ambee

The Ambee Advantage

Climate data, done right

Ambee understands that the world's atmosphere is complex, dynamic, and rapidly changing. Capturing its disparate signals and massive volumes of information and transforming them into usable, actionable datasets is no small feat. At Ambee, we bring together advanced data infrastructure and deep environmental science to decode this complexity by transforming raw atmospheric data into accurate, hyperlocal, and gap-free data for businesses, governments, and communities worldwide.

Why most environmental data providers fall short

To understand what sets Ambee's data apart from the competition, it's important to first understand the challenges plaguing other providers and publicly available data.

Broken and missing data

Up to 25% of observational and sensor data contains gaps or errors, and many environmental monitoring networks achieve <90% availability.

Unusable formats

Most ground-based sensors or satellite imagery output "raw" values, which are difficult or even impossible to transform into an analytics-ready dataset without the required expertise.

Not collocated/relevant

Most providers rely exclusively on singular inputs (e.g., a single observation point) and then use simple interpolation methods to extend the data to your location of interest. This process is flawed for several reasons:

Geospatial misalignment:

Observation points may be tens or even hundreds of miles away from your area of interest. As a result, the data may not reflect real conditions on the ground, making it unreliable for decision-making or operational use.

Topographic and geographic oversimplification:

Standard interpolation methods typically fail to account for spatial heterogeneity such as elevation or terrain, resulting in outputs that are technically smooth but environmentally inaccurate.

Insufficient time-series

Many providers offer limited historical data, making it difficult to conduct deep analyses of historical trends or understand how forecasts are impacting business performance.

Lack of useful variables

Raw values without derived or contextualized fields are not meaningful. This makes it difficult to understand the influence of environmental data on consumers or a business KPI.

Lack of continuity from the past to the forecast

Many providers and all publicly available data have different resolutions between historical data and forecast data, breaking continuity.

Lack of context

Most providers do not offer climatologies or baseline tools to contextualize values. For example, how can you tell if an air quality reading is "normal" or "above average" for a specific location and point in time?

Difficult to source

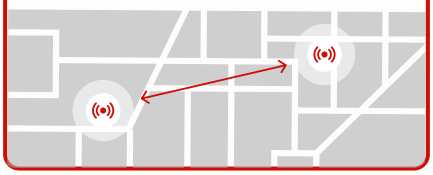
Extracting and ingesting data from public sources requires a deep technical understanding of how to query them efficiently and ensure the data is current, gap-free, and usable.

Our core methodology

Ambee takes a markedly different approach to environmental data collection and processing—one built on the principle that no single source tells the complete story.

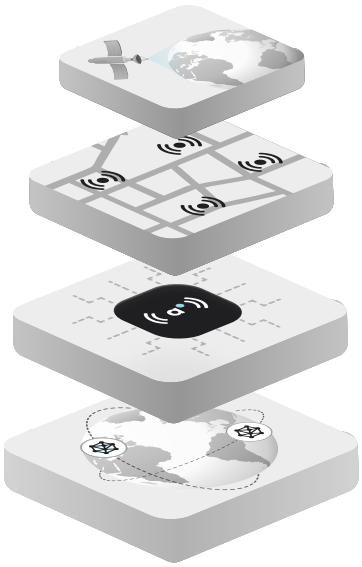
Satellite observations **miss local phenomena.**

Ground stations create **coverage gaps.**



Traditional models **ignore** regional atmospheric behavior.

To address these coverage gaps, missing phenomena, and regional variations, our integrated platform continuously ingests, processes, and harmonizes data from multiple critical sources



- Satellite information
- Ground station networks
- Ambee sensor network
- Global top-performing and best-in-class models

The result is an error-checked, gap-free, unified, and global dataset that is continuously validated against real-world observations.

This integrated methodology translates into four distinct advantages that set Ambee apart:

- ✓ Superior data quality and completeness
- ✓ Unmatched precision and relevance
- ✓ Comprehensive global coverage
- ✓ Exceptional usability

These advantages make the difference between having environmental data and having environmental intelligence. While other providers force you to work around data limitations, Ambee's approach eliminates those limitations entirely.

Data quality and completeness

Corrected, filled, continuous: Rigorous data cleansing with gaps filled, errors corrected, and anomalies preserved.

Unified schema: Globally uniform, statistically consistent, temporally and spatially complete datasets.

Precision and relevance

Hyperlocal data: Proprietary grid system and interpolation methods ensure data is properly collocated and relevant for any precise location.

Elevation corrected: All data accounts for terrain and topography variations.

Comprehensive coverage

Deep time-series: Historical data extending over 10 years, with some products reaching back to 1940.

Past, present, and forecast: Seamless continuum across all temporal dimensions.

Complete variable set: Raw values plus derived fields for comprehensive analytics.

Usability and context

Climatological baselines: Mean and standard deviation data sharing common schemas for easy comparison to "normal" conditions.

Global accessibility: Available for any landmass worldwide, mappable to precise coordinates or geographic boundaries (ZIP codes, DMA, MSA, custom areas).

Welcome to the Ambee advantage.

Whether you're modeling human health exposure, optimizing supply chain resilience, or quantifying environmental risk, our datasets provide the precision, consistency, and scientific credibility that critical decisions demand.

Write to us at sales@getambee.com