Medium Truck Duty Cycle (MTDC)

Objective

This Department of Energy project focuses on the collection and analysis medium truck (Class-6 and -7) duty cycle data from real-world operations. Analysis of this data will provide information pertaining to the fuel efficiencies and performance of medium trucks in several vocations.

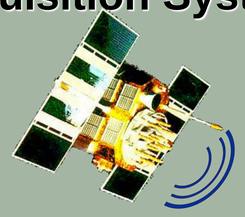
Collected Data

- Speed & Acceleration
- Fuel Consumption
- GPS Location
- Road Grade
- Engine Parameters
- Weight
- Brake and Tire Information

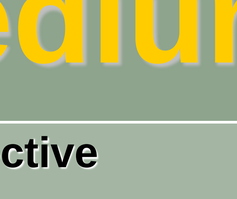
Outcomes

- Rich source of data and information that can contribute to the development of new tools
- Sound basis upon which DOE can make technology investment decisions
- A national archive of real-world-based medium-truck operational data that will support medium-duty vehicle energy efficiency research

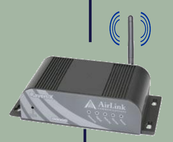
Data Acquisition System Setup



Satellite Receiver



eDAQ Data Acquisition

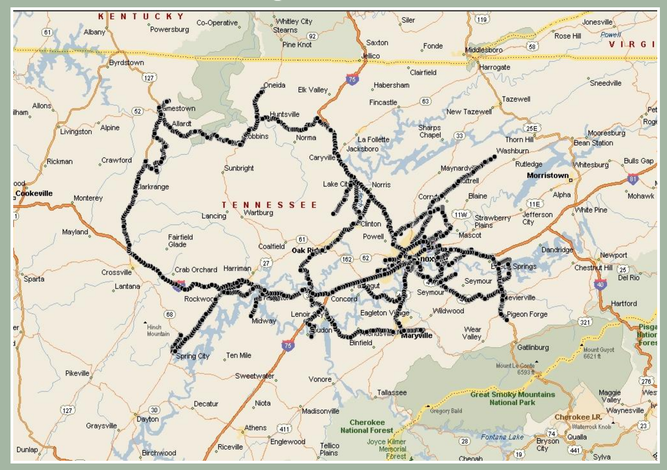


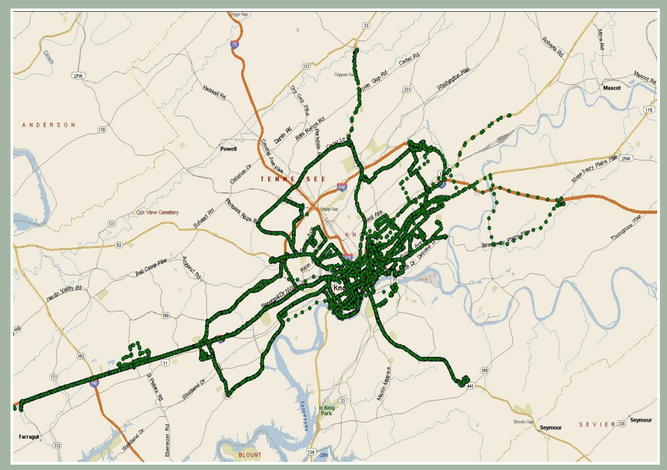
Raven X Wireless Modem

Air-Weigh Scale

Remote access

Sample Routes





Partnerships

Urban Transit; Knoxville Area Transit

Dry Box Delivery; H.T. Hackney Company

Towing & Recovery; Fountain City Wrecker Service, .

Utility Service;
Knoxville Utility Board

Commercial Motor Vehicle Roadside Technology Corridor

FMCSA

TDOT

OAK RIDGE National Laboratory