

# DRONE SURVEYING SOLUTIONS



## LEVERAGING THE POWER OF MODERN UAV DATA

Accurate geospatial data is critical for projects across many industries. From pipelines and power lines to solar farms and crop fields, operators are experiencing the benefits of unmanned aerial vehicles (UAVs) for their data collection. Modern UAVs have quick turnaround times, manage heavier payloads, and provide enhanced obstacle avoidance capabilities. Their reliable, high-resolution data makes them a powerful tool to drive project progress and decisions.

Audubon Field Solutions offers full-scale drone [surveying](#) for any project. Our dedicated geospatial team creates field-to-finish deliverables to meet the unique requirements of each client and project, collaborating with you throughout the process. Discover the benefits of modern UAV technology, and get the data you need in a fraction of the time.

### Drone surveying advantages

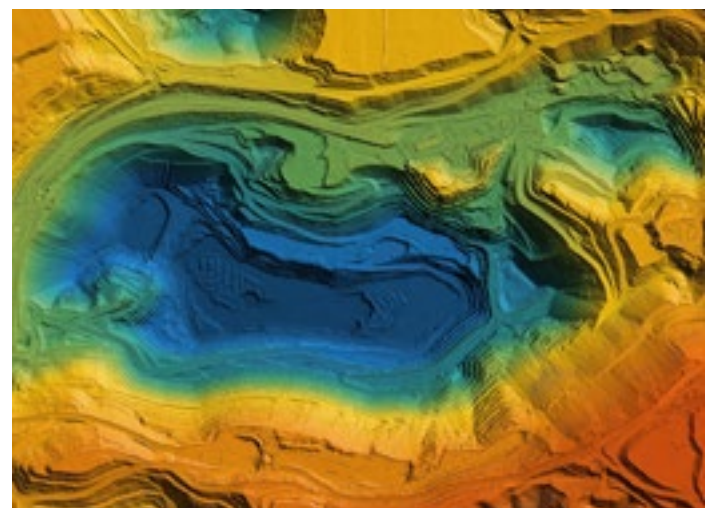
- Improved efficiency with less time collecting data
- Intelligent insights with highly accurate data
- Faster project timeline with quick delivery & less rework
- Reduced risk with streamlined [inspection](#) & monitoring
- Enhanced safety with the ability to remotely traverse challenging, dangerous terrain or infrastructure

### Drone surveying technologies

- LiDAR
- Photogrammetry
- Infrared heat mapping
- [FLIR](#)-certified inspectors
- [GIS integration](#)

### Drone surveying applications

- [Power](#) lines & substations
- [Industrial](#) plants
- Rail, ship, & truck terminals
- [Rigs, pipelines, & refineries](#)
- [Wind turbines & solar panels](#)
- Construction & mining sites
- Bridges
- Cell towers



## **TOPOGRAPHIC MAPPING** | *Leave no feature unseen*

To produce the most detailed topographic and aerial maps, Audubon collects millions of data points in each short flight for an accurate representation of ground conditions. Even when high-density vegetation is present, ground-penetrating technology yields final deliverables with the highest-quality 3D imagery and detailed planimetrics.

## **FACILITY & INFRASTRUCTURE INSPECTION** | *Preserve asset integrity*

Maintaining the physical integrity of facilities and infrastructure keeps your operations safe and compliant. Audubon's drone surveying services collect high-quality imagery and a detailed point cloud, bringing you an accurate 3D model to use for asset inspection. Even in complete darkness or through dense fog, our UAV specialists uncover potential problems such as faulty ductwork, rusted towers, and dead panels using extremely sensitive thermal cameras. Our expert team also produces detailed reports including actionable insights for maintaining your infrastructure.

## **CONSTRUCTION SITES** | *Visualize job progress, stay on schedule*

As a full-service [EPC](#) solutions provider, Audubon knows the fast-paced, low-error-margin nature of the [construction](#) industry. Our drone surveying solutions effectively monitor progress and compliance, estimate material costs, reduce project waste, and improve surveillance and security for construction sites. For precise dirt-moving calculations, we apply cut/fill analysis routines, followed by a shrink factor based on your soil, and provide a detailed comparison of the ground and your design plans.

## **PRECISION AGRICULTURE** | *Increase yield, achieve sustainable practices*

For farms and environments, Audubon UAV surveying solutions increase yields, reduce waste and production costs, and minimize habitat impact. Leveraging topographical and thermal mapping, farmers can glean insights into soil variability and monitor crop health. Drone data enables timely interventions by detecting disease and identifying nutrients, and it allows optimal use of resources such as water, fertilizer, and pesticides for practical sustainability.

## **ENVIRONMENTAL MANAGEMENT** | *Prevent disaster, maintain ecosystems*

The Audubon geospatial services team supports responsible environmental management through detailed UAV analysis. We deliver vegetation height maps, deforestation studies, and models to predict and prevent forest fires. For storm damage assessment, we outline flood zones and create detailed reports that display environmental changes. Our UAVs also help monitor and improve diverse ecosystems by mapping vegetation changes, monitoring wildlife population dynamics, and collecting water, soil, and grassland samples.