Air Sector: Looking Forward

Marc Rioux
Executive Director, Air Policy (International)
Transport Canada
Long-term trend

Global Passengers (billion, segment basis)

- Policy stimulus and market liberalization
- Constant Policies scenario
- A pick-up in protectionism

Source: International Air Transport Association

Doubling of number of passengers from 2017 to 2036 (4B to 7.8B)
1st emerging issue: bottlenecks in the supply chain

“European Air Travel Becomes More Dysfunctional”

“Eurocontrol DG: Europe Faces Major Capacity Challenge”

“Boeing Sees Soaring Need For Asia-Pacific Aviation Workers”

“We are headed for an infrastructure crisis, and that includes Latin America” (IATA CEO and DG)

“Pilot Shortage Is Real And Getting Worse”

“U.S. Airlines 1H Profits Fall on Fuel, Infrastructure Challenges”
2nd emerging issue: growing environmental footprint

Global GHGs per Sector:
- Waste & Water: 3%
- Buildings: 8%
- Transport: 13%
- Agriculture: 14%
- Forestry: 17%
- Industry: 19%
- Energy Supply: 26%

Transport Sector Focus:
- Aviation: 13%
- Other: 13%
- Road Vehicles: 74%

Global Aviation CO₂:
- Domestic Aviation: 35%
- International Aviation: 65%
- All Other Sources: 98%

International aviation accounts for about 1.3% of total global CO₂ emissions.

Source: International Civil Aviation Organization
2nd emerging issue: environmental footprint

CONTRIBUTION OF MEASURES FOR REDUCING INTERNATIONAL AVIATION NET CO₂ EMISSIONS

- Operational Improvements
- Technology
- Sustainable Alternative Fuels and Market-Based Measures

Carbon Neutral Growth From 2020

Source: International Civil Aviation Organization
3rd emerging issue: pace of technological developments

- Difficult for governments to maintain and adequate regulatory framework to govern disruptive technology due to the speed of development and deployment:
  - For instance:
    - Electric VTOL Air-Taxi Service to be launched before 2025;
    - Flying cars available for purchase now;
    - Drones to be used for home delivery currently being tested.

- Risk associated with cyber threats:
  - Digital technology is at the heart of civil aviation operations (aircraft, airports, air traffic management);
  - Civil aviation remains an appealing target to terrorists;
  - Still no uniform minimum cybersecurity standards.