International Civil Aviation Organization

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

THE AIR TRANSPORT VALUE CHAIN: INDUSTRY FEATURES IN THE PAST DECADE

(Presented by the Secretariat)

EXECUTIVE SUMMARY

This paper describes the developments that occurred in the air transport industry in the past decade. It specifically focuses on each stakeholder of the air transport value chain. The air transport value chain is defined as the full range of activities undertaken to provide air transport service to the user, from user initiation to end use. This paper also provides the geographical distribution of air transport service activities.

Action: The Conference is invited to:
a) review the information and assessment presented in this paper;
b) endorse the conclusions presented in paragraph 3; and
c) adopt the recommendations presented in paragraph 4.

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

1. INTRODUCTION

1.1 This paper provides a global overview of features and developments that have taken place in the past decade in the international air transport industry. It specifically focuses on the air transport value chain and stakeholders' responses to an ever changing and more competitive marketplace.

2. INDUSTRY DEVELOPMENTS

2.1 **Airlines.** In conjunction with the trend towards liberalization, the airline industry has undergone major structural transformation as it continues to adjust to a dynamic marketplace. On one hand, airline strategy and planning has focussed more on alliances, consolidation and cross-border equity investments so as to benefit from network-based economies of scale and scope. There are now over 650 individual alliance agreements involving two or more air carriers in the world. These agreements provide for cooperation on a limited scale, addressing, for instance, elements such as code-sharing, blocked space, cooperation in marketing, pricing, inventory control and frequent flyer programmes (FFPs), coordination in scheduling, sharing of offices and airport facilities, joint ventures and revenue sharing, as well as franchising. In addition, three worldwide alliances namely Star Alliance, Oneworld and SkyTeam have been formed, which share more than 60 per cent of worldwide passenger traffic. Finally, the number of airline mergers grew in the latter half of the past decade but, since foreign ownership restrictions still constrain international mergers, most mergers or acquisitions have occurred within the same country.

2.2 On the other hand, the full service network model of traditional major airlines has come under scrutiny in an increasingly competitive environment. In recent years, in certain regions, successful low-cost carriers (LCCs) have been challenging the full service network model of traditional major airlines and the holiday package business of charter airlines. Facing growing cost and competitive pressures, major network airlines and charter airlines have been forced to change business priorities with a view to redesigning business concepts and developing alternative models for operations. One of the models chosen by the major network airlines is to establish separate organizations or subsidiaries to handle operations on short-haul routes in order to compete with LCCs and to avoid the potential threat of new entrants. This low-cost “airline within an airline” strategy, despite limited success of earlier attempts, endeavours to combine key ingredients of the LCCs’ approach with the reputation and quality of a brand.

2.3 Privatization of government-owned airlines has been one of the preeminent transformations in air transport. It is reported that, over the past three decades, more than 135 States announced privatization plans or expressed intentions of privatization for over 200 government-owned airlines. During this period, almost all of these targeted airlines have achieved privatization goals to some extent. In 2010, about 29 per cent of the world’s airlines had governmental shareholdings, including direct holdings by national, local or municipal governments and indirect holdings through agencies or government-owned companies. However, the spread of governmental shareholdings in airlines varied greatly by region, from about 6 per cent of the airlines in North America to about 56 per cent of the airlines in Middle East. Finally, some States established new national airlines, which replaced debt-ridden government owned incumbents, often in partnership with foreign investors.

2.4 **Airport and air navigation services providers (ANSPs).** Changes in the ownership and management structure in the provision of airports developed slowly until the late 1970s. Further changes in favour of private participation and privatization of airports began in the 1980s but movement continued at a slow pace. It gained momentum in the late 1990s and early 2000s but slowed down in the late 2000s. Recently, private participation and privatization in the provision of airports is gaining momentum again all over the world. In the case of the provision of air navigation services, changes in ownership and management have taken place mainly through the establishment of autonomous ANSPs; there are currently some 60 autonomous ANSPs in the world. In most other States, air navigation services continue to be State-owned and are provided directly by governments.

2.5 While the establishment of an autonomous entity would not necessarily result in an unprofitable airport or ANSP becoming profitable, feedback gained worldwide from these developments indicates that establishing autonomous entities has had positive effect with regard to, inter alia, revenue generation, investments, business development and access to private capital markets. Additional information in this regard is provided in ATConf/6-WP/6.

2.6 **Lessors.** The practice of aircraft leasing, i.e. the rental, rather than purchase, of aircraft by an air carrier from another air carrier or a non-airline entity, has been growing steadily in the past decade. The use of leased aircraft plays a significant role for airlines in the provision of international air services, reflecting in particular the economics and flexibility of leasing over purchasing (such as reducing initial cost burden or debt level, gaining tax benefits, and meeting seasonal demands for additional capacity). In a liberalized regulatory environment, leasing of aircraft facilitates the entry of new carriers into the market.

2.7 Airlines are increasingly relying on operating leases. It has been reported by the industry that while approximately 1 per cent of global airline fleets were constituted by leased aircraft in 1980, this number increased to 38 per cent in 2011. In addition, of the world's top four owners of airliners in 2011, two were lessors: General Electric Capital Aviation Services (GECAS), with 1 732 planes, and International Lease Finance Corporation (ILFC), with 1 031, thus surpassing the fleet size of two large carriers, i.e., Delta Air Lines, (800), and American Airlines (775).

2.8 **Aircraft manufacturers.** The aircraft manufacturing industry has been dominated by Airbus and Boeing (in the segment of commercial aircraft above 100 seats) since the demise of McDonnell Douglas in 1997. In the past decade, these two aircraft manufacturers have each received approximately 6 000 aircraft orders, while each delivered approximately 3 900 aircraft. Airbus and Boeing are expected to deliver altogether more than 940 new aircraft in 2012; in addition, they have recorded an impressive number of orders, approaching 1 500 new aircraft to be delivered in the coming years. With regard to regional aircraft manufacturers, during the past decade, Embraer, Bombardier and ATR maintained pre-eminent at the lower end of the smaller mainline jets segment. However, competition is expected to increase in the segment dominated by Airbus and Boeing, with new entrants such as Bombardier with its CSeries as well as with other players such as Comac or Sukhoi.

2.9 **Maintenance, repair, and overhaul (MRO).** MRO activities can be broken down into engine overhaul, line maintenance, component overhaul and repair, heavy airframe maintenance, and modifications. Engine MRO is the largest segment, accounting for approximately 40 per cent of MRO activities worldwide. While many airlines perform line maintenance in-house, about 60 per cent of air carriers outsource at least part of the MRO activities. Between 30 per cent and 50 per cent of MRO work is estimated to be provided by external suppliers. Among these suppliers are airframe and aircraft engine original equipment manufacturers (OEMs). The past decade has seen a trend toward a greater involvement of OEMs in the MRO market, and their place is now well entrenched in the sector. For instance, with respect to commercial aviation engine, engine manufacturers control about 50 per cent of the aftermarket. Among airline maintenance operations and independent service providers, the most important MRO players include major airlines, such as Air France Industries/KLM E&M, Delta TechOps, Lufthansa Technik, SIA Engineering Co., SR Technics and ST Aerospace; these are followed by 20 to 30 medium to large maintenance providers around the world.

2.10 **Fuel suppliers.** Jet fuel is a commodity the price of which is correlated to global oil price. The commodity is provided by both global and local suppliers at airports around the world. Over the past decade, jet fuel prices were volatile with an increasing trend. As of today, jet fuel accounts for more than 25 per cent of total airline operating costs, compared to less than 15 per cent in 2000. The costs of refining crude into jet fuel also increased. In the perspective of alleviating the gap between the price of crude and jet fuel and effort to combat fuel price volatility, it should be noted that Delta Air Lines, which is the world's largest airline in terms of number of scheduled passenger carried, purchased an oil refinery in 2012.

2.11 **Ground handling services providers.** Ground handling companies connect airport infrastructure with the travelling service of the airline. They provide a broad range of services, for instance, from operating airport lounges to cabin cleaning and in-flight catering. There are three main business models for ground handling: a) self-handling, where airlines handle themselves directly (either in-house or by subcontracting the work to a third party); b) centralized handling, where airport authorities arrange for the ground handling activities at airports directly; and c) independent handling, where third party ground handlers apply for performing handling services at airports.

2.12 The past decade has seen a trend toward the independent handling model in States that have liberalized the air transport sector. Among the top ground handlers are Menzies Aviation Group; Servisair; Swissport International, and Worldwide Flight Services.

2.13 **Product distribution.** The computer reservations system (CRS) industry has experienced concentration, expansion, changes in ownership structure, technological developments, and challenges from online sales of air transport services to consumer and business transactions via the internet. The three major global CRS vendors, namely, Amadeus, Sabre and Travelport (including Galileo and Worldspan) have seen themselves as global distribution systems (GDS), and actively acquired stakes in regional CRS vendors, established joint ventures and concluded partnership agreements with local interests to expand business overseas. Furthermore, CRS vendors have pursued e-commerce businesses aggressively with the acquisition of online travel agencies, while a large number of third party service providers have been entering into the market. Nevertheless, online sales through airlines' websites and online travel agencies, such as Expedia, Priceline, Travelocity and Orbitz, have increased significantly. Finally, it should be noted that airlines no longer own the majority of the shares of any GDS.

3. CONCLUSION

3.1 In light of the discussions above, the following may be concluded:

a) during the past decade, stakeholders of the air transport value chain have been operating in an increasingly competitive environment; and

b) stakeholders of the air transport value chain are interdependent; operating costs and the operational environment impact the value created by the air transport industry.

4. RECOMMENDATIONS

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

a) ICAO should continue to monitor air transport industry developments, with a view to ensuring the sustainability of the air transport value chain for the benefit of all stakeholders; and

b) ICAO should share its analyses on the development of the air transport industry with States, international organizations and the industry.

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