



HUMANITARIAN INNOVATION

Using drones to locate buried mines

Basel, 7 November 2019. Humanity & Inclusion (HI) and Mobility Robotics have presented data to show how buried landmines were located using drones equipped with infrared cameras. Results were presented at the “Mine Action Technology Workshop” organised by the Geneva International Centre for Humanitarian Demining (GICHD) in Basel this week.

Tested in Chad, this technology has the potential to save time and make the work of mine clearance experts safer. It marks a major step forward for humanitarian demining.

"It's a small revolution in the world of humanitarian demining!" says Emmanuel Sauvage, Head of Armed Violence Reduction for HI. **"For several months, we have been testing the use of drones to locate mines faster in contaminated areas.** This marks a new milestone, since **it is now possible to locate mines buried in the ground.**" John Fardoulis of Mobility Robotics adds: *"For us, this is like the equivalent of a first step on the moon, with the first step being a huge one. Further testing will be required to understand the complete range of operating parameters, and we look forward to further trials."*

Testing in Chad

The tests proved that buried anti-tank and antipersonnel mines can be located by measuring differences in temperature using a drone equipped with an infrared camera **in a desert environment in northern Chad.**

The drone can cover a large area in a much shorter time than deminers on the ground and is expected to significantly benefit a process called "non-technical survey", a first investigation phase to determine the probability of contamination prior to the intervention of deminers and deploying mine clearance resources.

"By accurately locating buried mines, we will now be able to deploy our demining teams in a more targeted and secure way," adds Emmanuel Sauvage. "The next step will be to seek additional resources to beef up our activities, diversify the tests and **achieve the target of a mine-free world by 2025.**"

Promising solution for demining challenges

More than 100 million mines are still active in the world today. They pose a deadly threat to local communities, cause fear, mutilate limbs, limit travel, force the abandonment of infrastructure and hamper socio-economic development.

Mines and explosive remnants of war pose a **daily threat to civilians in 60 countries worldwide.** With 7,239 new victims in 2017, the 2018 **Landmine Monitor** reported a

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record number of casualties for the third consecutive year, compared to 9,437 in 2016 and 6,967 in 2015.

About HI

Humanity & Inclusion (HI) is an independent international aid organisation. It has been working in situations of poverty and exclusion, conflict and disaster for 35 years. Working alongside people with disabilities and other vulnerable groups, our action and testimony are focused on responding to their essential needs, improving their living conditions, and promoting respect for their dignity and basic rights. HI is one of six founding organisations of the International Campaign to Ban Landmines (ICBL), co-winner of the Nobel Peace Prize in 1997 and winner of the Conrad N. Hilton Award in 2011. HI takes action and campaigns in places where “living in dignity” is no easy task.

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