

## Case study

# FireWhat fights deadly wildfires with cutting edge technology



Robust HP DesignJet printers powered by HP Z Workstations operate in the field to produce accurate, large-format maps

### Challenge

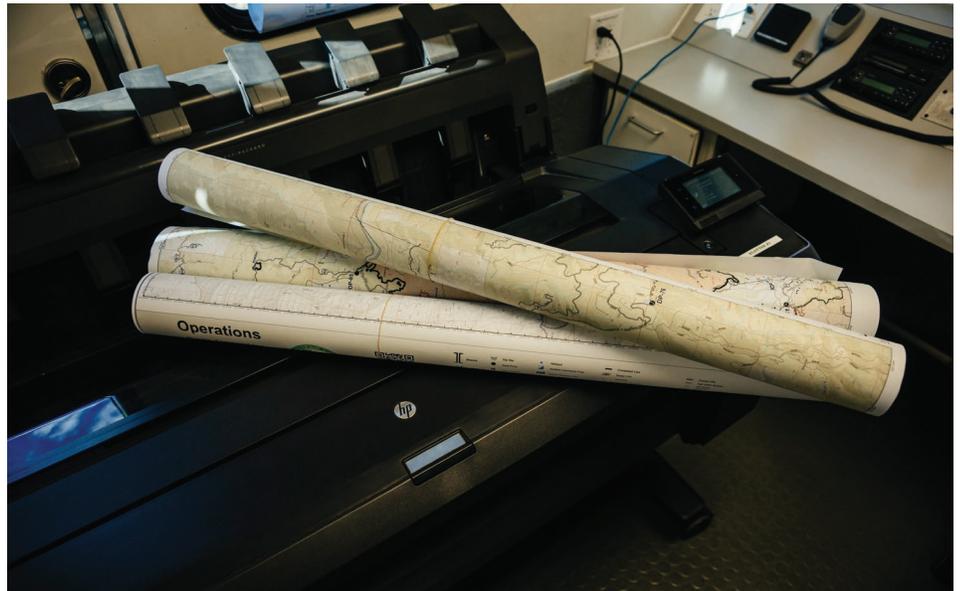
- Produce accurate, large-format maps quickly in the field
- Enable scanning of annotated maps and simple distribution of PDFs
- Ensure firefighters have access to the most up-to-date information

### Solution

- FireWhat is using the HP DesignJet T920 Printer and HP DesignJet T2530 Multifunction Printer in several of its mobile vehicles
- The printers enable the fast production of large maps as well as scanning functionality
- HP ZBook Mobile Workstations support detailed topographical modeling, soil analysis and predictive analytics relating to how fire spreads

### Results

- HP DesignJet printers are three times faster, able to produce over a thousand large-format prints per night
- High-performing HP ZBook Mobile Workstations help the mobile incident command center to save structures and lives through reliable map production
- Automated stacking and dual print rolls reduce the need for manual intervention
- Scanning functionality helps distribute the latest information easily



**“Our team uses the HP ZBook 15 G2 Mobile Workstation and HP ZBook Studio Mobile Workstation with dual 27 HP Z Displays, that run the ArcGIS Online Platform and proprietary UAV image processing software. These tools are used to process imagery and real-time data for display and analysis. We use the HP DesignJet T2530 for paper map production on incident.”**

– Sam Lanier, CEO, president and co-founder, FireWhat, Inc.



Wildfires are becoming an increasingly regular occurrence on the west coast of the United States and have the potential to wreak enormous amounts of destruction. FireWhat, Inc. was founded by firefighters to provide a more agile response to fight wildfires. It has equipped its mobile units with HP DesignJet printers, as well as HP ZBook Mobile Workstations and HP Z Displays, to produce large-format maps on incident for first responders, fire personnel, the media and government agencies.

“We can now map information in real-time, helping improve the ability of firefighters to collect, produce and report incident data for better decision making.”

—Sam Lanier, CEO, president and co-founder, FireWhat, Inc.

**Industry:**

Architecture, Engineering & GIS  
(Geographic Information Systems)

**Company name:**

FireWhat, Inc.

**Location:**

USA

**HP equipment:**

HP DesignJet T920 Printer  
HP DesignJet T2530 Multifunction Printer  
HP ZBook Mobile Workstations

**Website:**

firewhat.com



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## Challenge

### Accurate maps in an emergency

Founded in 2011, FireWhat is a technology company that customizes asset-mapping and tracking tools to streamline the delivery of information to firefighting personnel. It was established by two firefighters who both have first-hand experience in how poor communication and an inability to share information effectively can have devastating consequences.

“We have worked for years in the emergency management sector and wanted to find a new technology that could improve communications in the field,” explains Sam Lanier, CEO, president and co-founder, FireWhat. “Our motivation is to map wildfires with the most accurate data in a timely manner, mitigating the damage they can inflict. To do this effectively, decision making should be made with real-time data.”

Understanding the spatial component of who, where, and how come into play when evacuations are needed. GIS helps answer those questions. Maps also provide media outlets with critical information to enable citizens to ensure their safety. As fires start to spread, these maps must be updated as quickly as possible, using high-powered workstations and versatile printers with fast processing ability that can print highly detailed datasets.

“We have five mobile response vehicles, each of which is essentially a copy-shop on wheels that can produce up to 1,000 maps per day,” adds Lanier. “That requires a robust, reliable print platform that can work in a challenging remote environment where the stakes are high.”

## Solution

### Compact, mobile, reliable

FireWhat has equipped several of its mobile mapping units with the HP DesignJet T2530 Multifunction Printer and HP DesignJet T920 Printers, giving the team the ability to produce large-format prints quickly and accurately. The company also uses HP ZBook Mobile Workstations and Z Displays in tandem with Hewlett Packard Enterprise servers to handle high-intensity image processing requirements.

The HP equipment is supported by HP partner, CSDS, which provides maintenance and toner. “CSDS is key as it can replenish our existing ink stock within two to five hours, which is critical when we are on the road. At the same time, if there is an issue, there is always a CSDS technician just a call away.

“We underwent significant testing and evaluation with HP and CSDS to define the best alignment in terms of output because we can go through a typical company’s annual print production needs in just one night,” continues Lanier. “Fifty rolls of three-foot paper per day is not unusual so we need dependable machines that can handle that load without breaking down.”

The HP DesignJet T2530 Multifunction Printer produces professional CAD and GIS maps with consistent color accuracy, crisp, sharp lines, up to 2400 dpi and can print A1 format in 21 seconds. The HP DesignJet T920 Printer series adds multiple roll functionality and automated stacking all within a compact form factor, making it ideal for FireWhat’s mobile mission.

“Fire chiefs can come in with a USB stick, for example, look through the print log and transfer the data they need or produce the necessary prints,” remarks Lanier. “Up-to-date maps can be printed, annotated, scanned and sent with minimal fuss.”

## Results

### Speed, versatility, resilience

The HP DesignJet devices not only provide a simple interface, space saving design and automated stacking, they also deliver high quality, large-format prints quickly. In combination with the 15 HP ZBook Mobile Workstations, FireWhat can support the incident from start to finish.

“It is great to have all of our equipment from a single vendor as it gives us unified tools to best collect and map wildfire information as an incident unfolds,” says Lanier. “The printers are robust enough to produce thousands of large maps every day without failure which means we can focus on the job at hand.”

One specific job was a fire in the Boles Creek area of Weed, California. What began as a small vegetation fire, quickly spread to a full-blown wildfire with mass evacuations. FireWhat arrived on the scene and acted as the emergency communications center while the town’s phone lines were down, as well as producing detailed maps to help firefighters contain the fire.

“We helped with the damage assessment and provided live field collection feedback as well as 911 telecommunications services at the incident. We assisted local authorities as well as fire personnel by providing quick turn-around in the production of affected neighborhood maps on-site,” continues Lanier.

This agility enables FireWhat to make a real difference in many disaster response situations, not only wildfires. Lanier envisions this type of mobile map production service playing a key role anywhere there is an emergency and people need information, whether that be flooding, earthquakes or tornadoes.

“We will definitely expand our relationship with HP because without it we simply couldn’t do what we do,” concludes Lanier. “We see the next step in monitoring and managing emergencies is the introduction of unmanned aerial vehicles, which can produce real-time imagery that the HP printers can then turn into physical prints.”

Learn more at  
[hp.com/go/designjet](http://hp.com/go/designjet)  
[hp.com/go/workstations](http://hp.com/go/workstations)

