

# Military Technology Fighting Fires

Michael Archer | February 27, 2008

There are many who say that fighting fires is a lot like combat. This being the case, it's shouldn't seem unusual to find military hardware being used to fight fires, be it a structure fire or a massive wildfire. And, familiarity with this equipment may offer opportunities to vets looking for employment with emergency responders.

## Communications

A number of fire departments have incorporated military hardware into the fire service. The military was the first institution to utilize radio for command and control. During World War II, large military formations on land, sea, and in the air were coordinated by radio. The effectiveness of this technique was not lost on the fire service. Today, radios are a vital part of any firefighting operation, whether it's dispatching emergency units to an incident, or command/control communications between units at the incident. Companies like Motorola and Kenwood continue to improve the communications gear firefighters rely on. Others, such as Verizon, come up with innovative new ideas, such as **COLTs** (Cell On Light Truck) and **COWs** (Cell On Wheels) systems that provide mobile cell-phone towers that can be placed at strategic points around a wildfire perimeter. Radio communications within a structure are also vital for the safety of firefighters — providing an extra measure of safety.

## NVG

Although many fire agencies are not yet up to speed on Night Vision Goggles (NVG) — pioneered by the military — those that have adopted this technology have learned to love it. One of the premier aerial firefighting agencies in the country, Los Angeles County Fire Department Air Ops, swears by NVG Generation III technology (manufactured by Litton, ITT, and others). Their helicopters are often the only aircraft flying after dusk, something which proved critical on fires like the 2006 Griffith Park fire in Los Angeles. This innovation allows them to double the effectiveness of their helicopters by allowing them to fly 24 hours a day, instead of the 12 hours allowed to units without NVG.

## GPS

Global Positioning System (GPS) satellites were launched into the heavens by the military in 1978 and are now maintained by the US Air Force (50th Space Wing out of Schriever Air Force Base in Colorado). This constellation of 24 satellites allows near-pinpoint accuracy for emergency responders throughout the world and is vital in getting help to an incident rapidly. As more GPS trackers (like those made by Magellan, Garmin, and others) become available to first-responders, this military innovation will transform firefighting, especially wildland firefighting, into something much more futuristic than it is today. The Cedar Fire, one of the most devastating wildfires in San Diego history, could have been quickly extinguished as a small fire if only GPS coordinates could have been relayed to firefighting aircraft in time. Since it was not, more than 2,200 homes were lost, along with 15 lives, one of them a firefighter.

## ABOUT MICHAEL ARCHER



Michael Archer is a wildfire consultant and writer. He has written articles for *Home and Fire Magazine*, *Wildland Firefighter Magazine*, and other publications, lectured to many groups about fire issues, been quoted by Associated Press and USA Today reporters, and also appeared on cable and network TV discussing wildfire issues. Currently, he is acting as webmaster and technical consultant to Wildfire Research Network ([www.wildfireresearch.org](http://www.wildfireresearch.org)), a Los Angeles-based citizens' action group that promotes firefighting issues involving the Wildland-Urban Interface (WUI).

His "*Firebombers Incorporated*" series of novels gives readers an intriguing "what-if" scenario on how 21st century technology could modernize the wildland firefighting force. His novel "Firestorm," received excellent reviews from *Writers Digest*, *The Nashville News*, *The VVA Veteran* (Vietnam Veterans of America's magazine) and firefighting professionals across the United States. His company, Firebomber Publications, donates 50 percent of net profits to organizations that support the families of injured and fallen firefighters.



You can visit his website at: [www.firebomberpublications.com](http://www.firebomberpublications.com)

Firestorm can be purchased at [Amazon.com](http://Amazon.com)

Comments can be sent to: [marcher47@firebomberpublications.com](mailto:marcher47@firebomberpublications.com)

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**PCADS**

PCADS (Precision Container Air Delivery System) is a system designed with the military in mind. A container that allows any military cargo aircraft to use GPS to deliver pin-point strikes on wildfires from a safe altitude, it's basically a 250-gallon water balloon in a cardboard box. This unique device (developed by Boeing, Weyerhaeuser, and Flexible Alternatives) can be pushed out the back of a cargo aircraft (C-130, C-17, etc) performing something akin to their standard resupply mission. The effect, however, is more akin to carpet-bombing a wildfire. The future of this product in fighting wildfires looks promising indeed.

**FLIR**

Forward-Looking Infrared (FLIR) is another technology that was developed by the military (principally the Air Force), but adopted by the various firefighting agencies. A small aircraft equipped with FLIR can lead a huge air-tanker through smoky conditions to perform airstrikes on wildfires. This technique produces spectacular results in knocking down wildfires.

**RPVS**

Remotely Piloted Vehicles (RPVs) are just beginning to make a mark in fighting wildfires. As the military develops new tactics tailored to this cutting-edge technology, so the fire services are adopting them as well. In 2007, RPVs such as General Atomic's Ikhana (a Predator-B with a reconnaissance package under one wing), made quite a splash flying fires and providing fire agencies unparalleled intelligence info on the status of massive wildfires.

**Further Reading**

If the application of military technology to the firefighting arena is something of interest, you can read more about it in "Firebombers Incorporated," in which the latest technology produces a 21st century wildland firefighting force able to take on the huge fires that are plaguing our country more and more each year.

Sound Off...What do you think? [Join the discussion.](#)

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