Aviation Safety Challenges

Asia Pacific Perspectives

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We came a long way
Aviation: delivering global mobility

- Safely connecting people and business
- Wider social and economic benefits
- Outstanding safety record
- Committed to sustainable growth

Source: IATA, ATAG
Asia Pacific aviation

US$205 billion revenue
US$5 billion net profit
1,600 million passengers
1,150 million domestic
450 million international
23 million tonnes of cargo
8,448 aircraft

Asia Pacific carriers overall market share:
34% of global passenger traffic
35% of global cargo traffic

Source: Combined AAPA + non-AAPA airlines GMT+5 to GMT+12
Data: Traffic: ICAO and IATA Preliminary 2018, Financials: AAPA Preliminary 2018
Asia Pacific leading global markets

20-year annual world traffic growth 4.6%  

- Asia Pacific to account for 40% of future aircraft deliveries  
- Major investments in infrastructure & manpower required

*Within Asia Pacific
- Within China
- Within North America
- Within Europe
- Middle East - Asia Pacific
- North Atlantic
- Europe - Asia Pacific
- Within Latin America
- North America - Latin America
- Europe - Middle East
- Transpacific
- Europe - Latin America
- Africa - Europe

2018 Traffic

2019 – 2038 Added Traffic

Annual Growth

5.5%
6.2%
3.1%
3.5%
6.2%
2.9%
3.9%
6.0%
5.2%
4.4%
3.2%
4.2%
4.1%

Source: Boeing CMO 2019-2038

*does not include travel within China
Growth of Asian middle class consumers

Rising demand for goods & services including air travel

Source: Airbus GMF 2018 - 2037
Households with yearly income between $20,000 and $150,000 at PPP in constant 2017 prices
Projected Global Fleet in 2040

Over the next twenty years:

• Global air travel demand projected to grow x 2.5
• Commercial jet fleet will double in size led by Asia
Aviation System

- Aviation is a complex global system
- Airports & airspace modernisation required to keep pace with rapid traffic growth
- Greater focus on operating efficiency, productivity and cost-effectiveness
- Multi-stakeholder cooperation key to coordinated long term planning & capital investment
- Manpower training & development
- Delivering long term environmental sustainability

Need for close collaboration beyond geographic & organisational boundaries
Aviation Faces a Variety of Disruptions

Accidents, earthquakes, typhoons, floods, fires, volcanic ash, bombs, health pandemics, cyber, airspace closures and geopolitical risks
Safety Focus

- Airlines operate in a complex and challenging business environment
- Asian airlines are listed among some of the world’s leading safe airlines
- Safety requires long term investment and commitment of resources by all stakeholders
- Greater focus on effective regulatory oversight aligned with ICAO global standards
- Enhanced safety performance relies on transparency, collaboration and cooperation between regulators and industry
Safety Performance Trends

Western-built Jet Aircraft Major Accident Rates by Operator Region 2009-2019
3-year moving averages

1 major accident in 2 million flights
1 major accident in 3 million flights
1 major accident in 4 million flights
1 major accident in 5 million flights

Source: AAPA Data as of 21 June 2019

Outstanding safety record built on focus, commitment and cooperation
Safety Performance Trends: Turboprop aircraft

Western-built Jet & Turboprop Aircraft Major Accident Rates by Operator Region 2008-2019
3-year moving averages

Turboprop safety performance has also shown marked improvement
Aviation Safety Fundamentals

- Safety Management System (ICAO Annex 19)
  - Organization Commitment
  - Accountable Executives & Managers
- Risk-based and data-driven
- Collaboration and cooperation
- Sharing information, learning from mistakes
- “Just Culture” philosophy
  - Does not mean a non-punitive culture
  - But a punitive culture does not ensure safety

Aviation is the safest mode of transportation due to its culture of openly sharing information and lessons learned
Benefits of Flight Data Monitoring

- Essential safety management tool
- Identify trends and underlying safety risks
- Improve flight operational procedures and training
- Improve operational reliability and reduce aircraft maintenance costs
Current Safety Priorities

Identified Risk Factors:
- Controlled Flight into Terrain (CFIT Turboprop)
- Loss of Control in Flight
- Mid Air Collisions (MAC)
- Approach & Landing
- Runway Excursions
- Non-Adherence to Standard Operating Procedures
- Human Factors
- Ground Accidents and incidents

Focusing on joint action plans to proactively manage such risks
Maintaining Public Trust

- Flying is extraordinarily safe
- But every fatal accident brings human tragedy & close scrutiny
- Lessons from accident investigations need to be shared globally
- Maintaining public trust is a challenge requiring close international cooperation and coordinated action by both industry and regulatory authorities
What have we learned from the B737 MAX?

Source: US FAA
B737 MAX: a crisis of public confidence

• Questions over the integrity of the certification process
• Confidence in the mutual recognition, trust, and reciprocity among international safety regulators has been undermined
• Loss of confidence in the pilot community
• Loss of passenger trust and confidence
• Aircraft will remain grounded until all issues are resolved
• As State of Design the FAA is responsible for the certification of the B737MAX
• Joint Authorities Technical Review (JATR) team to coordinate information sharing with other international regulators

The key challenge is to rebuild public trust in the integrity of the processes of international regulatory oversight and industry collaboration
Closing Thoughts

• Aviation drives economic and social development
• Flying is extraordinarily safe and secure
• Aviation safety is built on strong foundations of effective regulatory oversight and close international collaboration
• Safety is a shared responsibility and collective achievement of all stakeholders
• Committed to continuous improvements in safety performance

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