

1.221J/11.527J/ESD.201J *Transportation Systems*

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## LECTURE 9: RAIL FREIGHT TRANSPORTATION

DISPLAYS

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# OBSERVATIONS: US AND OTHER COUNTRIES

- ◆ Technology
- ◆ Operations

# SOME OBSERVATIONS

- ◆ Rail is big in the US: 36% of freight miles are by rail
- ◆ Week of August 21, 2004: 339,749 car loadings
  - ◆ Coal: 136,151
  - ◆ Agricultural products: 37,765
  - ◆ Metallic ores and minerals: 33,489
  - ◆ Motor vehicles and equipment: 23,621
- ◆ Up 1% from comparable week last year

# IN ADDITION...

- ◆ Intermodal (week of 8/21/04)
  - ◆ Trailers: 56,357
  - ◆ Containers: 160,792
  - ◆ Total: 217,149
- ◆ Up 9.5% from comparable week last year

# OTHER COUNTRIES

- ◆ Rail freight much less important; trucks dominate
  - ◆ Europe
  - ◆ Japan
  - ◆ Latin America
  
- ◆ Some exceptions
  - ◆ Canada (like US)
  - ◆ South Africa (“heavy haul”)
  - ◆ Australia (“heavy haul”)

# TECHNOLOGY

- ◆ Steel wheel/steel rails
- ◆ Diesel-powered locomotives
- ◆ A wide variety of freight car types
  - ◆ General purpose (e.g., box cars)...
  - ◆ Special purpose (e.g., auto rack cars)
- ◆ High fixed cost/low variable cost industry. Must build a lot of special purpose infrastructure