

# Stop that drone: UAV freeze technique readied by British firms

12 October 2015, by Nancy Owano



A system with rays that can freeze drones mid-flight has been developed by three British companies, said BBC News earlier this month.

The companies call it the Auds (stands for Anti-UAV Defense System). It uses a strong radio [signal](#) and jams the drone's signal covertly. The operator is likely to retrieve the drone believing that it has malfunctioned. Actually, the Auds operator has the choice to freeze the drone just for a short time, to make the owner assume that there's something wrong with it, or for a longer period until its battery dies and it crashes.

How it works: scanning radar detects the drone and it is then sighted via a camera with thermal imaging capabilities, according to the BBC. What follows is a high-powered radio signal focused on the drone to override the connection to the drone's operator.

The three companies are Enterprise Control Systems, Blighter Surveillance Systems and Chess Dynamics. The news release discussed system

components.

(1) A quad band radio frequency (RF) inhibitor/jammer enables the AUDDS operator to disrupt different licensed telemetry bands of commercial drones no matter where in the world they were designed and licensed; both the 433 and 915 MHz frequencies used by [unmanned aircraft systems](#) can be disrupted as can 2.4 GHz control band and global satellite bands.

(2) The optical disruptor is for pointing at a drone for identification purposes and disrupting the automatic gain control settings in the drone's camera system such that the operator loses visibility.

The system went through government-sponsored trials and now there is a production version. Mark Radford, CEO of Blighter Surveillance Systems, as reported in *The Engineer*, talked about extensive trials across Europe and North Americas and feedback. "We have so far carried out over 150 hours of live testing in government-organized trials operating against more than 200 flown sorties of group 1 UAVs. Feedback from our own team and from customers was for a greater level of modularity to speed deployment and to minimize the need for multi person set-up teams. This has now been implemented in the production [version](#)."

How serious are threats posed by unfriendly drones? Graham Beall, managing director, Chess Dynamics, said: "Countering [drones](#) is now a global issue and an increasing concern for the military, government and homeland security forces across every continent. It's [expected](#) that unmanned aircraft systems (UAS) will be used increasingly for malicious purposes as they can carry cameras, weapons, toxic chemicals and explosives and are being used increasingly for terrorism, espionage and smuggling purposes."

*The Telegraph's* technology news editor, James

Titcomb, said "Drones have become incredibly cheap to manufacture in recent years as the cost of their components plummet. This has raised concerns that they might be used for all sorts of illicit activities, from drug [smuggling](#) to surveillance to terrorism, and disrupt air travel, especially at airports."

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APA citation: Stop that drone: UAV freeze technique readied by British firms (2015, October 12) retrieved 24 May 2022 from <https://techxplore.com/news/2015-10-drone-uav-technique-readied-british.html>

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