

The Power of Precision: Airbus Satellite Imagery, Basemaps and Artificial Intelligence

Unlocking Unparalleled Accuracy and Detail for Modern Geospatial Applications

In today's dynamic digital landscape, mapping has evolved far beyond traditional cartography. Accurate, up-to-date geospatial data is now, more than ever, crucial for creating reliable maps, supporting advanced applications, and enabling informed decision-making across diverse sectors. Airbus Imagery Basemaps serve as the essential foundation for precision mapping, ensuring that all derived maps, applications, and analyses are accurate, reliable, and highly effective.

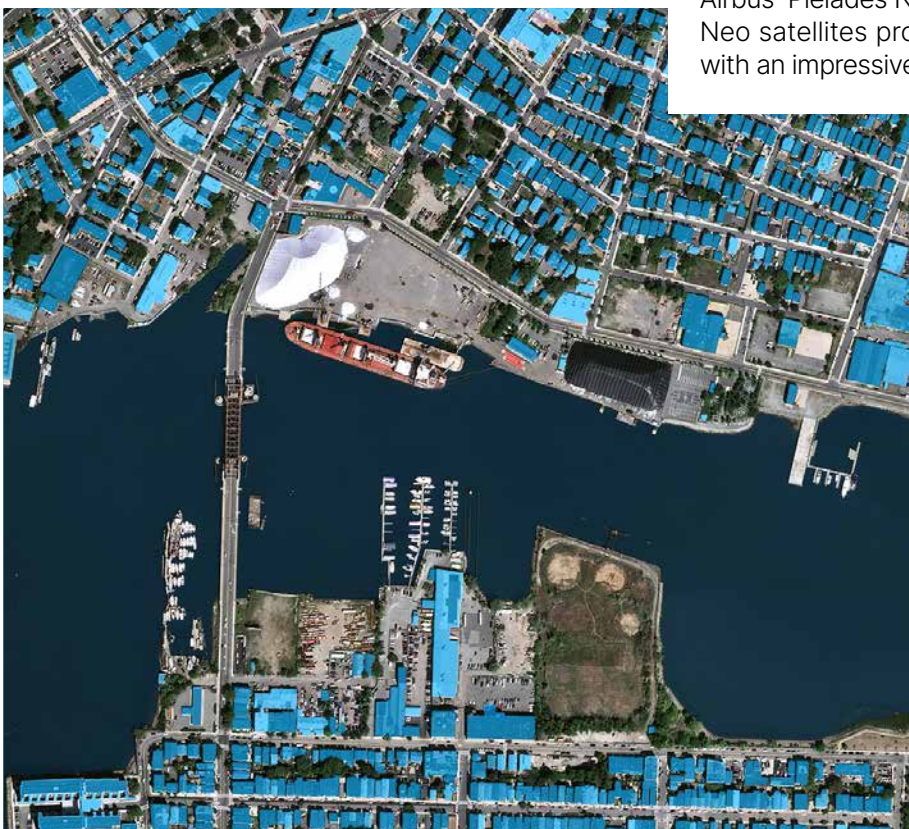
The Power of Precision and Freshness

Airbus Imagery Basemaps are meticulously curated from the freshest satellite imagery, guaranteeing that your mapping projects utilize the most current and accurate data available. This freshness is paramount as landscapes constantly change due to urban growth, infrastructure development, and natural events. Up-to-date imagery ensures that mapping companies can reflect these changes in real-time with accurate data, pinpointing exactly where change is taking place. These Basemaps can be seamlessly integrated across large regions through mosaicking and color-balancing, which reduces seasonal variations and haze.

Unmatched Geolocation Accuracy and Resolution

Airbus offers various Basemap options to meet specific precision requirements. The Global Basemap boasts a geolocation accuracy of 5m CE90, meaning 90% of image points align within 5 meters of their true location. For even higher precision, the Tailored Basemap can deliver customized imagery options and can incorporate customer-supplied ground control points (GCPs) and digital elevation models (DEMs).

Further enhancing this precision are the capabilities of Airbus' Pléiades Neo satellite constellation. The Pléiades Neo satellites provide native 30cm resolution imagery with an impressive geolocation accuracy of <3.5m CE90, representing the highest commercial satellite resolution available. This level of detail is critical for powering geospatial applications like GPS navigation, where inaccurate data can lead to costly errors or delays. Accurate Basemaps ensure that points of interest (POIs) are correctly placed, preventing confusion, especially in industries such as real estate, transportation, and retail. Furthermore, precise Basemaps help avert conflicts in zoning and land use planning by accurately positioning property lines, utility networks, and infrastructure assets. Pléiades Neo's high revisit capabilities allow rapid coverage of large areas within just a few days, ensuring consistent, homogeneous imagery that requires minimal post-processing to generate accurate and seamless basemaps.



An Airbus Pléiades Neo 30cm resolution image over Boston with vectorized building footprints overlaid.

For ultra-fine details, Pléiades Neo HD15 imagery takes resolution a step further, enhancing the native 30cm imagery to an astonishing 15cm-like product. This is achieved through a proprietary algorithm leveraging Artificial Intelligence and Machine Learning for image restoration, resulting in brighter colors and enhanced details that make distinguishing the smallest features effortless. Unlike some AI-enhanced imagery, Pléiades Neo HD15 performs image restoration rather than artificial enhancement. This approach ensures reliable, artifact-free results, maintaining the integrity of the data for accurate analysis.

Pléiades Neo HD15 offers significant advantages for:

Enhanced Monitoring:

Facilitating the identification of small details in images.

Improved Analysis:

Providing sharper details for better analysis of infrastructure, road markings, and small objects.

Faster Decision-Making:

Leading to quicker interpretation and reduced ambiguity in operational environments.

Optimized for AI-powered Geospatial Applications:

Enhancing automated object detection, feature extraction, and AI/ML-driven analytics due to superior clarity.

Mapping, Urban Planning, and Civil Engineering:

Boosting large-scale mapping and infrastructure monitoring, allowing accurate verification of urban features, and helping optimize planning and reduce field inspection costs.

Land Administration and Mapping:

Ideal for mapping very dense urban areas, rehabilitating substandard housing, and relocating households from high-risk areas.

Airbus Imagery Basemaps, supported by the advanced capabilities of Pléiades Neo and Pléiades Neo HD15, provide the indispensable foundational layer for all modern mapping applications. Their unparalleled precision, resolution, and freshness empower organizations to make more informed decisions, optimize operations, and confidently navigate the complexities of our ever-evolving world.

Mapping and Urban Planning activities are consistently growing worldwide and evolving continuously for the sustainable benefits of citizens, states and businesses. Geo-information has long been a necessary data source for mapping and it continues to play a crucial role in supporting key decision-makers by turning the latest geospatial data into reliable information.

An HD15 image, derived from Pleiades Neo 30cm resolution imagery, over downtown San Diego.



Learn more about Imagery Basemaps, Pléiades Neo and HD15 for Mapping Applications.