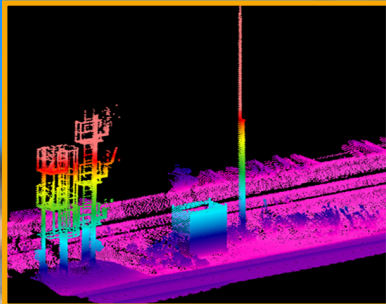


POSITIVE TRAIN CONTROL

High Accuracy Mapping and Asset Inventory



AERIAL CARTOGRAPHICS OF AMERICA, INC.



ABOUT US

For over 30 years, ACA has mapped Railroad corridors to support designs for high speed rail, light rail, commuter and freight rail companies. We are experienced, trained and certified to work safely within rail corridors.

Since our inception, ACA has a **zero-incident safety record** and prides itself in providing a safe workplace for our employees.

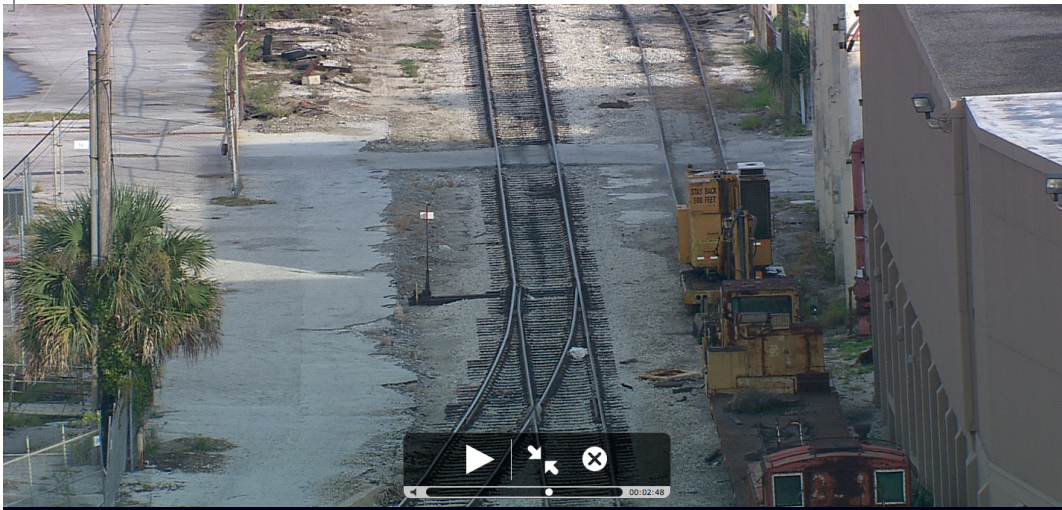
ACA is a full service professional photogrammetric mapping firm located in Orlando, FL. established in 1973. ACA has built a reputation as a premier mapping firm excelling at precision mapping services. With a large staff of licensed surveying and mapping professionals, ACA has extensive experience providing a full range of high quality products and services.

HIGH ACCURACY MAPPING FOR A PTC DATABASE

The Federal Railroad Administration has mandated the implementation of Positive Train Control (PTC) for all trains that travel on passenger railways. Of the many challenges that face railroads to implement this complex system is the need for a highly accurate base map and asset database that is not only required to be comprehensive but also must be compatible with all other PTC systems. A solid base-map is the foundation upon which a PTC implementation is built upon in order to properly control train movement based upon track slope, curvature and speed zones.

ACA provides a comprehensive mapping solution for your PTC database requirements that is compatible with the latest Revision of the *PTC Data Model* for compatibility with the Class I Railroads. Whether you have a few miles of track or thousands of miles, ACA

can customize our solution to meet your specific needs. Our advanced dual collection LiDAR mapping solution utilizes the most advanced sensors available; the Riegl 680i, running at 400,000khz (400,000 points per second) full waveform LiDAR sensor, and the Leica RCD 30 – 60mp Medium Format Digital Mapping Camera provide mapping accuracies better than 0.25 ft. Our High Definition Video flown at the lowest possible safe altitude enables the reading of signs at an oblique view. Using our Bell Long Ranger Helicopter, ACA can provide 3D surface models of the rail corridor inclusive of all assets required, such as switches, signage, crossings, signals etc. Our methodology ensures proper slope and curvature of the rail centerline which is crucial to accurately controlling train speed and braking.

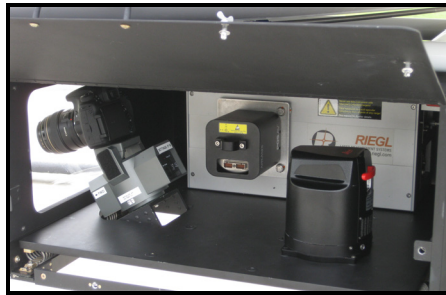


RAIL CORRIDOR MAPPING

Specialized Systems to Meet PTC Needs



Bell Long Ranger Helicopter



FALCON Mapping System



High Definition Video



Simultaneous Collection

*LiDAR, at 50+ pts/sq meter
and Digital Color/IR 2"
Resolution Imagery*



*RCD 30 60MP RGBI
Medium format color/IR
digital camera for
corridor mapping*

PROJECT SOLUTIONS

- Rail Corridor Mapping
- Intermodal Connector Mapping:
Roads, Airports & Ports
- Positive Train Control
Asset Inventory
- Intersections / Crossing /
Bridges / Tunnel Mapping
- Environmental / Vegetation /
Watershed Mapping
- Data Acquisition
 - Digital Aerial Imagery
 - LiDAR
 - Simultaneous Acquisition

QUALITY CONTROL

ACA is known for delivering precise and accurate rail corridor mapping data for planning and design. ACA has performed comprehensive photogrammetric mapping for Commuter Rail , High Speed Rail and Freight Rail Corridors with all mapping and surveying meeting or exceeding the National FRA and State DOT specifications and requirements. ACA is experienced in survey data integration with rigorous QA/QC at each phase of the mapping project.

**ACA PROVIDES THE
COMPLETE SOLUTION FOR
HIGH ACCUARACY
MAPPING AND ASSET
INVENTORY FOR POSITIVE
TRAIN CONTROL (PTC)
REQUIREMENTS**

