



WORKING PAPER

WORLDWIDE AIR TRANSPORT CONFERENCE (ATCONF)

SIXTH MEETING

Montréal, 18 to 22 March 2013

Agenda Item 1: Global overview of trends and developments

1.1: Industry and regulatory developments

SUSTAINABILITY AND ECONOMIC DEVELOPMENT OF AIR TRANSPORT

(Presented by the Secretariat)

EXECUTIVE SUMMARY

This working paper describes the components that relate to the concept of air transport sustainability. It also defines and discusses the major impediments to sustainable development of civil aviation which confront all value chain stakeholders.

Action: The Conference is invited to:

- a) review the information and assessment presented in this paper;
- b) endorse the conclusions presented in paragraph 7; and
- c) adopt the recommendations in paragraph 8.

References: ATConf/6 reference material is available at www.icao.int/meetings/atconf6.

1. INTRODUCTION

1.1 According to the Preamble of the Chicago Convention signed in 1944 (Doc 7300 refers):

“THEREFORE, [...]international air transport services may be established on the basis of equality of opportunity and operated soundly and economically.”

1.2 Since then, and taking into account the considerable growth registered by air transport during the past half-century, States, regional and international organizations, and the industry have demonstrated an increased interest in maintaining sustainable development of air transport.

2. DEFINING SUSTAINABILITY

2.1 Based on a definition adopted by the United Nations (UN), “sustainability” is an economic, social, and environmental concept that involves meeting the needs of the present without compromising the ability of future generations to meet their own needs.

2.2 During the ICAO Air Transport Symposium (IATS), held in Montréal from 18 to 20 April 2012, ICAO proposed a definition for air transport sustainability designed to embody the UN definition of sustainable development and incorporate input provided by air transport stakeholders, while also maintaining the spirit of the Chicago Convention. Thus, focusing on the economic development of civil aviation, a sustainable air transport system should be affordable, should operate safely, securely, fairly and efficiently, and should offer choices of air services while supporting a competitive economy and balanced regional development.

3. ECONOMIC BACKGROUND AND OUTLOOK

3.1 Since 1995, the world gross domestic product (GDP) grew at 2.8 per cent annually while the world passenger air traffic (expressed in revenue passenger kilometres) increased at an average annual growth rate of 5.0 per cent. According to the industry, 47.5 million employees are working in aviation and related tourism activities, and 8.5 million are working directly in the air transport industry. Aviation contributes 538 billion US dollars to the world economy and represents respectively 0.5 per cent of the volume and 35 per cent of the value of world international shipments.

3.2 However, during the past 15 years particularly, the development of civil aviation has been broadly impacted by several crises directly or indirectly related to aviation, (Appendix A refers). The Asian crisis in 1997, the U.S. terrorist attack on 11 September 2001, the severe acute respiratory syndrome (SARS) outbreak in 2003, and the 2008-2009 world financial crises have all been detrimental to the overall profitability of the air transport system. Despite the past and anticipated challenges to air transport development, ICAO forecasts a similar sustained traffic growth for the next twenty years (Appendix B refers). By the year 2030, scheduled passenger traffic around the world is expected to more than double, from 2.9 billion in 2012 to over 6 billion passenger annually.

4. IMPEDIMENTS TO SUSTAINABILITY

4.1 During IATS, it was stated that the main impediment to sustainable development of air transport was linked to its geographical, regulatory, and economic fragmentation.

4.2 The Symposium expressed concern with the general disparities and inequalities within the air transport value chain and, more specifically, with the low profitability of air carriers and, to a lesser extent, airports. In addition, a pressing need to expand and better utilize existing air transport infrastructure was identified. The difficulty encountered in some regions in arranging financing for such infrastructure was an area of concern, while the proliferation of taxes on air transport was also identified as a major impediment for sustainable development of air transport. Restrictions on air carrier ownership and control were also seen as a constraint leading to increased consolidation of the industry through mergers and alliances. Additionally, noted were the difficulties faced by the air transport industry with respect to economic cycles and their impact which hampered the implementation of an effective strategy for sustainability of the industry. Finally the Symposium considered that the absence of harmonization among regulatory frameworks was a major barrier in the sustainable development of air transport, and that the diversity of air transport regulations constituted a major area of concern.

5. IMPEDIMENTS RELATED TO FINANCING THE AIR TRANSPORT SYSTEM

5.1 Profitability differences between the stakeholders of the air transport value chain are an impediment to the sustainability of civil aviation. Improving efficiency with respect to the use of existing capital and return on investments is essential in the process of attracting new industry investment.

5.2 Although the majority of capital is invested in air carriers and airport operators, aircraft operators achieve one of the lowest investment returns within the air transport supply chain.

5.3 For an airline, the cost of its assets is largely fixed, at least over the short-term. An airline cannot place its unused available capacity in inventory in response to unexpected changes in demand; therefore, during a period of decline in traffic demand, revenues are likely to fall and associated costs cannot be reduced accordingly. Traditionally, airline costs are divided between operating and non-operating costs and fuel is a major element of the operating costs. Between 1994 and 2009, the share of fuel increased from 11 per cent to over 25 per cent of total operating costs (Appendix C).

5.4 Closely correlated with its increasing importance within overall operating expenses, the volatility of fuel costs is also a growing challenge for aircraft operators. As shown in Appendix D, while the variation of oil and fuel prices generally fluctuated between 20 and 40 U.S. dollars a barrel between 1990 and 2003, prices varied between 40 and 150 U.S. dollars a barrel from 2003 to 2012 (a ratio of almost 1 to 4). Such a volatility, which is impacting significantly the operating margins, is a major challenge for air carriers. The cost of fuel is an item over which airline managements have little control, as the price of fuel is directly linked to the global supply of, and demand for, crude oil. Although some financial tools, such as fuel hedging, are available for air carriers to assist in maintaining more stable costs, fewer and fewer aircraft operators generate the cash flow required to benefit from such strategies.

5.5 In the same vein, access to newer aircraft is dependent upon the availability of financing. Although aircraft can also be leased from leasing companies, direct purchase of aircraft is generally financed through loans or with the support of public export-financing agencies. Financing can be facilitated by guarantees provided by the Convention on International Interests in Mobile Equipment and the Protocol to the Convention on Matters Specific to Aircraft Equipment, which were signed in Cape Town, South Africa, on 16 November 2001. The Convention established an international registry where interests can be registered against aircraft or engines. By increasing transparency and predictability, reducing transaction costs, and mitigating risks in international aircraft finance, the Cape Town Convention facilitates increased use of modern and fuel efficient aircraft.

5.6 The airlines' difficulties in raising capital complicate investment in the most recent and efficient aircraft, particularly in the global context of the financing of the air transport system. It is noteworthy that the financing of the air transport system is a complex web of interlocking issues, not all within the control of States or stakeholders, a perfect example being that of fuel prices.

5.7 Adequate financing is an important element in moving toward an improved air transport system and it is closely linked to the adoption of best practices in governance and regulation, with a framework that provides incentives for efficiency. There are also 'human factors' to be considered, including the training of personnel so as to maximize the return on investment in new ground and air equipment.

5.8 After many decades of rapid growth in the industry, in some regions existing airport and air navigation infrastructure are highly congested. As such, providing the infrastructure to support

sustainable future growth calls for ICAO and the aviation community to cooperate with unprecedented teamwork, innovation and perseverance.

6. ECONOMIC DEVELOPMENT OF AIR TRANSPORT

6.1 The ever evolving nature of international civil aviation requires ICAO to combine long-term vision with a degree of flexibility in order to ensure a sustainable global civil aviation system, while adapting to the challenges and exigencies that affect the industry. Taking into consideration the lessons learned from the past decade coupled with the realities of the global economic situation, ICAO's overall vision and mandate are clearly focussed on sustainability with the objective of achieving a sustainable global air transport system through the development of policies and guidance material aimed at assisting Member States. It is from this vision and mission that the need to create a distinct Strategic Objective for "Economic Development of Air Transport" has been identified dedicated to fostering the development of a sound and economically viable air transport system.

6.2 This Objective reflects the need for ICAO leadership in harmonizing the air transport framework. Among the key activities identified in this area is the need for ICAO to create a favourable global environment by establishing policies and guidance on economic regulation, infrastructure management and economics of aviation activities, including taxation and user charges. Included in this objective is the need for ICAO to develop a harmonized air transport policies framework to facilitate access to funding for aviation infrastructure and financing of the air transport system and for economic regulation and oversight. This objective should be achieved through international cooperation and coordination of regional activities. To realize such harmonization, monitoring of regulatory and industry developments in international air transport would be required as would the establishment of information-sharing mechanisms with industry stakeholders so as to facilitate data collection and dissemination. This would result in enhanced transparency enabling accurate quantitative and qualitative analysis of air transport developments, for the benefit of States and the industry, in support of tangible assistance to States in implementation of ICAO policies and guidance related to air transport.

7. CONCLUSIONS

7.1 In light of the discussion above, the following can be concluded:

- a) profitability differences within the air transport value chain, fragmentation in the regulatory framework; challenges associated with financing the air transport system and infrastructure capacity constraints are impediments to sustainable development of air transport and must be removed in order to cope with the expected growth of world air traffic while fostering sustainable development of the air transport system; and
- b) the cost of fuel is largely dependent on market forces and the possibility of regulatory intervention appears unlikely. However, it is imperative that the regulatory framework for the development of air transport fosters strategies to mitigate the negative economic impact of fuel price volatility.

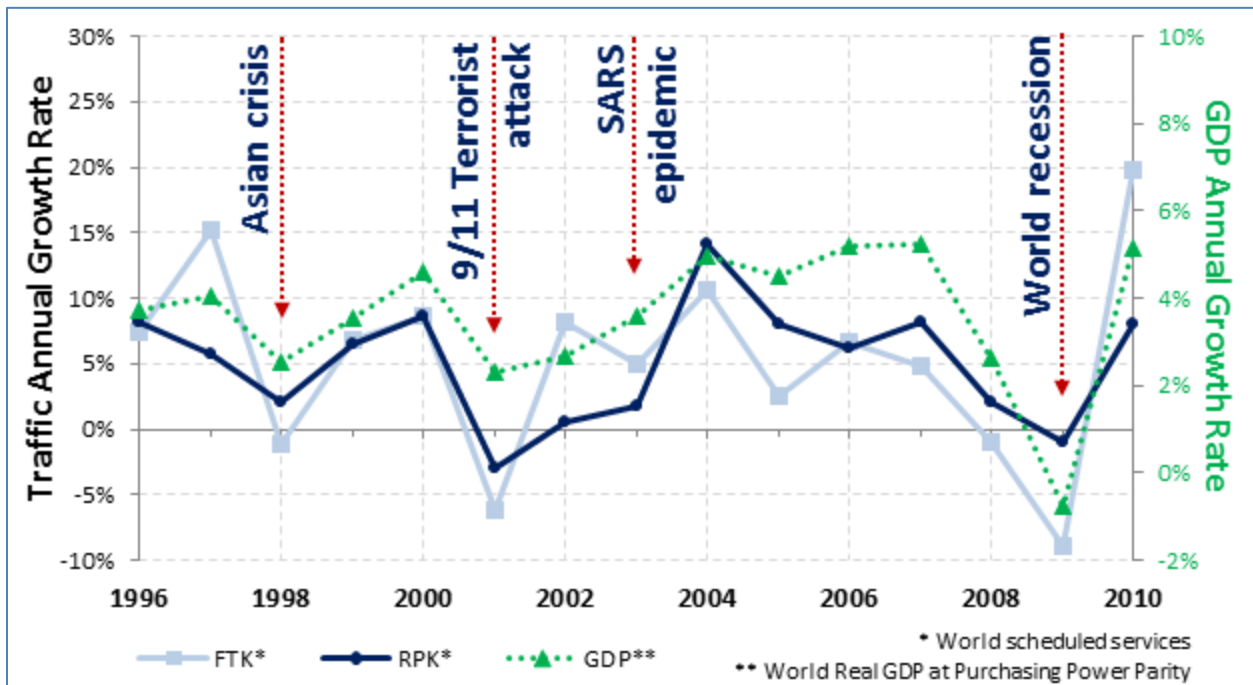
8. RECOMMENDATIONS

8.1 The following recommendations are proposed for consideration by the Conference:

- a) ICAO should be the only forum for initiating global solutions for the development of a sustainable air transport system for all interested parties; and
- b) ICAO should continue to cooperate with international and regional organizations and with the industry in order to monitor impediments to a sustainable air transport system and define, in a cooperative manner, key strategies to overcome impediments by encouraging the “think globally and act locally” approach;

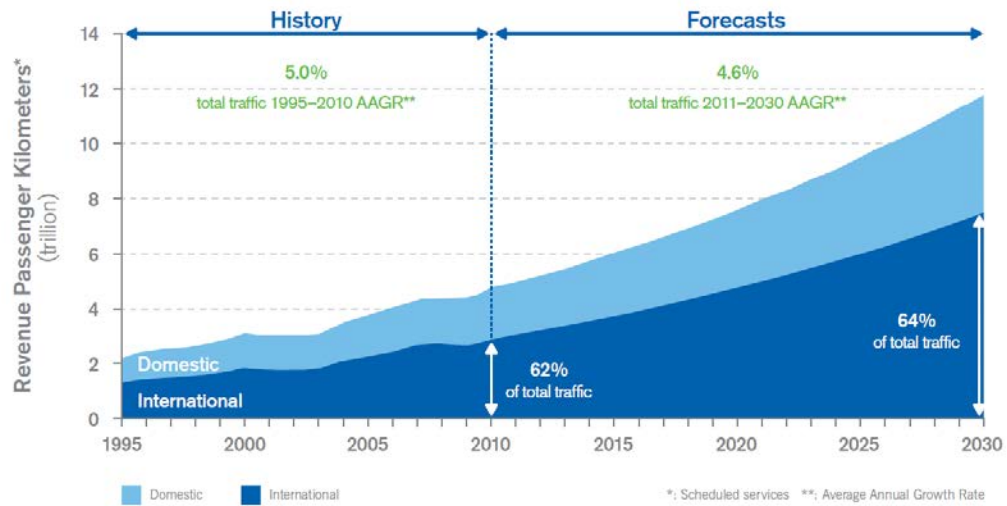
APPENDIX A

World air traffic vs. economic growth



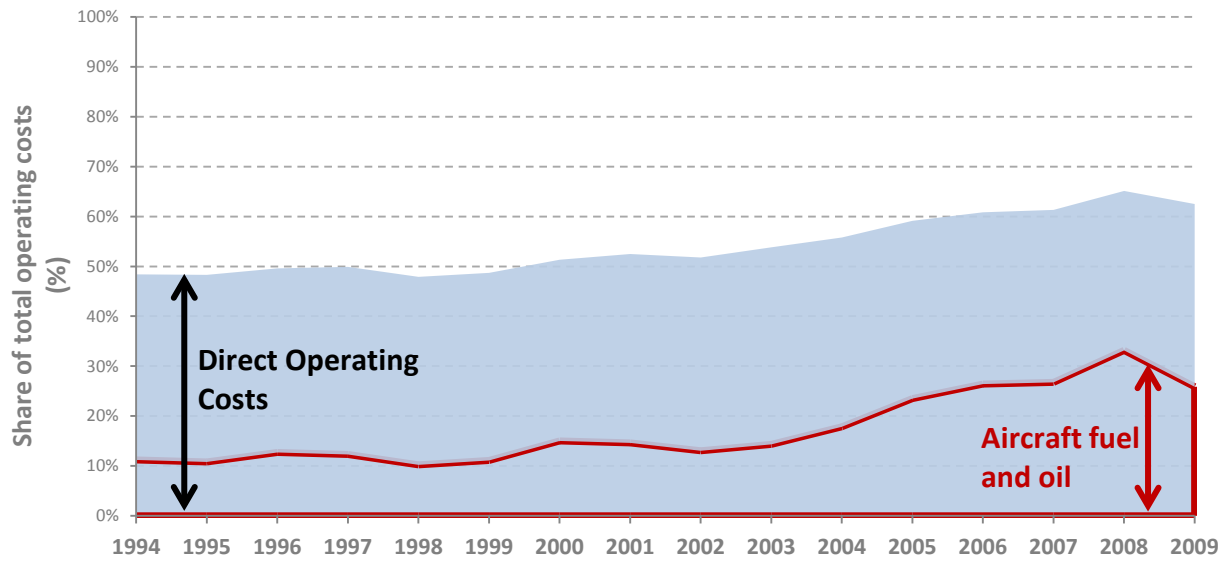
APPENDIX B

World scheduled passenger traffic: history and forecasts



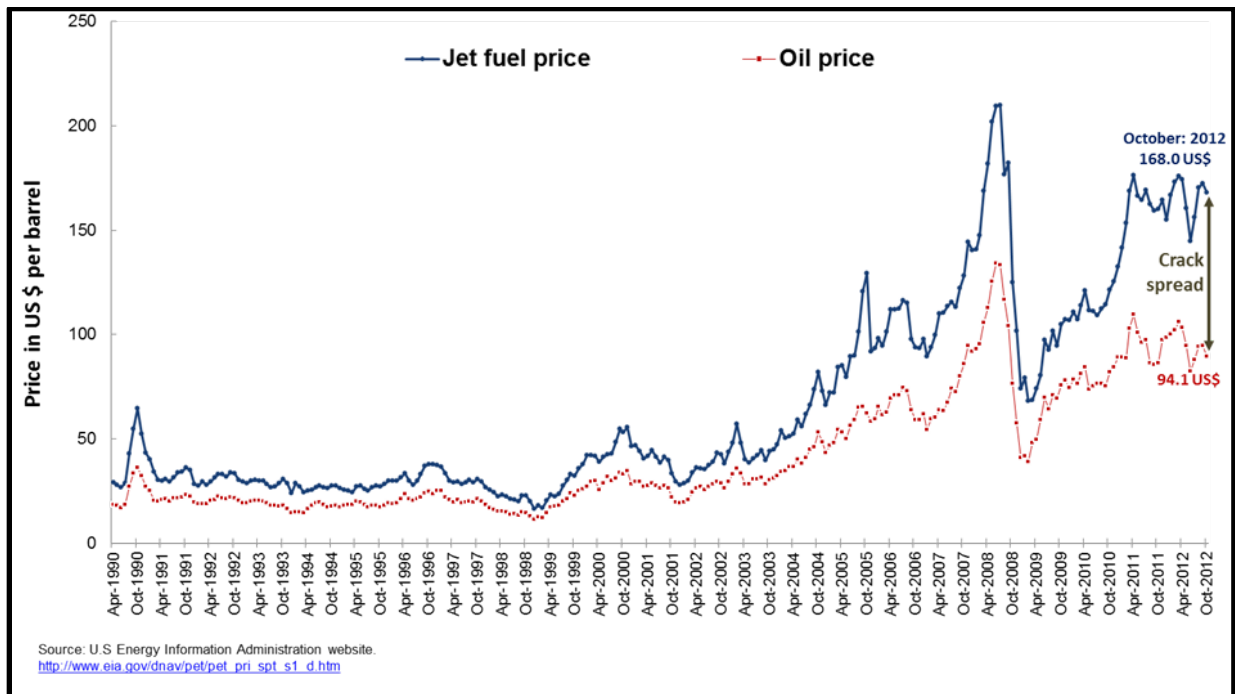
APPENDIX C

Fuel and direct operating costs share of the total operating costs



APPENDIX D

Oil and fuel price instability (1990-2012)



Source: U.S. Energy Information Administration website.

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