DynaCam *by Comet*

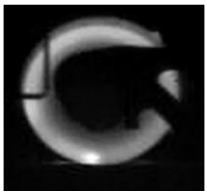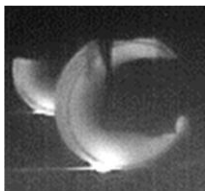## Sliding Wheel Detection System

SLW-102 Sliding Wheel Detection System:

Expand the capabilities of existing Comet AEI systems with car asset health monitoring. ***Thermal*** wheel anomalies can be identified down to the car ID and wheel position as a railcar passes the scanning area. Users receive automated notifications allowing for a real-time response to sliding wheels, over/under applied braking, thermal bearing/wheel analysis and more to protect from potential derailments.

Comet's Sliding Wheel Detection System (***Patent Pending***) scans the truck and wheel assembly of a passing train capturing thermal images of the wheel, brake and bearing assembly. Comet's proprietary processing algorithms evaluate the images to identify thermal signatures of potentially defective conditions. Our high confidence sliding wheel identification is achieved using ***Multiple Views*** of the wheel as it traverses past the system. The redundant image acquisition and processing greatly enhances the detection accuracy.

As a ***Direct Add-On,*** the SLW-102 integrates with any of Comet's APU-102 AEI Systems throughout North America. This integration utilizes the AEI processing to correlate every image to every wheel. When sliding wheels or thermal anomalies are identified, the AEI System promptly reports the Car ID Number including the wheel location in respect to the railcar and train. Images identified can be sent to a location specified by the customer.

KEY Features:

- ✓ ***Direct Add-On*** to Comet's Railnet APU-102 System Controller.
- ✓ Uses existing hut, wheel detectors, presence detectors, etc.
- ✓ Mounts to existing RFID antenna mast.
- ✓ Utilizes existing reporting methodology to Railroads Host and/or Maintenance monitoring.
- ✓ Records and saves the image of every wheel for later review or auditing.
- ✓ Supports Speeds over 100MPH.
- ✓ ***Multiple View Image Capture*** provides multiple perspective views of the wheels as they pass the system. Redundant processing reduces the possibility of false positive detection.
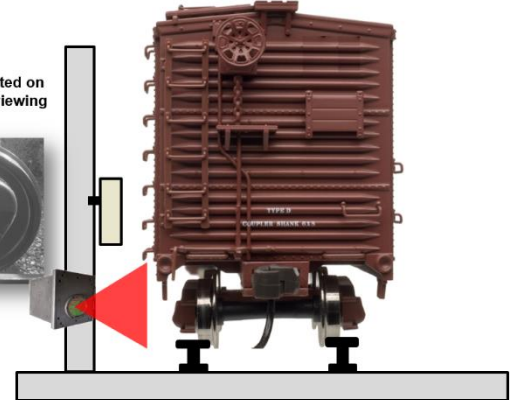
Thermal Camera Mounting Configurations

Ballast Mount

Camera mounted in ballast area looking up.
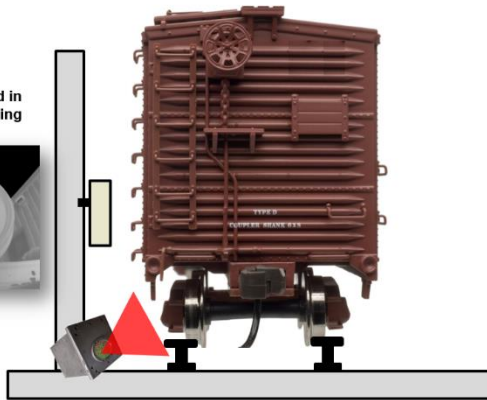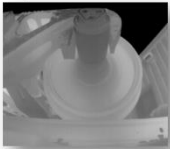
Antenna Mast Mount

Camera mounted on AEI Antenna viewing straight on.

System Block Diagram

Talker → **Radio**

RAILNET

Comet
APU102

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