

# Unmanned team of K-Max helicopter and Indago quadrotor demonstrates firefighting capability

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The unmanned K-MAX, helicopter successfully conducted a firefighting mission during a demonstration on Nov. 6. Aided by the small unmanned Indago quad rotor, unmanned K-MAX extinguished several fires while collecting and dropping more than 24,000 pounds of water onto the flames in one hour.

A team of Lockheed Martin and Kaman unmanned aircraft successfully demonstrated its ability to aid in firefighting operations. During the

demonstration, the Indago quad rotor effectively identified hot spots, and provided data to an operator who directed the unmanned K-MAX helicopter to autonomously extinguish the flames. In one hour, the unmanned K-MAX helicopter lifted and dropped more than 24,000 pounds of water onto the fire.

"The unmanned K-MAX and Indago aircraft can work to fight fires day and night, in all weather, reaching dangerous areas without risking a life," said Dan Spoor, vice president of Aviation and Unmanned Systems at Lockheed Martin's Mission Systems and Training business.

"This demonstration signifies the potential for adapting proven unmanned systems and their advanced sensors and mission suites to augment manned firefighting operations, more than doubling the amount of time on station," said Kaman Chairman, President and Chief Executive Officer Neal Keating.

The industry leader in lift efficiency, unmanned K-MAX provided heavy lift services by autonomously dipping water from a pond and delivering it precisely to the fire location. Manufactured by Kaman and outfitted with an advanced mission suite by Lockheed Martin, unmanned K-MAX has a twin-rotor design that maximizes lift capability in the most challenging environments. The heavy lift capability delivers effective firefighting and resupply operations to firefighters on the ground. Using its electro-optic/infrared (EO/IR) camera, K-MAX can locate hot spots and designate the location to its operator for water drops at that location. K-MAX has proven the ability to autonomously conduct resupply operations with the capability to deliver to four different locations. Its flexible multi-hook carousel is suited for attachments such as water buckets, litters and medical supplies in a highly stable system, allowing it to accomplish a wide range of missions.

The Indago's industry-leading flight time and EO/IR gimbaled imager

provides high quality data and enhanced situational awareness for operators to make real-time decisions. Indago is capable of providing tactical situational awareness and geo-location to aid in a variety of missions, from firefighting to precision agriculture to search and rescue.

**More information:** [www.lockheedmartin.com/us/products/kmax.html](http://www.lockheedmartin.com/us/products/kmax.html)

Provided by Lockheed Martin

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