



UAV-captured images. Upper: RGB photo. Lower: Vegetation index NDVI map.

UNMANNED AERIAL SYSTEMS FOR AGRICULTURE

Today's intensive and large-scale farming operations make new and efficient tools more important than ever. Why not utilize today's latest mapping technologies to optimize your crop planning and management?

CHALLENGES

- Evaluating planting results and replanting requirements
- Detecting disease
- Detecting pest damage
- Detecting noxious invasive weeds
- Optimized planning and application of crop inputs –water, fertilizer and pesticides
- Estimating yields accurately
- Maximizing profits

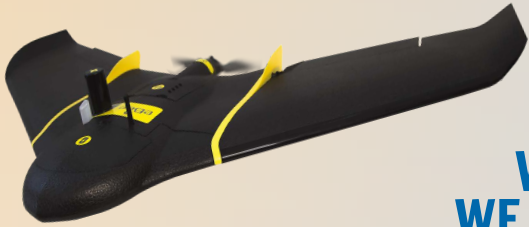
RISKS

- Uninformed decision-making
- Overlooking crop damage
- Poor yields
- Inefficient planning and/or application of crop inputs
- Excessive use of water, fertilizer, pesticides and fuel
- Wasted time and wages
- Lost revenue

SOLUTION

Have Seisland conduct your next crop survey using an unmanned aerial system (UAS). We plan and conduct the survey flight, then process the collected data and provide you or your agronomist with an orthomosaic or a colour contrast map indicating your crop's health and physical conditions. Our multispectral cameras can observe problems invisible to the naked eye.

EQUIPMENT



WHAT WE WILL DO FOR YOU



We have a Microdrones MD4-1000 multi-rotor and a Sensefly eBee Plus RTK fixed-wing and DJI Matrice m210-RTK Rotary UAVs. Our UAVs are versatile and efficient tools for gathering highly detailed spatial data. With our knowledge and skillsets it is possible to adapt our UAV technology to a number of different purposes. Besides being mapping tools our UAVs are ideal as inspection platforms for your facilities and heavy equipment.

Our personnel includes highly trained and skilled UAV operators, land surveyors, GIS specialists/technicians, GPS/UAV data processors and a geodetic scientist. Our team of experts provide safe, accurate, efficient and comprehensive mapping services for precision agriculture. These range from gathering aerial data to assess the health of crops to accurate topographic mapping of your fields for drainage analysis.

To conduct UAS missions requires a Special Flight Operations Certificate (SFOC). Seisland possesses a SFOC covering all of Canada allowing our crews to complete jobs quickly, safely and in full compliance. We communicate with Transport Canada and Nav Canada for operational compliance. When required ground control is established by our surveyors and then the mission is flown with the required sensor.

The aerial imagery and spatial data gathered from our field staff is then given to our processing and GIS team. In order to produce an accurate map product that is useable to the client requires knowledge and experience. Our processors and GIS team use a variety of techniques and software in order to produce a final deliverable that meets the needs of our clients.

APPLICATIONS



- Planning of seeding
- Assessing crop conditions for irrigation, spraying, fertilizing and re-seeding
- Detection of invasive weeds, pests, and crop diseases
- Evaluating crop yields
- Inspection of land and farm infrastructure/equipment
- Determining drainage needs

BENEFITS

- Accurate detection and mapping of crop-related problems
- Better decision making tools
- Scalable to any size of farming operation
- Safe, efficient and compliant



CONTACTS

Ed Miyagishima
Vice President of Operations and Development
edm@seisland.com

Jason Harrison
GIS Manager
jasonh@seisland.com

SEISLAND'S COMPREHENSIVE SERVICE OFFERING

Unmanned Aerial Systems (UAS)
Preliminary Geophysical Services
Field Mapping
Pipeline Locating and Mapping
Line Cutting Supervision
Field Surveying
GIS Consulting Services
3D Scanning