Wildfire Solution From Space

OroraTech
November 2023
Richard Russell – Drone Services Fiji

Meet OroraTech

2018
Founded
in Munich

90+
Employees on
3
continents

20+
Nationalities
30%
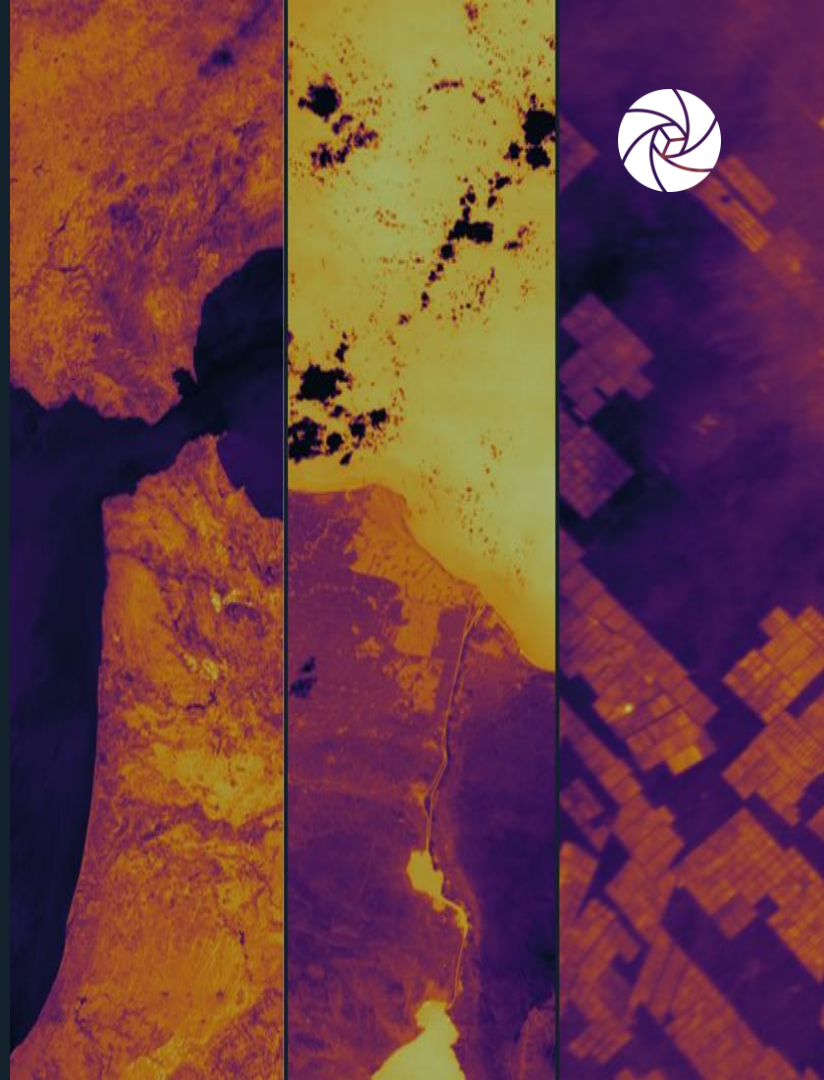**Female**

300
Users in
20
countries

25+
satellites
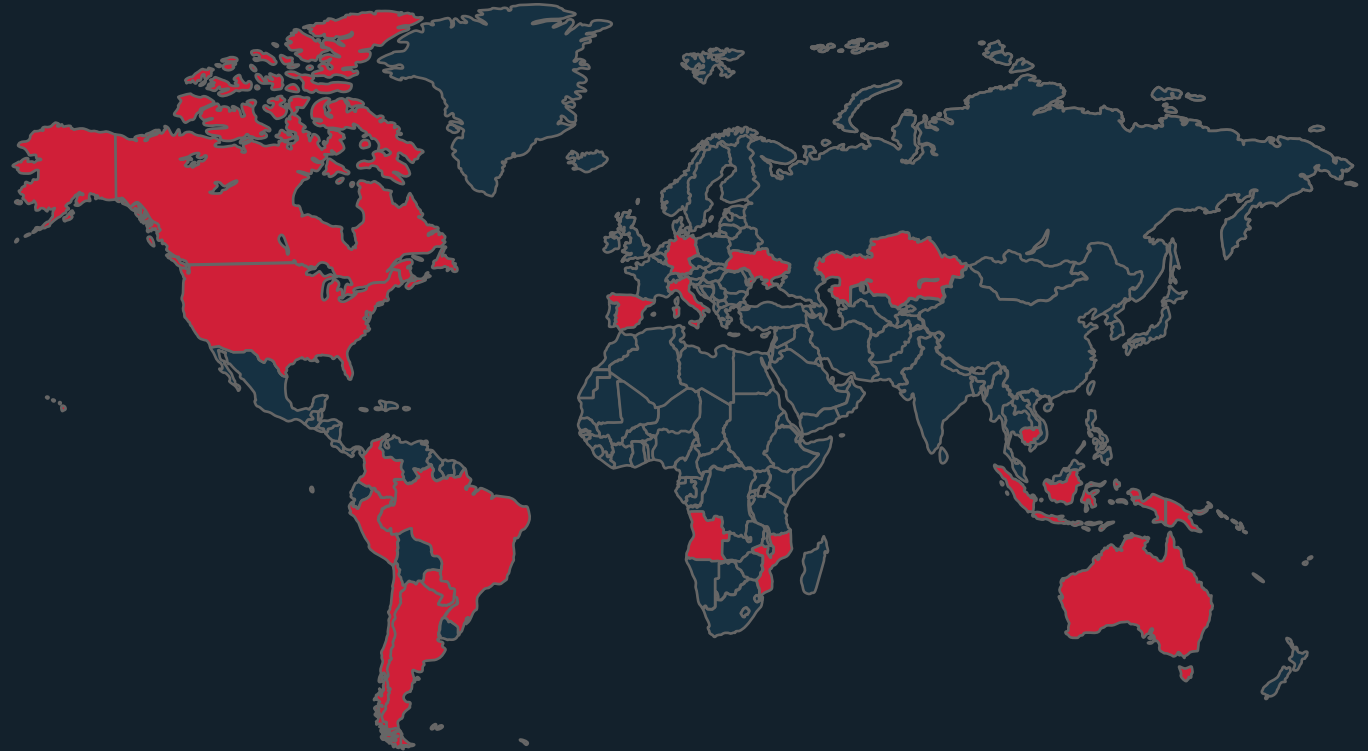available

2
Satellites
in orbit

Active On All Continents

300m ha
Total area monitored

>160m ha
Forests protected

3

OroraTech's Wildfire Solution Products

Before

During

After

Risk Assessment

Early Detection

Real-Time Monitoring

Damage Analysis

- Fire Danger
- Weather & Vegetation
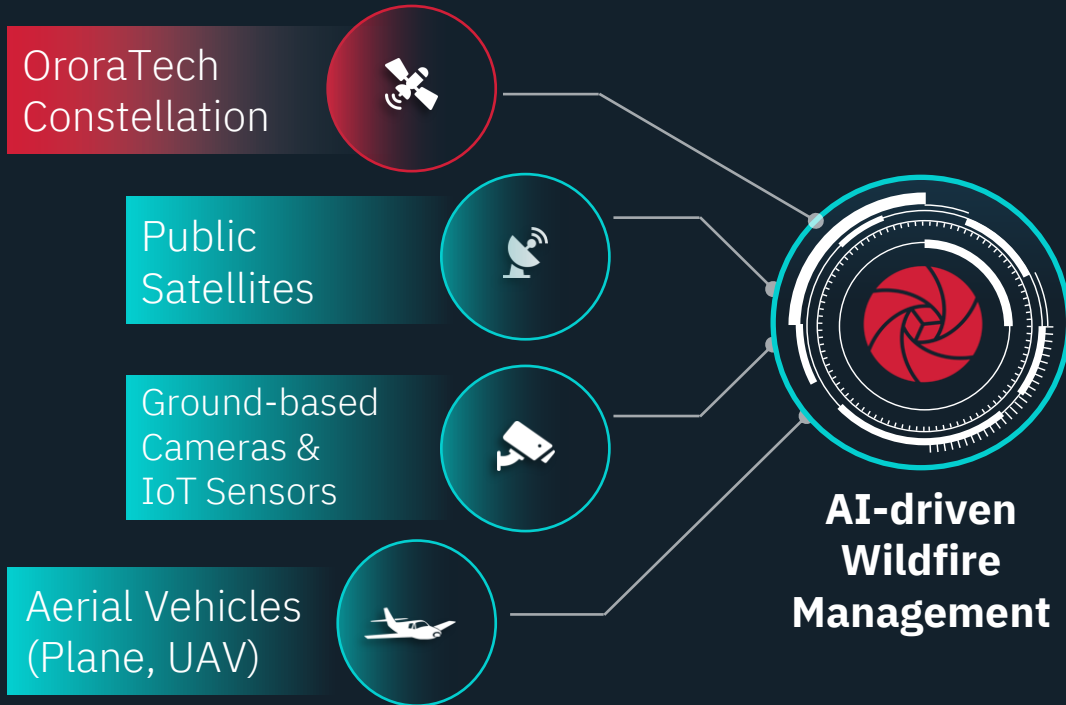
- Instant Alert
- Fire Location & Intensity
- Affected Area
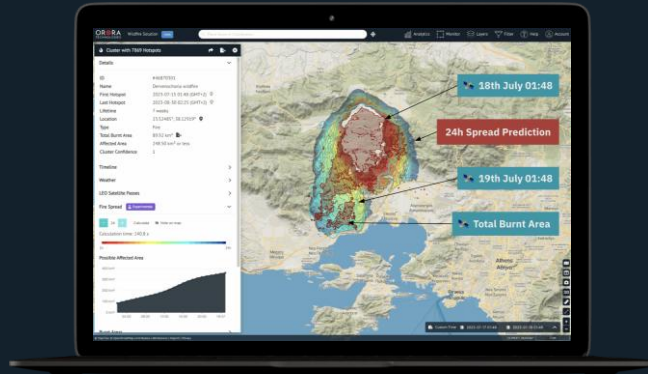
- Fire Progression Monitoring
- Fire Spread Prediction

- Burnt Area & Severity
- Long-term fire statistics

We Turn Raw Data Into Actionable Insights

OroraTech Constellation

Public Satellites

Ground-based Cameras & IoT Sensors

Aerial Vehicles (Plane, UAV)

AI-driven Wildfire Management

All-in-one AI-driven Wildfire Management

MAINTAIN OVERVIEW AND CONTROL

Predict fire growth, severity & assess risk and losses

SEE WHEN OTHERS ARE BLIND

Detect fires through smoke, in remote areas, 24/7

ACT DECISIVELY

Accurate resource dispatch for optimum suppression

Robust Infrastructure For Global Monitoring

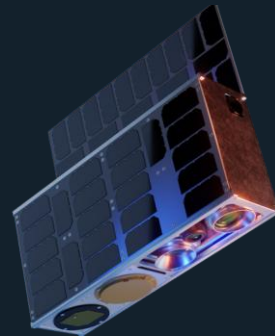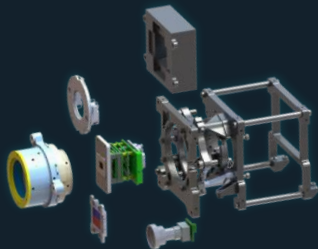| 2022	2023	2024	Until 2027
FOREST-1	**FOREST-2**	*WFS Pro*	*WFS Pro*
Prototype cameras in orbit	First operational cameras	**12h** automated revisits with **up to 6 daily images**	30-minute global coverage

Real-Time Detection

FOREST-2 (150 m)   vs.   NOAA-20/VIIRS (375m)

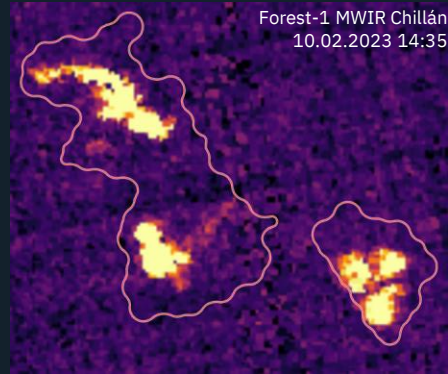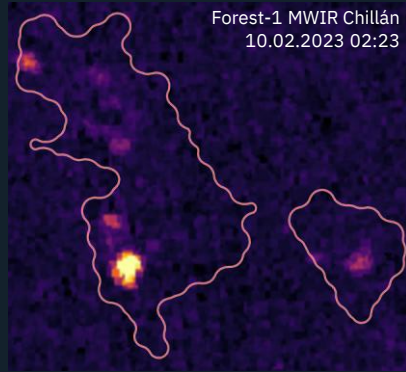*Northern Territory, AUS, 17 Oct 2023*

OroraTech Cameras:

- Detect smaller fires >4x4m^2
- Ultra-fast detection within minutes (18x faster)
- Sharper fire outline
- See through smoke and at night

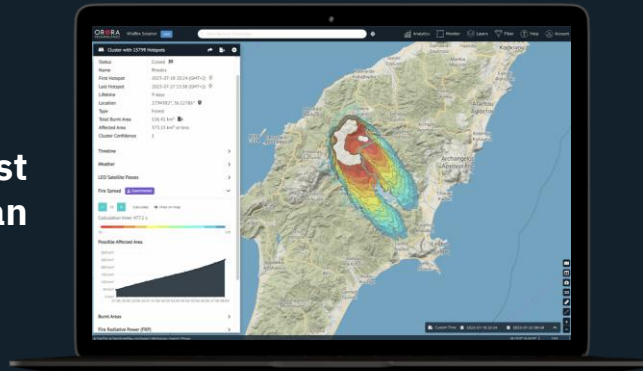Accurate resource dispatch

Optimum suppression

Continuous Situational Awareness

Forest-1 MWIR Chillán
10.02.2023 02:23

Forest-1 MWIR Chillán
10.02.2023 14:35

- Triage fires with help of combined Spread Forecast and AI Fire Risk assessment
- Understand early which fires will cause largest damage

Dynamic forecast until next scan

Be a step ahead of every fire! Make better choices by setting the right priorities.
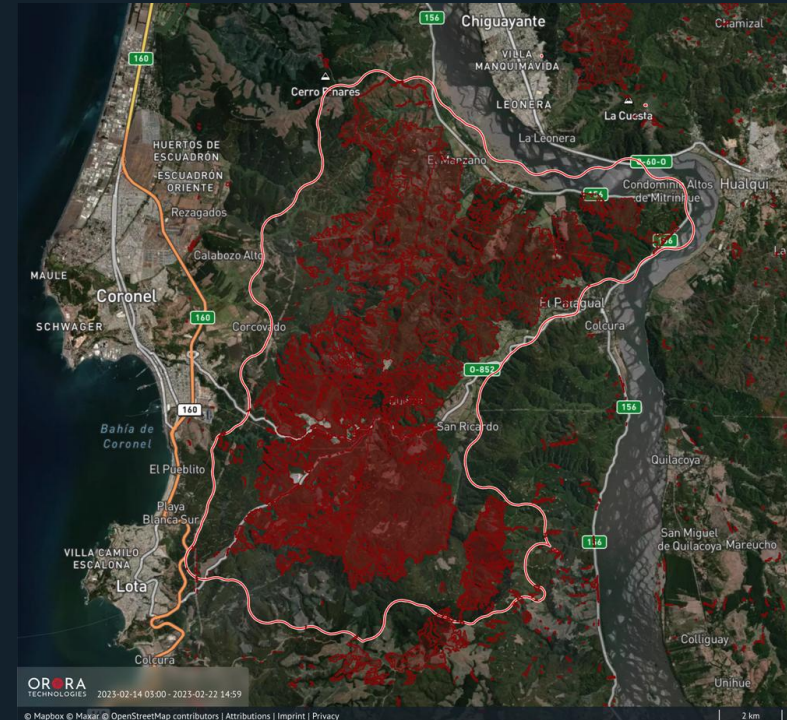
Asset Monitoring And Reporting

High-accuracy (<10m) estimates of losses

- ○ **Burnt area**

- ○ **Illegal harvesting**

Daily assessment of burnt area

➡ Continuous and automated assessment of losses even during high intensity days
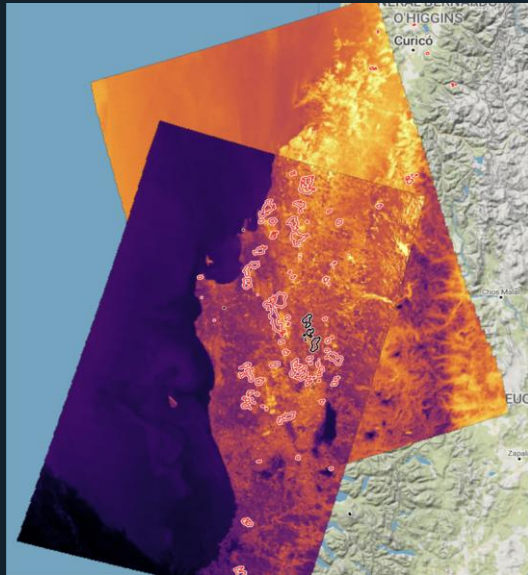
WFS Is Available For All Your Devices And Control Rooms

- Access Detailed Wildfire Information With All Your Devices
- Personalized monitoring area and notifications

- Use Our API to Integrate Our Data Into Your Existing Control Rooms & Platforms

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Used in Emergency Response
Chile, February 2023

Proprietary Live Data
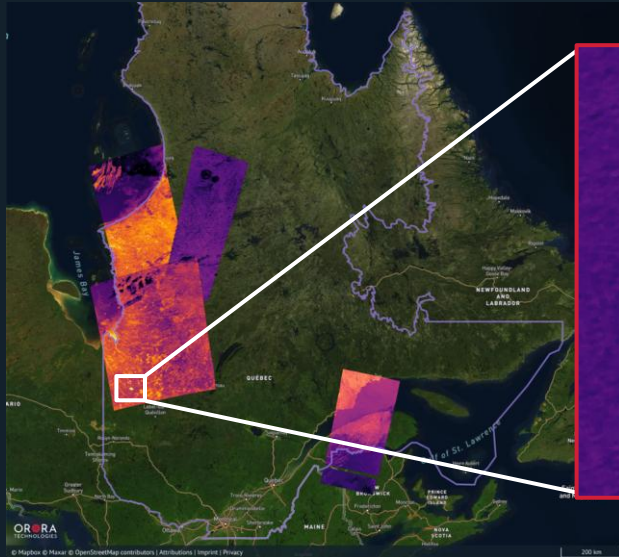
Clusters overlaid with visual images
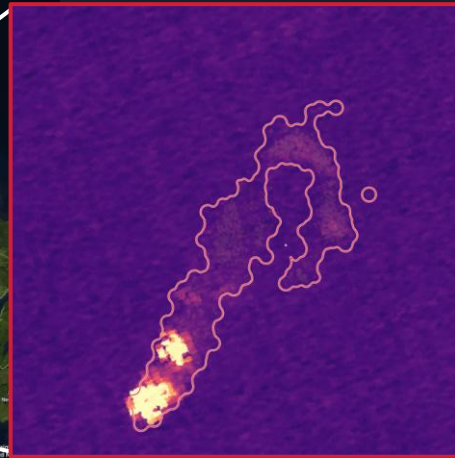
Daily Burnt Area assessment

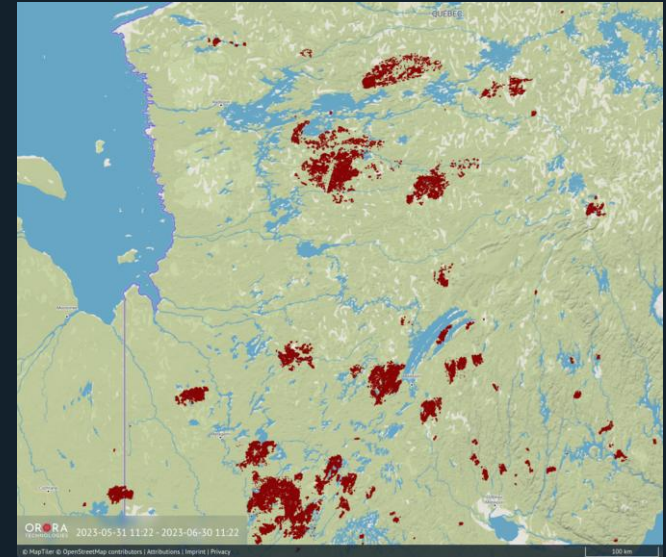# Used in Emergency Response
Quebec, June 2023

Proprietary Live Data

Clusters Overlaid For Situational Awareness

Daily Burnt Area Assessment

Our Customers Write Success Stories

MATHIEU PAYETTE

SOPFEU
Quebec, Canada

"We map fires from space **when other methods are not possible.** OroraTech's WFS is an operational mindshift.

We never had success with the satellite based data before. In 2023, OroraTech became **the main information source** for fire detection and monitoring to maintain situational awareness."

MIKE SUTTON

Forestry Corporation
New South Wales, Australia

"Having completed a six-month evaluation, FCNSW is continuing with its use of the Wildfire Service **to assist with fire management in NSW State of forests.**

The monitoring area and notification service is **particularly useful at providing early detection information** which facilitates a quick response to potential threats."

Act now!
Questions?

Richard Russell
Orora Tech Partner
Fiji and the Pacific

richard@droneservices.com.fj

Mark Harrington
Orora Tech
APAC Region Sales Manager

mark.harrington@ororatech.com

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TECHNOLOGIES