



## UNCREWED AERIAL SYSTEMS (UAS) //

AERIAL MAPPING

SAM adopted and utilized Uncrewed Aerial System (UAS) technology since its introduction to the commercial market. This advanced tool now supports all of our aerial mapping and geomatics programs.

With an aviation department specially dedicated to uncrewed aircraft, SAM is equipped to provide clients comprehensive spatial data with extraordinary speed and efficiency, even in the most difficult-to-access areas. Our uncrewed aerial systems possess a variety of industry-leading sensors—designed to capture high-resolution photos, videos, thermal images, LiDAR, and oblique images, allowing for complete datasets and analytics



SAM can demonstrate how a creative UAS approach will deliver accurate geospatial services and assessment results while reducing time, cost, and risk—without disrupting your community.

#### Experience in innovation

As an early UAS adopter, SAM has proven experience in safe and efficient UAS deployments. We are fully Federal Aviation Administration (FAA) approved and our Part 107 Certified Airmen have Remote Pilot Certificates. We have logged thousands of flying hours and miles for clients in numerous market sectors around the country.

SAM's expert flight crews include licensed pilots, trained flight observers, and geospatial support staff specializing in UAS technologies. Based on program location and site conditions, we can advise clients of the best way to utilize this advanced technology. SAM has an excellent track record of meeting requirements for safe operation in even the busiest locations or when waivers are required.

#### Experience in innovation

SAM operates a fleet of the most advanced uncrewed aircraft available, giving clients a full range of options to capture program data. We own and operate heavy-lift systems, capable of carrying multiple sensors for a variety of remote-sensing collection purposes. We equip these aircraft with the latest LiDAR and imaging technologies, producing an exceptionally high rate of data capture, a broad field-of-view, and high-resolution results. Our systems can handle long flight times, and we can even deploy multiple crews to support a particularly large or timesensitive project. Every flight is operated by two or three person crews and can be managed by a mobile command center for longer-range line of sight.

Our exceptional service does not stop in the field. We have developed a field-to-office workflow that supports quick and efficient turnaround of deliverables. Using artificial intelligence and machine learning software, we can rapidly expedite data inspection and reporting processes.

#### Experience in innovation

SAM's licensed UAS professionals are fully insured, and our Aviation Safety Management System adheres to FAA requirements and SAM's rigorous safety protocols.

To ensure safe UAS operations, our teams are trained to take immediate control of the aircraft during autonomous acquisitions in the event of external disruption or interference. SAM continuously performs risk analysis and assessments to improve our processes. Using data encryption and redundant subsystems, we prevent pirating and keep your information secure.

#### Key Services:

- Aerial LiDAR Topographic Mapping
- Photogrammetric Image Collection and Processing
- Inspection and Monitoring Flights• Utility Infrastructure Accommodation
- Utility Infrastructure Monitoring

#### Applications:

- Volumetric Calculations
- As-Built Layouts
- Bridge Inspection
- ROW Pipeline Inspection
- Thermal Inspection for Electric Transmission, Substation, and Generation
- Transmission and Distribution Infrastructure Inspection
- Cell Tower Mapping and Inspection
- Emergency Response Assessments
- Civil Infrastructure Condition Assessment
- Pre-Construction Corridor Assessment
- Infrastructure and Building Progress
- GIS Data Collection
- Vegetation Encroachment

## What differentiates SAM?

SAM has built a reputation as a trusted, knowledgeable, and innovative partner. SAM transforms petabytes of complex spatial data into intelligent insights in a holistic Managed Geospatial Services™ (MGS™) framework. As North America's premiere MGS™ company, SAM provides practical, precise, and high-fidelity solutions designed to enhance decision-making, mitigate risks, achieve strategic objectives, and drive costs out of our client's business. Our vision is to advance spatial data acquisition, improve analysis capabilities, and develop predictive analytics to redefine and transform how infrastructure assets are developed and managed throughout their lifecycles.

## Reach out today!

Want to experience the SAM difference for yourself?

Learn how we can put our resources to work for your next program. Call us toll free at (800) 656-9525 or visit us at [sam.biz](http://sam.biz)