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Profile of Axis Fields: A UAS Company Engaged in Remote Sensing

Submitted: June 13th, 2026

1. Introduction

This report is a profile of Axis Fields, an owner-operated business providing geospatial intelligence and mapping services. These services utilize data captured by sensors that are integrated onto uncrewed aircraft systems (UAS). This report also describes the considerations for sensor and UAS platform selection while also providing visual examples of the geospatial intelligence products that the company produces.

1.1 Objective

This report is meant to provide an understanding of how the company uses remote sensing and UAS to provide services to its customers. Information about the company's background and future plans are included to provide readers with contextual information.

1.2 Scope

This report only provides information about the identified company. This information was obtained solely through correspondence with the company's founder. The report does not compare the company to its competitors or the broader industry.

1.3 Layout

Section 2 Provides a profile of the company while describing its background, operations, and future plans.

Section 2.1 Describes the founding of the company as well as the background and experience of its founder.

Section 2.2 Provides a description of the company's operations while discussing considerations for sensor and UAS platform selection. Visual examples are also provided in this section.

Section 2.3 Discusses the goals that the company is intending to pursue in the short to medium term.

Section 3 Provides a conclusion to the report.

2. Company Profile

2.1 Background

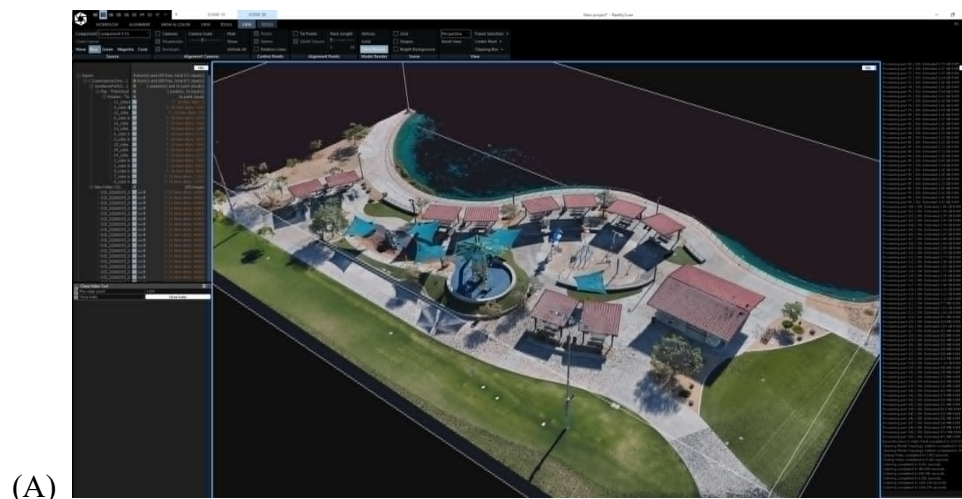
Axis Fields was founded at the start of 2026. While it is a new venture, it was founded by Jesse Aguilar, a military veteran with industry experience in both Geographic Information Systems (GIS) and photogrammetry. The company evaluates each project individually to determine which resources are required. It then sources specialized providers such as GIS analysts, processing technicians, and additional UAS operators to subcontract on the project tasks. Flights are then planned and executed to collect the data that will be used to produce customer deliverables. The founder described this as a lean business model that supports efficiency while the company develops its capacity, portfolio, and revenue. The mission of the company is to provide clear insight and stronger spatial intelligence through advanced geospatial data collection and analysis.

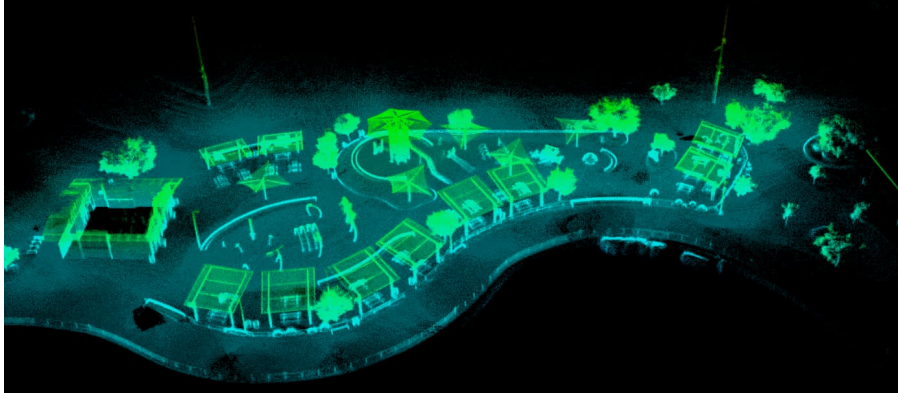
2.2 Operations and Methodology

The company offers geospatial intelligence services to customers in several fields including infrastructure, construction, and asset management. To address the diverse needs of customers in varied sectors, the company has opted to utilize multiple UAS platforms to ensure that the platform meets the individual project's requirements. Certain projects require a high level of accuracy, such as when providing an inventory or condition assessment. Others such as construction clients may only need a record of how a construction project is progressing. These varying goals factor into the requirements for a platform's battery capacity, coverage area, and design (i.e. fixed wing or multirotor). Sensor selection will also factor into the consideration for UAS platform, as each one adds additional weight and power requirements. The company utilizes a combination of sensors such as RGB, LiDAR, and precision positioning systems. The company described that each sensor provides them with individual benefits that are then integrated into their deliverables such as high levels of visual detail, accurate elevation and distance data, and precise geolocation information. **Figure 1** shows examples of how different sensor types will provide different data for GIS and photogrammetry purposes. This data from the various sensors can be analyzed in different contexts to provide unique information to an end user or customer. As such, this allows the company to specialize a project in response to a client's individual requirements or desired deliverables. The company offers several deliverables such as Orthomosaics, 3D Point Clouds, 3D Reconstructions, and Spatial Analysis Reports.

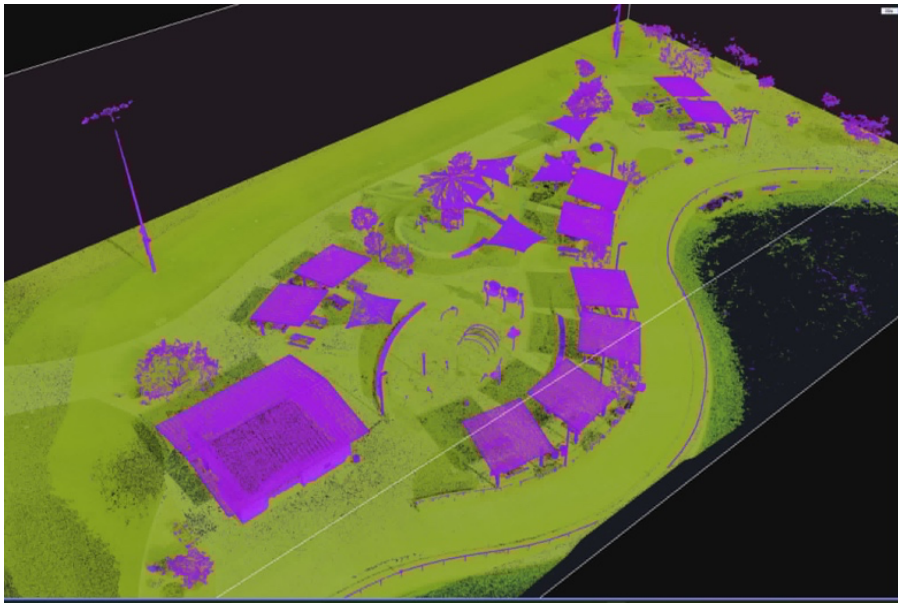
Figure 1

Examples of Data from Various Sensors





(B)



(C)

The company identified several challenges and considerations it has for conducting their operations. Weather was stated to have a direct impact on both data quality and flight safety. Network infrastructure in remote areas was another concern. Data management and archival methods were emphasized, with the company stating that their customers expect reliable storage and retrieval of geospatial data over the long term. Regulatory and compliance factors are also an area of focus for the company. These considerations are included when discussing a potential project with customers as individual factors can increase complexity and cost, therefore requiring a larger budget. The company makes a point to plan missions effectively while also having transparent discussions with customers about the tradeoffs between cost, accuracy, and project constraints.

2.3 Future Goals

The company intends to continue developing their customer base through additional relationships with commercial clients in the infrastructure and construction industries. It is also working to complete a proof-of-concept phase with a federal client. Converting individual projects into recurring service contracts is another business focus.

3. Conclusion

Axis Fields considers many factors when developing an effective course of action to provide quality services to their customers. The selection of a UAS platform and sensor combination is informed by a customer-focused evaluation and discussion of a project's requirements. This allows the company to develop a tailored solution through the use of various UAS platforms, sensors, and methods as well as assistance from specialized providers. Mitigating risks and overcoming operational challenges are included in the company's steps for developing an effective mission plan. The above strategy is the keystone for the company's future goals and development.

4. References

All Images were provided by Axis Fields