



Unmanned Aerial Vehicles (UAV)

Unmanned aerial imaging is a proven and trusted technique for collecting precise geospatial data with remote (LiDAR) and photogrammetry (RGB) sensors. UAVs help us perform quick, high-definition surveys (HDS) across large, complex, and even hazardous areas while keeping everyone out of harm's way.

Our team is made up of licensed land surveyors, project managers, field crews and CAD technicians focused solely on achieving client objectives through seamless collaboration while providing experience and expertise you can rely on.

Industries

- Survey and mapping
- Engineering and construction
- Transportation
- Infrastructure
- Mining and quarries
- Energy sector
- Conservation and environmental
- Forestry
- Property tax assessment
- Emergency response

Deliverables

- 3D mesh with texture
- Digital Surface Models (DSM)
- Digital Terrain Models (DTM)
- Contour lines
- Google Earth
- Maps
- Orthomosaic tiles
- Georeferenced nadir orthomosaic (raster images)
- Very high accuracy orthomosaic compatible with all leading brands of remote sensing, CAD, and GIS software

Type of UAV Surveys

- RGB Sensor – Photogrammetry based
- LiDAR Sensor – Remote sense based

Products

- UAV-based topographic mapping
- Corridor mapping and alignment sheets for transportation and pipeline
- 2D and 3D plans/drawings
- Change monitoring
- Flood simulation based on DTM cut and fill measurements
- Coastal management
- As-built surveys
- Blast planning
- Water and piles management
- Planning and inventory management for mining and quarries
- Archeological discovery and mapping
- Site construction monitoring
- Building information modeling (BIM)
- Mapping, documentation and inspection of energy and infrastructure assets
- 3D fly through animations



UAVs for Emergency Response

When lives are at risk and conditions on the ground are too dangerous, UAVs can aid in rapid assessment and emergency response planning before, during and after an event. From floods and earthquakes to search and rescue and disaster recovery, UAVs have been helping emergency planning teams across the globe. Recent advancements in technology, coupled with the highly skilled pilots at GeoVerra, means your project, community and stakeholders are in good hands.

On-Site Inspection

- Inspection made easier, safer, and more efficient using high-resolution videos and imagery of buildings, structures, roads and highways, vegetation, flooded areas, power lines, cell towers, oil and gas pipelines, and railways
- Film damaged areas or obstructions following a disaster
- Identify “hot spots” after a fire (using infrared technology)
- Map area covered by the CERT team to segment into manageable areas
- Identify pathways for access or escape or safer positions

High Precise Survey Using Imagery & LiDAR

- Pre-incident site mapping
- 3D data collection with high accuracy and high resolution: roads, rail tracks, power lines, forestry inventory
- Asset management and GIS
- Extract ground information in areas of high-density vegetation
- Monitoring ground movements in areas at high risk of landslides with approximately 3 cm accuracy
- Quickly calculate contours, DTM, DSM, and volumes

For more information, visit our website or get in touch with your local office at [geoverra.com/contact](https://www.geoverra.com/contact)