drone

Border conflict zones continued to report consistent use of UAS in espionage, smuggling and combat missions.

- Two men were arrested after using a heavy-duty quadcopter to smuggle drugs and weapons across the border in India.
- A Chilean Navy helicopter crewmember suffered injuries as a result of their aircraft striking a commercial drone, causing significant damage to the windscreen.



Image: Extensive damage to a Chilean Navy helicopter, which struck a drone causing significant injuries to a crewmember



The U.S. Department of Corrections announced that in the first three months of 2021, there had already been nine UAS incidents involving state prisons. Criminals continue to exploit weaknesses in existing prison security infrastructure. Off the shelf UAS offer a comparatively low risk method for delivering contraband, allowing the pilot to remain distanced from the operation.

- Four people were arrested after attempting to smuggle drugs into a prison in Sherbrooke, Canada using a drone.
- Two men used drones in a smuggling operation at an Ohio prison, only becoming detected when the smuggled contents were found inside the prison.
- A consumer drone with one kilogram of drug contraband attached to it was seized after it crashed into a building near the US/Mexico border. Increases to payload capacity have allowed criminals to move larger quantities of contraband over larger distances.



Image: A seized drone that was attempting to carry a kilogram of drugs between the US and Mexico

During the quarter, authorities arrested a man using a drone to transport drugs in Simi Valley, California.



Image: a man arrested for using a drone to transport drugs in Simi Valley, California



Also in January, a drone crashed into Las Vegas Raiders' Allegiant Stadium, causing \$10K in damage.



Image: a drone crashed into Las Vegas Raiders' Allegiant Stadium, causing \$10K in damage

While many reported incidents involving UAS are attributed to intentional nefarious activities, there are numerous instances that have resulted from inconsistent regulations or lack of public knowledge. A survey conducted with drone pilots in late 2020 unearthed that 81% do not know where they can legally fly. The lack of prior knowledge by drone pilots can have serious consequences, as was the case with Piedmont Triad International Airport in North Carolina. The airport was shut down for three hours after a drone was spotted crossing runways by security personnel. The following incidents are further examples where lack of clarity around drone regulations resulted in serious breaches of safety or privacy. Importantly, DroneShield's systems address all of the "3 Cs" ("careless, clueless and criminal") and provide airspace awareness and drone neutralisation regardless of whether the drone issue was deliberately caused or not.

In other news, a New Zealand drone pilot was fined after crashing their drone into a trainee paraglider. The drone was nearly impossible to spot prior to the collision, reaffirming the importance of dedicated detection technologies to secure restricted airspace from negligent and nefarious drone incursions.

A township in Michigan was ruled to have violated privacy laws when a drone was used to conduct surveillance and evidence gathering against a couple in their backyard.

A document released by the FAA outlined the need for tighter regulations around UAS, including remote identification technology similar to what is installed on commercial aircraft. Enforcing such measures will prove to be difficult, taking into account the accessibility of COTS (Commercial Off The Shelf) and MOTS (Modified Off The Shelf) drones. Furthermore, modified drones can, by accident or intent, circumvent such safety measures. UAS detection products will continue to play a vital role in monitoring and protecting controlled airspace.

Please see <a href="https://www.droneshield.com/press-coverage">https://www.droneshield.com/press-coverage</a> and <a href="https://twitter.com/DroneShield">https://twitter.com/DroneShield</a> for more information.



#### Payments to related parties of the entity and their associates

During the quarter, DroneShield paid Sort Hub Pty Ltd \$162,026 for shipping of inventory globally, on normal commercial terms and conditions no more favourable than those available from other parties in the logistics industry. Director Jethro Marks is a related party of Sort Hub Pty Ltd.

Board fees paid to Non-Executive Directors, and salary to CEO amounted to \$126,665.

#### **Capital Structure**

As of the date of this report, there are 389,880,102 ordinary shares on issue. No other class of securities (other than the options referenced below) exist.

Below table summarises current outstanding options, issued to the Board, management and staff (and in the case of class R options, issued to brokers as part of previous capital raisings).

Class	Amount	Strike Price	Expiry
	Outstanding		
F	750,000	30c	22 Jun 2021
G	250,000	30c	29 Mar 2022
J	225,000	50c	22 Jun 2021
K	675,000	50c	22 Jun 2022
Р	550,000	40c	5 Aug 2022
Q	3,887,500	65c	30 Jun 2023
R	10,000,000	40c	5 Aug 2022
S	2,200,000	25c	31 Dec 2023
Zepos -	21,000,000	Nil (exercise can only take place when the	15 Aug 2021
Tranche 1		Company achieves \$10m in revenue or cash	
Zepos -	2,459,384	receipts in a 12 month period, or a takeover or	17 Oct 2021
Tranche 1		a similar transaction occurs)	
Zepos -	4,770,000	Nil (exercise can only take place when the	30 Nov 2022
Tranche 2		Company achieves \$20m in revenue or cash	
		receipts in a 12 month period (not counting any	
		revenue or cash receipts applied to Tranche 1	
		Zepos vesting, or a takeover or a similar	
		transaction occurs)	
Total	46,766,884		

Authorised for release by the Board of Directors.



#### **Further Information**

Oleg Vornik CEO and Managing Director

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Tel: +61 2 9995 7280

#### **About DroneShield Limited**

DroneShield (ASX:DRO) is an Australian publicly listed company with its head office in Sydney and teams in the US and UK, specialising in C-UAS, Electronic Warfare, RF sensing, Artificial Intelligence and Machine Learning, Sensor Fusion, rapid prototyping and MIL-SPEC manufacturing. Our capabilities are used to protect military, Government, law enforcement, critical infrastructure, commercial and VIPs throughout the world.

Through our team of Australian based engineers, we offer customers bespoke solutions and off-the-shelf products designed to suit a variety of terrestrial, maritime or airborne platforms. DroneShield is proudly exporting Australian capability to customers throughout the world and supporting Australia's defence, national security and other organisations protect people, critical infrastructure and vital assets.

**END** 

### **Appendix 4C**

# Quarterly cash flow report for entities subject to Listing Rule 4.7B

#### Name of entity

אטי	NESHIELD LIMITED

#### ABN Quarter ended ("current quarter")

26 608 915 859 31 March 2021

Con	solidated statement of cash flows	Current quarter \$A	Year to date (3 months) \$A
1.	Cash flows from operating activities		
1.1	Receipts from customers	1,678,022	1,678,022
1.2	Payments for		
	(a) research and development	(147,438)	(147,438)
	(b) product manufacturing and operating costs	(1,616,098)	(1,616,098)
	(c) advertising and marketing	(321,096)	(321,096)
	(d) leased assets	-	-
	(e) staff costs	(1,275,076)	(1,275,076)
	(f) administration and corporate costs	(983,098)	(983,098)
1.3	Dividends received (see note 3)	-	-
1.4	Interest received	-	-
1.5	Interest and other costs of finance paid	(10,697)	(10,697)
1.6	Income taxes paid	-	-
1.7	Government grants and tax incentives	225,968	225,968
1.8	Other (provide details if material)	35,200	35,200
1.9	Net cash from / (used in) operating activities	(2,414,313)	(2,414,313)

2.	Cash flows from investing activities		
2.1	Payments to acquire or for:		
	(a) entities	-	-
	(b) businesses	-	-
	(c) property, plant and equipment	(69,310)	(69,310)
	(d) investments	-	-
	(e) intellectual property	-	-

Con	solidated statement of cash flows	Current quarter \$A	Year to date (3 months) \$A
	(f) other non-current assets	-	-
2.2	Proceeds from disposal of:		
	(g) entities	-	-
	(h) businesses	-	-
	(i) property, plant and equipment	-	-
	(j) investments	-	-
	(k) intellectual property	-	-
	(I) other non-current assets	-	-
2.3	Cash flows from loans to other entities	-	-
2.4	Dividends received (see note 3)	-	-
2.5	Other (provide details if material)	-	-
2.6	Net cash from / (used in) investing activities	(69,310)	(69,310)

3.	Cash flows from financing activities		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	-	-
3.2	Proceeds from issue of convertible debt securities	-	-
3.3	Proceeds from exercise of options	-	-
3.4	Transaction costs related to issues of equity securities or convertible debt securities	-	-
3.5	Proceeds from borrowings	-	-
3.6	Repayment of borrowings	(150,368)	(150,368)
	Paper transaction: the Company received loan proceeds of AU\$150,368 (US\$99,600) from the US Government, under the Paycheck Protection Program ("PPP") in FY 2020. The loan was used for qualifying expenses that met the conditions for forgiveness. During the quarter, the loan was forgiven and the proceeds of the loan recognised in 1.7, Government grants and tax incentives.		
3.7	Transaction costs related to loans and borrowings	-	-
3.8	Dividends paid	-	-
3.9	Other (provide details if material)	(42,362)	(42,362)
3.10	Net cash from / (used in) financing activities	(192,730)	(192,730)

Consolidated statement of cash flows		Current quarter \$A	Year to date (3 months) \$A
4.	Net increase / (decrease) in cash and cash equivalents for the period		
4.1	Cash and cash equivalents at beginning of period	16,288,772	16,288,772
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(2,414,313)	(2,414,313)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(69,310)	(69,310)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	(192,730)	(192,730)
4.5	Effect of movement in exchange rates on cash held	13,457	13,457
4.6	Cash and cash equivalents at end of period	13,625,876	13,625,876

5.	Reconciliation of cash and cash equivalents at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	Current quarter \$A	Previous quarter \$A
5.1	Bank balances	1,483,742	4,158,819
5.2	Call deposits	12,142,134	12,129,953
5.3	Bank overdrafts	-	-
5.4	Other (provide details)	-	-
5.5	Cash and cash equivalents at end of quarter (should equal item 4.6 above)	13,625,876	16,288,772

Payments to related parties of the entity and their associates	Current quarter \$A
Aggregate amount of payments to related parties and their associates included in item 1	(288,691)
Payments to CEO and Non-Executive Directors of \$126,665, and payment of \$162,026 for inventory global shipping costs to shipper Sort Hub Pty Ltd, of which the director Jethro Marks is a related party.	
Aggregate amount of payments to related parties and their associates included in item 2	-
-	Aggregate amount of payments to related parties and their associates included in item 1 Payments to CEO and Non-Executive Directors of \$126,665, and payment of \$162,026 for inventory global shipping costs to shipper Sort Hub Pty Ltd, of which the director Jethro Marks is a related party.  Aggregate amount of payments to related parties and their

7.	Financing facilities  Note: the term "facility" includes all forms of financing arrangements available to the entity.	Total facility amount at quarter end	Amount drawn at quarter end \$A
	Add notes as necessary for an understanding of the sources of finance available to the entity.	\$A	ΨΑ
7.1	Loan facilities	-	-
7.2	Credit standby arrangements	-	-
7.3	Other (please specify)	-	-
7.4	Total financing facilities	-	-
7.5	Unused financing facilities available at qu	arter end	-

8.	Estimated cash available for future operating activities	\$A
8.1	Net cash from / (used in) operating activities (item 1.9)	(2,414,313)
8.2	Cash and cash equivalents at quarter end (item 4.6)	13,625,876
8.3	Unused finance facilities available at quarter end (item 7.5)	-
8.4	Total available funding (item 8.2 + item 8.3)	13,625,876
8.5	Estimated quarters of funding available (item 8.4 divided by item 8.1)	5.64

Note: if the entity has reported positive net operating cash flows in item 1.9, answer item 8.5 as "N/A". Otherwise, a figure for the estimated quarters of funding available must be included in item 8.5.

8.6 If item 8.5 is less than 2 quarters, please provide answers to the following questions:

8.6.1 Does the entity expect that it will continue to have the current level of net operating cash flows for the time being and, if not, why not?

Answer: N/A

8.6.2 Has the entity taken any steps, or does it propose to take any steps, to raise further cash to fund its operations and, if so, what are those steps and how likely does it believe that they will be successful?

Answer: N/A

8.6.3 Does the entity expect to be able to continue its operations and to meet its business objectives and, if so, on what basis?

Answer: N/A

 $Note: \textit{where item 8.5 is less than 2 quarters, all of questions 8.6.1, 8.6.2 and 8.6.3 above \textit{must be answered.} \\$ 

#### **Compliance statement**

- This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
- 2 This statement gives a true and fair view of the matters disclosed.

Date:	29 April 2021
Authorised by:	Batanco
	Carla Balanco. Company Secretary

#### **Notes**

- This quarterly cash flow report and the accompanying activity report provide a basis for informing the market about the entity's activities for the past quarter, how they have been financed and the effect this has had on its cash position. An entity that wishes to disclose additional information over and above the minimum required under the Listing Rules is encouraged to do so.
- 2. If this quarterly cash flow report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, AASB 107: Statement of Cash Flows apply to this report. If this quarterly cash flow report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standard applies to this report.
- 3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.
- 4. If this report has been authorised for release to the market by your board of directors, you can insert here: "By the board". If it has been authorised for release to the market by a committee of your board of directors, you can insert here: "By the [name of board committee eg Audit and Risk Committee]". If it has been authorised for release to the market by a disclosure committee, you can insert here: "By the Disclosure Committee".
- 5. If this report has been authorised for release to the market by your board of directors and you wish to hold yourself out as complying with recommendation 4.2 of the ASX Corporate Governance Council's *Corporate Governance Principles and Recommendations*, the board should have received a declaration from its CEO and CFO that, in their opinion, the financial records of the entity have been properly maintained, that this report complies with the appropriate accounting standards and gives a true and fair view of the cash flows of the entity, and that their opinion has been formed on the basis of a sound system of risk management and internal control which is operating effectively.