

FIRE*Bird*

Wildfire Detection System

Protect and Defend High-Risk Property



LINDSEY
FireSense

Immediate Response with **FIRE**Bird



Ignites

When it happens, you need to know.



Detects

Immediate detection = Better outcomes



Reports

Reporting includes: location, images and actual weather info.¹



2- Minutes

Elapsed time from ignition to reporting.²

¹ When equipped with optional weather station. Reports wind speed, wind direction, ambient temperature and humidity.

² Typical response time for detection and reporting of 3 ft x 3 ft fires at a 400 foot distance and 5 ft x 5 ft fires at a 900 foot distance based on testing conducted at the San Bernardino Regional Emergency Training Center June 2023.



The Rancho Cucamonga, CA Wildfire Detection Initiative is providing protection along the community's foothills by installing a FIREBird system consisting of 30 devices.

The FIREBird System

Who Should Use FIREBird?

The FIREBird system can provide front line outdoor wildfire and fire detection for almost anyone.

Estate and Campus Facility Owners

Large private estates and sprawling corporate or resort campuses are often built close to nature for aesthetic appeal. But adjacent undeveloped land is at risk for spreading fire quickly. Early detection and notification from FIREBird can provide the early warning needed to control fire events.

Communities

FIREBird is ideal for use along high fire risk wildland-urban interfaces, where wildfires threaten homes, neighborhoods, and community and public property. Community boundaries call for defensive fire detection methods that can sense fires almost immediately after ignition regardless of the time of day.

Utilities

Regular deployment of FIREBird devices along power lines detects fires that ignite for any reason. Continuous right-of-way wildfire monitoring helps limit the damage and liability associated with equipment related fires.

Monitoring large solar farms with FIREBird can minimize equipment damage and loss of power production by detecting grass or substation fires within property boundaries, and if needed, for wildfires in the surrounding area.

Industry

Industries with large outdoor fuel sources as varied as pallet yards to landfills can benefit from FIREBird's early detection and notification for faster fire response and to limit damage.

What is a FIREBIRD System?

A FIREBird System consists of multiple FIREBird devices. FIREBird devices are designed to be installed on structures such as streets lights, utility poles, cell towers, or buildings.

Each device has advanced, wildfire specific thermal sensors and visible light cameras which continuously monitor the surrounding area, day and night. Sophisticated algorithms provide the fastest wildfire detection possible.

What Does a FIREBIRD System Do?

The FIREBird system quickly detects nearby fires and wildfires when they are small and reports them to you, an alarm company, a control center, or to whomever needs to know.

Each FIREBird device can detect small fires over a 60+ acre area.



Installation of a FIREBird device in a Wildland-Urban Interface community

Where is it Best to Install a FIREBird System or Device?

FIREBird is designed for the outdoors, either where fires start frequently, or close to property where fast detection and notification is vital.

- Rights-of-way like utility power lines or roads, where arcs and sparks that start wildfires are common. Detecting these fires early can help stop them from exploding into major wildfires.
- The land between developed property and undeveloped, unmaintained, vegetation. Sometimes called the wildland urban interface, or WUI, early detection in this zone is critical to reduce the threat to human life and property.

Why is Having a FIREBird System Important?

- Reduces the likelihood of small wildfires in high-risk areas going unnoticed
- Reduces the fire-fighting resources needed to control an event
- Increases the time available to fight and/or escape a fire
- Increases public safety
- Reduces property damage

“The FIREBird system has the potential to save significant costs and resources. Early detection allows local jurisdictions to effectively respond to wildfires at its earliest stage with a goal to minimize fire spread thereby decreasing overall number of resources committed to the incident.”

– Mike McCliman, City of Rancho Cucamonga Fire Chief



Facts About Wildfires Along High-Risk Boundaries

10x

Wildfires which ignite along power lines average **10X larger** than other wildfires.¹

90%

90% of all wildfires in the United States occur within 1/2 mile of a road.²

44 Million

As of 2020, 9.4 percent of the land area of the contiguous United States is in the Wildland-Urban Interface (WUI), but that land is home to more than **44 million homes** — 32 percent of all housing nationwide.³



¹Mitchell, Joseph W; "Power line failures and catastrophic wildfires under extreme weather conditions"; Journal of Engineering Failure Analysis #35, 2013, page 728, Table 1

²Peterson, Peter H., "Roads and Wildfires," Pacific Biodiversity Institute, Winthrop, WA, 2007, page 4

³"Wildland-Urban Interface Growth in the U.S.," Northern Research Station, USDA Forest Service, <https://research.fs.usda.gov/nrs/projects/wuigrowth#research> 5/7/2024

A Fully Self-Contained Wildfire Detector

Communications

You may use the cellular communications included with each FIREBird device, or connect the FIREBird to your own network.

Lateral View Cameras

When FIREBird units are installed along a right-of-way or power line, these two optional cameras are ideal for monitoring and comparing conditions along the right-of-way at any time.

Continuous 360° Detection

The overlapping fields of view of the cameras and thermal sensors give continuous fire detection around the device without

Weather Station

The optional weather station reports the wind speed and direction, temperature, and humidity when a fire is detected.

Weather data is also available when a fire is not present.

Cameras

6 visible light cameras provide visual confirmation of fire events.

Thermal Sensors

8 advanced sensors detect the unique thermal signature of wildfires, providing rapid heat event detection.





About Lindsey FireSense

Established in a foothill community of Southern California, Lindsey FireSense is in a high-risk location for wildfires. Our products are developed by a group of engineers and scientists who have decades of experience with sensors, wildfire detection, the utility industry and IoT devices and applications.

Lindsey FireSense focuses on products designed to detect and mitigate damage associated with wildfires.

For more information, visit www.Lindsey-FireSense.com.

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Specifications subject to change without notice.

Publication Number FB-B-007 FIREBIRD INTRO • October 2024

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