



Fleet Operations, Vehicles, and Alternative Fuels

December 5, 2008

Fleet Operations, Vehicles, and Alternative Fuels

- Operations Overview
- Vehicle Inventory
- Alternative Fuels
- Initiatives
- Conclusion
- Questions

Operations Overview

Core Function

- Procurement and acquisition
- Preparation and place in service
- Preventive maintenance (PM)
- Damage repair
- Retirement

Operations Overview

Goals

- Provide safe and properly operating vehicles
- Provide 24 hour turn around on PMs/repairs
- Explore and evaluate new technologies
- Implement new technologies
- Develop new goals using CCG/Faster FMS
- Work smart and safe

Operations Overview Structure

- Garage operating hours 7 a.m – 11:30 p.m.
- Organization
 - Administrative Employees (2)
 - Chris Wilson, Analyst, Supervise Daily Operations
 - Rebekah Taylor, Associate
 - Operations Employees (19)

<u>Day Shift</u>	<u>Evening Shift</u>
Dan Schilling, Foreman	James Clayton, Foreman
9 Mechanics	8 Mechanics

Operations Overview

IT Systems

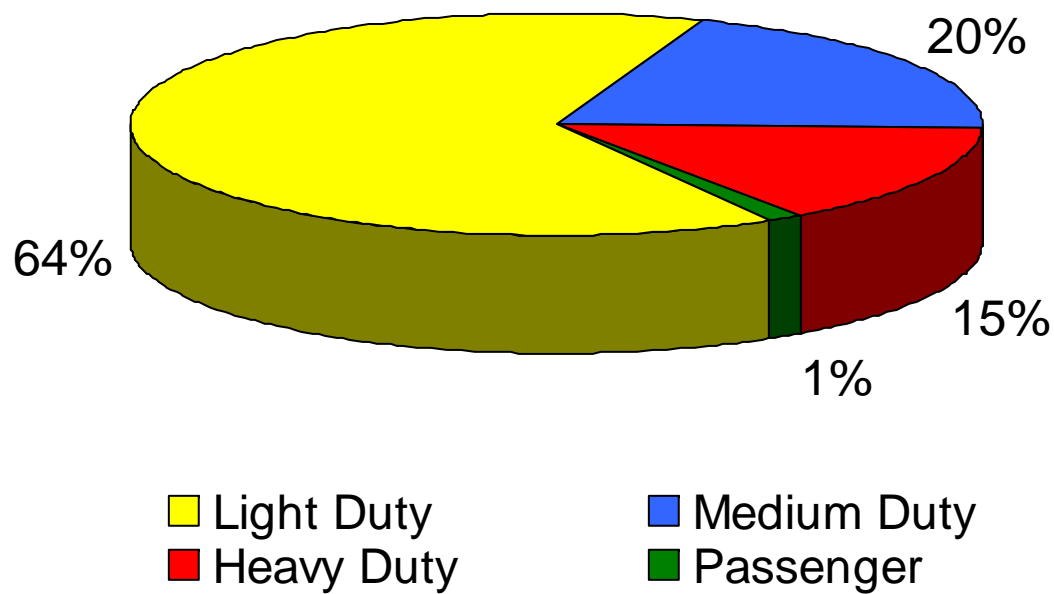
- Fuel Management
 - E. J. Ward fuel management system
 - Accurately account for fuel consumption
 - Assist with regulatory compliance
- Fleet Management
 - CCG/Faster
 - Began implementation September 2008
 - Expected “Go Live” January 2009

Operations Overview

NAPA Parts Alliance

- On-site parts & supply store
- NAPA owned inventory
 - Reduce Inventory Investment
 - Increase shop productivity
 - Improve overall parts pricing
 - Access to \$12 million in inventory
- Parts availability 24/7

Vehicle Inventory By Vehicle Type



Vehicle Type

Light Duty 346

Medium Duty 108

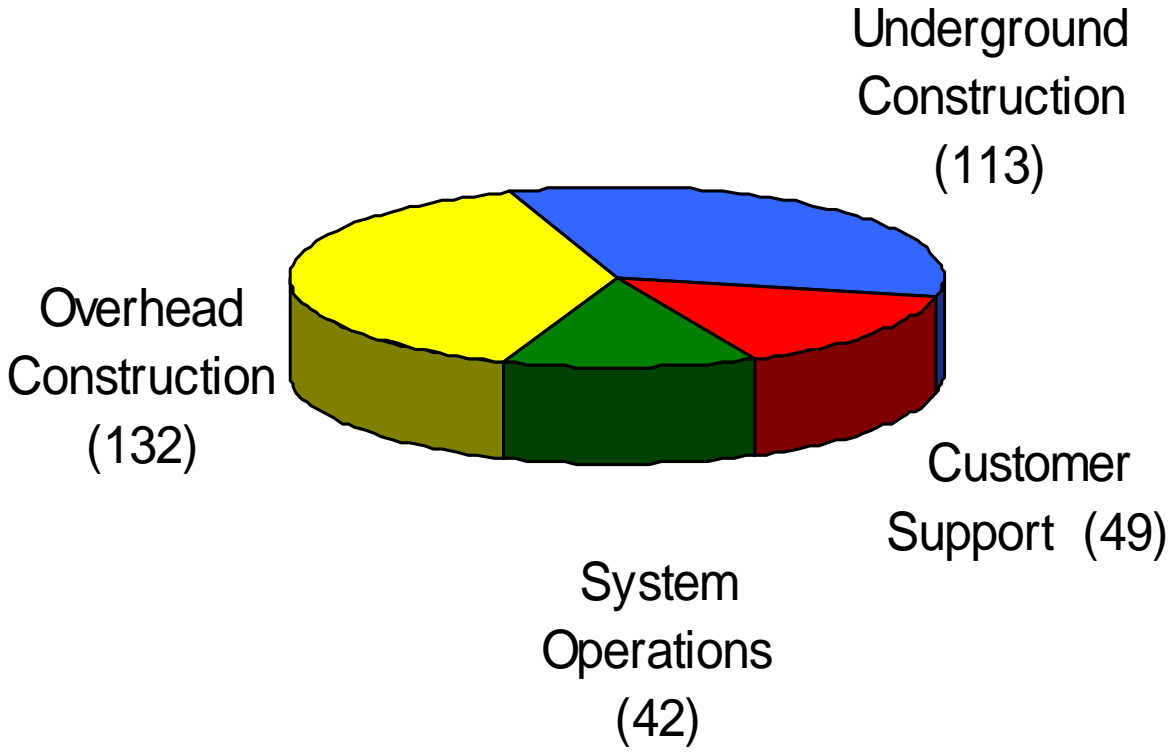
Heavy Duty 80

Passenger 8

Total 542

Vehicle Inventory

Largest Departmental Fleets



Vehicle Inventory Statistics - Annual Averages

- Miles Driven 3.6 million
- Gallons of Fuel Consumed 450,000
- PM Work Orders 1,700
- Repair Work Orders 4,800
- Service Calls 800

Alternative Fuels

Fuel Types

- Committed to Alternate Fuel Usage
- Fleet Fuel Types
 - Biodiesel, B5 or B20
 - Ethanol, E10 (Unleaded)
 - Ethanol, E85
 - Compressed Natural Gas (CNG)
 - Electric Hybrid

Alternative Fuels

Alternate Fuels History

- Compressed Natural Gas (CNG)
 - 1979
 - Began using CNG
 - Selected light duty trucks retro-fitted with tanks
- Bio-diesel
 - January 2005
 - Began 6 week pilot program with 10 vehicles
 - Cleaned storage tanks and pump filters
 - Serviced vehicles and trained employees
 - Experienced no problems with vehicles

Alternative Fuels

Alternate Fuels History

- Bio-diesel (Continued)
 - June 2005, company wide usage of B20
 - Did not service vehicles
 - Experienced problems with vehicles
 - Clogged fuel filters and EGR valves
 - September 2005
 - Decision made to use soy-based bio-diesel only
 - Experienced very few problems with vehicles
 - Increased lubricity

Alternative Fuels

Alternate Fuels History

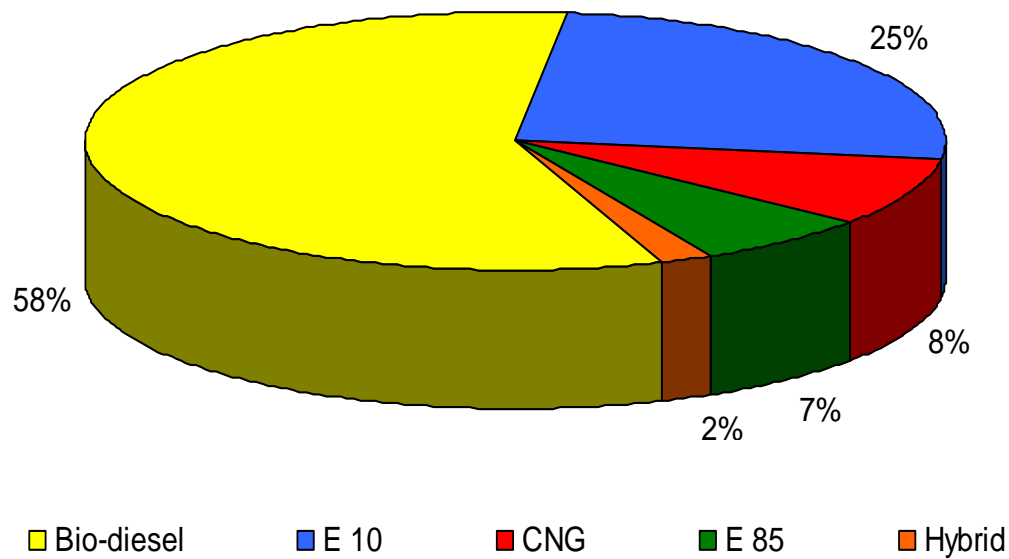
- Ethanol (E85 and E10)
 - August 2005 began using E85
 - No Pilot Program
 - Installed separate above ground tank (AST)
 - Did not service vehicles
 - Experienced problems with vehicles
 - Ford Ranger Issues
 - August 2005 began using E10
 - Experienced no problems with vehicles

Alternative Fuels

Annual Consumption by Fuel Type

<u>Fuel Type</u>	<u>Gallons</u>
Biodiesel	340,000
Ethanol E10 (Unleaded)	80,000
Ethanol E85	23,000
CNG	<u>7,000</u>
Total Consumption	450,000

Alternative Fuels Vehicles By Fuel Type



Biodiesel	308
E 10	138
CNG	46
E 85	37
<u>Hybrid</u>	<u>13</u>
Total	542

Cost Saving Initiatives

- NAPA alliance
- Mileage reduction initiative
- Satellite garage operations
- Vehicle idling policy
- Light duty vehicle rotation
- Govsdeal.com vs annual auction

Departmental Initiatives

- 2004
 - Purchased three CNG dedicated Crown Victorias
- 2005
 - Installed E. J. Ward Fuel Management System
 - Began using biodiesel and ethanol blend fuels
 - Leased two hybrid Ford Escapes
- 2006
 - Built technician resource room
 - Replaced in floor hydraulic lifts
 - Installed overhead hose reels

Departmental Initiatives

- 2007
 - Installed new oil tanks
 - Installed emergency backup power system
 - Built outdoor tire shed
 - Purchased seven hybrid Chevrolet 1500 pickups
- 2008
 - Installed above ground storage fuel tanks
 - Purchased/leased five hybrid Ford Escapes
 - Purchased hybrid bucket truck
 - Installing CCG/Faster Fleet Management System

Conclusion

KUB's Commitment

- Provide a safe and properly operating fleet
- Explore new and innovative technologies
- Lead in environment stewardship efforts
- Work smart and safe

Questions?

Contact Information –

Kendall Stiles

KUB

P. O. Box 59017

Knoxville, TN 37950-9017

(865) 558-2880

kstiles@kub.org