Asia Pacific Aviation

Growth Dynamics & Sustainability

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Association of Asia Pacific Airlines
Overview

• Asia Pacific aviation
• Business trends
• Future growth
• Sustainability
• Regulatory challenges
Aviation: connecting the world

- Air travel delivers global mobility
- 3.6 billion passengers
  - 10 million per day
- Carries 35% by value of global trade
  - Goods worth US$ 6 Trillion
- Wider social and economic benefits
- Outstanding safety record
- Committed to sustainable growth

Source: IATA, ATAG
Asia Pacific

- Diverse geographic region
- Home to more than 4 billion people
- Dynamic economies generate 31% of global GDP
- Wide range of income levels, rapidly growing middle class
- Aviation widely recognised as a key contributor to economic and social development
- Political diversity remains challenging: need for multilateral cooperation
Growing middle class consumers

* Households with yearly income between $20,000 and $150,000 at PPP in constant 2015 prices
** Estimate for 1995 split region

Driving consumption including air travel demand

Source: Airbus GMF 2016-2035
Asia Pacific Aviation

US$166 billion revenue
US$7 billion net profit
1,200 million passengers
860 million domestic
340 million international
20 million tonnes of cargo
7,058 aircraft

Asia Pacific carriers overall market share:
32% of global passenger traffic
40% of global cargo traffic

Data: Financials & Traffic: 2015
Source: Combined AAPA + non-AAPA airlines GMT+5 to GMT+12
## World’s ten busiest domestic routes

<table>
<thead>
<tr>
<th>Rank</th>
<th>Route</th>
<th>PAX (million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Jeju – Seoul</td>
<td>11.1</td>
</tr>
<tr>
<td>2</td>
<td>Sapporo – Tokyo</td>
<td>7.8</td>
</tr>
<tr>
<td>3</td>
<td>Fukuoka – Tokyo</td>
<td>7.6</td>
</tr>
<tr>
<td>4</td>
<td>Melbourne - Sydney</td>
<td>7.2</td>
</tr>
<tr>
<td>5</td>
<td>Beijing – Shanghai</td>
<td>6.1</td>
</tr>
<tr>
<td>6</td>
<td>Hanoi – Ho Chi Minh City</td>
<td>5.4</td>
</tr>
<tr>
<td>7</td>
<td>Delhi – Mumbai</td>
<td>5.0</td>
</tr>
<tr>
<td>8</td>
<td>Jakarta – Surabaya</td>
<td>4.5</td>
</tr>
<tr>
<td>9</td>
<td>Beijing – Chengdu</td>
<td>4.4</td>
</tr>
<tr>
<td>10</td>
<td>Osaka – Tokyo</td>
<td>4.0</td>
</tr>
</tbody>
</table>

Source: IATA WATS 2016, 2015 data

... are all in Asia
## World’s ten busiest international routes

<table>
<thead>
<tr>
<th>Rank</th>
<th>Route</th>
<th>PAX (million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Hong Kong - Taipei</td>
<td>5.1</td>
</tr>
<tr>
<td>2</td>
<td>Jakarta - Singapore</td>
<td>3.4</td>
</tr>
<tr>
<td>3</td>
<td>Bangkok – Hong Kong</td>
<td>3.0</td>
</tr>
<tr>
<td>4</td>
<td>Kuala Lumpur – Singapore</td>
<td>2.7</td>
</tr>
<tr>
<td>5</td>
<td>Hong Kong – Singapore</td>
<td>2.7</td>
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<td>Osaka – Taipei</td>
<td>2.1</td>
</tr>
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Source: IATA WATS 2016, 2015 data

... are all in Asia
The global economy remains fragile

- Post-crisis growth rates have slowed
- Still a two speed global economy
- Low interest rates signal weak outlook

Source: IMF 2016
Global trade is stuck on a low growth path

- Trade no longer outpaces GDP growth
- Threat of protectionist measures

Source: IMF 2016
Global Passenger and Cargo Traffic

- **Air cargo markets see slower recovery +13%**

- **Passenger traffic maintains robust growth +27%**

Source: IATA
Evolving airline business strategies

- Further convergence of business models
- Group structures: single or multiple brands
- Service differentiation: 1, 2, 3 or 4 classes
- Value added services at a price
- High density seating driving cost efficiency
- Revenue optimisation through network connectivity & cooperative relationships

Asia Pacific airlines at the forefront of global industry developments
Fuel costs typically represent between 15% and 35% of total airline costs so always strong incentives to improve fuel efficiency
Airfares track changes in oil prices

Widespread availability of affordable airfares gives added boost to travel demand

Source: EIA and IATA
Airline profitability reaches new high

- Robust passenger demand & lower oil prices
- Profit recovery led by North American carriers
- Average profit margin still only 5% or $10 per passenger

Source: IATA
Airline Enterprise Values by Region

Market capitalisation as of 14 November 2016

Source: AAPA Estimates
Asia Pacific markets to lead future growth

Major capital investment required

Asia Pacific represents 40% of future aircraft orders & associated infrastructure requirements

Source: Airbus GMF 2016-2035
Infrastructure

- Aviation is a complex global system
- Aviation infrastructure must keep pace with rapid traffic growth
- Chronic congestion and delays already evident in some areas
- Greater focus on operating efficiency, productivity and cost-effectiveness
- Managing our environmental impact
- Government responsibility to coordinate planning and long term investment required

*Infrastructure is critically important, governments & industry must work together*
Aviation committed to sustainable future growth

Aviation pursuing multi pillar strategy:
- Fuel efficiency through technology
- Operational efficiencies
- Infrastructure improvements
- Development of alternative fuels
- Additional emissions reductions using carbon offsets through ICAO CORSIA

Aviation has set ambitious targets and is delivering on its commitments
Other Regulatory Challenges

Aviation is subject to intensive regulation

- **Safety**
- **Security**
- **Air Services**
- **Taxes & Charges**
- **Consumer Protection**
- **Passenger Facilitation**
Global Regulatory Influences

- Wider impact of US and EU regulations
- Asia Pacific needs a unified voice
- Need for harmonised global standards
Aviation Safety Performance Trends

Western-built Jet Aircraft Major Accident Rates
by Operator Region 2004 - 2016
3-year moving averages

Source: AAPA

* 2016 data as of 31 Oct 2016
Variable quality of regulatory oversight

- Lack of quality assurance leads to unnecessary duplication of oversight, multiple audits and sanctions
- ICAO ‘No Country Left Behind’ campaign aims to raise levels of effective implementation
Aviation Security

- Aviation remains highly secure despite perceived threats
- Aviation is a global system requiring close international cooperation and coordination
- Security policy responses need to be risk-based, and focused on desired outcomes
- Recognise the benefits of mutual recognition of respective aviation security regimes

Learn the lessons from aviation safety: building trust, information sharing & collaboration
Air Services Development

- Asia Pacific region the seat of experimentation & innovation in airline business models
- Evolving regulatory frameworks
- ASEAN Open Skies and ASEAN + X
- Progressive liberalisation, but protectionist sentiments sometimes evident
- Ongoing debate on interpretation of ownership & control restrictions, subsidies, fair competition

Evolution of global regulatory framework must keep pace with changing markets
Taxes & Charges

- Aviation is a positive catalyst for economic growth & social development
- Taxes and charges make air travel less affordable
- Taxes hurt the wider economy and inhibit job creation
- User charges must be transparent, cost-based, non-discriminatory
- Economic regulation of monopoly service providers
Consumer Protection

- ICAO core principles on consumer protection
- Over 70 jurisdictions have aviation-specific consumer protection regimes
- Overlapping national regimes often create inconsistencies and confusion for travellers
- Regulators underestimate the power of the market to adapt to changing consumer preferences

*Lighter regulation preserves incentive for innovation in customer service standards*
Passenger Facilitation

- Challenges of handling 10 million daily passengers
- Lengthy queues still common at immigration & security checkpoints
- Deterioration in passenger travel experience
- Opportunities to streamline integration of airline, security & border control processes using available technologies

Balancing efficient passenger facilitation and security screening needs
Closing Thoughts

• Flying is extraordinarily safe and secure
• Aviation drives economic and social development
• Infrastructure planning is a shared challenge
• Airline business strategies are responding to changes in market demand and consumer preferences
• Regulatory oversight should focus on close adherence to global standards
• Asia Pacific airlines shaping the development of global aviation

Aviation: connecting the world