



Wildfire Innovation Briefing: How AI, advanced cameras, and emerging technologies are transforming early fire response

Wildfire frequency and severity has dramatically increased across the globe—from North and South America to Europe, Africa, Asia, and Australia—putting our frontline wildland fighters and the communities they serve at risk. According to the National Interagency Fire Center, over 6.9 million acres have burned in the United States in 2022, with over 34 million acres burned in the last five years.

Detecting, confirming, and responding to a wildfire ignition quickly can make the difference between containment and a megafire. Traditional fire detection relies heavily on bystander reporting, which is slow to investigate. Advanced technologies available today could dramatically improve detection, confirmation, and response to fires.



Benefits for Fire Agencies and Wildland Firefighters

Speeding Response: According to numerous thought leaders including fire authorities, utilities, regulators, foundations, governments, and academic institutions, technology can aid wildland firefighters in detecting and confirming fires faster, so that they can quickly mount an appropriate response.

Enhancing Intelligence: Government agencies are facing challenges from more extreme fires and a lack of personnel. By using technology to provide actionable intelligence, fire authorities can develop improved response plans, enabling quick deployment of the right resources to the right location.

Improving Coordination: Shared situational-awareness tools enable agencies to monitor current incidents in real-time, enhancing coordination across agencies. A report

commissioned by the California Public Utilities Commission suggests that harmonizing and integrating the systems and tools used by emergency services could provide a more efficient and transparent approach to manage natural hazard events.

Key Technologies Available Today

High Definition Cameras: High definition cameras can be installed on mountaintops, weather stations, and cell towers to continuously scan the landscape, supporting active wildfire detection while providing actionable intelligence that informs resource deployment and on-the-ground coordination.

Artificial Intelligence (AI): Artificial intelligence can continuously monitor imagery to rapidly detect fires under a variety of conditions, reducing resources needed while simultaneously improving coverage.

Cloud Based Software: Easy-to-use cloud-based interfaces now make it possible for fire agencies and wildland firefighters to access needed information and coordinate activities in a familiar way, with access via computer, tablet, or phone.



Pano AI Empowers Fire Agencies and Wildland Firefighters with the Latest Technology

A single solution from detection to response

Detection



Pano AI Stations

proprietary stations with ultra HD cameras, comms, and edge compute, supporting AI smoke detection and actionable intelligence

Confirmation



Pano AI 360

easy-to-use cloud-based platform for incident investigation, confirmation, situational awareness, and response coordination

Dissemination



Pano AI Alerts

Mobile and SMS Alerts with live video and active intelligence

Response



Pano AI

supports agencies in making a rapid, informed response to wildfires

Harnessing the latest developments in hardware, artificial intelligence, and cloud-based software



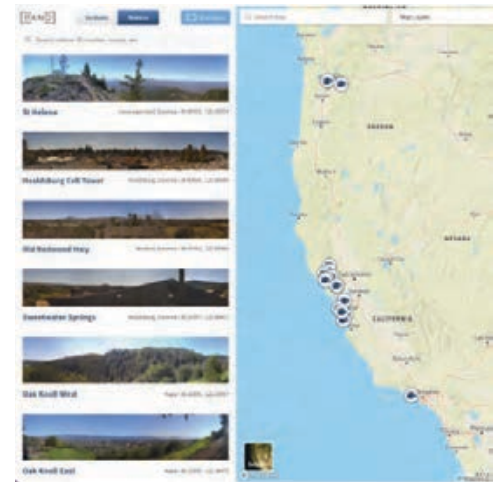
Cutting-Edge Hardware

provides advanced imagery via two rotating cameras, capturing an ultra-high-definition 360° panorama every minute.



AI Detection Backed By Human Intelligence

monitors for the first indications of smoke 24/7, across the entirety of the geographic coverage area.



Easy-to-use Interface

unifies advanced features while providing agencies and wildland firefighters with automated AI fire detection, 360-degree panoramic views and time lapse videos to confirm a wildfire's characteristics, and communication tools to disseminate information while coordinating a response.

For more information, please visit www.pano.ai or contact us at info@pano.ai

