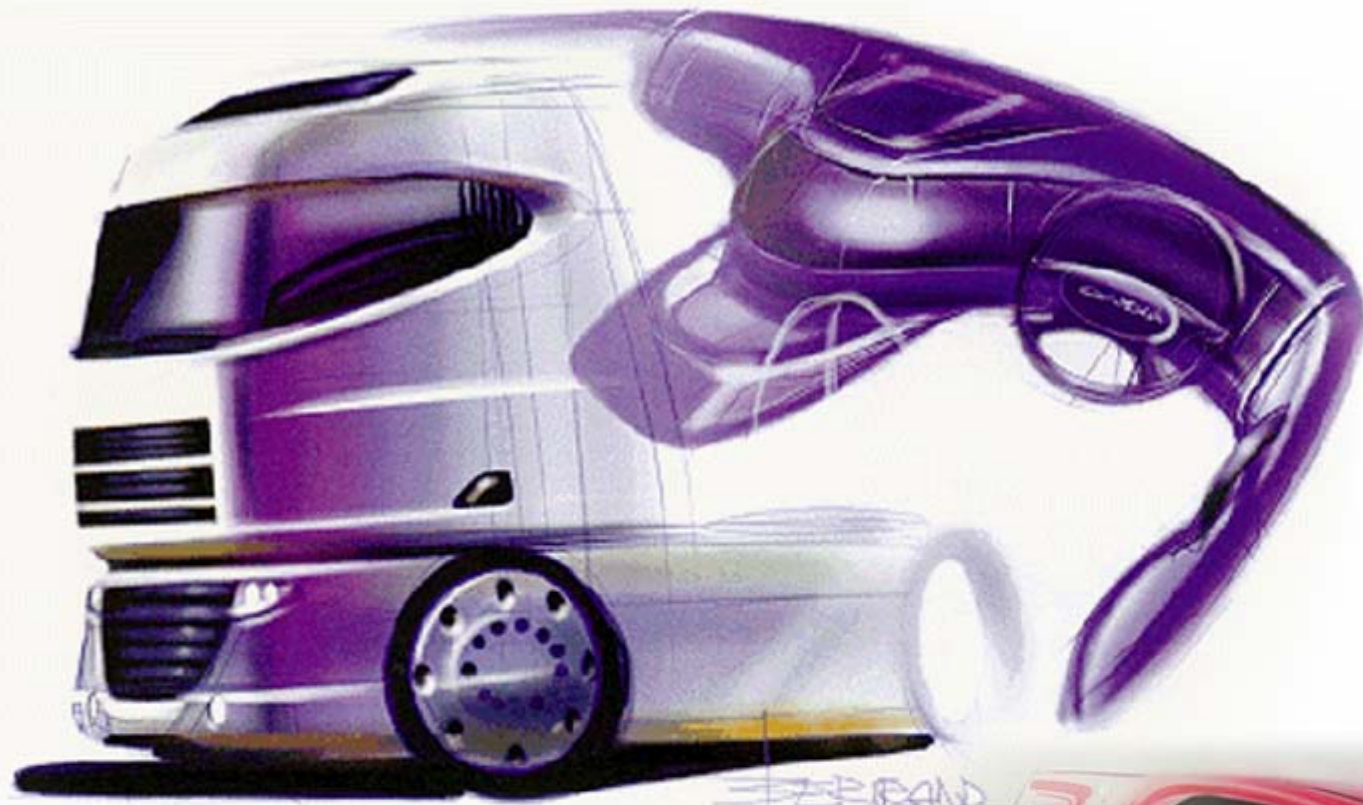


# *Truck of the Future*



PACCAR Technical  
Center









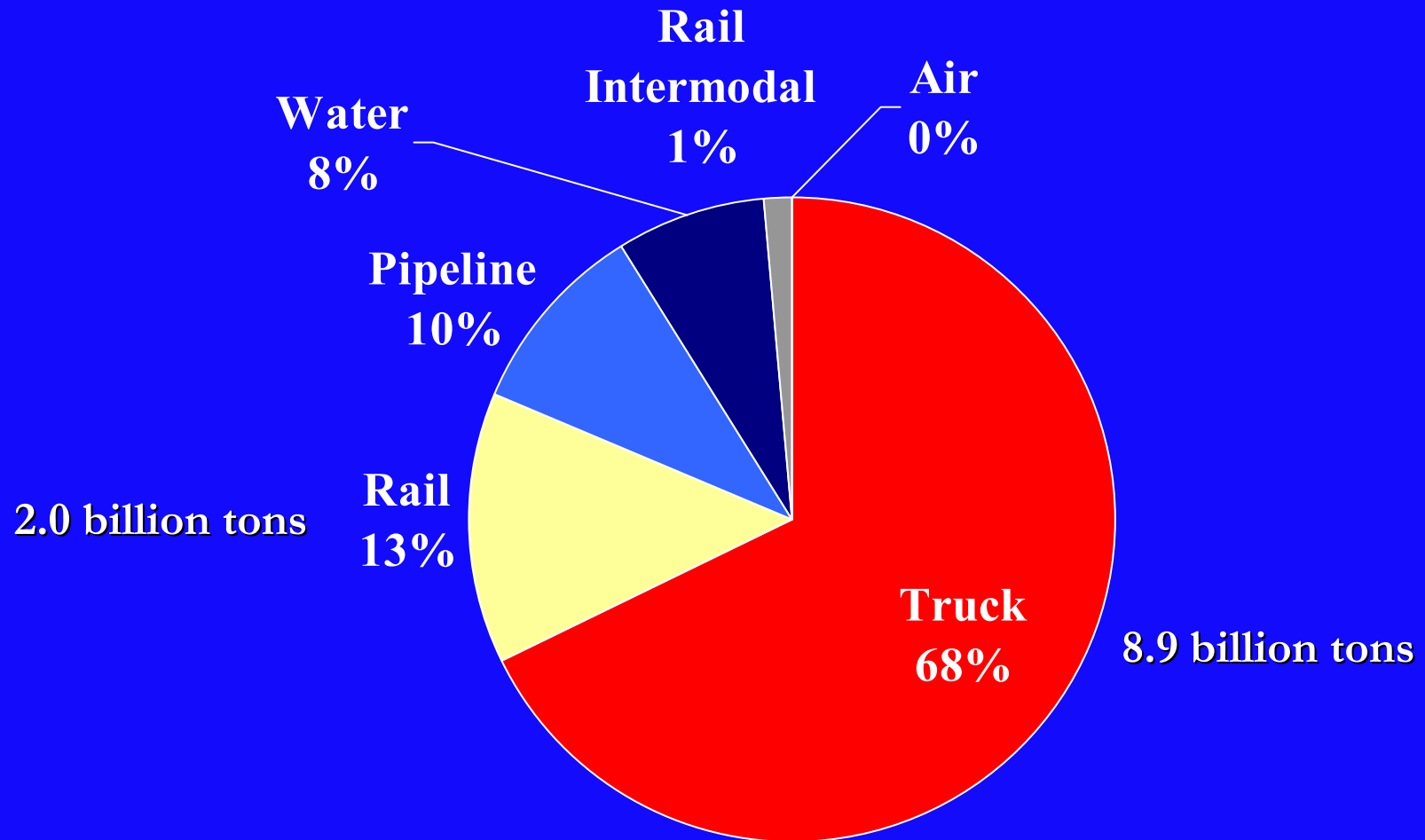




## Available today:

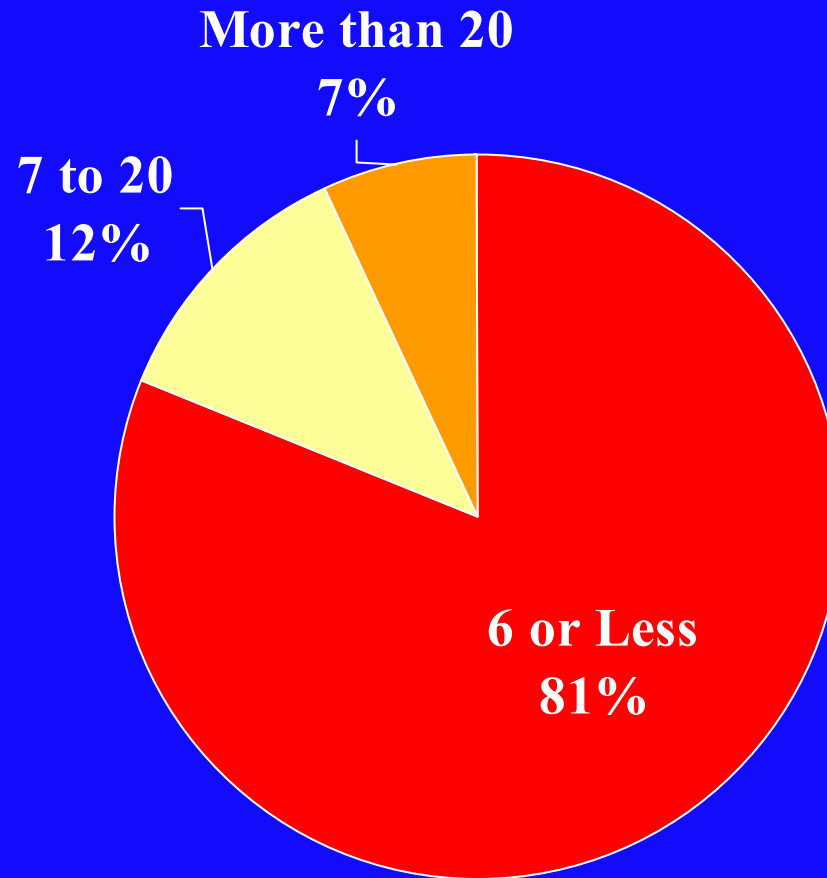
- **ABS**
- **Electronic engines**
- **Up to 600 hp**
- **Automated transmission**
- **Extended warranties**
- **Large, integrated sleeper**
- **Collision warning**
- **Multiplexed electrical system**
- **Wireless communications**
- **Lightweight materials**
- **Aerodynamic tractor**

# Freight Transportation Modal Share (2002 Tonnage)



Source: *U.S. Freight Transportation Forecast...To 2014*  
Courtesy of ATA

# Distribution of Motor Carriers Operating a Given Number of Power Units



**About 1.2 million interstate and intrastate U.S. motor carriers**

# Future Trucks

**Safety**

**Security**

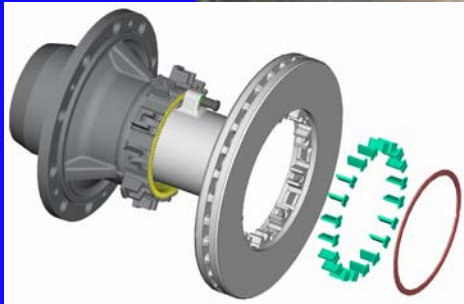
**“Green”**

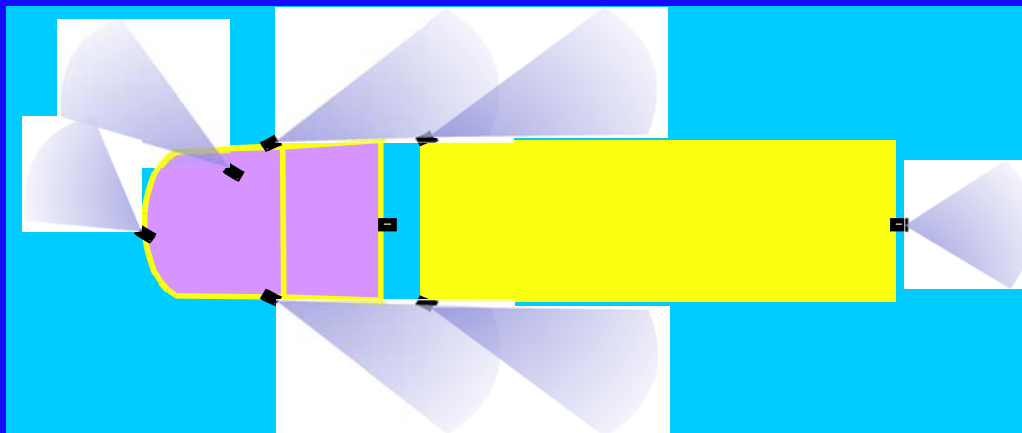
**Fuel efficiency**

**Transportation efficiency**

**Comfort and convenience**







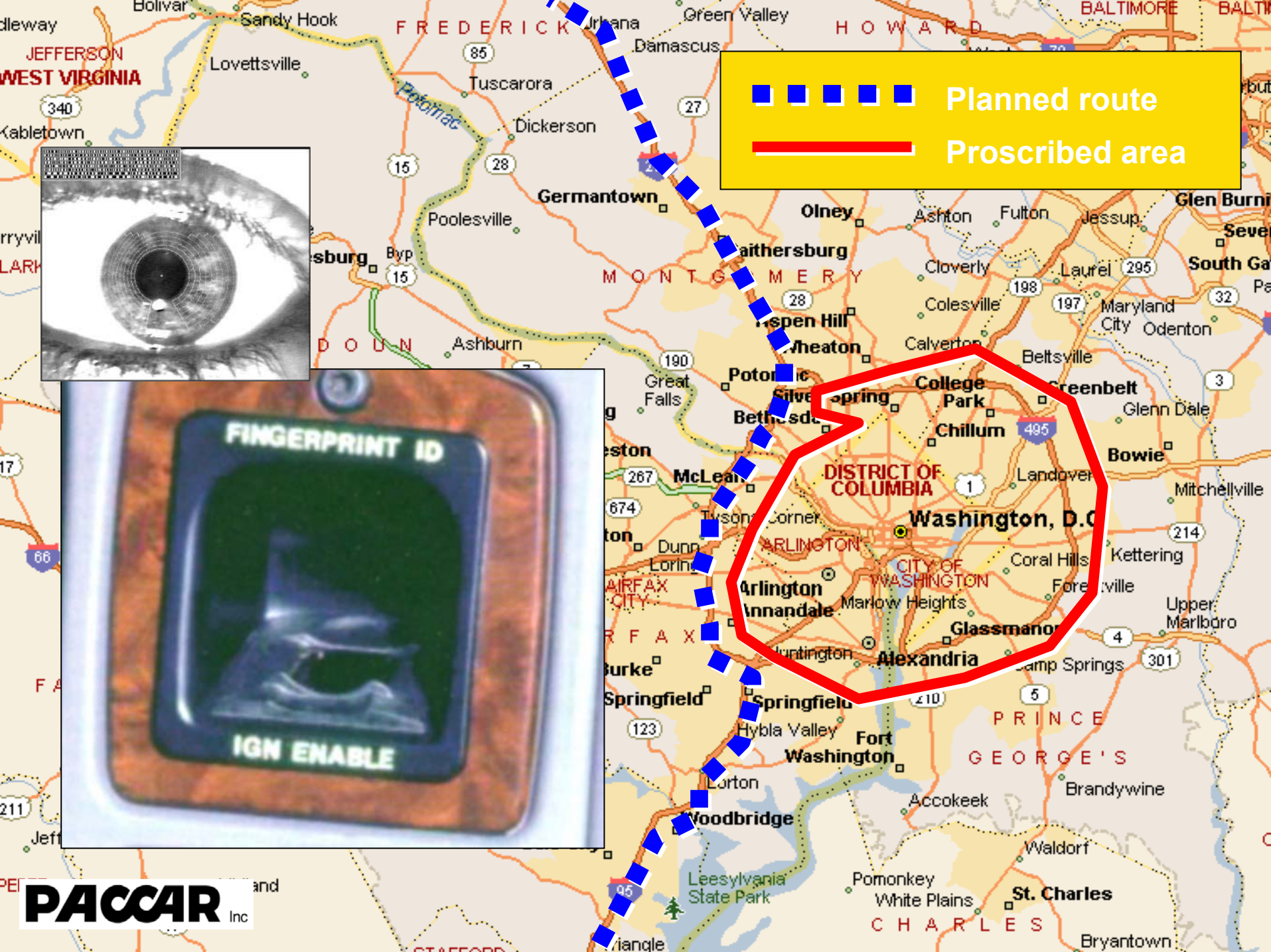


- Driver aids
  - Night vision
  - Stability enhancements
  - Lane change monitoring
  - Back-up alarms
  - Adaptive cruise control
- Car and pedestrian friendly
- Driver fatigue management
  - Monitoring
  - Intervention
  - Rest areas





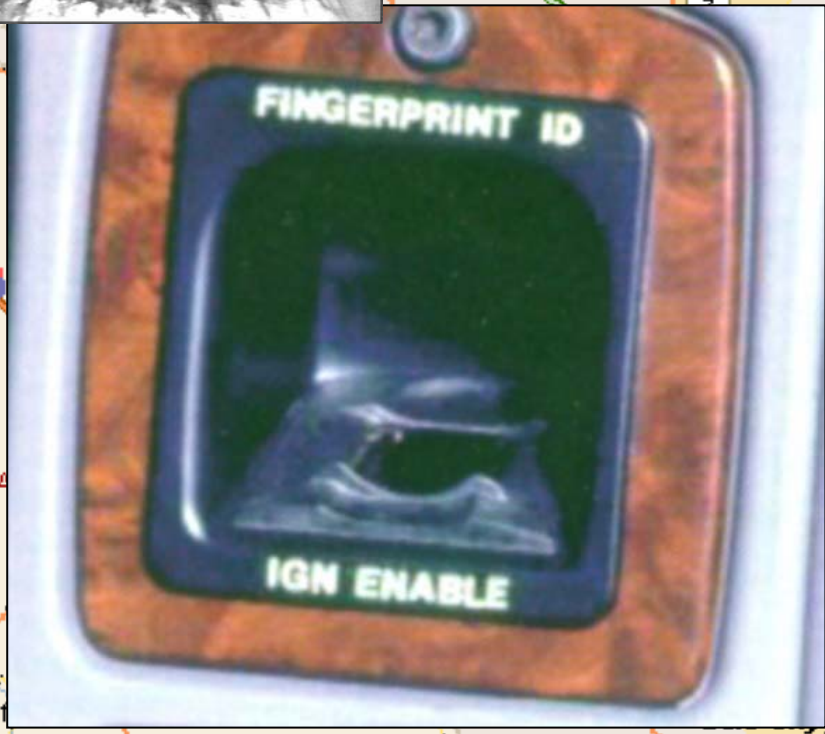
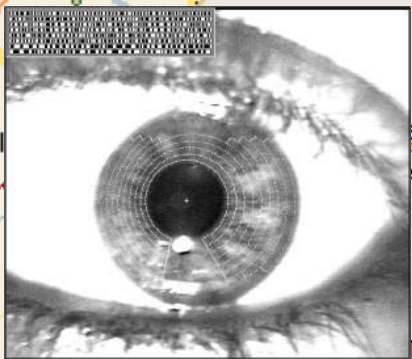




Planned route

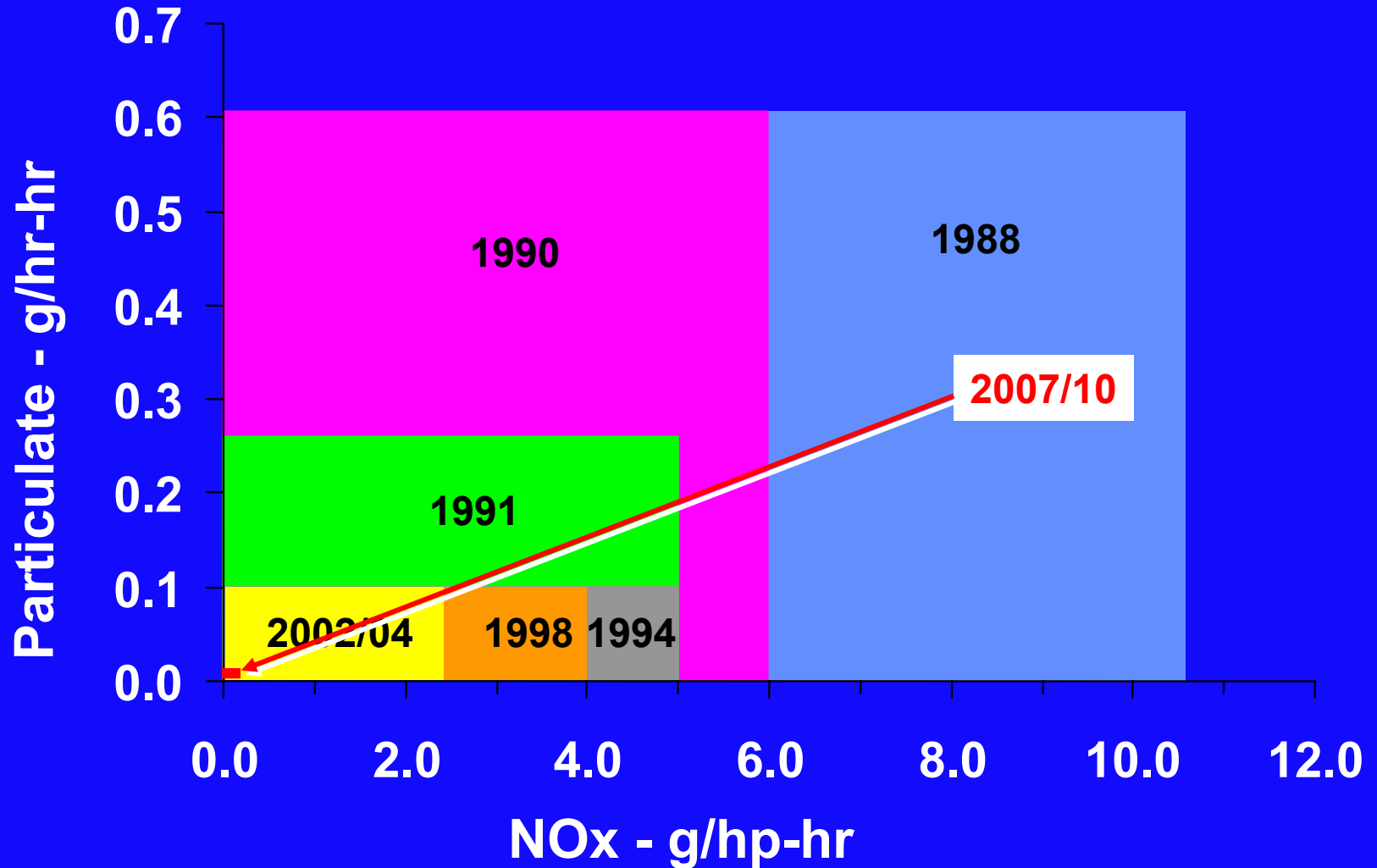


Proscribed area



**PACCAR** Inc

# ***2007 Emissions***





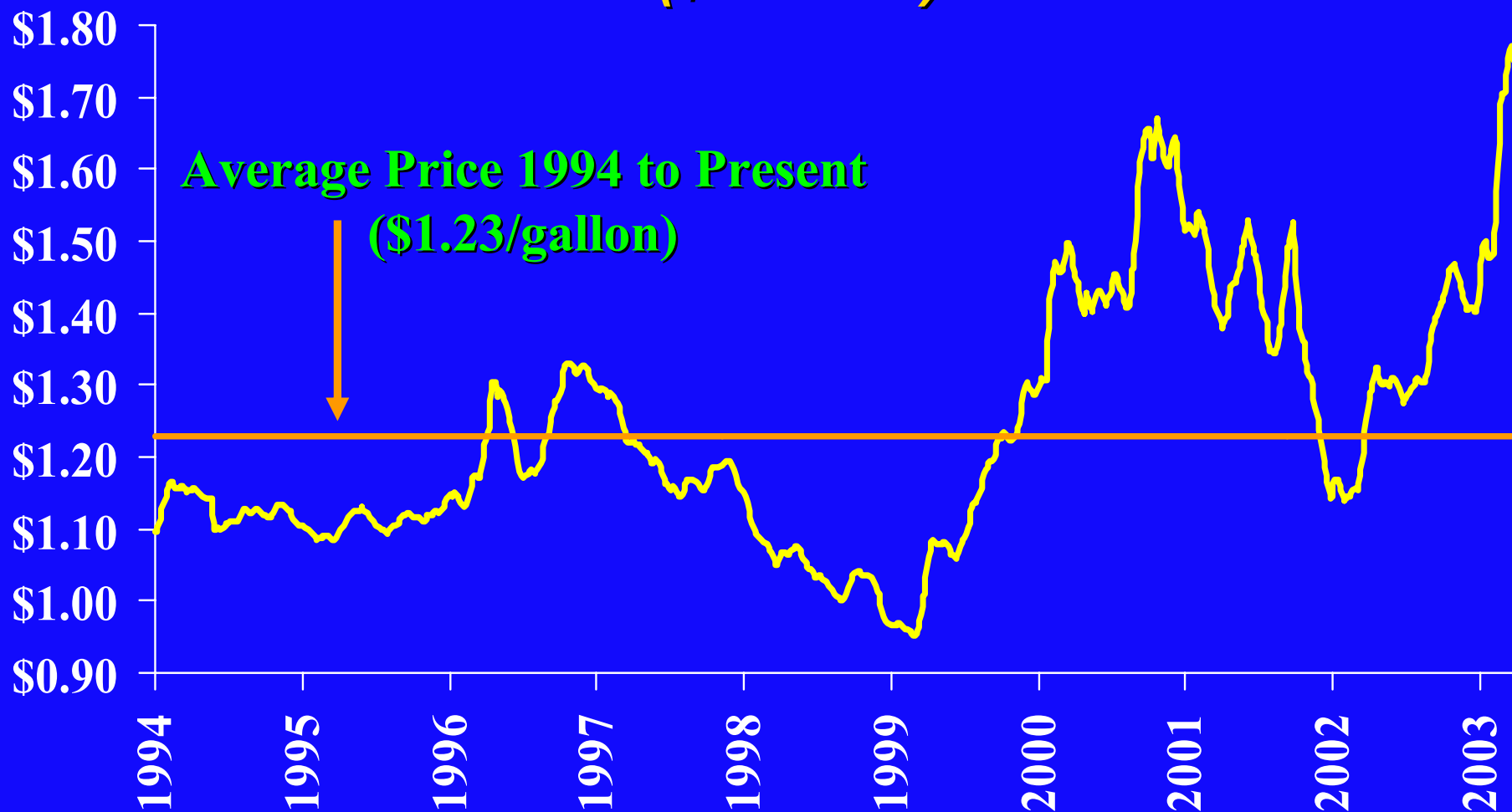




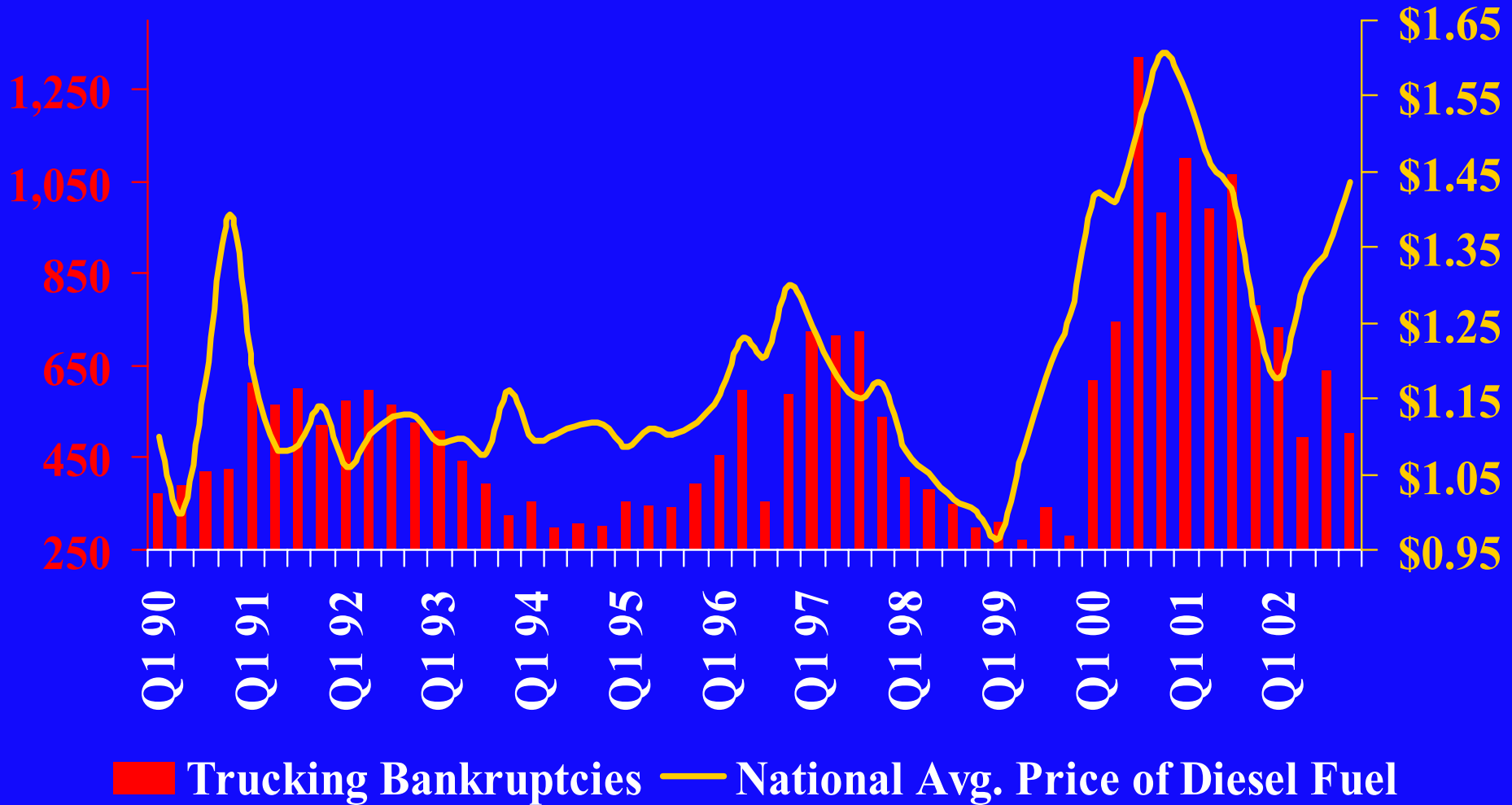
Courtesy of Idle-Aire



# National On-Highway Average Diesel Fuel Price (\$/Gallon)



# Higher Diesel Prices Lead To More Trucking Bankruptcies





Courtesy of Aero Works



Courtesy of Georgia Tech

# *Hybrid Electric Concept Truck*



- Series Hybrid
- 6.8L CNG Engine
- 80kW Generator
- 100kW Drive Motor  
(140kW peak)
- Two-speed Gearbox



A white Paccar Kenworth semi-truck is shown from a front-three-quarter view, driving on a two-lane road. The truck has a large chrome grille with the Kenworth logo, multiple headlights, and a white trailer. The background shows a clear blue sky and distant hills.

**Sheet-  
molding  
compound**

**Adhesive-  
bonded  
aluminum  
panels**

**Vinyl ester/  
balsa wood  
floor**

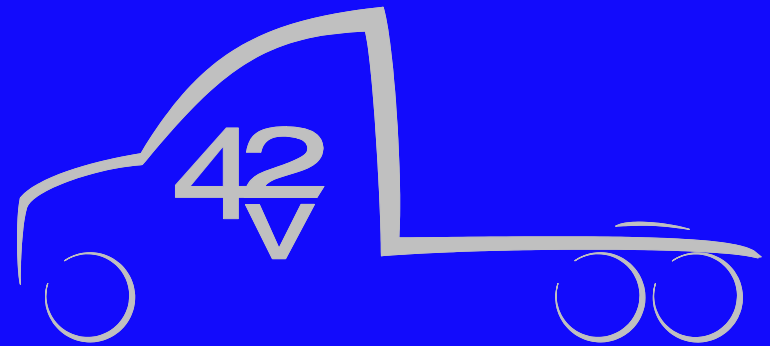
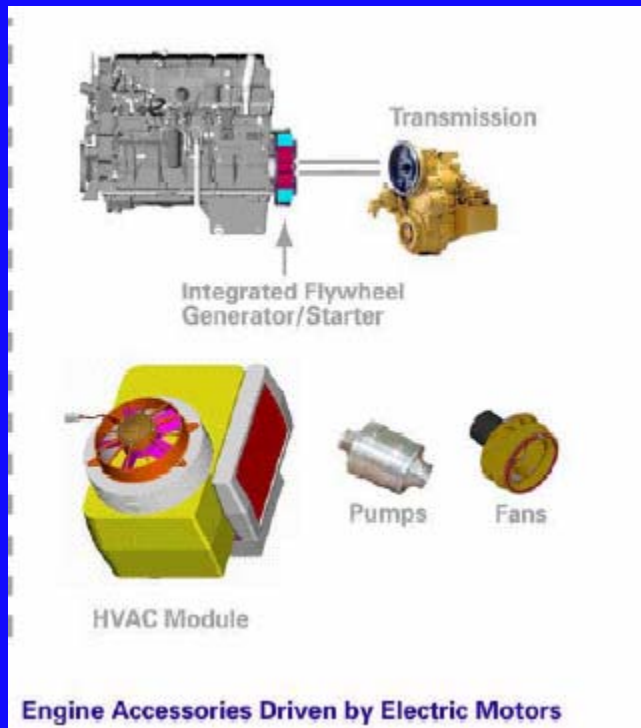
**Carbon fiber  
composite**

**Aluminum  
hydroformed  
parts**



**Tailor welded  
Al blanks**

# Caterpillar MorElectric system



*Courtesy of Caterpillar*

# ***Enhanced Freight Transportation***





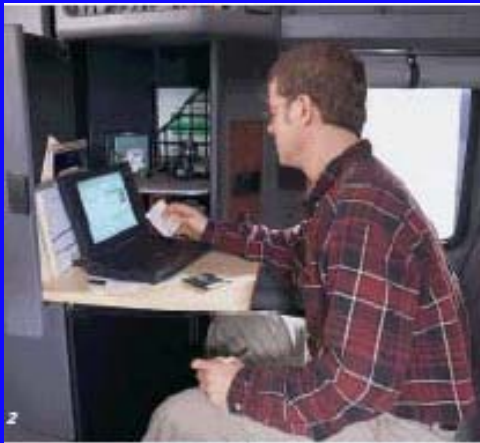


Courtesy of CCJ

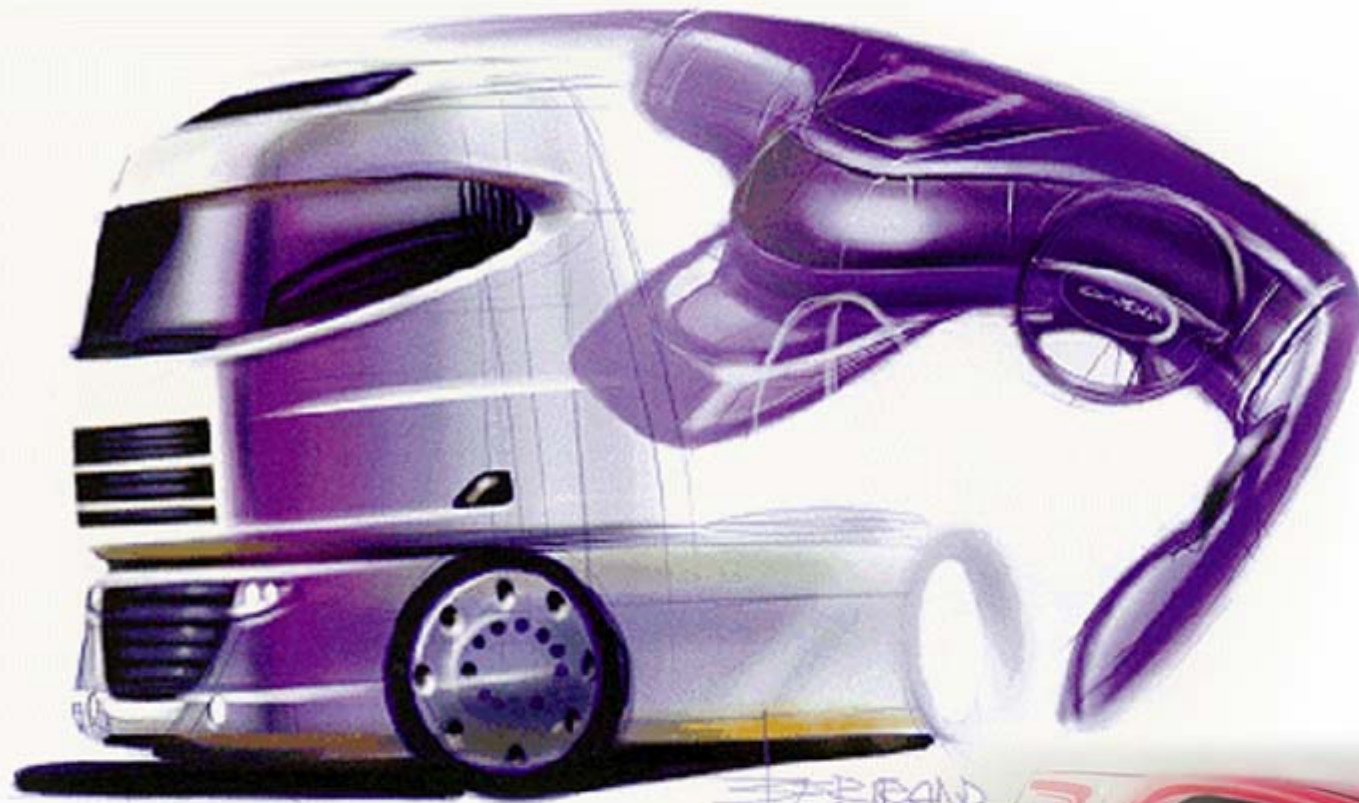


Courtesy of Transportation Technology









**Safety  
Security  
“Green”**

**Fuel efficiency  
Logistics efficiency  
Comfort**

