

Airneth Report 7

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The main findings of the workshop on the implications of the EU-US Open Sky Agreement

6 March 2008

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Introduction

On 6 March 2008, Airneth organized the workshop 'The impacts of the EU-US Open Sky Agreement'. During this workshop, six experts in the field of air transport addressed the potential consequences of the Agreement, which has taken effect on 30 March 2008.

In this Airneth report, you will find the main conclusions of our six speakers and referees with respect to the impact of the EU-US Open Sky Agreement'.

The full presentations and selected papers are available at www.airneth.com.

Network and market structure (part 1)

The impact of EU-US 'Open Skies' on airline market structures and airline networks - Kenneth J. Button, George Mason University

Scheduled airlines suffer from a fixed-cost problem when competing. Certain flights are only executed to maintain a daily schedule (to create a reliable competitive position), even though the flights contain not enough passengers to cover the costs. The methods to recover these costs have certain problems, others have still opportunities:

- Subsidies → illegal
- Price discrimination → competition limits opportunities for price discrimination
- Loyalty programs → "Greenshield stamp effect"
- Infrastructure control → "Hubbing" / new allocation methods
- Information control → on-line booking systems
- Lower costs → largely exploited
- Alliances
- Focusing on "protected markets"
- Legal - breaking down with Open Skies
- Technical
- Bankruptcy restructuring
- Up-line vertical support

With 'Open Skies', new opportunities will arise, although it is still a giant step to come to 'Open Market' which focuses on the entire airport industry, including market factors (investment, labor etcetera).

The main conclusions of the introduction of 'Open Skies' include impacts for:

- *Consumers* → benefits!
- *Airlines* → short term financial respite
 - Slot controls in Europe
 - Power of alliances
 - Regulation and competition policies



- *Economies* → benefits in terms of jobs and industrial restructuring
- *The Environment* → adverse tempered by new aircraft and traffic diversion rather than creation. No significant effect on the environment.
- *Safety/Security* → minimal implications
- *Infrastructure* → additional strains until it is treated in an economic matter

The referees questions whether the market structure will change due to the 'Open Skies'. Button answers that the LCCs are eroding the market for regular carriers and consolidation is the instrument to fight the LCCs. But Long-haul Low-cost is a coming thing (i.e. MAXjet). Although there are some challenges to overcome, it is a matter of time until the right business model is found. It can happen with new aircraft inventions and more efficient use of aircraft crew.

Network and market structure (part 2)

Network competition in the open aviation area – Eric Pels, Free University Amsterdam

The deregulation in aviation markets (in US and EU) has had three major developments: formation of hub-and-spoke networks, formation of alliances and hub-and-spoke networks have built-in anti-competitive effects.

Pels has created a simple model to examine the effects of new arrangements on competition and consumer welfare. The model shows that when density economies are strong, attacking the network of airline X decreases profits for airline Y. The results of the model also apply to hub-to-hub markets. Very 'thick' markets can be served directly and Low-cost airlines do not offer indirect travel options.

The effects of an open aviation area are tested in three scenarios: one international market (2 alliances, hub-to-hub market and local markets), open skies (no alliances), open skies (alliances). The main conclusions are:

- It is most likely a dominant strategy for an airline to enter an alliance.
- Consumer surplus is then most likely lower than under the competitive scenario.
- Authorities may forbid alliance in favor of competitive scenario, in which consumer surplus is higher than in base case. But then it may be a dominant strategy for airlines to keep their old network.
- Conclusion: entry of competitors only in very thick markets.

The referee questions the choice for code-sharing rather than competition. Another argument pointed is that airlines regularly first choose the capacity of their future network and then estimate their ticket prices instead of the other way around.

In the model, four additions should be considered according to the referee:

1. Cost-symmetry market accessing



2. Low-cost carriers
3. EU carriers have less rights in US than US carriers in EU
4. More dynamic model is required instead of comparative statistics

Airport capacity

The potential impacts of the EU-US Open Sky Agreement: what will happen at Heathrow in spring 2008 - Barry Humphreys, Virgin Atlantic & Peter Morrell, Cranfield University

In April, stage 1 of the Open Sky Agreement will be executed, implicating the following:

- Any licensed EU carrier granted right to fly between any EU airport and any US airport
- 7th freedom EU-US
- No change to ownership and control rules
- No cabotage
- Fly America remains
- No US domestic wet leasing
- For UK-US: removal of Bermuda II constraints.

Substantial expansion is expected to come from Heathrow, since this airport is the only large airport that is 'closed' for new entrants. Most other EU-countries have an agreement with the US already. Heathrow's perceived advantages contain the catchment area, the high yields, the connecting possibilities and the location (close to central London).

The airline responses are not huge due to the unavailability of slots. Secondary slot trading is allowed, but very expensive and the offered slots are available mostly at unwanted times.

Main conclusions are:

- EU/US Open Skies Stage 1 agreement really all about opening up Heathrow
- Significant increase in theoretical market access, but major slot constraints continue to exist
- Short-term reactions of airlines have confirmed the relative attractiveness of Heathrow. Increased demand has increased price of Heathrow slots
- But initial responses well short of studies' predictions
- Net 9 additional frequencies from London
- Early days, but slot situation will only get worse in medium term
- And what happens if no progress in Stage 2 (Further liberalisation of traffic rights, additional foreign investment opportunities, the effect of environmental measures and infrastructure constraints on the exercise of traffic rights, further access to government-financed air transport, wet Leasing)



The environment

The environmental impacts of the EU-US Open Sky Agreement – Karen Mayor & Richard Tol, ESRI

Mayor & Tol research the implications of Open Skies on carbon dioxide emissions and passenger numbers. They make the following assumptions in the model:

- Travel time and cost assumed to be linear in the distance between airports
- Does not take account of changes in quality of travel
- Intra-EU travel, business travel
- CO₂ emissions of 6.5kg C per passenger for take-off and landing and 0.02kg per passenger-km
- Total international aviation: 3% of global emissions

Implications on CO₂-emissions were tested in three scenarios due to EU-US Open Skies: a price fall of 5, 20 and 50 percent. Three groups of EU countries are taken as a sample. The effect on arrivals from the US is that when flights become cheaper, US tourists substitute away from other European countries towards cheaper destinations. The effect on emissions shows an increase between 0.2 and 3.4 percent from all EU-countries. The increase of world emissions ranges between 0.04 and 0.7 percent. The reasoning is that travel to Europe is offset by a fall in passenger arrivals from other countries. US tourists substitute away from relatively more expensive destinations.

The authors execute an additional sensitivity analysis with different elasticities. They conclude that the higher the elasticity, the higher the increase in emissions. Tourists become more sensitive to price, they travel more as the prices fall.

Main conclusions are:

- Competition and lower fares will increase passenger numbers
- As expected, this will result in an increase in carbon dioxide emissions
- However, increase in global emissions smaller than increase in transatlantic travel (reduction)
- Effect on emissions sensitive to assumptions in the model
- Implications for climate policy → any increase in emissions will make climate policy objectives more difficult to achieve and will attract more attention to aviation's contribution to climate change
- Further research is needed on this topic

The referee is generally satisfied with the model, but would like to see some additions: kerosene-prices, Dollar-Euro exchange rates, EU-regulations, country specific regulations (departure taxes) and past experiences with other modes of transport such as cars to arrive at alternative and extended conclusions.



Regulation and competition policy

Establishment of air transport undertakings: towards a more holistic approach
– Pablo Mendes de Leon, Leiden University

Mendes de Leon points out that the major decision taken in 2002 concerning 'Open Skies' is: *national ownership and effective control* clauses accompanied by designation exclusively by the airline's state infringes the *Freedom of establishment* – requiring 'national treatment' for all EC undertakings, including EC air carriers.

Main problems:

- International law (Chicago Convention; bilaterals) checked against Community law rather than the other way around – questionable approach from an international law point of view (ICAO would probably not agree upon Open Skies)
- Introduction of Freedom of establishment into international air law amounts to recognition of 7 Freedoms of the Air – not agreed upon in Open Skies agreements (US-EC states)

The initial objective of the 2003 mandate is designed to realise an Open Aviation Area, "*where air carriers of both sides can freely establish themselves and freely provide their services on the basis of commercial principles and be able to compete on a fair and equal basis and subject to equivalent or harmonised regulatory conditions.*" This objective is not completely fulfilled.

Mendes de Leon concludes that:

- Mandate of 2003 not quite fulfilled, but:
- A few steps have been taken
- Two common markets with some openings
- More freedom for carriers to enter the market with no restrictions on capacity, pricing, frequencies
- An Open Transatlantic Market has yet to be established!

In addition, he addresses some points to tackle in the future:

- Further relaxation of ownership and control rules
- Application of environmental standards, including introduction of Emission Trade System
- Agreement to be reached on security and human rights
- Convergence of competition law regimes
- Recognition of the Freedom of establishment
- Institutional arrangements

The referee wonders whether there are possibilities to create a US-hub by an EU-carrier. Mendes de Leon answers that the main problem here is the difference in type of right in Europe and the US.

Mergers between EU and US players (or a 'real' global airline) are hard to predict. This discussion should be done by the WTO and has some critical implications in finding a right way to deal with the problem.



Safety and air traffic management

The EU-US Open Skies Agreement and its impact on air traffic management – Glen McDougall, George Mason University/ MBS Ottawa

McDougall addresses that with Open Skies, trans-Atlantic traffic will grow by 26 million passengers in five years. There are significant delays already in US and Europe. The problem is that ATM could become weakest link in the aviation value chain.

Reform on ATM is needed. Application in the US contains:

- Many Commissions calling for reform since 1986
- Attempt at government corporation in 1990's
- Current attempt at user fees
- Congressional objections
- Lobbying by vested interest groups
- No coordinated pressure from aviation community – some silent, some prefer status quo, some strongly opposed to change
- Many FAA managers see need for reform.

Application in EU contains:

- Many providers
- Not a level playing field – patchwork of public service and corporate status
- Single European Sky meant to address fragmentation
- Progress slow, states not committed
- Review by Eurocontrol on progress of SES, Experts Day, customers frustrated by lack of urgency
- High Level Group recommends SES define governance structure for ATM

McDougall suggests to reduce the amount of ANSPs and create regional ones. These should be installed as not-profit-companies. The advantages are that it:

- Provides level playing field in Europe by all ANSPs having same business drivers
- Addresses fragmentation problem by allowing each regional corporation to develop business cases for consolidation
- Facilitates inter-ANSP agreements to harmonize and cooperate
- Provides single point of accountability for performance in each region

The main conclusions are:

- Commercialized ANSPs improve safety & capacity and reduce environmental emissions
- Evidence shows best models have independent governance, strong customer involvement and effective safety oversight
- Best have sensitivity to customer needs, agility in reaching a decision and freedom to deliver
- Therefore states need to liberalize their ANSPs to maintain or improve safety while meeting traffic increases from Open Skies



- ANSPs need to be able to make business cases for consolidation if warranted
- Politicians need to be distanced from these business decisions
- Not-for-profit model as regional corporation deserves consideration to give this independence
- Finding a pragmatic compromise now means economic benefits sooner

The referee acknowledges that the rise in traffic should go hand in hand with ATM reform, but questions which reform should come first: safety and capacity challenges or ATM challenges. McDougall answers that ATM reform is critical in a regional context and that it should be changed as soon as possible. More opportunities will rise from this reform.

Button questions the solution (not-for-profit companies) in that it does not give incentives for technical progress, long-term growth and innovation. McDougall answers that this structure has worked in Canada and is vital to live through the governmental decisions to be implemented.

Wrap-up speech by the Chairman – Hans de Jong

- The liberalization has had its positive effects, although some will lose and some will win. No impact on safety issues, as we have seen in the presentations, but further research is needed to verify this. The benefits for the airlines are not too positive, especially for the EU-airlines, most benefits are for the US
- The main implication for Heathrow is that the costs for slots will rise. It is still unclear what this will do to the ticket prices. The scarce resources at Heathrow will generate substitutions from short-haul to long-haul
- The increased traffic will create more dioxide emissions, but there is no substantial increase. The presented model is quite simple, but the expectation is that with additional variables, the outcome will be the same
- Core decision for Open Sky Agreement seems to be the EU-law. When the agreement enters a new stage, many hurdles have to be taken
- The regionalization of the ANSPs seems to be a solution, although it does not seem to address the incentive to innovate, the lack of a level-playing field is an interesting issue.

The programme, presentations and photos concerning this workshop can be found on our website www.airneth.com