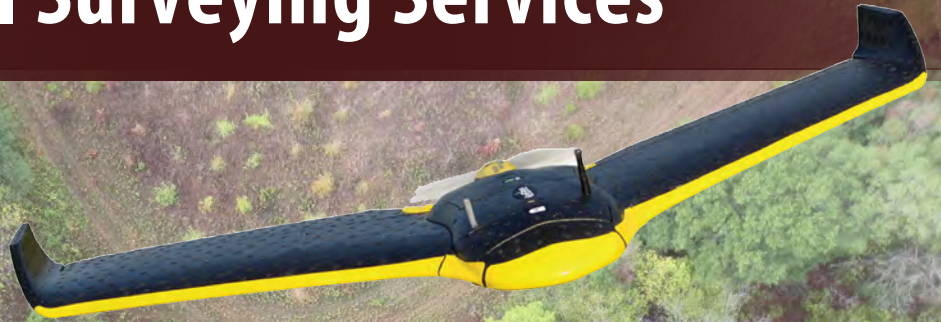
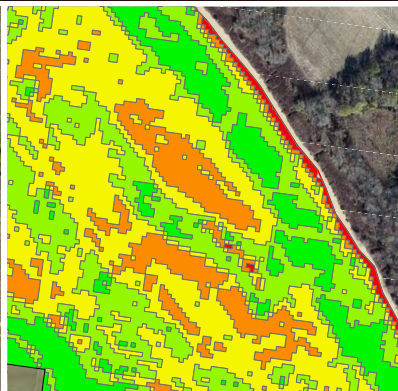
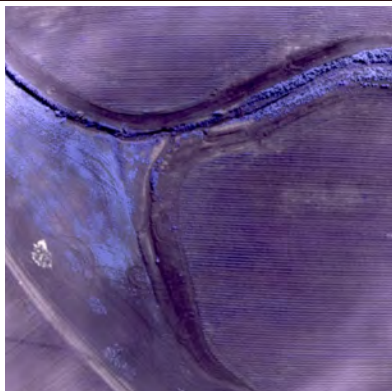


Aerial Surveying Services



**Surveys with Greater Intelligence:
Talent • Tools • Technology**



Surveying the Land from Above



THREE DECADES OF HISTORY

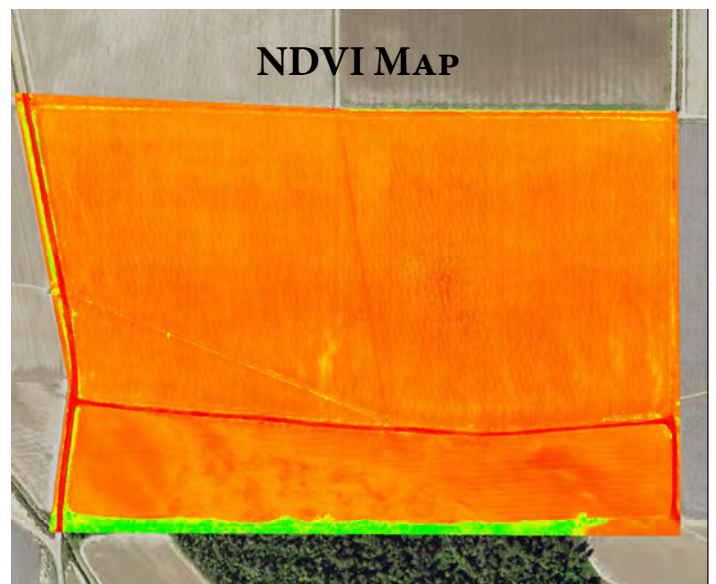
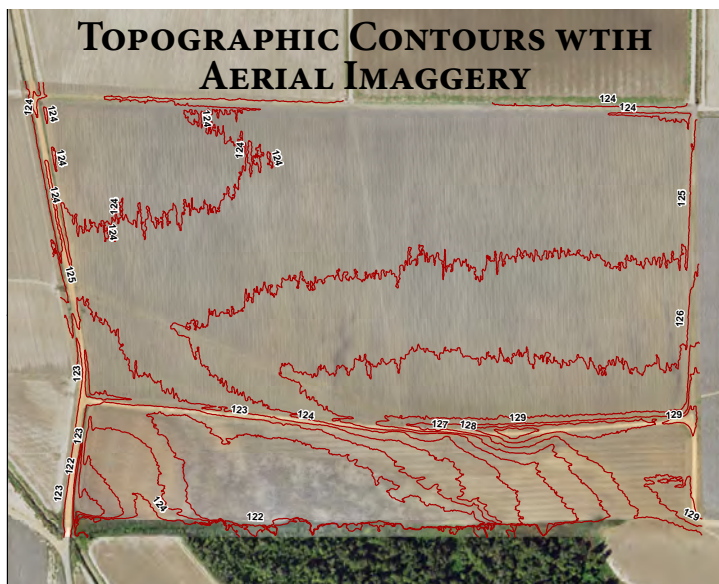
Since 1984, EMC has been perfecting its role as a multi-disciplined surveying company offering turn-key solutions for both routine and complex surveying challenges. As a quality surveying provider, we have compiled a strong professional surveying firm with the resources, knowledge and equipment to deliver comprehensive surveys. EMC has grown from a progressive Southeast surveying firm to a nationwide firm that has performed surveying services throughout the United States. EMC has performed thousands of land and hydrographic surveys for federal, state and local government entities, as well as various private and public companies, from our headquarters located in Grenada, MS.

MULTI-DISCIPLINED SOLUTIONS

EMC's services encompass the traditional disciplines of topographic, boundary/cadastral, hydrographic, geophysical and geodetic surveys. In addition, our team has added the advanced disciplines of terrestrial/mobile LiDAR and unmanned aerial systems (UAS) to our surveying tool kit. We stand ready to provide our clients with multidisciplinary solutions. Employing the finest talents, along with state-of-the-art tools and technology, EMC ensures that our clients enjoy the most complete and accurate data available allows them to make better decisions.

AERIAL SURVEYING SERVICES

EMC offers an entirely new perspective of surveying and mapping through the use of Unmanned Aerial Vehicles (UAVs). With UAV technology we can now provide high-resolution aerial imagery with precision survey data in just a single flight. Our UAV platforms offer advanced, cost-effective solutions for topographic surveying, utility inspections, construction planning, precision agriculture, and much more.



Reap the benefits of our precision agriculture services...

On June 5, 2015, EMC received FAA Exemption No.: 11764, granting legal clearance for commercial UAV operations in United States airspace. With this Exemption, EMC is proud to offer the following UAV services to the agriculture industry.

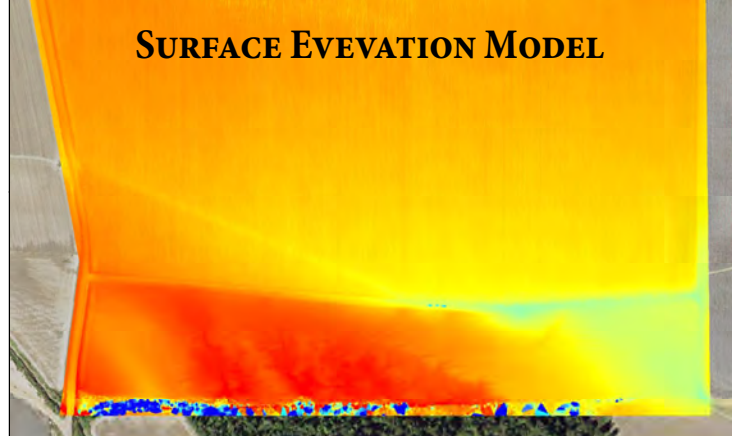
PRECISION AGRICULTURE

- AERIAL SCOUTING SERVICES
- NEAR-INFRARED (NIR) CROP ANALYSIS
- CROP AND SOIL ANALYSIS
- VARIABLE-RATE PRESCRIPTION MAPPING
- SURFACE MODELING
- CROP GROWTH & BIOMASS MAPPING

HIGH-RESOLUTION AERIAL IMAGE



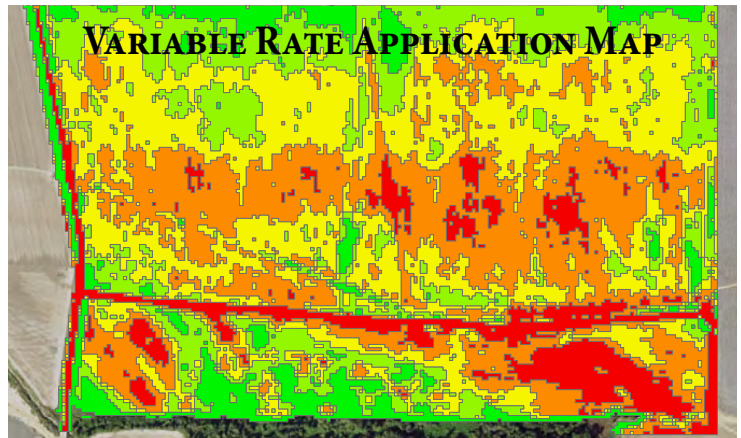
SURFACE ELEVATION MODEL



NEAR-INFRARED AERIAL IMAGE



VARIABLE RATE APPLICATION MAP



Delivering Excellence in All Areas of Surveying

Unmanned Aerial Systems (UAS)

Boundary

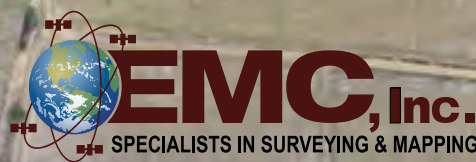
Topographic

Terrestrial/Mobile LiDAR

Hydrographic

Geophysical

Geodetic



CORPORATE OFFICE:

2472 SUNSET DRIVE, GRENADA, MS 38901

PHONE: 662.226.5166 | TOLL FREE: 1.877.266.0362

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PROJECT SPOTLIGHT

Unmanned Aerial Vehicle (UAV) Project Spotlight

Project Title: Richland Field #1 - Surface Model and Soil Analysis

Project Owner/Client: Mike Watts

Project Date: November 2015

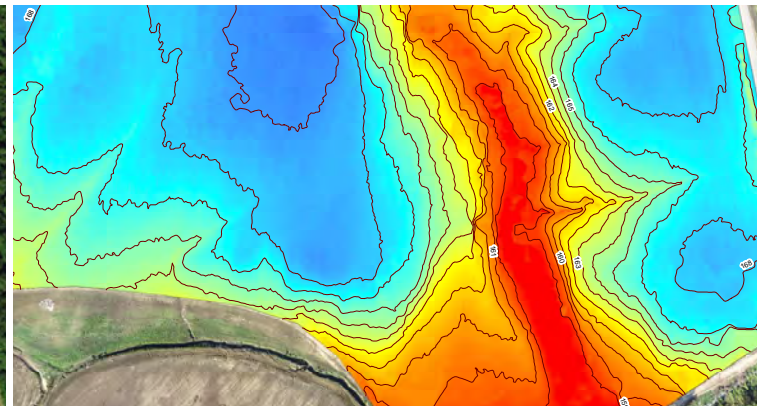
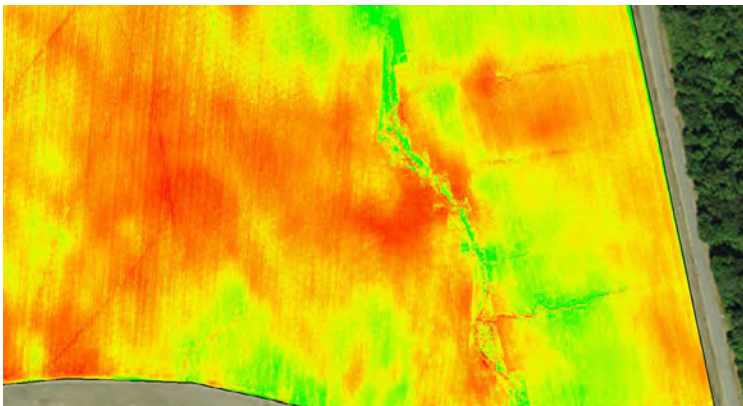
Project Cost: \$3,680.00

Project Description: One of EMC's earliest UAV surveys was conducted on this 168 acre post-harvest cotton field near Clarksdale, MS. The client experienced several difficulties with this field including poor fertilization, ineffective chemical application, and moderate soil erosion - all due to heavy rain and excessive run-off during the 2015 growing season. EMC was tasked with generating a Surface Model that would assess areas affected by soil erosion, identify locations susceptible to future erosion, and accurately display the entire field surface layout. Additionally, the client requested a Near Infra-Red (NIR) Soil Analysis for comparison with recent soil samples taken from the field the previous year.

Before UAV flights could begin, aerial ground control points were set using a Trimble GPS system. These points were used to ground-truth all UAV data and create an accurate Surface Model. A traditional survey of this 168 acre field would require thousands of survey points to be collected over several days - the UAV survey required 6 point locations that were collected in an hour. With aerial targets in place, the UAV was then assembled, connected to the control station where its flight plan could be designed and uploaded, and launched to begin data collection. The first survey was completed in two 38 minute flights. At this time, the standard RGB sensor was removed from the UAV and replaced with our Near Infra-Red (NIR) sensor to begin the soil analysis survey. After two additional 38 minute flights, the soil analysis survey was complete as well.

By utilizing UAV surveying methods, EMC was able to complete both surveys in a single day. After processing all survey data, our client was able to receive his final products in less than half the time of a traditional survey. Also, we were able to complete this work with minimal field entry - eliminating the risk of additional damage to the wet, saturated field. At the conclusion of this project, the client was pleased to be provided with:

- High Resolution Aerial Imagery (1.5"/pixel)
- Digital Surface Model compatible with Trimble GPS Guidance Systems.
- Surface Map showing elevation contours and erosion affected areas.
- NIR Soil Assessment
- Google Earth files representing all survey data.



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