

LIDAR

JUL/AUG 2017

MAGAZINE



DEPLOY THE DRONES!

14 CIVIL AVIATION BEHEMOTH

One industry's record of safety and efficiency comes as a result of consistent regulations for safety and equipment

22 BRING THE MOBILE GOODS

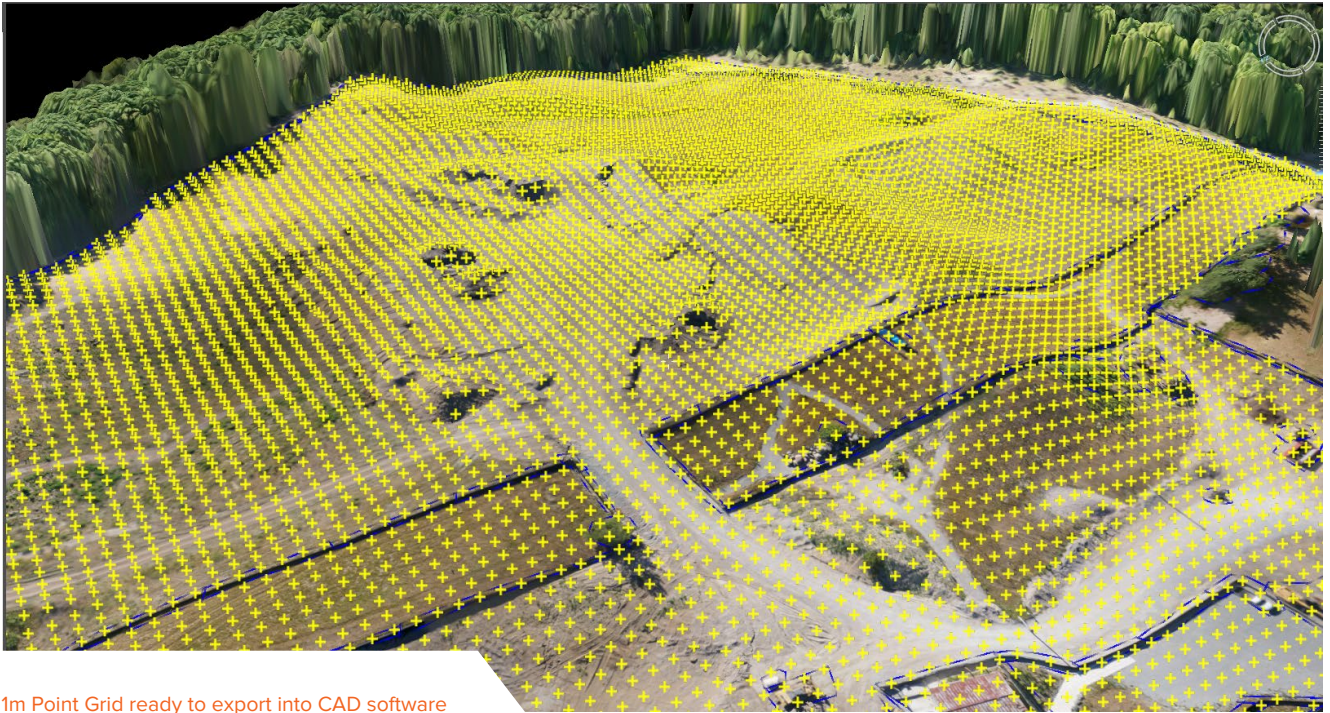
This Memphis firm applies the latest technology, in which mobile scanning is integral, to a wide variety of projects

30 MAPS MAKING US SMARTER

The evolution of aerial maps is, in many respects, a story of the development of technology and human ambitions



POINTS & PIXELS



1m Point Grid ready to export into CAD software

High Eye Aerial Imaging Acquisition by Alta Vista Ventures Enhances UAV Mapping Opportunities

Alta Vista Ventures Ltd. (Vancouver, British Columbia) is pleased to announce the acquisition of High Eye Aerial Imaging (Wasaga Beach, Ontario).

High Eye has been operating in the commercial UAV industry for over 5 years, successfully logging over 200 hours of flight time, specializing in low altitude, high definition aerial surveying, photography, videography, utilizing both Multi Rotor and Fixed Wing UAV's.

Alta Vista is now operating via two wholly owned subsidiaries—High Eye and Pioneer Aerial Surveys. Each of these subsidiaries will be run by their current industry experts. Focus areas include High Eye Surveying and Engineering & High Eye Inspections:

Surveying and Engineering

Combining High Eye technology with traditional land based survey methods increases the ability to utilize a crew's productivity and obtains a more complete dataset.

For the Surveying and Engineering industries, High Eye Aerial Imaging provides:

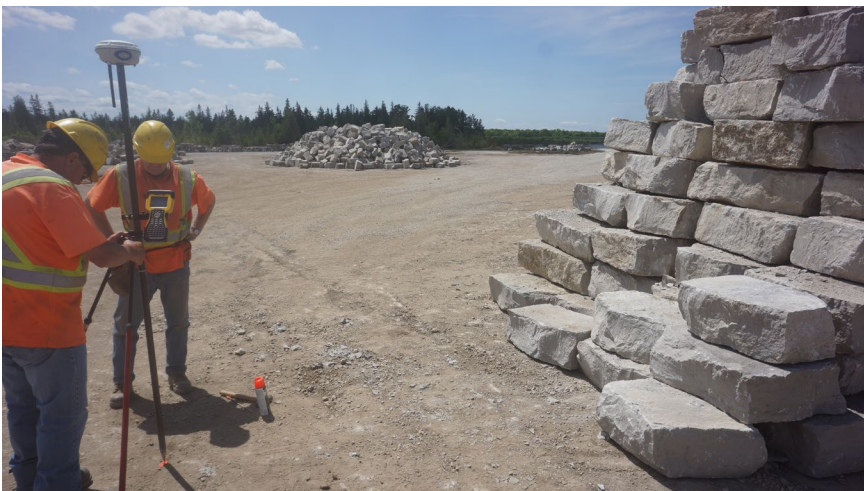
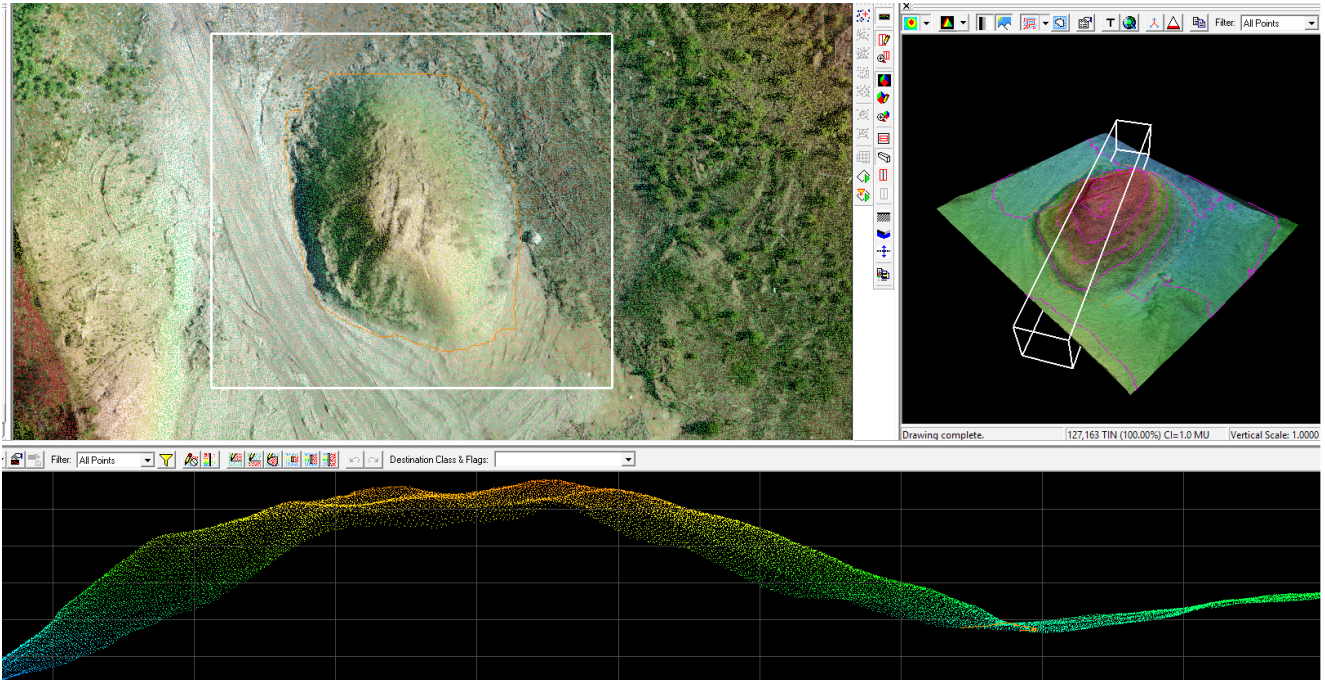
- Topographic CAD Data—Digital Terrain and Elevation Models (DTM, DEM)
- Orthographic Mosaics, Slope, & Watershed Mapping
- Cut & Fill Quantity Reports
- Construction Media—3D Stage Reconstruction

Technical Details

- Highest available Orthographic mosaic resolution vs manned aircraft and satellite data
- Survey grade DEM accuracy using photogrammetry
- Break lines, Survey Grids or Contours as close as 0.25m spacing
- CAD & ARC exports (shp, dxf, xyz, las)



4K definition with 30x optical zoom means nothing goes unnoticed.



ACT Field Services laying a Ground Control Point to be used in the post processing.

Inspections

High Eye's aerial inspections provide valuable information and perspectives that may not be available through traditional methods. When High Eye performs an inspection, the images and footage collected from multiple vantage points provides an extremely close look at preferred points of interest. After the inspection, a HD record is provided, which then can

be examined as many times as needed to assess any issues the inspection may reveal. Repeat surveys then can provide an ongoing visual log for the status and condition of the structure in question.

Aerial inspection services are a much safer and cost-effective alternative to standardized methods providing the footage to quickly and safely analyze problems, without the

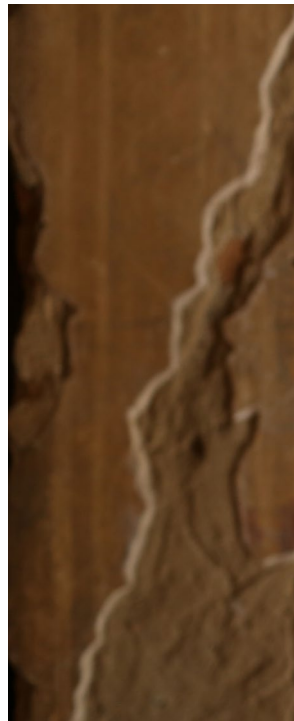
3D Point Cloud models provide some of the highest detail available when measuring volumes or cut and fill projects.

need of sending professionals into potentially hazardous situations.

Inspection Services Offered

- Structure, Tower, Antenna and Communication Infrastructure
- Solar Panel & Wind Turbine
- Industrial, Commercial and Residential buildings
- CAD 3D Modelling
- Custom Sensor Payload depending on your needs
 - Thermal, 4K HD, 30x Optical Zoom
- Preplanned flight paths, exact perspective replication for comparable temporal inspection plans
- Condemned or dilapidated structure inspection (crews cannot scale due to safety hazards)

For more information, contact: [HighEye Aerial Imaging Inc.](http://HighEyeAerialImaging.com), 705-812-0978, info@higheye.ca, www.higheye.ca



»» CyArk and FARO® announce partnership for use of 3D technology to record heritage at risk

CyArk, a non-profit organization dedicated to recording, archiving and sharing the world's cultural heritage is announcing a partnership with FARO Technologies, Inc., the world's most trusted source in 3D measurement, imaging and realization technology. The partnership will enable CyArk to optimize and accelerate its mission with access to the most advanced laser scanning solution available. FARO will allow CyArk to leverage an integrated 3D capture and analysis platform that includes the FARO Focus Laser Scanner, SCENE and PointSense Software and in depth training for CyArk field staff.

CyArk's activities involve the rapid and detailed recording of monuments around the world and laser scanning is at the forefront of tools used to record accurate geometry of these surfaces. Many of these projects are time critical, and the efficiency of FARO solutions will enable the CyArk field teams to capture and operate more effectively.

CyArk's production teams will also greatly benefit from this partnership, allowing the vast amount of data collected in the field to be processed more efficiently. The seamless production of specific deliverables for managers of sites and monuments will be a significant benefit through the use of PointSense Heritage, a software package specifically designed for the production of high resolution documentation of historic buildings and archaeological sites

CyArk has kicked off the partnership at the site of Bagan in Myanmar, which suffered a devastating earthquake in August 2016. FARO Focus Laser Scanners were used to accurately record surface geometry of several monuments, and the data will be used to generate engineering drawings in support of active conservation and stabilization efforts at the site. You can learn more about this project at: <https://www.youtube.com/watch?v=Fb6gpPcBEEo>

"We are thrilled to have industry leader Faro join CyArk as a sustaining partner," said John Ristevski, CyArk's CEO. "Accurate

3D capture from LiDAR is the cornerstone of CyArk's method, and with FARO hardware and software solutions, we very much look forward to equipping our field and production teams with the best tools to fuel our mission".

CyArk is a non profit organization founded in 2003 to digitally record, archive and share the world's cultural heritage and ensure that these places continue to inspire wonder and curiosity for decades to come. Since inception we have recorded over 200 monuments on all 7 continents. We assist those who work to manage and preserve these sites by providing engineering drawings and detailed maps to assist in critical conservation work and active management. We archive the data using state of the art processes to ensure that this data continues to be available in a disaster recovery scenario, tomorrow or decades in the future. And we strive to share this data in powerful ways, including truly immersive experiences that convey the power of these places, transporting users that may never have a chance to experience them and inspiring others to make the journey.

