



Carl Burleson

*Director, Office of Environment and Energy
Federal Aviation Administration*

International Aviation and Emissions Trading: A U.S. Perspective

*Presented to: ICAO Colloquium on Aviation and Climate Change
May 13, 2010*



ICAO. UNITING AVIATION ON CLIMATE CHANGE

**ACT>>>
GLOBAL**

**ICAO Colloquium on
Aviation and Climate Change**

Outline

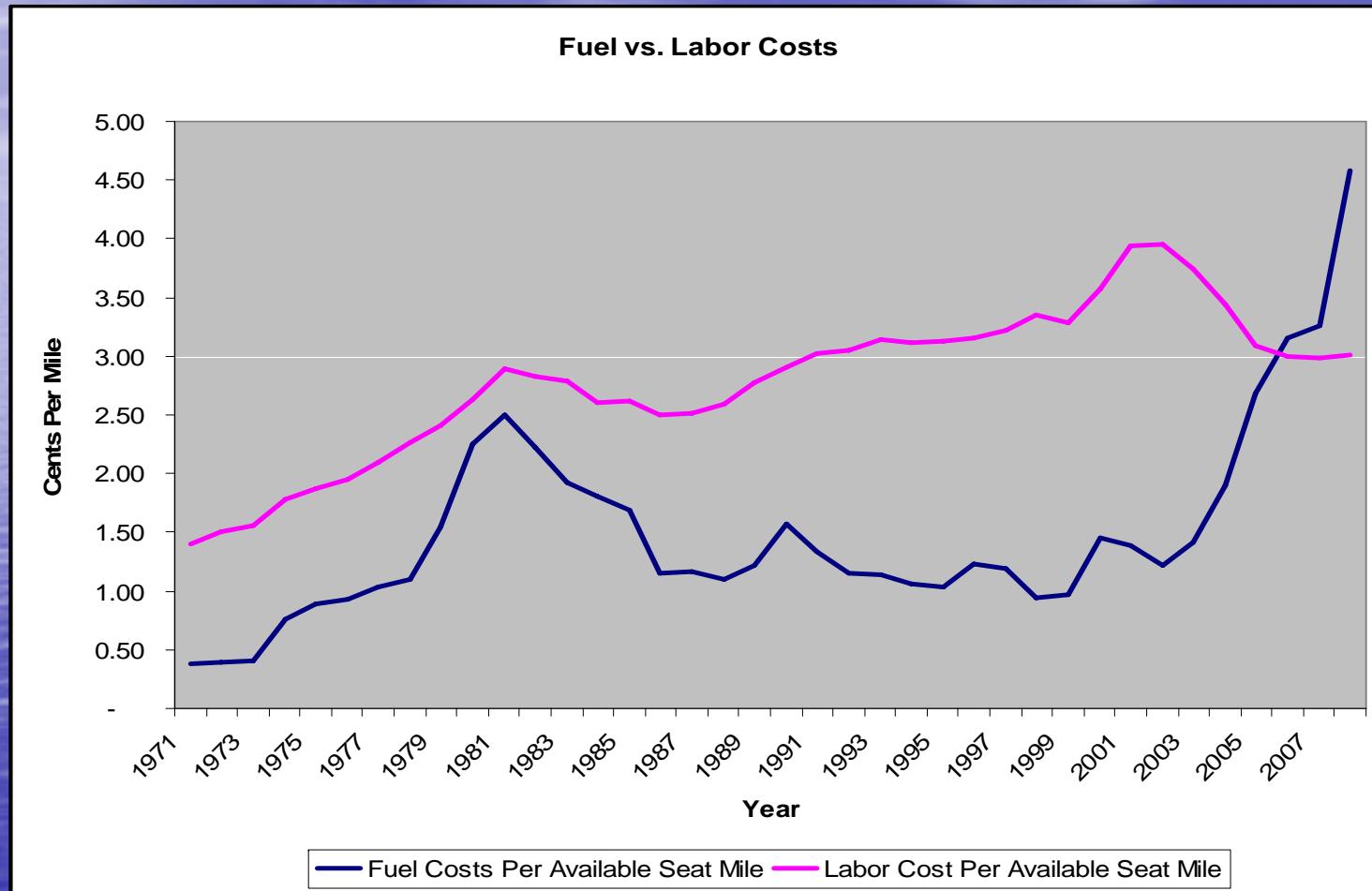


- Market Signals Work
- Some U.S. Developments on Carbon Emissions Trading
- Some Special Challenges Facing International Aviation
- Some Closing Observations



Federal Aviation
Administration

Growing Role of Fuel Prices in Operating Costs

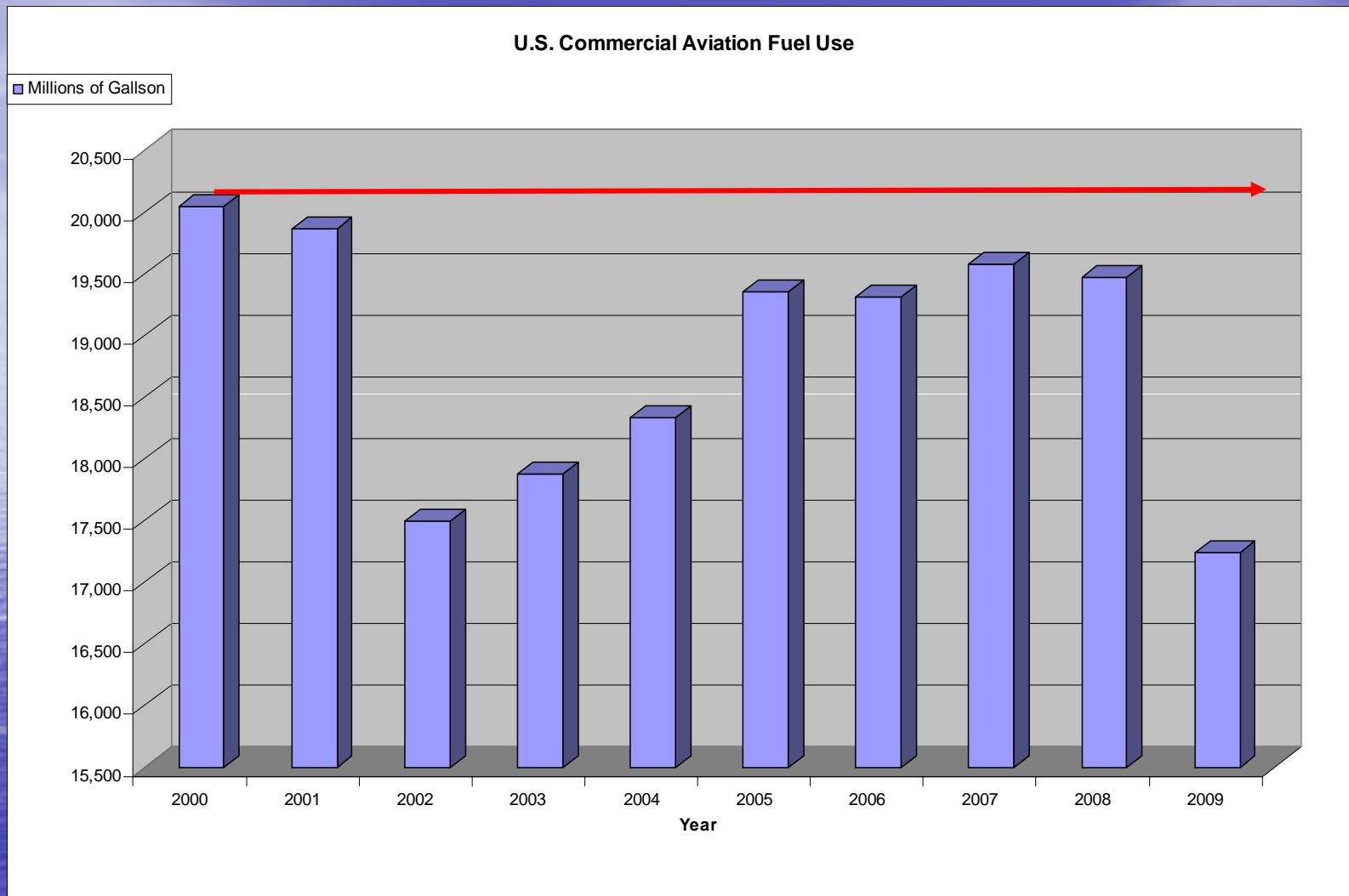


Source: ATA



Federal Aviation
Administration

Price Incentive Translates into Lower Fuel Consumption



Federal Aviation
Administration

Some Developments on U.S. Carbon Emissions Trading

- ***Private Sector***
 - Chicago Climate Exchange – 2003
- ***States***
 - Regional Greenhouse Gas Initiative (RGGI) – 2003
 - California Global Warming Solutions Act (AB-32) – 2006
 - Western Climate Initiative -2007
- ***Federal***
 - Election of Obama Administration – 2009
 - House: American Clean Energy and Security Act – 2009
 - Senate: Kerry-Lieberman 2010 ?



Federal Aviation
Administration

International Aviation Challenges: Competing Legislation

- ICAO Chicago Convention
 - U.N. standard setting body for aviation, including environmental ones
 - Bilateral Air Services Agreements
- United Nation Framework Convention on Climate Change (UNFCCC)
 - General commitment to reduce certain greenhouse gas emissions
- Kyoto Protocol
 - Specific targets for reductions
 - Developing countries exempt
 - Coverage of domestic aviation up to each country
 - International aviation subject to ICAO plan
- Regional ETS Schemes Developing
 - U.S.
 - EU
 - Australia
 - New Zealand
 - Japan



Federal Aviation
Administration

International Aviation Challenge: Some Design Issues



- ***Competing Treaties & Legislation***
- ***Whose Goals***
- ***Allocating Stakeholder Contribution***
- ***Monitoring, Verification, Reporting***
- ***Avoiding Multiple Charges***
- ***Potential Technology Penalty***



Federal Aviation
Administration

Some Closing Observations

- *Market-based measures like emissions trading are a crucial tool to address the climate change challenge.*
- *Emissions trading is not the solution for everyone. Cost and effectiveness should be weighed carefully.*
- *Design is essential.*
 - *Nations determine goals for their airlines.*
 - *You need proper data.*
 - *You only pay once.*
 - *Avoid perverse incentives.*
 - *Application is negotiated.*
- *ICAO is the right venue to develop common principles and the way forward.*



Federal Aviation
Administration