

## New US Patent “Intrusion Detection and Radio Fingerprint Tracking”

### Highlights

- Enables MESMER™ to hide while tracking and mitigating drones
- Additional cyber security applications for mobile phone and laptops

**PERTH, WA: DEPARTMENT 13 INTERNATIONAL LTD (ASX:D13) (“Department 13”, “D13” or “the Company”)**, a cutting-edge developer of counter drone technology, is pleased to announce that it has been issued U.S. Patent No. 9,673,920, entitled “Intrusion Detection and Radio Fingerprint Tracking”.

The patent covers techniques that enhance security and privacy over Wi-Fi and cellular networks. Importantly, the patent is applicable to the Company’s flagship counter drone solution MESMER™ enabling it to avoid detection, identification and to defend itself against potential countermeasures.

In a radio transmitter, variations within the manufacturing tolerances of the electronic components cause the transmitter to produce a unique radio fingerprint – a set of signal characteristics that enable the device to be uniquely identified. In electronic warfare, radio fingerprint tracking was developed to catalog and identify radar transmitters.

There are additional highly valuable applications in cyber security.

1. In today’s wireless and cellular networks, a person’s phone or laptop can be tracked in the same way, which can threaten their privacy, security, and safety depending on who is tracking them.
2. The invention provides a way to change radio fingerprints to prevent a transmitter from being tracked. Continuously or periodically changing the fingerprint prevents a device from being identified.

A device might also use different radio-fingerprint “personalities” to fool a tracker. In some cases, the radio fingerprint changes according to a code to enable two network devices to authenticate each other while they are communicating. In the field of counter-UAS, this is essential to protect control and data transfer in a distributed sensor network, which might otherwise be potentially vulnerable to attack by electronic countermeasures.

Commenting on this important patent grant, Department 13 Chairman and CEO Jonathan Hunter said:

*“This patented technology significantly enhances the security of our counter drone solution by preventing the ability of dangerous drone operators to identify, locate or attempt to attack MESMER. Further, the valuable applications in cyber security for mobile phones and laptops, particularly for travelling government officials and business executives, provide another revenue opportunity for the company.”*

This is the 15<sup>th</sup> patent in Department 13’s growing portfolio where a number of patents also have valuable applications in consumer electronics beyond the drone market.

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**About Department 13**

Based in Maryland, Department 13 (D13) was founded in 2010 by a team of former military operators, scientists and engineers who apply proprietary innovative advanced technology to emerging requirements. D13 is developing cutting-edge software and communication systems that have the potential to transform the networking and communication fields as well as current applications in drone defense, mobile phone IT security and secure enhanced Android phone systems. D13 is engaged with multiple counter UAS projects to provide strategic solutions for civil, military and commercial security requirements. D13 has 15 patents and 24 patent applications in the development of wireless protocol manipulation and communication networking software with applications in drone defense, local area and wide area cellular communications and networking, enhanced data bandwidth for all digital communications, cyber security for mobile devices and sophisticated RF technology applications (radiometrics). For more information about D13, please visit [www.department13.com](http://www.department13.com) or follow us on Twitter (@D13ASX), LinkedIn and YouTube.