Matchstick-Sized Sensor Can Record Your Private Chats

26 September 2013 by Jim Nash

> *Note from Pastor Kevin Lea: The exponential increase in surveillance technology is truly mind-blowing. Will anything be "private" in the near future? These tools in the hands of a global leader will make everyone on the planet live in fear that what they say and do will be known and subject to censor or elimination. This is exactly what the Bible predicted about the days of the coming Antichrist (Daniel 7, Revelation 13-14). If the tools he will need are being produced, then we must be getting close. Jesus is coming soon!*

A sensor previously used for military operations can now be tuned to secretly locate and record any single conversation on a busy street

EVERYONE knows that to have a private chat in the NSA era, you go outdoors. Phones, the internet, email and your office can all be compromised with ease. But soon even that whispered conversation in the park may no longer be safe from prying ears.

Carrying out covert audio surveillance along a city street or a wooded path, say, currently requires parabolic microphones, which look like large, clear salad bowls and need a direct, unobstructed view of the subject. Hardly 007 territory.

Now, a Dutch acoustics firm, Microflown Technologies, has developed a matchstick-sized sensor that can pinpoint and record a target's conversations from a distance.

Known as an acoustic vector sensor, Microflown's sensor measures the movement of air, disturbed by sound waves, to almost instantly locate where a sound originated. It can then identify the noise and, if required, transmit it live to waiting ears.

Conventional microphones work when sound waves make a diaphragm move, creating an electrical signal. Microflown's sensor has no moving parts. It consists of two parallel platinum strips, each just 200 nanometres deep, that are heated to 200 °C. Air molecules flowing across the strips cause temperature differences between the pair. Microflown's software counts the air molecules that pass through the gap between the strips to gauge sound intensity: the more air molecules in a sound wave, the louder the sound. At the same time, it analyses the temperature change in the strips to work out the movement of the air and calculate the coordinates of whatever generated the sound.

Until now, the military has been using an early version of the sensor to pinpoint enemy planes and rockets. A single sensor can track and identify multiple distant jets, mortar rounds and sniper rifles in any environment.

Earlier this year, Microflown's researchers discovered by chance that the device can hear, record or stream an ordinary conversation from as far away as 20 metres, says Hans-Elias de Bree, the firm's co-founder. Signal-processing software filters out unwanted noise like wind or traffic commotion. Work is now underway to increase the range.

Given a battery and a tiny antenna, the sensor could be attached to traffic lights…

This article appeared in print under the headline "The tiny spy"

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