

AIR TRANSPORT, DYNAMISM AND FRAGILITY

The recent recession has shown how sensitive air transport is to the economic climate and to geopolitical uncertainty. But development of international trade is giving it an essential role, and growth in traffic has resumed.

The recession has modified the deal considerably and the landscape of world alliances is starting to stabilise around three main hubs.

The place taken up by Air France in Skyteam is reinforcing the position of the Île-de-France Region, the sixth airport system in the world, and the position of the Roissy–Charles-de-Gaulle hub as one of the main gateways to Europe. For Île-de-France, this is both an opportunity and also a challenge, since it is very difficult to cope with the growth in air traffic because of the noise and pollution it generates, given that, up until 2015-2020, there are no alternative capacities suitable for significantly lightening the pressure on Paris airports.

Air transport : Île-de-France in its context

Île-de-France has one of the largest airport systems in the world, and a large proportion of French national traffic is concentrated on its airports.

After the boom and expansion in the number of companies that followed deregulation of air transport in Europe in 1993, the current recession is encouraging a vast process of re-concentration. The system in Europe is organised around three major alliances, one of them, namely Skyteam, being led by Air France. Air France, who handle one half of the traffic in Île-de-France, is thus becoming a leading player at world level. This is an opportunity for Île-de-France and also a challenge.

In spite of the desirable reinforcement in the role of the major provincial airports, and in spite of a progressive transfer of a portion of the short-haul traffic to the very high speed train network which is being put into place at European level, the prospects for growth in traffic at the Île-de-France airports remain considerable. Whatever the choices made in the coming years as to a possible new airport, since such an airport could not be operational before another twenty years or so, it will be necessary to find the means to handle and cope with the growth in traffic as acceptably as possible.

Understanding how hubs work

At Roissy–CDG, Air France has been able to develop the most powerful hub in Europe. This was a precondition for its survival on a deregulated market. It is today an asset that enables it to play a leading role at world level. A tool for rationalising the company, and a tool for facilitating regional development which makes it possible to connect provincial cities to the major European and world destinations, the hub also makes it possible to offer Île-de-France residents destinations and frequencies that the regional market would not offer.

International air traffic and regional airports

International traffic, including traffic with the European Union, represents 70% of the air traffic in France, and it is 70% concentrated on the Île-de-France airports.

But the main regional airports are increasingly opening up to international traffic. It represented for them nearly twenty million passengers in 2002, a quarter of whom were carried by low-cost companies. It is traffic that is mainly oriented towards the European Union and North Africa. The reinforcement in the international vocation of the regional airports, and therefore in the influence of the main French metropolises, is one of the priorities of the national transport policy.

It is important to reinforce the attractiveness of these airports for airline companies, who are the only ones ultimately to decide on whether to open lines.

AIRPORTS: STRUCTURING CENTRES IN THE REGIONAL LANDSCAPE

Airports were initially specialised infrastructures located outside conurbations, but urbanisation has gradually spread out to them. In particular since the development of the terrestrial access infrastructures that has gone hand in hand with the growth in air traffic has given airport sectors a good quality of multi-modal access and services that make them particularly attractive for business location. In spite of the noise pollution, demand is also strong as regards housing.

Today, airports constitute one of the most dynamic types of peripheral urban centres, if not the most dynamic type, within the multi-centre organisation that has established itself in the regions.

This applies to the sector of Roissy-Charles-de-Gaulle for Île-de-France. But this dynamism, which is difficult to manage in a complex institutional context, should be of greater benefit to a social and urban environment that is up against numerous difficulties. At Orly, the ceiling put on the amount of air traffic, and the smallness of the international network limit the effect of the airport in driving a sector which is seeking new dynamism.

From the aerodrome to the airport city – The impact of airports on the areas in which they are located

Local areas are structured around trade centres. Airports are international gateways to metropolises, and transport modes of very varied scales and types converge on them. They have experienced diversification in their functions, and they have led to the establishment of a whole economic environment. They play major parts in the multi-centre structures that have been established in the regions¹. But this technopolitan impact of airports must be kept under control so as not to stifle the airport function itself.

(1) This article is a summary of a study conducted by Laurif, with support from Aéroports de Paris, as part of the European project Interreg IIC COFAR (Common Options For Airport Regions). "I – Airport City – et son intégration régionale" Juin 2001 (consultable at www.iaurif.org) – That study also exists in English: "Airport City and Regional Embeddedness - Final report," March 2001.

Roissy, a highly dynamic development centre in a difficult context

The sector around Roissy-Charles-de-Gaulle, driven by the development of the airport and of its intermodal role, has enjoyed high employment growth, while employment was stagnating at regional level. It is the leading sector on the regional market for business parks and industrial estates, and its location at the crossroads between two major logistics axes, namely the A1 motorway, and the eastern section of the orbital road "La Francilienne" accentuates the pressure from demand there. But the presence of the airport has also given rise to negative impacts on the urban operation of the sector. The complexity of the administrative area divisions, and the multiplicity of the players have so far prevented sufficient consistency from being achieved in planning policies, and prevented a significant reduction from being achieved in the gap between an international-scale development centre and a surrounding area facing difficult socio-economic realities.

Plaine de France, an area where decisions are impossible?

A retrospective of town planning in the Roissy-Charles-de-Gaulle sector

What is striking when looking back over the way the area of the Plaine de France has developed, is how difficult it has been to take public decisions on the area.

Before giving an opinion on the configuration of urban planning around Roissy-CDG, it is worth looking at how that planning has developed in recent decades. That development in the planning could be characterised as going over with difficulty from a substantial rationality to a procedural rationality.

Inter-municipality mobilisation around Orly Airport: looking for the right compromise

In order to stimulate the development and the attractiveness of their areas, the municipalities around the Orly hub would like the airport slots to be used better with the re-opening of European and

intercontinental lines. They also have to cope with environmental constraints and ill-effects that affect some of the population, with a certain weakening of the economic fabric, and with major problems as regards access and planning. The inter-municipality level is the only possible response. Seven municipalities in Val-de-Marne have thus joined forces to work together on giving their area an identity and on achieving a certain balance between economic interests, safeguarding jobs, and respect for surroundings and for quality of life. The economic players are also mobilising themselves.

TRAVEL AND MOBILITY: FROM THE AIR TRANSPORT HUB TO THE LAND TRANSPORT HUB

A wide variety of modes and of scales of land transport converge on airports.

The share of public transport in access to the airport for passengers and staff is currently too low, and an increase in that share is being sought. In Île-de-France, a dedicated link to Roissy-CDG airport is being researched, and the Roissy hub and Orly hub committees are seeking ways of taking better account of the specific needs of staff, who account for almost as much land traffic as passengers do. On a larger scale, air transport has a competition-complementarity relationship with the TGV (very high speed train) network which is being built out on a European scale. The TGV takes market share away from air for journeys of under 3 hours, but it also serves to broaden the customer catchment area for airports, and to free up capacity for medium-haul and long-haul flights. Roissy-CDG is an example of an airport that is well positioned on that network. Using the TGV network for fast rail freight could contribute to reducing problems related to air freight which is subjected to increasing constraints.

Surface accessibility to airports

Most of the major European airports are connected up to their regional motorway networks and to their city centres by rail.

The high competition from the road, be it by private car or taxi, means that the majority of the airports record a share of public transport use by air passengers lying in the range 25% to 35%.

However, that share exceeds 40%

in a few cases, when the airport enjoys a direct or dedicated link to the centre, regional and national, or even international rail accessibility, and good connections between the airport terminals and the rail stations.

That is why several airports are planning to make significant improvements in public transport services to and from them, in particular Paris-Charles-de-Gaulle, who are putting in place an automatic internal service system and is considering building a dedicated link to the centre of Paris.

Urban Travel Plan – The CDG hub project

Aéroports de Paris have, since 2001, led the hub committees in charge of implementing, at the airports

of Orly and Charles-de-Gaulle, the principles of the Urban Travel Plan (PDU) of Île-de-France in favour of public transport. The hub committees constitute new dynamism

in managing airport travel in a partnership whose avowed priority is to improve the conditions of mobility and access for airport employees and residents living close to the airports. With 100,000 employees concerned, 90% of whom go to work by car, the issue is an important one. But the operating specificities of airport hubs in terms of working hours do not make things easy.

That is why no avenue for improvement is neglected in the hub projects that integrate both the infrastructures and the quality of the transport areas, cycling and walking routes, public transport or company transport policy.

Very high speed Europe and air-rail passenger intermodality

Very high speed rail is developing all over the world, and in particular in Europe, where 3,270 km of new lines are already in service.

This represents new competition for short-haul air traffic, and we can expect market share to switch from air travel to rail inside Europe.

But very high speed rail travel and air travel can also be complementary: transfer of short journeys to the train, and by means of the freed capacity, development of medium and long haul flights. This complementarity is to be sought both for intercity travel, for which the train is competitive on journeys of less than three hours, and also for carrying air passengers to airports.

Air freight and intermodality

In spite of a generally rather gloomy economic climate since the terror attacks of September 2001, air freight is continuing to grow, boosted by the deregulation of trade and the internationalisation of economies. Long seen as the poor relation of air passenger traffic, air freight is taking on greater importance because of the very high added value of the products transported, and because of the development of integrated services in the express market slot. However, this expansion is being countered by the reinforcement of technical and environmental constraints to which the main European airports on which freight traffic is concentrated are subjected.

The future would thus seem to be one of moderate growth at the major airports, and of development of alternative capacities at regional airports that are well located or via the setting up of a very high speed rail freight network.

AIRPORTS AT THE SERVICE OF INHABITANTS AND OF THE REGIONAL ECONOMY

A high-performance airport is an essential factor in competitiveness, a tool at the service of local and regional economic and tourism development. In the context of globalisation of the economy and of growing metropolis-ization, such an airport makes it possible to integrate into the main international trade network.

It is a gateway to the region, a means of access to the region's suppliers and to its external markets, it is an asset for attracting locations of registered offices, businesses and industries, and investment, which is increasingly mobile at global level. For residents, this gives an opening onto the wide world.

At local level, the airport is a site on which the economic benefits of air transport are concentrated geographically. It is thus a very powerful magnet for employment that generates major financial flows for the benefit of its region.

But it is above all a growth-driving centre whose effects and attractiveness are diffused over a wide area. It can be estimated that one job at the airport induces about 2 others in the regional economy.

The economic impact of the Île-de-France airports

The regional airport system has a direct economic impact, through the jobs and the wealth it creates: over 100,000 jobs at the airports, 10 to 11 billion of direct financial flows generated by the businesses of the hubs for the benefit of Île-de-France. But above all, it constitutes an essential tool at the service of the region's vocation as a tourist destination (it is the world's leading region for tourism), and for operating and developing all of its sectors of activity that it makes it possible to connect up to world trade.

Local taxation generated by airport activities

Eight of the top ten Île-de-France municipalities in terms of potential for tax revenue or quite simply of tax revenue, are located on or in vicinity of one of the region's airport hubs, Roissy-Charles-de-Gaulle or Orly¹. This alone illustrates the strategic importance of the airport sector for the local authorities and communities in question.

The local taxation paid by businesses concerns both local business tax (taxe professionnelle) and local property tax for built-on land (taxe foncière bâtie). The core of the airport activity represents about 500 taxpayers and 174 million euros of local business tax (2002), 30 million of which is allocated to the

equalisation funds for balancing out differences between the more wealthy counties and the less-privileged ones.

The search for better distribution of the taxation from airports is still on the agenda.

(1) The other two municipalities are Rungis (national wholesale market for produce) and Puteaux (tertiary centre of La Défense).

The disparity of the effects of drive from the airports on their surrounding areas

Île-de-France enjoys an airport system that is powerful, in terms of passenger traffic and of freight activities, and high-performance in terms of the numbers of destinations and of connection possibilities that they offer.

Although at regional level, the Île-de-France airport system thus contributes to the overall attractiveness of the Region, the two hubs have, over the last fifteen years, experienced very different development. Roissy–Charles-de-Gaulle has enjoyed a major boom in its traffic with, in particular, the setting up of the Air France–Skyteam hub. At Orly, where a ceiling has been put on the number of movements (takeoffs and landings) and whose vocation is essentially domestic flights and flights to and from French overseas possessions, the traffic has stagnated. They have therefore had very different impacts on the “local” development of their areas of influence¹.

(1) This article is based on the results of the survey "L'impact socio-économique des aéroports franciliens" (The Socio-economic Impact of the Île-de-France Airports) conducted by IAURIF for Aéroports de Paris (ADP) – March 2003.

Employment and training in the sector of Roissy: an active partnership at the service of everyone

Roissy–CDG, Europe's No. 2 airport, recruits about 8,000 people per year. Air transport is an industry that is still in its youth, its trades are very varied, and are changing continuously. In order to satisfy the needs of this sector of activity, and so as to promote access to jobs for populations living near to the airport, a broad partnership has been developed over the last few years around the GIP emploi Roissy–CDG. A first local area conference, held in November 2002, marked a major step in the approach that aims to reconcile the expectations of the airport players and those of the neighbouring communities. In recent years, the training supply has developed considerably in the sector of Roissy, and the players are working to prepare a local area plan for training that will offer the best possible overall consistency. As part of preparation for the local area section of the State-Region planning contract, the inter-département (inter-county) partnership will be broadened to other fields as well.

NOISE AND POLLUTION: THE CHALLENGE OF ACHIEVING CONTROL AND TRANSPARENCY

Even though it is gradually improving its environmental performance levels, air transport is a major source of noise and pollution, made worse by the high growth in traffic. Aircraft noise, in particular at night, is increasingly ill-accepted, and the share of air transport in the responsibility for greenhouse gas emission is growing.

The development in the traffic must be accompanied by development in keeping its impacts under control, and in internalising its environmental costs. An increasingly strict framework is gradually being put in place, from international or European regulations to commitments made locally, e.g. under charters. To a greater extent than technical capacity, it is the “environmental capacity” of the airports that is tending to determine their growth possibilities. In Île-de-France, significant measures have been taken recently, in particular for reducing night flights to and from Roissy-CDG. However, much remains to be done to make airports neighbours who are bearable for the local residents, and to meet their expectations: less noise and pollution, consultation, transparency of information, guarantee of

independence of technical surveys, better knowledge of the impacts on health, compensation for noise and pollution to which they are subjected...

Airport noise and pollution: reality and perceptions

Air transport is gradually improving its environmental performance levels. Trends show noise decreased by 1 decibel per year, and fuel consumption by 2% per year between 1970 and 1990, and have been decreasing by 0.5 decibels per year and 1% per year since. This is insufficient to compensate for the growth in the number of movements. The environmental regulatory vice is being tightened but, without a serious technological breakthrough, the clean and quiet aircraft will not be available just yet.

In Île-de-France, 2 to 2.5 million people live within areas over which aircraft fly at lower than 3000 metres. Around Orly and CDG, about 50,000 people are exposed to the highest amounts of noise and pollution. And there are not only 2 airports. There are 25 others, totalling a million movements per year. Emissions from CDG are of the same order of magnitude as the emissions generated by the Paris ring-road, the "boulevard périphérique." Significant steps are being taken to measure and to reduce noise and pollution, but much remains to be done, and the level of complaint from local residents is considerable: increase in the inconvenience related to noise (difficult to define because it incorporates complex factors); concern about the impact of air traffic activity on health, and about the future increase in traffic; loss of confidence in the official "line;" a feeling that compensation policies are rather feeble... For Marc Ambroise-Rendu, President of "IDF Environnement" (Île-de-France Environment), air transport and sustainable development are not incompatible, "provided that we get started on making them compatible."

Inconvenience due to noise close to airports: another approach, another policy

Starting from the observation that the inconvenience expressed in surveys was rather difficult to correlate with acoustic measurements, researchers set to work, in particular under the Consultation, Decision and Environment (Concertation, décision et environnement) Research Committee. When we go beyond the medico-acoustic approach to inconvenience, which was the approach hitherto preferred, we see that inconvenience is highly dependent on the psychological and social situation of the residents and that it also has a local community dimension.

To overcome the current blockages, we must first re-establish at least a minimum level of confidence between the disputing players, and we must also manage to establish both a shared representation of what inconvenience is, and also a representation of the forces in presence in the debate that is considered by everyone to be fair. This double representation is not currently achieved.

The objective of an ecological airport: environmental management at airports

Over one thousand firms are present at the Île-de-France airports, from large groups to small businesses, with a very wide variety of trades and of environmental impacts. This results in liabilities that are diluted through a very complex interplay of players. Beyond its action in its own field of responsibility, ADP (Aéroports de Paris) is seeking to broaden environmental management to the level of the entire local area of the airport and to the level of all of its players, on the basis of behavioural ethics and an industrial ecology concept that everyone shares.

Action by a county council: the council of the département of Val-d'Oise

Val-d'Oise is the Île-de-France département that is the most heavily subjected to airport noise and pollution. Its council has had to organise itself to cope with its cumbersome neighbour. It has, in particular, set up an observation group and a noise mission, and it is organising its own measurement campaigns. But its concern to broaden the scale of the debate has led it to organise an international conference, the conclusions of which it has presented to the Johannesburg summit on sustainable development.

GOVERNANCE, AND CONSULTATION: THE DIFFICULT ART OF COMPROMISE

In Île-de-France, as shown by the DUCSAI procedure on the “3rd airport,” the debate about airport policy is too often reduced to frontal antagonism between the world of air transport and those who suffer from the noise and pollution, or who criticise the environmental impact of air transport. Structures exist for exchange and consultation that are specialised per theme (“Commissions Consultatives de l’Environnement” (Consultative Environment Commissions), “Comités de pôles” (Hub Committees) of the PDU (Urban Travel Plan), “GIP Emploi Roissy” (Roissy employment group), etc.), but there is no framework for an overall approach which would make it possible to seek to construct a representation that is as broadly shared as possible of the issues and of the constraints of airport development, and to build the essential compromises.

And yet such a framework is necessary, in order to seek to define modes of managing the airport activity that comply with the conditions for sustainable development and with the legitimate concerns of local residents, while preserving as well as possible the imperatives of economic development and of regional competitiveness. On this subject, some of our European neighbours have practices that are more advanced than ours.

Development of airport infrastructures: the impossible debate?

In Europe as in the United States, airport development is a source of constant conflict. The modes of assessing noise and inconvenience due to noise are disputed. The coalitions of opposition are broadening to include local councillors and experts, and the very utility of the projects is sometimes called into question. The region is gradually appearing as the level at which compromises must be found.

The difficult governance of the airport development in Europe

The multiplicity of the players, of their interests, and of their strategies, further complicates the management of airport development, which is by nature subject to conflict. In addition, European airports are often located on the borders of several administrative areas: instead of being at the centre of one planning area, they are at the margins of several different ones. Everywhere in Europe, new practices are developing, new structures are being created in an attempt to go beyond the antagonisms, to build a vision of the issues that is more broadly shared, and to find compromises that are as acceptable as possible, and more consistency in the policies conducted. But there is a long way to go and the going is difficult.

The search for the elusive new runway for South East England

For fifteen years now, the British Government has been vainly seeking the location on which to put a new runway in South East England, where the airport system is highly saturated. Today, it is more like two or three runways that would be necessary, and the solution is still as far from being obvious as ever. The recently published White Paper will not close the debate.

Consultation Dutch-style: a model that works?

For centuries, the Netherlands have built their economy on international trade and today, the Port of Rotterdam and the Airport of Amsterdam-Schiphol, its two “main ports,” are essential assets. In spite of local opposition around the airport, there is a broad national consensus to enable them to be developed. Although the airport activity is quite strictly regulated by safety and environment limits, arbitration from central government always goes in favour of air transport.

Metropolitan governance, and airport governance: players and issues in Île-de-France

Relations between the Île-de-France airports and the local areas in which they are located have, until now, been relations of conflict, managed in disjointed manner and in terms of “points won” and “concessions made.” Current developments in the institutional context (new wave of decentralisation) and in the airport landscape (restructuring of the DGAC (Directorate-General of Civil Aviation), change in the articles of association of ADP and of Air France, etc.), and the fact that we are coming closer every day to the “limit of what is acceptable” as regards the intensity of the noise and pollution that is borne by local residents, are encouraging a reform in the modes of managing these relations between airports and their local communities. Parliamentary reports already propose avenues for greater integration of the debated subjects, and for a greater role for the Regional Council of Île-de-France.