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NASA's Langley Research Center and the Department of the Interior's Fish and Wildlife Service (FWS) have entered into a oneyear agreement to test small unmanned aerial systems (UAS) for detecting brush and forest fires in the Great Dismal Swamp National Wildlife Refuge in Suffolk, VA. UAS could offer a safer, more cost-effective alternative than manned aircraft for surveying potential fires.

Wildfires often occur as a result of lightning strikes and can only be spotted by an aerial survey. Researchers from Langley came up with the idea after a 2011 lightning-sparked forest fire in the refuge lasted almost four months and cost more than \$10 million to extinguish.

Following approval from the Federal Aviation Administration, the team plans to fly the UAS over the refuge after lightning strikes. The aircraft will use both an "out-of-the-nose" camera to spot rising smoke plumes and an infrared camera housed in the body to detect heat signatures. The cameras will transmit video to a mobile ground station for review by scientists.

Source: NASA