

Built with and for the Global Wildfire Community

An advanced satellite constellation designed specifically for wildfire detection, monitoring, and response. FireSat will generate an unprecedented, near real-time global dataset on wildfire and its effects on the planet and our communities.

For decades, firefighters and scientists have relied on satellites designed for other purposes — meaning meaning critical data that arrives too late and a scientific record that hasn't kept pace with the scale of the challenge. Earth Fire Alliance was formed to close that gap, and together with our technical partner

Muon Space, we developed FireSat differently. Through interviews with 200+ firefighters, incident commanders, and scientists worldwide, we built what the community asked for: frequent, high-resolution data delivered in time to act.

By the Numbers

1,500 km

Observation swath.

80 m

Average image resolution.

5x5 m

Minimum fire detection—about the about the size of a standard shipping container.

1 hour

Revisit rate by 2029, followed by **20 min** in the early 2030s.

6

Multispectral imaging channels across **5** bands.

<5%

False positive detection.

99%

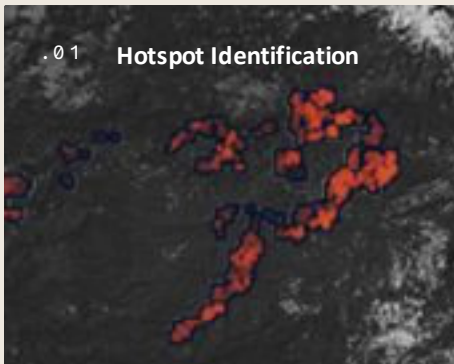
Coverage of Earth's wildfires.



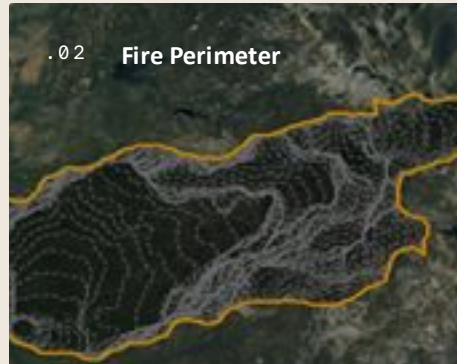
Data for the Public Good

EFA is committed to making FireSat data accessible to every fire agency, scientist, and community that needs it. FireSat data will be available from 2027 to fire response agencies, academic and scientific institutions, and NGOs supporting wildfire resilience through non-commercial use licensing. Commercial data licensing is available for companies in agriculture, infrastructure, insurance timber, utilities, and beyond.

Data Products



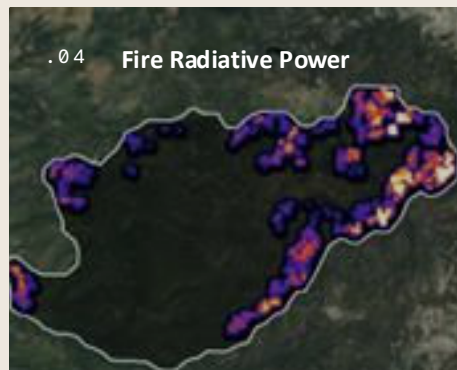
Near real-time detection of new or growing ignitions to identify small, low-low-intensity fires before they escalate into major threats.



A continuously updated common operating picture of the fire's outer boundary to enable safer, more efficient resource allocation and coordination.



Situational awareness of spread, direction, and speed, which is critical for critical for first responder safety, incident command decision-making, and making, and evacuation planning.



Quantifies the energy a fire releases so so researchers and land managers can can assess ecosystem impacts, estimate estimate carbon emissions, and understand fire behavior.

Data Standards and Formats

FireSat data is designed for seamless integration with the tools and platforms platforms your teams already use. Data Data will be available across all spectral spectral bands: Red, NIR, SWIR, MWIR 1 & MWIR 1 & 2, and LWIR.

RASTER SERVICES

Image Feature Service

Mosaic Views

Download

VECTOR SERVICES

FireSat Data Product
Feature Service

FireSat Data Product Views

Download

PARTNER INTEGRATIONS

API Push and Pull

Google Cloud Platform

Amazon S3

ArcGIS Online

Partner Integrations



Early Adopter Program

Our Early Adopter Program brings together fire agencies, modelers, scientists, and technology developers worldwide to help shape FireSat data products and data delivery mechanisms.

Cohorts



OPERATORS

Fire agencies integrating FireSat data into their operations to identify how it enhances decision-making and management strategies.



MODELERS

Scientists and researchers validating analytic use of FireSat data for more effective models of fire behavior and ecosystem impacts.



PATHWAYS

Technology and system developers streamlining FireSat data distribution, access, and interoperability across a global ecosystem.

Goals

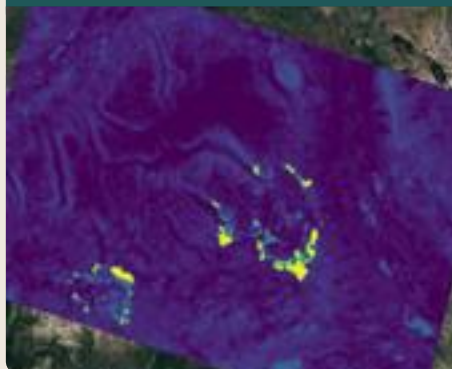
Resource Maximization

We work directly with end users to reduce the data adoption timeline and ensure FireSat data is integrated into workflows and ready when it's needed most.



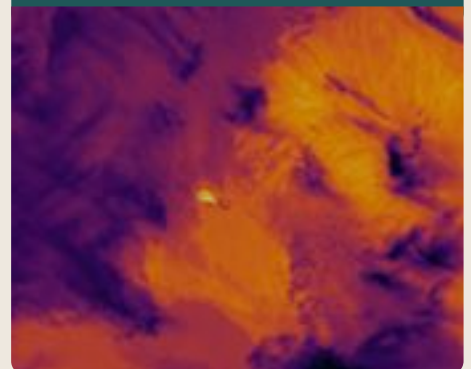
Iterate with Intent

Structured feedback cycles with participants directly inform how we refine system design, data products, and distribution pathways.



Measure What Matters

We track tangible, metric-driven outcomes, capturing early program successes, and demonstrating FireSat's impact across wildfire mitigation, response, and resilience.





FireSat Roadmap

2025-2026

1 FireSat



Protoflight

The on-orbit flight test validated the FireSat system architecture and delivered sample datasets.

Q4 2026

4 FireSats



Initial Operational Capability

The first three operational FireSats launched in July 2026, and by year's end will deliver data at least twice daily to Early Adopters across the world's most fire-prone geographies.

2027-2029

20+ FireSats

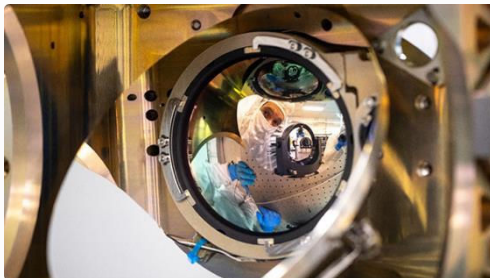


Constellation Buildout

Global coverage will expand and data refresh will accelerate to 1 hour or less as additional satellites are deployed in stages.

2030 and Beyond

50+ FireSats



Full Operational Capability

The complete FireSat constellation will deliver persistent wildfire data with near real-time updates every 20 minutes or less, globally.

The Future



A Global Wildfire Record

FireSat will serve as the foundation for a transformative global repository of wildfire data.

Questions? Contact Earth Fire Alliance

[EARTHFIREALLIANCE.ORG/CONTACT](https://earthfirealliance.org/contact)