

Elephants' superpowered trunks may help sniff out explosives

The pachyderm is among a group of tame African elephants helping the U.S. military develop an artificial “nose” that could safely and effectively detect bombs and other explosive devices, officials say.

The [U.S. Army Research Office](#) experiments, which take place at the [Adventures with Elephants ranch](#) here, are part of an effort to better understand—and eventually reproduce—elephants' stellar sense of smell.

The objective, says Stephen Lee of the U.S. Army Research Office, is not to put elephants in the field of combat or use them for mine detection.

“We are trying to understand how elephants smell with their trunk,” Lee says, “and how sensitive they are to specific odors.”

Elephants have a keener sense of smell than dogs do, Lee says, and he and his teams are working to determine how much sharper their sniffer is when it comes to locating TNT. Currently, military working dogs are used for either explosives or narcotics detection, primarily by military police.

“The data show that elephants have an amazing capacity for TNT detection,” says Ashadee Kay Miller, a scientist at South Africa's University of Witwatersrand who works with the ranch. She emphasizes that the military will not put elephants into combat or use them to directly detect explosives.

[Elephants have 2,000 genes for smell](#), the most of any animal on Earth—more than twice those of the [domestic dog](#) and five times more than those of humans, according to a [2014 study in the journal Genome Research](#).

Read full, original article: [Can Elephants' Amazing Sense Of Smell Help Sniff Out Bombs?](#)