

Helion's GIS Capabilities Statement

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INTRODUCTION

Helion Industries, LLC (Helion) is an SBA-certified HUBZone Small Business headquartered in Tuscaloosa, Alabama. We specialize in user-friendly GIS services with proprietary LiDAR equipment and in-house software and modeling capabilities.

Utilizing cutting edge long-range terrestrial systems, unmanned aerial vehicles (UAV) with customizable payloads, and unmanned surficial bathymetric systems (USV), Helion creates survey-grade deliverables and .las files that can fit seamlessly into any workflow of government and commercial clientele, allowing for easier planning and more efficient work that cuts costs and increases the quality of that work.

While we are a relatively young company, Helion is a wholly-owned subsidiary of Hyperion International Holdings Corporation (HIHC), thus we have significant reach-back capabilities befitting that of a company with over 30 years of experience. This gives Helion the financial and professional backing needed to ensure we deliver consistently high-quality work to our clients.

Our GI&S teams use the latest and best technologies alongside top-notch Commercial-Off-The-Shelf (COTS) software to provide our clients with the most efficient and cost-effective GIS solutions for a wide range of geospatial challenges. From government agencies monitoring environmental trends to retailers boosting their supply chains, our GI&S professionals are ready to assist in solving the increasingly complicated challenges arising in the modern world.

Data Collection

Helion's ability to collect data, manage data, and fabricate professional-grade deliverables is functional, diverse, and capable of fitting into any workflow. Through open-source avenues, client-provided data, and our UAV, USV, Mobile, and Terrestrial (long-range) capabilities, we can provide a complete understanding of an area and capture the data needed to create an accurate model of a project site.

DATA COMPILATION

As part of our data collection, Helion is capable of storing and organizing data within various types of databases either on the cloud or internally, as determined by each client's needs and desires. Helion is experienced with both raster data capture and vector data capture to be used and analyzed as the project demands.

Geodatabase management

Using our advanced aerial, terrestrial, and bathymetric capabilities alongside our COTS software, our GI&S teams maintain varying forms of databases used to update data, serve out data to users, and provide web map services for visualization and planning. Our database management capabilities include:

- ArcGIS Enterprise and ArcGIS Online
- Microsoft SQL Server
- WebMap Services

Feature data collection

Our GI&S teams are trained in feature data collection and revision with capabilities to define schema, rules, and symbols for feature-specific validation. These skills and tools are adaptable to any feature-extraction specification.

ANALYSIS

Helion's various spatial analysis capabilities can be utilized to model and predict certain variables and gain statistical insight into an area. The data, data reports, and other useful information generated by these analyses can be easily extracted and shared amongst a client's teams for efficient and effective communication. Some areas of focus include (but not limited to):

Zoning

Many communities need maps for specialized purposes. Our GI&S teams use the latest software and applications, allowing the customer to interact with the map and find information related to planning and zoning, such as:

- Natural Resource Boundaries
- Maps of Water Systems
- Cadastral Mapping
- Zone Mapping

City Planning

Our GI&S teams use GIS for spatial analysis and modeling in urban environments, the deliverables of which contribute to a range of important city planning tasks.

- Site Selection
- Land Suitability Analysis
- Land Use
- Transport Modeling
- Planning Action Areas
- Impact Assessment

Emergency Management

Helion's personnel are trained and equipped with the appropriate software to gather, organize, and logically analyze data that can assist emergency management personnel by analyzing, modeling, and displaying community or structure vulnerability. This allows us to aid emergency services in areas such as:

- Emergency Mitigation
- Emergency Preparedness
- Emergency Response
- Emergency Recovery

Demographic Mapping and Analysis

Helion's GI&S teams have the capability to use demographic data based on factors including:

- Age
- Race
- Sex
- Employment
- Education
- Income
- Ethnicity

DELIVERABLES

All of Helion's deliverables can be presented in hard or soft copy, and many are capable of 3D display.

2-D and 3-D digital photogrammetric compilation

Using the latest software for topographic mapping, our GI&S teams are capable of creating accurate 2-D and 3-D design models. These models can be delivered in multiple file formats, allowing varying project teams and shareholders to share, read, and present them with ease.

Survey/Topographic Maps

With our experienced GI&S staff and tailor-fit deliverables, Helion provides our clients with high-quality, professional imagery and georeferenced map products that will fit easily into our client's needs.