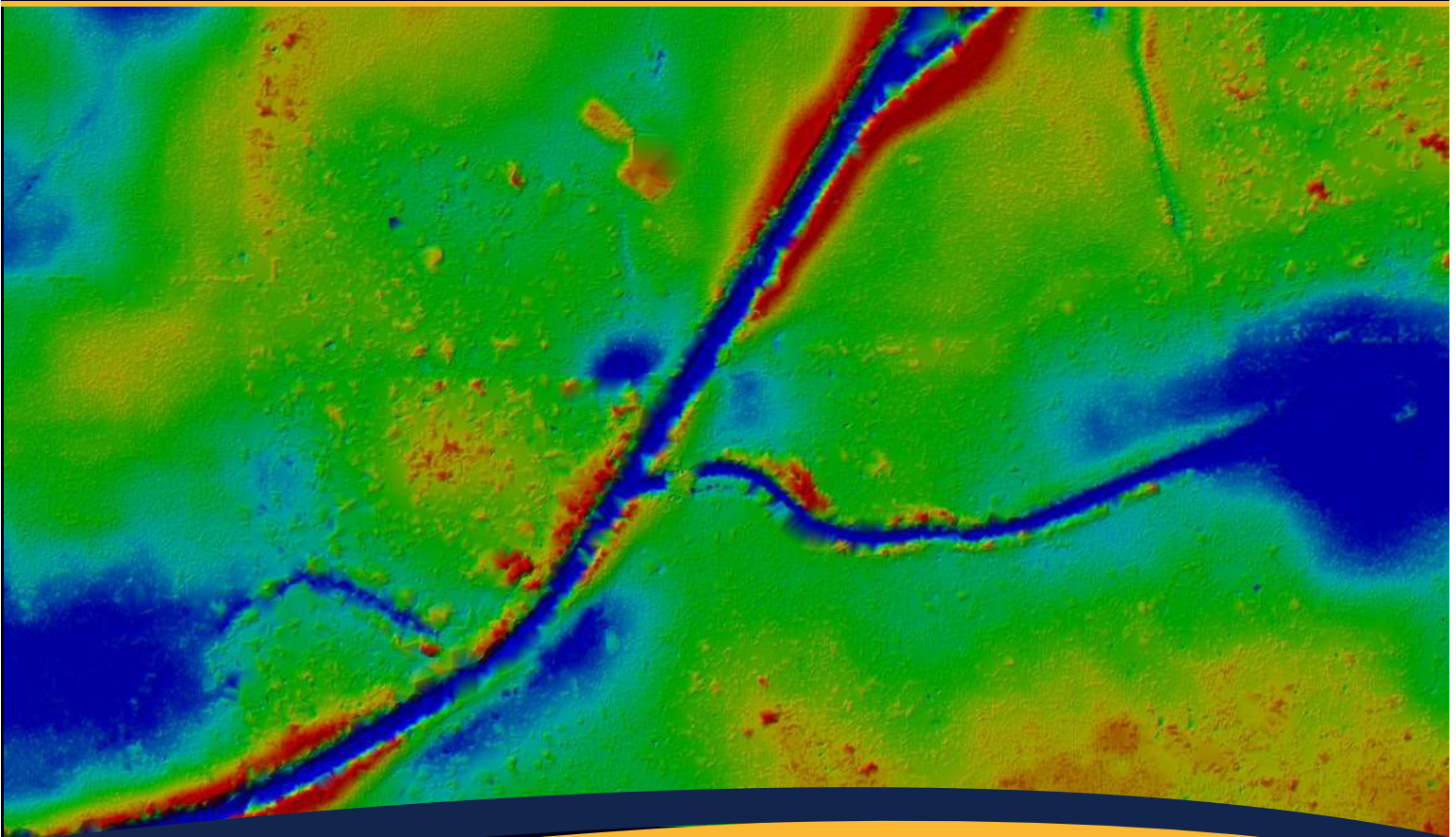


# LiDAR EDGE

AERIAL CARTOGRAPHICS OF AMERICA, INC.

*"Going Beyond all Maps and Boundaries"*



## LiDAR edge

**L**iDAR Edge, an advanced production service from ACA, solving the industry's challenge of consistent & accurate LiDAR data regardless of the aerial LiDAR sensor used. The major Phases in the LiDAR Edge process are:

### **PHASE 1: QA/QC and Accurate Data Classification**

LiDAR Edge's automated process quality checks the .LAS data and ensures that the point spacing meets or exceeds the specifications of the project and shows voids and data holidays. LiDAR Edge's fast process provides reports that compare the data with the original scope. If the data does not meet expectations,

decisions can be made on how to proceed with the project.

Further QA/QC processing measures include the following items:

- Overview comparison of the LiDAR data with the color imagery.
- Checks for completeness coverage, identifying voids
- Evaluate original LiDAR classification, identify areas of concern relating to hydrographic features
- Check if breaklines are merged into, floating above, or submerged beneath the LiDAR surface data.

### **APPLICATIONS OF LiDAR**

- Flood Plain Mapping
- Wetlands Management
- Coast Line Management
- Land Development
- Forest Inventory
- Urban 3D Modeling
- Cellular Network Design
- Mining /Volume Calculations
- Rail & Pipeline Corridor Design
- Transmission Line Design
- Solar/Wind Farm Design

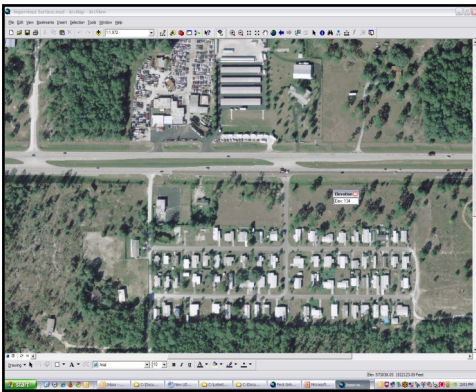
# SPECIFICATIONS

- Check supplemented photogrammetric data, to determine if derived data points are consistent with LiDAR surface data.
- Cut sufficient profiles in areas of interest to assess surface irregularities.
- Develop a surface model using the original LiDAR data, to look for spikes, other suspicious data, and provide a comprehensive QA/QC report.

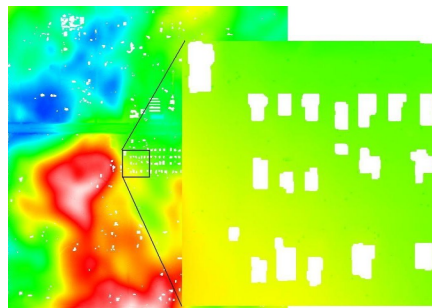
## PHASE 2: LIDAR Edge Intelligent Surface Model (ISM)

- New & Improved Re-Classification of the LiDAR data
- Fill in voids & densify surface generating an X, Y, Z surface resolution of 1ft, 3ft, 5ft, 10ft GSD preserving the data better than a TIN.
- Intelligently Compress and provide file sizes that all PC's can handle.

### “LIDAR EDGE: AN INTELLIGENT FOUNDATION FOR EXPANDED ANALYSIS, PLANNING & DESIGN”



Smart Orthos with X,Y,Z data



Intelligent Surface Model (ISM) with Vertical elevation gradient and structures removed

We are not just another aerial mapping deliverable...

### WE ARE THE FULL DIGITAL SOLUTION FOR YOUR MAPPING & GIS NEEDS

- National full service digital mapping company
- 36 year history of professional expertise
- Industry leaders certified in their field
- Latest technology, equipment and procedures
- Innovative approaches to complex projects
- Professional firm that knows you and your needs.

ACA has provided all of these professional services and products many times during its past 36 years in business. ACA is dedicated to offering new technology that benefits the client and is committed to being #1 in the client's eyes as well as the Mapping Profession.

# MAPPING SERVICES

## Aerial Imaging & Elevation Data Acquisition

- Digital Aerial Imaging
- LiDAR Acquisition
- Simultaneous Imagery and LiDAR Acquisition
- Low Altitude Mapping Photography (LAMP)
- ABGPS & IMU Processing
- Photographic Reproduction
- Historical Photography Archive

## Photogrammetric Mapping

- Digital Mapping (Aerial Triangulation/Stereo compilation/Feature Extraction)
- Digital Terrain Modeling
- LiDAR Processing
- LiDARgrammetry
- Digital Orthophoto Production
- Data Fusion: Smart Orthos with X, Y, Z readout
- Impervious Surface Auto Calculation
- Intelligent 3D Surface Models, Bare Earth, Structures, Vegetation
- Airport Obstruction Surveys: FAA 16A, 17b, 18b Compliant
- Seagrass & Vegetation Mapping
- Volumetric Analysis

## GIS

- Data Capture/ Conversion
- Application Development
- FAA 18b Compliant

