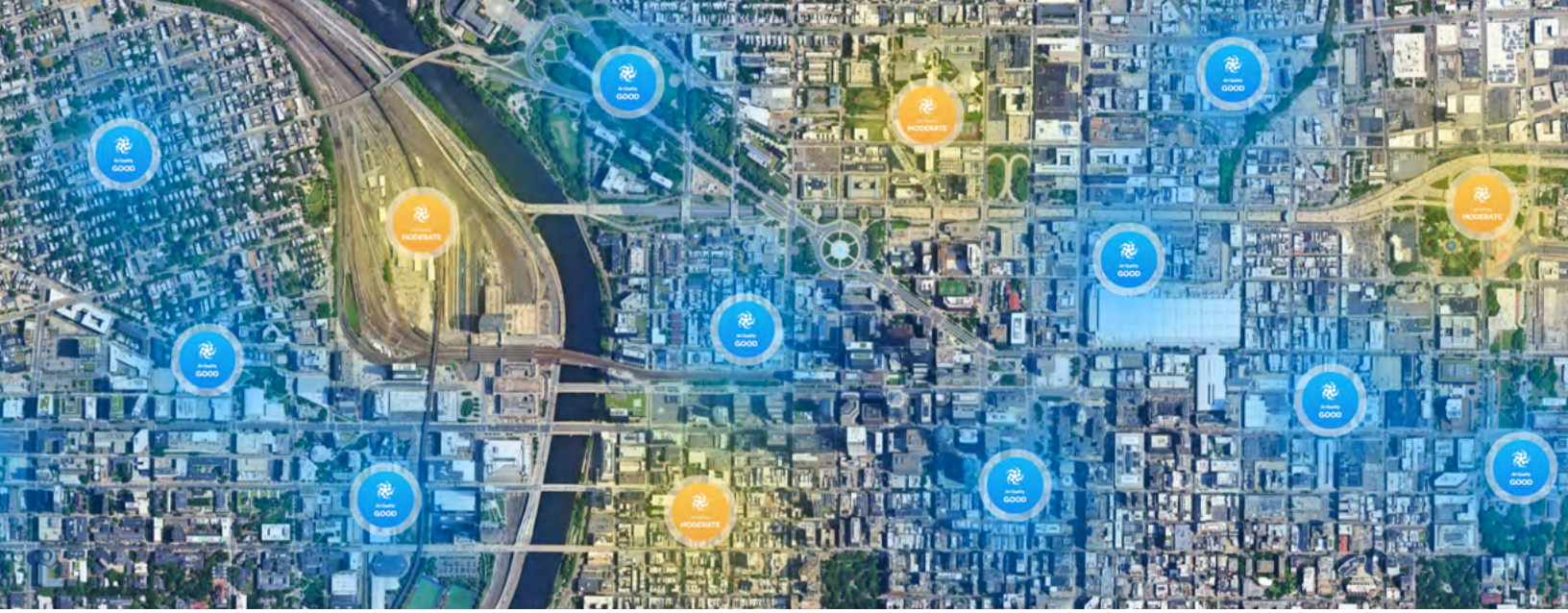
aethair

SOLUTIONS FOR

City-Wide Monitoring



Data-Driven Smart Cities

Environmental data is a critical foundation for modern cities. Aethair enables municipalities to continuously monitor indoor and outdoor conditions and transform real-time data into clear, actionable insights. Cities gain a clearer understanding of changing conditions across neighborhoods, infrastructure, and public spaces.

The Aethair platform is built for reliability, security, and scalability. Cellular-connected monitoring, automated reporting, and advanced analytics simplify environmental data management while supporting compliance, operational awareness, and long-term planning.

With Aethair, cities gain continuous environmental visibility, AI-assisted risk and trend analysis, and professional reporting tools that support transparency, policy evaluation, and public health.

Rapid Response

Real-time monitoring and AI analysis help identify issues early, enabling faster and more informed responses.

Community Engagement

Share clear, up-to-date data and reports to improve public awareness, transparency, and community trust.

Data-Driven Decisions

Continuous monitoring, analytics, and reporting reveal trends and the measurable impact of policies.

Community Air Quality Monitoring (C.A.M.P.)

Aethair enables scalable air quality monitoring across entire communities. Cities gain real-time data and tools that support regulatory, operational, and public needs. Rapid deployment and simple setup allow programs to move from installation to insight without long lead times.

From Neighborhood Data to Citywide Insight

By deploying Aethair across indoor and outdoor environments, municipalities can aggregate air quality data citywide, visualize trends over time, and generate standardized reports for agencies, stakeholders, and the public. AI-powered analytics surface patterns and anomalies automatically, while automated workflows reduce manual data processing and reporting effort.

Typical Workflow

- Deploy Sensors
- Monitor Thresholds
- Generate Reports
- Inform Policy or Responses

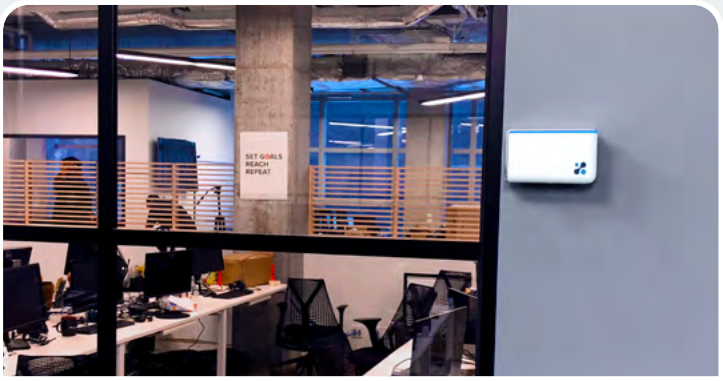
What Cities Gain

- **Citywide visibility into air quality conditions**
- **Early detection of pollutants and events**
- **Defensible, standardized data reports**
- **Reduce manual data collection & reporting**

Monitoring Indoor and Outdoor Environments

Indoor Air Quality Monitoring

Continuous monitoring for offices, schools, healthcare facilities, and other public spaces. Real-time measurements help identify environmental risks, track thresholds, and support healthier indoor environments.



Outdoor Environment Monitoring

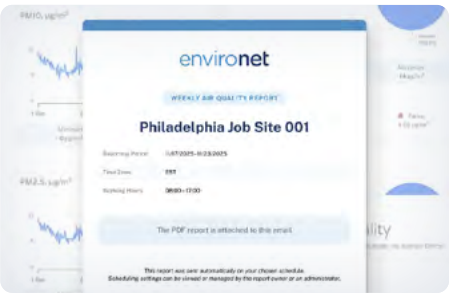
Monitor air quality across neighborhoods, streets, and city infrastructure. Rapid deployment and cellular connectivity enable scalable monitoring networks without fixed infrastructure.

Air Quality
GOOD

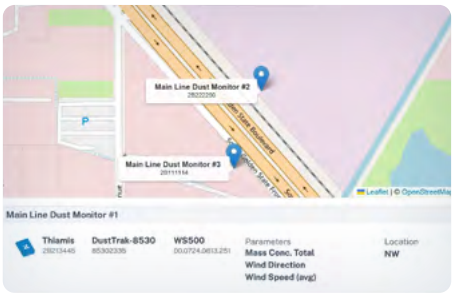
Generate Reports in Seconds

Quickly create custom reports, show trends, schedule automated reports, and surface insights for ambient air quality, weather, and environmental impact. Configure reports to meet standards such as **NAAQS** and **EPA guidance**, delivering clear results that support defensible decisions. Some features of Aethair reports are listed below.

Scheduled Reports



Site Map & Devices



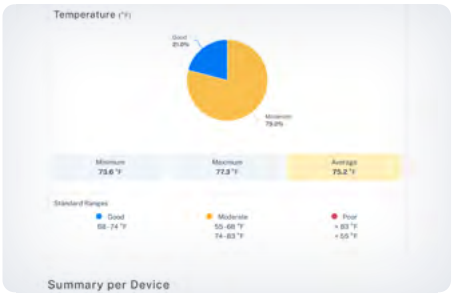
Impact Assessment

Data Tables

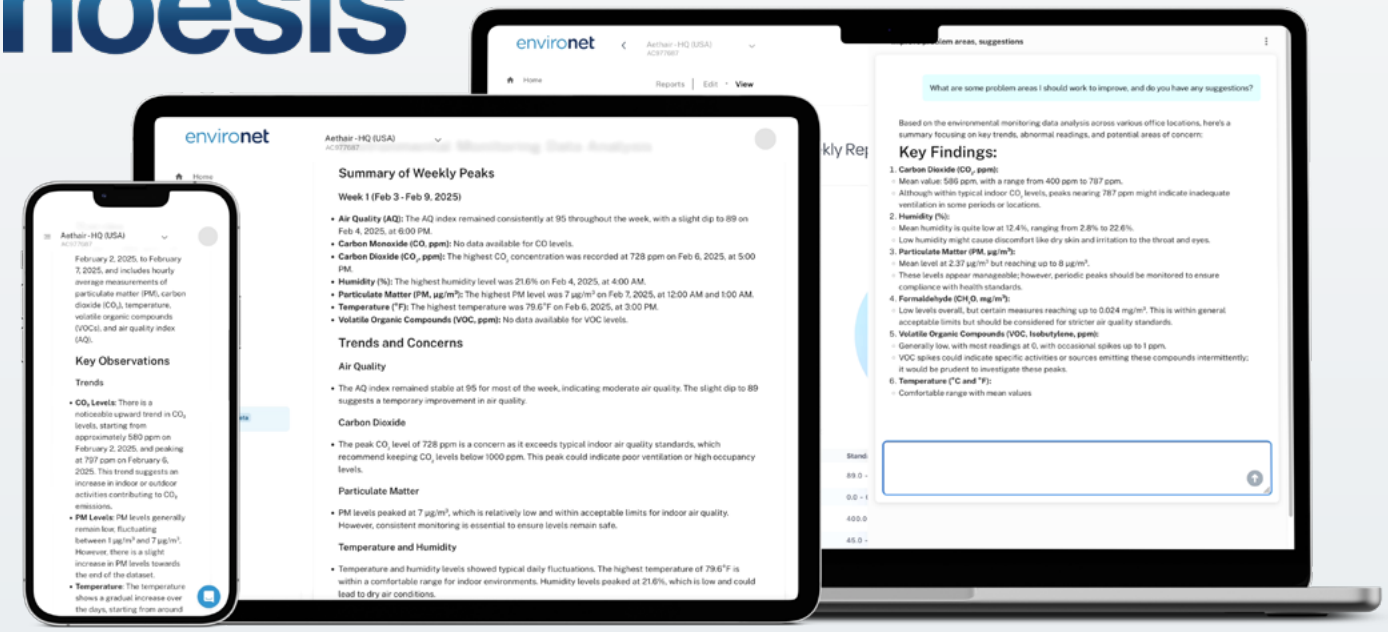
Date & Time	Mass Conc. Total			
	Average Upwind	Average Downwind	Average Δc	Average Speed
05/19/2025 06:15	16 µg/m³	17 µg/m³	1 µg/m³	N/A
05/19/2025 06:30	23 µg/m³	16 µg/m³	-7 µg/m³	1.3 mph
05/19/2025 06:45	21 µg/m³	15 µg/m³	-6 µg/m³	1.9 mph
05/19/2025 07:00	21 µg/m³	15 µg/m³	-6 µg/m³	2.7 mph
05/19/2025 07:15	15 µg/m³	16 µg/m³	1 µg/m³	2.2 mph
05/19/2025 07:30	18 µg/m³	15 µg/m³	-3 µg/m³	1.8 mph
05/19/2025 07:45	17 µg/m³	16 µg/m³	-1 µg/m³	2.1 mph
05/19/2025 08:00	20 µg/m³	18 µg/m³	-2 µg/m³	2.4 mph
05/19/2025 08:15	18 µg/m³	18 µg/m³	0 µg/m³	2.3 mph

Extended Analysis

Data Summaries



noesis



Actionable Insights Powered by AI

Noesis transforms how you interact with environmental data across your monitoring network, turning it into clear, defensible insights in seconds. Ask natural-language questions like “Which monitoring locations recorded the highest PM10 levels today?” and get instant answers. Noesis analyzes real-time and historical data to detect risks, identify trends, generate compliance-ready summaries, and create multi-condition alerts based on defined thresholds. The result is **faster, data-driven decisions that strengthen transparency, improve reporting quality, and provide deeper environmental insight across the entire city.**

aethair PRO | Advanced Air Quality Monitoring

Professional-grade monitoring, built for adaptability. With hot-swappable gas sensors and the versatility to operate both indoors and outdoors, Aethair PRO delivers real-time data and verified compliance across any application.

Built-In Sensors

PM1 | PM2.5 | PM10 | TSP | Temperature | Pressure | Humidity | Sound | Ambient Light

Gas Sensors

Choose two gas sensors to include in your setup.
All sensors are pre-calibrated and hot-swappable.

NO | NO_2 | CH_4 | VOC (PPB) | VOC (PPM) | CO | CO_2 | HCHO | Contact us for more!

Advanced Professional Monitoring

Aethair PRO delivers reference-grade accuracy in a compact, adaptable system for indoor or outdoor use. With flexible mounting and optional modules like differential pressure and **solar power**, it supports fixed, mobile, off-grid, and temporary deployments for pilots or investigations. Aethair PRO **operates continuously**, allowing teams to track ambient conditions, pollutants, and changes without interruption. It transforms real-time data into defensible reports and actionable insights.

Aethair PRO sets the standard for accuracy and efficiency in environmental monitoring.

aethair IAQ | Indoor Air Quality Monitoring

Precision-calibrated and certified for exceptional accuracy. Aethair IAQ accurately monitors and continuously reports on-site indoor air quality in real-time, enabling effective remediation and informed decision-making.

Aethair IAQ Sensors

CO_2 | VOC | PM1 | PM2.5 | PM10 | CH_2O | Pressure | Humidity | Temperature

A New Standard for Public Indoor Spaces

Transform indoor environments with real-time data. Designed for ease of use, Aethair IAQ delivers continuous insights and supports regulatory compliance with verified, actionable information.

4G LTE Connectivity

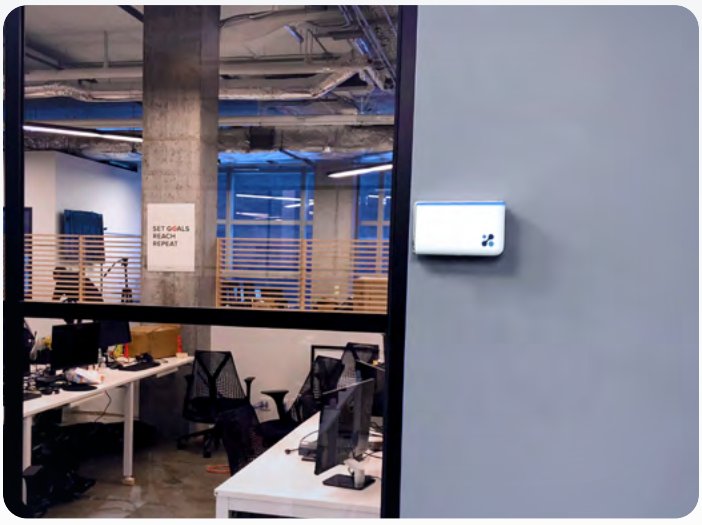
Secure global cellular connectivity, eliminating the need for a local network.

Pre-Calibrated Sensors

Calibrated and certified to correlate over 90% with reference instruments.

Continuous Monitoring

Local and cloud storage ensure no data is lost during interruptions or outages.



Dashboards and Public Displays

Make environmental data clear and accessible to the entire community. Using verified real-time data from Aethair IAQ and PRO devices, Aethair Dashboards build public trust, support compliance, and promote environmental awareness and responsibility across the city.

Displays For Every Location

Ideal for public lobbies, government offices, and other indoor spaces throughout the community. Aethair Dashboards display live air quality and key health indicators, demonstrating a clear commitment to safety and well-being.

Mobile & Online Displays

Public dashboards are also available online or via QR code for instant mobile viewing. Occupants and visitors can check live air quality anytime, ensuring visibility and assurance that every environment is actively monitored.

See the live air quality at Aethair HQ

thiamis | Connect 3rd Party Sensors To Our Platform

Known by industry professionals for more than a decade, Thiamis combines system control, data logging, processing, GPS, and telemetry in a single compact device that enables cities to unify legacy sensors under one reporting system. Data from third-party devices is transmitted over a secure 4G cellular connection to the Aethair Platform, eliminating manual data retrieval and reducing site visits.

Connect Sensors

Thiamis enables true plug-and-play integration with third-party sensors. Connect virtually any sensor via:

- USB-C (2x)
- SDI-12
- RS-232 (3-multiplexed)
- RS-485
- Analog & Digital I/O Expansion Ports

Extensive Device Compatibility

Thiamis has been used alongside many industrial sensors, offering professionals seamless access to their data. A few examples are:

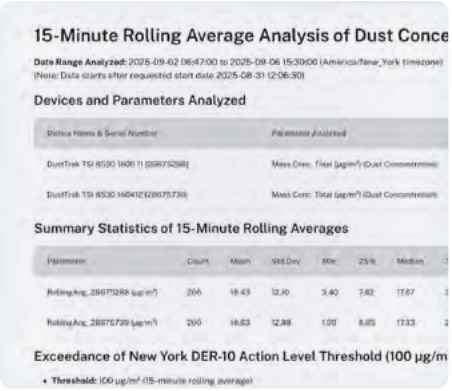
- TSI DustTrak
- Rae Gas Monitors
- Durridge Radon Sensor
- Alphasense
- Davis Vantage Pro
- Lufft
- Eureka
- QuestTemp
- Young ResponseOne
- Gill Maximet Sensors
- Macurco
- Thermo Scientific
- Met One
- Particles Plus
- Eureka Water Probes
- Teledyne ISCO
- **And More!**

environet | Data Monitoring & Management

Environet is Aethair's cloud platform for real-time environmental data management and analysis. Trusted by enterprises worldwide, it provides secure access to live and historical data, turning it into report-ready intelligence that supports compliance, trend analysis, and actionable decisions.

AI-Powered Analytics

Turn complex data into insights. Analyze datasets across locations and time and simplify compliance.

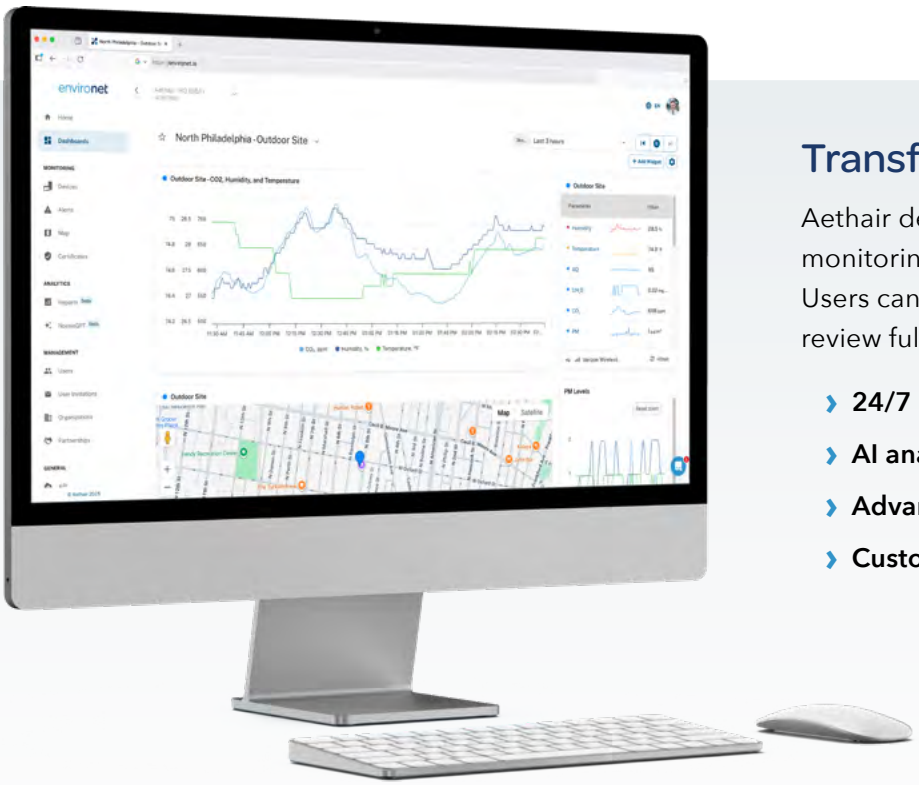


Compliance Made Simple

Quickly generate custom, professional reports. Aethair makes reporting simple, accurate, and fast.

Real-Time Alerts

AI insights and real-time alerts detect site risks early so teams can act fast and stay compliant.



Transforming Environmental Data

Aethair delivers an advanced platform for monitoring and managing environmental data. Users can track parameters, visualize trends, and review full historical records for any device.

- **24/7 access to real-time data**
- **AI analysis and reporting tools**
- **Advanced trend visualization**
- **Customizable alerts**

Monitoring Urban Environments

Effective environmental monitoring depends on accurate data, consistent measurements, and reliable reporting. Aethair delivers this with real-time data & reporting that informs decisions, reduces site visits, and strengthens insights.

Weather & Climate

Aethair provides real-time access to weather and climate data, enabling teams to monitor conditions, track trends, and interpret patterns with clear analytics. Cities use this data for extreme weather preparedness, infrastructure planning, and climate trend analysis, improving environmental visibility and supporting weather-based planning.

Water Conditions

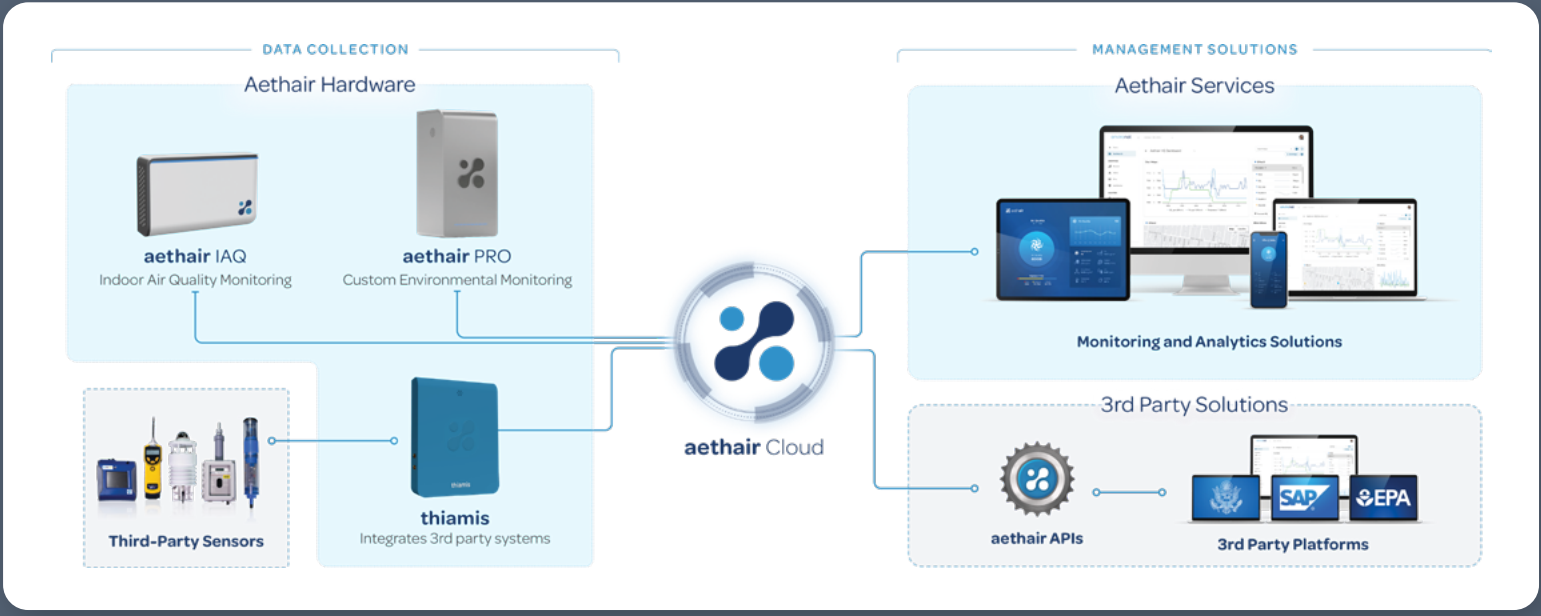
Aethair delivers continuous data on water levels and quality, with analytics and alerts that help organizations manage resources, maintain compliance, and respond quickly to changing conditions across monitored sites. Common use cases include flood risk tracking, wastewater management, and stormwater and groundwater monitoring.

Air Quality Monitoring

Aethair delivers accurate, real-time air quality monitoring for ambient, roadside, and mobile applications. Cities gain reliable data and insights that support regulatory compliance, informs environmental assessments, and enables traffic-related analysis, community health monitoring, and pollution detection.

Integrated & Seamless

Aethair unifies hardware, cloud, AI, and analytics into one secure platform where data is encrypted and verified end-to-end, ensuring integrity and minimizing human error. The result is an integrated infrastructure that simplifies environmental management, builds trust in every dataset, and enables confident, data-driven action anywhere.



The Trusted Environmental Data Platform

Aethair is trusted worldwide for mission-critical environmental monitoring. As a global platform, it integrates Aethair IAQ, Aethair PRO, and third-party devices (connected through Thiamis) to deliver verified, real-time intelligence from any location. Built on advanced security, end-to-end encryption, and proven data integrity, Aethair provides the reliability, transparency, and control demanded across enterprise, government, and defense sectors. With over a decade of experience, Aethair sets the benchmark for secure, scalable environmental intelligence.

aethair

How can we help?

If you would like to find out more about how we can help you, please give us a call or send us an email.

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