

# Super-Sensitive Radar Can Track & Identify Mosquitoes a Mile Away

April 3, 2018



China is ready to wage war on mosquitoes and is developing a **super-sensitive radar that can detect the wing-flapping of a mosquito up to 2 kilometres away**. This radar can be used to track migrating mosquitos and warn people about risks from diseases like malaria and zika. The scientist who wished to remain anonymous told the South China Morning Post that China is experimenting with its military radar technology to detect mosquitos which can eventually save millions of lives.

*"Identifying and tracking individual, mosquito-sized targets is no longer science fiction,"* researcher told the [South China Morning Post](#). *"We are actually quite close to bringing this technology out of the laboratory and using it to save lives."*

A prototype of the device is being tested at a defence laboratory at the [Beijing Institute of Technology](#) (BIT), said the researcher, who declined to be named as the project involves sensitive technology used in China's missile defence system.

China has developed radar systems with similarly advanced features to track missiles, stealth aircrafts and micro-drones, but some scientists working on these military projects believed the technology could also be used to fight mosquitoes – and they convinced the government to fund their research. The team, led by **Long Teng**, received funding of more than 82 million yuan (US\$12.9 million) from the central government at the end of last year to build a full-sized mosquito detection radar that could be tested in the field. Long is director of BIT's Radar Technology Research Institute and a lead scientist on China's key military radar programme, according to the university's website.

The radar works by emitting rapid pulses of electromagnetic waves that travel at many frequencies. When the radio waves hit a mosquito they bounce back with information including species, gender, flying speed and direction, and whether the insect has eaten. It could be mounted on a rooftop overlooking a residential community and used to pinpoint the position of major mosquito colonies, their breeding and resting areas. And if a colony was migrating to another neighbourhood, households in its way could be warned. Scientists in other countries have used civilian radar networks to track the group movement of birds or larger insects such as locusts and moths, but this is believed to be the first attempt to use radars to monitor mosquitoes.

The researcher added that the team had made progress on the existing technology and it could also have military applications, without elaborating. He also declined to say when the first full-sized radar would be completed.

**Source - South China Morning Post**