Planes, Trains and Automobiles is SO 1987; Drones, Platooning and Autonomous Vehicles is so NOW
Meet the Raphelds
What is the current environment of freight?
Freight Movement Technologies - Today

- Electronic Logging Devices
- Speed governed trucks
- Measurement systems
- Fuel Saving devices
- Automatic braking
- Lane Departure warning system
- Camera’s – outward facing and inward facing
- Tire Pressure monitoring
- Satellite Systems
- Automatic Transmissions
Freight Movement Technologies

Trailer Fuel-Saving Potential

- Trailer gap ~ 2%
- Trailer underbody ~ 6%
- Trailer tail ~ 5%
- Mudflaps ~ 1%
- Wheel covers ~ 2%

Sources: NBC, Manufacturers
Freight movement technologies

- Sources of Energy
  - Diesel engines
  - Propane
  - Ethanol
  - Natural gas
  - Electric
  - Hydrogen / Lithium
The future is here in Tennessee
- HB 751 / SB 151
Freight Movement Technologies - TN

• SB 151 / HB 381
Freight Movement Technology

• Drones
Freight Movement Technology

- TDOT Mission – To provide a **safe** and reliable transportation system for people, goods, and services that supports economic prosperity in Tennessee
Freight Movement Technologies

- Remember the Raphelds?
Some technology videos

• **Otto delivery**
  - [https://www.youtube.com/watch?v=Qb0Kzb3haK8](https://www.youtube.com/watch?v=Qb0Kzb3haK8)

• **Nissan**
  - [https://www.youtube.com/watch?v=h-TLo86K7Ck](https://www.youtube.com/watch?v=h-TLo86K7Ck)

• **Platooning**
  - [https://www.youtube.com/watch?v=tLWGGponorA](https://www.youtube.com/watch?v=tLWGGponorA)

• **Autonomous Vehicles**

• **Drones**
  - [https://www.youtube.com/watch?v=5Rfe4BFiVNA](https://www.youtube.com/watch?v=5Rfe4BFiVNA)