



***Aviation in Transition:  
Challenges & Opportunities of Liberalization***

**Session 5: Physical and Environmental Constraints**

***Presentation by:***  
**Philippe Rochat**  
**Executive Director**  
**Air Transport Action Group**

## **Seminar**

**prior to the ICAO Worldwide Air Transport Conference**

**Montreal, 22-23 March 2003**

### **Aviation in Transition: Challenges & Opportunities of Liberalization**

#### **Session 5 – Physical & Environmental Constraints**

**Dr Philippe Rochat  
Executive Director  
Air Transport Action Group**

- Liberalization has, to a large extent, contributed to air transport growth by providing customers with more attractive air services, tariffs, frequencies, and also by transforming air transport into a mass transportation industry, accessible to a far broader *clientèle*. Liberalization has, therefore, put growing pressure on the industry's infrastructure, to such an extent that capacity is frequently unable to cope with market demand.
- The lack of sufficient infrastructure has become a major problem in several regions of the world: especially Europe, North America and the Far East. The need for more airports, more runways, more air traffic controllers and for a less segmented and better managed airspace has become a recurring *leitmotiv* in reports, statements and calls for action.
- Furthermore, government efforts to improve air traffic management systems have been insufficient. These problems have resulted in delays, congestion and overcrowding both on the ground and in the sky, since infrastructure has tended to lag – physically – a few years behind required capacity.
- Liberalization is, of course, not the only cause of such discrepancies, since growth would also have taken place in a very regulated environment. But liberalization and deregulation have accelerated the process and, more importantly, have *crystallized* the constraints through concentrating traffic at hubs and on trunk routes. In other words, the liberalization process has not enabled a smooth and balanced adaptation of the industry's infrastructure in which all components progress in parallel. It has stimulated traffic peaks in certain areas, at certain hours, whilst elsewhere capacity is not always being used to the full.

- This means that only the largest (fifty or so) airports and the most sought after air routes linking them are facing capacity constraints, while elsewhere, extra capacity is still available. We should bear in mind the fact that although these major airports are few in number, they account for about 70% of the world's traffic!
- At these airports, physical constraints have often been overtaken by environmental ones. This is because air traffic growth has progressed to levels considered unacceptable by neighboring communities. This does not suggest that secondary, less congested airports do not face similar environmental pressures, when located in the vicinity of urban centers. But the fact is that the success of major hubs is considered more important – and more positive - by their customers than by neighboring communities !
- This is a paradox, since it is primarily at airports where capacity is most needed that environmental constraints succeed in reducing that capacity below its physical potential! Unfortunately, this paradox is a reality that we have to face and rectify together!
- I fully share Joop Krul's comments on noise and local air quality. Noise indeed remains the single most important reason for community opposition to airport construction and expansion. To quote an ACI statement for next week's air transport conference: "While the quantity of noise has not increased – to the contrary, the number of people affected by noise at determined levels has been generally reduced - the tolerance of people has generally diminished and the nature of the disturbance has moved from peak noise complaints to complaints related to the repetition of less noisy but more frequent aircraft movements."
- Noise complaints, as you know, have led to a variety of restrictions. Among them, the most worrying ones are probably those related to night movements, especially since night curfews, once they are imposed at an airport, tend to spread out very rapidly to neighboring airports under the pressure from local groups which communicate with each other.
- The effect of such restrictions is to reduce airport capacity beyond physical constraints. When such restrictions are the result of concessions to get clearance for a new runway or a new terminal, the fact of reducing or even writing off any potential gains in capacity is simply not cost-effective.
- Local air quality is raising growing concerns and has the potential (especially in Europe in the coming years) to amplify environmental constraints and thus add another dimension to the concept of environmental capacity which, by the way, deserves to be better defined. For instance, in the context of the current debate regarding airport developments in the United Kingdom, NO<sub>x</sub> has emerged as a serious issue. The local air transport industry (e.g. BA and BAA) is now working very hard to demonstrate, through measurements on the ground, that the alarming NO<sub>x</sub> projections that have been carried out by government experts are based on wrong parameters.
- Physical and environmental constraints are not *irreversible*. Different ways and means exist to reduce their impact or prevent their emergence in the first place.

- First of all, let's recognize the fact that governments, generally speaking, do not oppose infrastructure developments. In spite of growing pressure from those who consider that air transport growth is unsustainable – principally due to climate change concerns but also because of noise and local pollution – most governments are looking for extra capacity to satisfy the mobility requirements of their citizens and to take advantage of aviation's tremendous economic and social benefits. What's currently going on in UK, and in France in relation to the debate on a third Paris airport, provides ample evidence of governments' intentions to pave the way for the long-term development of our industry.
- Of course our industry expects governments to create suitable conditions not only for airport capacity but also for en-route capacity development. In this regard, political support is even more important since airspace management is closely related to State sovereignty according to the Chicago Convention. States have a key role to play in the proper and coordinated implementation of ATM/CNS, mainly through ICAO and regional coordination.
- We should be most thankful to ICAO for organizing two major conferences six months apart, which are indeed closely related: tomorrow's conference on air transport and September's conference on air navigation. When considering capacity problems, it is vital to give further *impetus* to CNS/ATM by endorsing global implementation schemes. In this context, IATA has adopted an ATM Global Implementation Road Map to provide benefits to users throughout the transition phase. This road map will be presented to the upcoming ICAO air navigation conference as a major contribution towards a broad implementation strategy.
- CNS/ATM systems have the potential to further improve safety and capacity, reduce delays, offer optimum flight profiles in real time and to provide shorter routes. Environmental benefits – in terms of fuel savings – are indeed very significant.
- Environmental constraints mainly affect airports. We all agree that these constraints should be minimized. Unfortunately we do not always agree on the corrective measures to be applied. ACI for instance has expressed reservations regarding the balanced approach policy unanimously adopted at the last ICAO Assembly, with the full support of the airlines and manufacturers community. As the representative of the Air Transport Action Group, a worldwide coalition of most industry players, including ACI, IATA, Airbus, Boeing, CFM and Rolls-Royce, rest assured that I do my best to build the necessary bridges between airlines, airports and manufacturers to align their views on the balanced approach implementation.
- In this regard, I'd like to briefly mention one of the four elements of the balanced approach, the one which so far has been the weakest element in the chain of measures to be considered: I refer to land-use planning and management. It is a fact that governments and local authorities have been unable to prevent residential development around most airports confronted with noise problems. This means that the benefits from quieter aircraft have been undermined. People settling near these airports still complain about aircraft noise, even though they were aware of the potential inconvenience when they accepted to live there.

- The lack of proper land use planning is often the main obstacle to airport expansion. This leads to the construction of brand new airports rather than to the full development of existing platforms. This situation is at the heart of the political debate in London and Paris. Should Heathrow and Gatwick, respectively and Roissy Charles de Gaulle be further expanded before another airport is built? Too often, the potential capacity is capped simply because too many houses have been built so close to the airport site that any new runway requires the destruction of a large number of these houses.
- The debate on infrastructure development is, therefore, affected by the lack of long-term planning and vision. It is also affected by the difficult question of whether noise nuisances should be concentrated in one place or spread out and new sites developed, where the same problem could arise later. This could have heavy financial implications for the States concerned, since any new airport requires investments not only in terminals, runways and car parks, but also in road and rail connections.
- This leads me to briefly review other alternatives to airport capacity constraints, such as developing intermodal solutions, using secondary airports better and improving relations with local communities around airports.
- This very last point is most interesting. So far, the relationship between airports and their neighbors has focused on environmental issues, in other words, on issues that are highly antagonistic. The concept of *sustainable development* calls for a proper balance between environmental constraints, economic benefits and social progress. At the local level around airports, this should lead to broadening the dialogue and to covering simultaneously the three pillars of sustainability. The socio-economic benefits of air transport, in terms of job creation, implementation of local aeronautical activities, cultural and sport sponsorships must be injected into the equation, so that airport neighbors do not only experience the negative but also the positive elements of living close to an airport. Where such efforts are underway, environmental constraints are either no longer so problematic or at least not increased.
- Similar benefits can be obtained through intermodal solutions. Access to airports through dedicated metro or train lines reduces the problems associated with local road traffic and, consequently, the deterioration of air quality around airports. It also provides communities living near airports with better access to city centers. But more importantly, intercity and high-speed trains have the potential to complement air transport and absorb part of the growth in demand, thereby increasing airport capacity.
- In Europe, where high-speed train connections are actively being developed, it has been estimated by ECAC that 10 to 15 % of air traffic could be absorbed by this mode of transport. It could complement or substitute air travel particularly between major centers. For instance, Air France has stopped flying between Roissy and Brussels and Lufthansa has considerably reduced its operations between Frankfurt airport and Stuttgart. Airline tickets are valid for rail travel on these routes. The potential is limited, but where it is possible, it frees up aircraft and airport slots for flights to destinations for which there is no alternative to air transport.
- The main obstacles to intermodality are related to the fact that the two industries lack common rules and facilities and have so far operated independently. Furthermore, high-speed rail links to airports are not profitable in the short term. Let's keep in mind

the fact that the capacity of trains - at least 500 seats – does not easily fit in with air passenger demand for frequent connections.

- Last but not least: shouldn't we first maximize existing capacity, before generating new capacity? This is not a straightforward concept, particularly since liberalization has strengthened the right of consumers to select the most suitable mobility solution. However, neighboring airports should be encouraged to create synergies and develop airport systems and airlines also could be encouraged to serve secondary airports through proper, but non discriminatory pricing policies. It is interesting to note that some low cost carriers have based their strategies on operating to and from secondary airports where low user charges favor attractive tariffs.
- This has certainly reduced the pressure on major airports, but to a limited extent only since a large proportion of no frills customers are not coming from the network airlines but constitute a new clientele for the air transport industry.
- I could certainly have covered other topics such as airport slots for instance, but since we should preserve at least a few minutes for an open discussion with everyone in this room, I'd like to conclude now. With one straightforward recommendation. The question of physical and environmental constraints is, beyond the current crisis we face in our industry, one of the major priorities we have to address. As we have to address it together, we have to break the ice and find suitable compromises so that we can meet our common objective. This is to *marry* air transport demand and infrastructure capacity and to attenuate today's distortions, in a timely and cost-effective manner.

Thank You!