AERIAL IMAGING & DATA PROCESSING

3D Model of Glacier Trending in Colorado

APPLICATIONS

- Mapping & Elevation Modeling
- Project Planning (Utility Lines, ROW, Facility)
- Location Scouting and Preliminary Survey (Utility Lines, ROW, Facility)
- IR/LDAR Inspection (Utility Lines, ROW, Facility)
- Spill Mapping
- Site Profiles (Elevation, Grade, Material, Stockpile, Vegetation, etc.)
- Cut and Fill Analysis
- Detect Erosion and Instability
- Environmental Inspection and Reporting (Pipelines, Facilities, Utility Lines)
- Site Security and Surveillance
- Photographic Evidence for Litigation
- Stormwater Inspection (Pipelines, Facilities)
- Change Detection (Construction, Reclamation)
- Vegetation and Crop Health Analysis
- Thermal Vent Monitoring
- Search and Rescue
- Infrastructure Inspection (DOT, Industrial, Commercial)
- Thermal Trending

DragonflyAI, a division of HRL Compliance Solutions, Inc. (HRL), generates precision georeferenced Digital Elevation Models (DEM), including Digital Terrain and Surface Models, Orthomosaic GEOTIFF, NDVI, and Point Clouds from drone, satellite, and aerial imagery.

Our fleet of certified, commercial grade quadcopter and fixed-wing drone platforms collect aerial survey data and process it to produce a 3D point cloud. Our point cloud scan of your project is then used to make survey grade calculations and analysis to provide you with project specific professional products.

The vast benefits of utilizing our large scale georeferenced images include significant savings in operation costs, greatly decreased timelines, and higher quality data for making key decisions. Aerial images acquired at up to 24 megapixels give our clients the ability to progressively track progress or spot the smallest details of a work site throughout the various phases of a project. The orthomosaic photos can be used in a wide array of applications from planning and permitting, regulatory compliance, liability reduction, legal, boundary dispute, progress tracking, and much more.

Data Collection Flight Path

DRAGONFLYAI™
Powered by HRL Compliance Solutions

970.243.3271 ● www.hrlcomp.com ● CALCULATION WITHOUT ESTIMATION

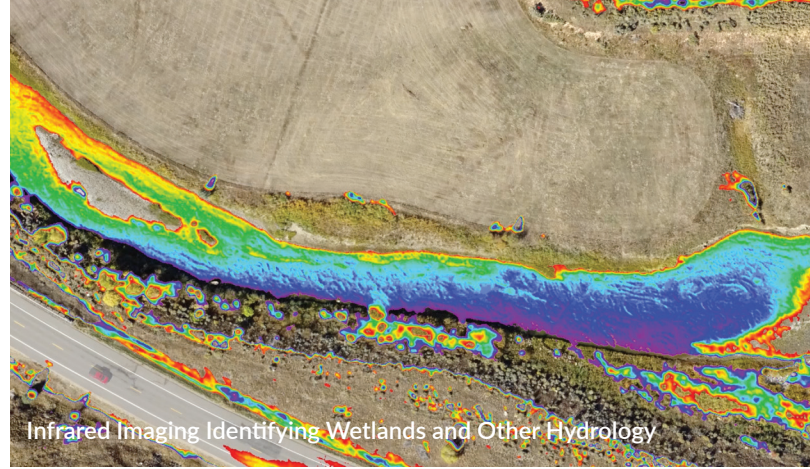Infrared Imaging Identifying Wetlands and Other Hydrology

Thermal Imaging

Our thermal sensors are able to detect surface temperatures from -40°F up to 320°F within a 0.2°F margin of error. With this level of precision, we are able to detect leaks, heat loss, surface ventilation and a host of other possibilities. Our coverage area for these projects can range anywhere from a few feet to several miles to fit the scope of your project.
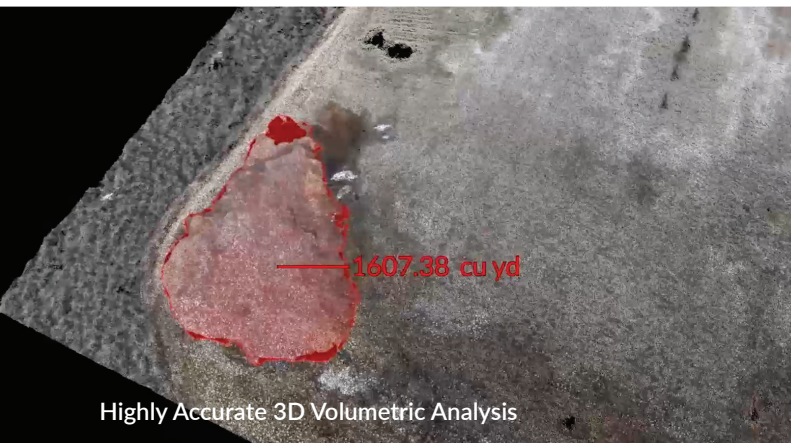
Volumetric Data

Utilizing several flights at different phases of the project, we are able to calculate how much soil or hazardous material has been leveled, removed, or replaced to provide near exact volume data.
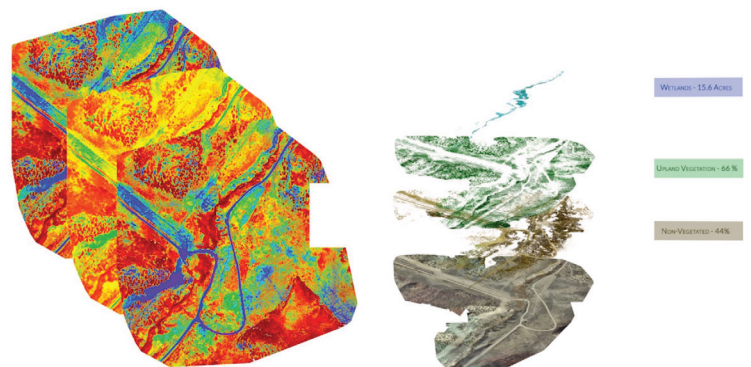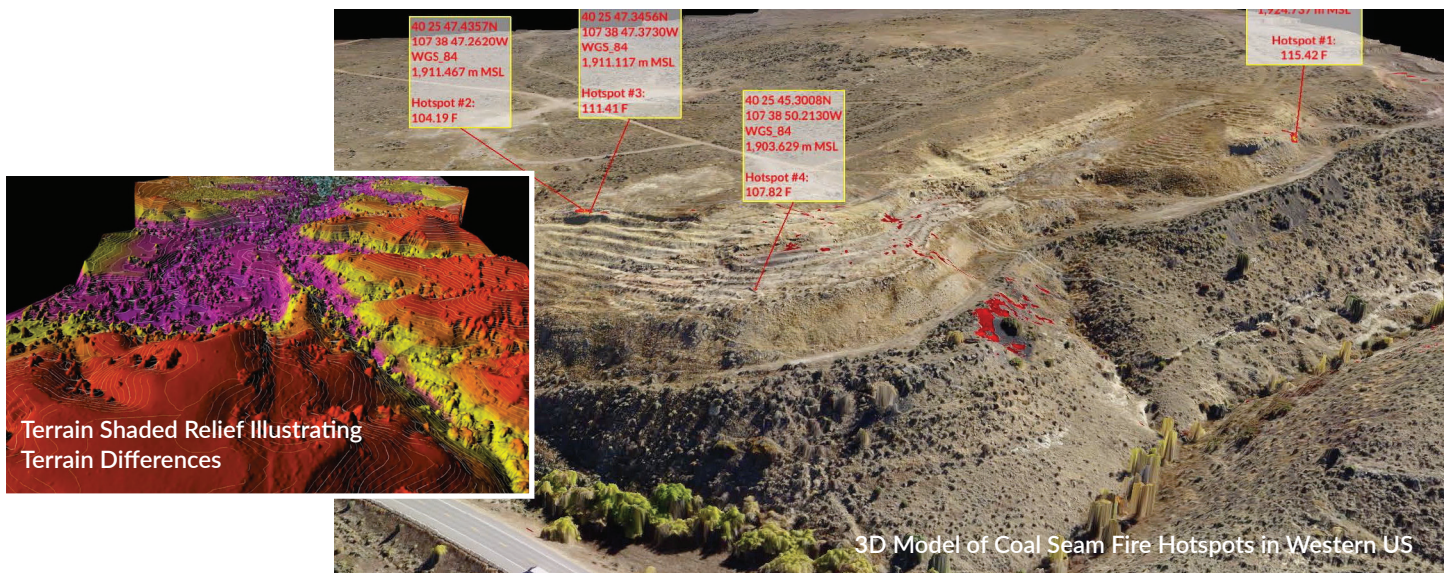
Data Processing

Our advanced data processing center allows for fast turnaround times for our clients. We are capable of processing large scale projects and delivering cloud based digital products online. This allows for global cooperation between independent drone companies and HRL as well as quick delivery times for projects spanning large areas.

1607.38 cu yd
Highly Accurate 3D Volumetric Analysis

Wetlands - 15.6 Acres
Upland Vegetation - 66%
Non-Vegetated - 44%
Hyperspectral Imaging Identifying Different Plant Species

40 25 47.4357N
107 38 47.2620W
WGS_84
1,911.467 m MSL
Hotspot #2:
104.19 F

40 25 47.3456N
107 38 47.3730W
WGS_84
1,911.117 m MSL
Hotspot #3:
111.41 F

40 25 45.3008N
107 38 50.2130W
WGS_84
1,903.629 m MSL
Hotspot #4:
107.82 F

1,924.737 m MSL
Hotspot #1:
115.42 F

Terrain Shaded Relief Illustrating Terrain Differences

3D Model of Coal Seam Fire Hotspots in Western US

DRAGONFLYAI™
Powered by HRL Compliance Solutions

970.243.3271 ● www.hrlcomp.com ● CALCULATION WITHOUT ESTIMATION