“Current and Future Innovation in Transportation”

Airports As Links in Supply Chains

CILTNA 14 November 2016
Agenda

- Pearson as a ‘link’ in the supply chain today
- Pearson as a supply chain ‘integrator’ tomorrow?
Pearson as a ‘link’ in the supply chain today
Toronto Pearson: A Platform for Prosperity

- 60 Passenger airlines
- 5 Cargo freighter airlines
- 197 Total destinations
- 161 International destinations

Connected to

67% of the global economy by daily, scheduled, non-stop service
Toronto Pearson: Job Machine

332,000 jobs are generated or facilitated by Toronto Pearson International Airport

That’s 6.0% of all jobs in Ontario and 6.0% of GDP

59% of these jobs are in the GTA and 41% are spread throughout the rest of Ontario
Ontario is Canada’s Export Powerhouse

- Ontario is an export powerhouse in Canada
  - Ontario is 37% of Canada’s economy but 39% of Canada’s goods exports
  - 13% of Ontario’s goods exports by value leave Toronto-Pearson

- Worth $34 billion in 2015
Exports Stimulated By More Aircraft Capacity

- Wide-body aircraft stimulate cargo demand

**but**

- Not all ‘belly cargo’ capacity is utilized
- Not all passenger flight destinations are cargo destinations
As China has become wealthier, the demand for live Canadian lobster has exploded.
...and it’s possible because of non-stop flights from Toronto-Pearson to China
Key Numbers

- $79 million in live lobster exports from Toronto-Pearson in 2014
- $39 million to China
- 58% of live lobster exports to China route through Toronto Pearson
Connecting Toronto to Global Air Freight Hubs

“The Big Sort”: Memphis, Tennessee
Air cargo throughput in 2015

435,000 tonnes of air cargo

444,000 aircraft movements
Pearson as a supply chain ‘integrator’ tomorrow?
## Global air cargo market performance

World air cargo will grow as trade grows  
Cargo market will continue to evolve and change

<table>
<thead>
<tr>
<th>Historic</th>
<th>Downturn</th>
<th>Recovery</th>
<th>Slowdown</th>
<th>Outlook</th>
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<tbody>
<tr>
<td>5.6% Air cargo</td>
<td>1.7% Air cargo</td>
<td>5.0% Air cargo</td>
<td>2.2% Air cargo</td>
<td>3.7% Air cargo</td>
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<tr>
<td>8.4% World Trade</td>
<td>2.4% World Trade</td>
<td>3.6% World Trade</td>
<td>2.1% World Trade</td>
<td>3.6% World Trade</td>
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Source: Boeing World Air Cargo Forecast
E-commerce is expected to double by 2020

2015: $1.7 trillion

2020: $3.6 trillion

What proportion of this market will we see?
Global trends in air cargo

- **High-tech was once a key driver for cargo**
  - volumes have declined, particularly in laptops

- **Temperature controlled / perishable freight is outperforming the industry**
  - Pharmaceuticals are growing but volumes are still low

- **Consumer goods are growing**
  - driven by e-commerce

- **Other commodities are declining**
  - garments, manufacturing, automotive, high technology, live stock

- **Express cargo is out performing air freight**
Where does Toronto Pearson’s air cargo future lie and how do we get there?

**Today**
- Passive
- Landlord
- Data poor
- “Not our business”
- Cargo terminals and warehouses
- Focus on securing the airside interface

**Tomorrow**
- Proactive
- Supply chain integrator
- Data driven
- Partnership with stakeholders
- Cargo processing centers
- Focus on speed, connectivity, transparency, digitalization and technology

*Industry Study*
If Toronto Pearson is to be successful in the future, we need to improve ground access

- Airport passengers’ and employees’ mode split to transit: 10%
- Airport peak is coincident with commuter peak.
Pearson Hub would fill the gap, linking existing and planned transit routes.
Other things to ponder

• Millennials’ consumer behaviours are different
  – Car share, Uber v. car ownership

• Beware of disruptive innovation
  – 3D Printing has reduced the demand for shipping
    “42% of air cargo is at risk from 3D printing”

• “They are not building shopping malls anymore”
  – e-commerce will double by 2020

• e-commerce operators taking control of their supply chains

• Centralized → decentralized production/distribution
Thank you