

LES CAHIERS

DE L'INSTITUT D'AMENAGEMENT
ET D'URBANISME
DE LA REGION D'ILE-DE-FRANCE

Aéroports et Territoires

• In this Issue •

<p>EDITORIAL</p> <p>4 Airports and surrounding areas Hervé Gay, <i>General Manager of the IAURIF</i></p> <p>20 THE DIFFICULT ISSUE OF AIRPORTS IN ÎLE-DE-FRANCE</p> <p>30 AIR TRANSPORT, DYNAMISM AND FRAGILITY 32 Air transport: Île-de-France in its context Étienne Berthon, <i>DAE - IAURIF</i></p> <p>60 Understanding how hubs work Gilles Bordes-Pagès, <i>AIR FRANCE</i></p> <p>65 International air traffic and regional airports Élisabeth Bouffard-Savary, <i>DGAAC</i></p> <p>AIRPORTS: STRUCTURING CENTRES IN THE REGIONAL LANDSCAPE</p> <p>70 From the aerodrome to the airport city - the impact of airports on the areas in which they are located Étienne Berthon, <i>DAE - IAURIF</i></p> <p>72 Roissy, a highly dynamic development centre in a difficult context Étienne Berthon, <i>DAE - IAURIF</i></p> <p>82 Plaine de France, an area where decisions are impossible ? 88 A retrospective of town planning in the Roissy- Charles-de-Gaulle sector Jacques Grangé, <i>Tremblay-en-France</i></p> <p>100 Inter-municipality mobilisation around Orly Airport: looking for the right compromise Sandrine Barreiro, <i>DADT</i> - Sylvie Lartigue, <i>DEDL - IAURIF</i></p> <p>TRAVEL AND MOBILITY: FROM THE AIR</p> <p>112 TRANSPORT HUB TO THE LAND TRANSPORT HUB 114 Surface accessibility to airports Danièle Navarre, <i>DTI - IAURIF</i></p> <p>122 Urban Travel Plan — The CDG hub project Brigitte Millour, <i>AÉROPORTS DE PARIS</i></p> <p>130 Very high speed Europe and air-rail passenger intermodality Danièle Navarre, <i>DTI - IAURIF</i></p> <p>135 Air freight and intermodality Brigitte Millour, <i>AÉROPORTS DE PARIS</i></p>	<p>AIRPORTS AT THE SERVICE OF INHABITANTS AND OF THE REGIONAL ECONOMY 144</p> <p>The economic impact of the Île-de-France airports 146</p> <p>Étienne Berthon, <i>DAE - IAURIF</i></p> <p>Local taxation generated by airport activities 158</p> <p>Jean-Pierre Chauvel, <i>DORACL - IAURIF</i></p> <p>The disparity of the effects of drive from the airports on their surrounding areas 163</p> <p>Sylvie Lartigue, <i>DEDL - IAURIF</i></p> <p>Employment and training in the sector of Roissy: an active partnership at the service of everyone 170</p> <p>Noureddine Cherradi, <i>GIP EMPLOI ROISSY</i></p> <p>NOISE AND POLLUTION: THE CHALLENGE OF ACHIEVING CONTROL AND TRANSPARENCY 180</p> <p>Airport noise and pollution: reality and perception 182</p> <p>Erwan Cordeau, <i>DEUR - IAURIF</i> - Claire Moulinié, <i>DAE - IAURIF</i></p> <p>Inconvenience due to noise close to airports: another approach, another policy 216</p> <p>Bernard Barraqué, <i>CNRS - LATTS</i></p> <p>The objective of an ecological airport: environmental management at airports 222</p> <p>Franck Le Gall, <i>AÉROPORTS DE PARIS</i></p> <p>Action by a county council: the council of the department of Val-d'Oise 228</p> <p><i>Conseil général du Val-d'Oise</i></p> <p>GOVERNANCE, AND CONSULTATION: THE DIFFICULT ART OF COMPROMISE 232</p> <p>Development of airport infrastructures: the impossible debate ? 234</p> <p>Guillaume Faburel, <i>INSTITUT D'URBANISME DE PARIS - UNIVERSITÉ PARIS XII</i></p> <p>The difficult governance of the airport development in Europe 242</p> <p>Étienne Berthon, <i>DAE - IAURIF</i></p> <p>The search for the elusive new runway for South East England 251</p> <p>Roger Jones, <i>West Sussex County Council</i></p> <p>Consultation Dutch-style: a model that works? 257</p> <p>Marielle Prins, <i>PRINS DC consultant</i></p> <p>Metropolitan governance, airport governance: players and issues in Île-de-France 262</p> <p>Fouad Awada, <i>IAURIF</i></p>
---	---

«Airports and surrounding areas»

W

ith Orly Airport and Roissy-Charles-de-Gaulle Airport, Ile-de-France boasts the sixth largest airport system in the world. Air transport is essential to Ile-de-France residents and to the regional economy, but relations are difficult between the airports and the local areas in which they are located, because of the major problems of noise and pollution that are generated by them.

More broadly, the debates on the future of air transport illustrate the divides that run deep through our society as to the type of development that is desirable.

In view of the major role it plays in regional planning and development issues, IAURIF has, for about ten years now, been addressing the theme of airports.

This issue of Les Cahiers is an opportunity to take stock. Its reflections are mainly focused on Ile-de-France, but they are also

enlightened by the involvement of IAURIF in various European projects and networks. They are also enriched by contributions from air transport players, academics, and representatives of associations.

The prospects for growth in traffic at the Ile-de-France airports remain considerable for the period up to 2020.

Like the other major airport regions of Europe, Ile-de-France must find the means for containing and managing this growth, while meeting the conditions for sustainable development, and the legitimate concerns of local residents – less noise and pollution, and greater transparency – without jeopardising the region's influence, its competitiveness, and its economic performance.

In an institutional context that is changing, may this Cahiers provide useful food for thought on how to foster greater confidence between players, and better governance.



Hervé Gay

General Manager
of the IAURIF



The difficult issue of airports in Île-de-France

For a region, a high-performance airport is an essential factor in competitiveness, a tool at the service of local and regional economic and tourism development. It makes it possible to integrate into the main stream of the global economy. It is a window onto the world, and a gateway to the region, but also, at local level, it is a site on which the economic benefits of air transport are concentrated geographically.

However, although it is gradually improving its environmental record, air transport is a source of major inconvenience and pollution, made worse by the 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 airport activity is a source of permanent conflict.

With no real alternatives until 2020 at the earliest, the Île-de-France airport system, which is ranked 6th in the world, and is Air France's base, and which has become a major world player, should experience further major growth in traffic. Like the other main airport regions of Europe, Île-de-France must find the means to handle and cope with this growth as acceptably as possible, i.e. to keep the noise and pollution under control without jeopardising its attractiveness and its economic performance.

The difficult issue of airports in Île-de-France

Etienne Berthon
Dob - IAURIF

For a region, a high-performance airport is an essential factor in competitiveness, a tool at the service of local and regional economic and tourism development. It makes it possible to integrate into the main stream of the global economy. It is a window onto the world, and a gateway to the region, but also, at local level, it is a site on which the economic benefits of air transport are concentrated geographically. However, although it is gradually improving its environmental record, air transport is a source of major inconvenience and pollution, made worse by the 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 airport activity is a source of permanent conflict. With no real alternatives until 2020 at the earliest, the Île-de-France airport system, which is ranked 6th in the world, and is Air France's base, and which has become a major world player, should experience further major growth in traffic. Like the other main airport regions of Europe, Île-de-France must find the means to handle and cope with this growth as acceptably as possible, i.e. to keep the noise and pollution under control without jeopardising its attractiveness and its economic performance.

Air transport, dynamism and fragility

Air transport, which really "took off" after the Second World War, has been a major vector in the development of international trade. But the three years of recession that it has just been through remind us of how extremely sensitive it is to the economic climate⁽¹⁾. Since their trade is labour-intensive, airlines are very fragile, even during periods of growth. It can be said that the accumulated losses suffered by the airlines over the last three years correspond to their total profits since the Second World War. But the development of international trade gives air transport an essential economic role, and the growth in traffic has resumed.

The recession has changed the deal considerably and the landscape of world alliances is starting to stabilise. After the boom and the increase 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. It can be reckoned that, with the demise of the regional companies, two main models will exist in Europe: integrated major airline centres based on main and secondary hub strategies, and low-cost companies operating as free electrons, specialised in point-to-point transport. It should also be noted that the European Union is increasingly involved in the regulation of and in the policy conducted for air transport. Gérard Borel addresses this subject.

In Europe, the system is organised around three major alliances, one of them, namely Skyteam, is 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 reinforcing Île-de-France as the world's sixth-largest airport system with 71.5 million passengers in 2002, and the Roissy-Charles-de-Gaulle (CDG) hub as one of the main gateways to Europe.

Paris, one of the main gateways to Europe

As presented by Gilles Bordes-Pagès, Air France has managed to develop the most powerful hub in Europe at CDG. This was a precondition for its survival on a deregulated market. A tool for rationalising the airline, the hub makes it possible to connect provincial cities to the major European and world destinations, and also to offer Île-de-France residents destinations and frequencies that the regional market alone would not offer.

But the concentration of the traffic on the Île-de-France airports (60% of the national passenger traffic and 90% of the national freight), and the considerable inconvenience and pollution that it ensues, are increasingly ill-accepted.

Hubs and point-to-point links

In terms of organisation of the European airport system, a significant recent change results from the fact that, with the development and the segmentation of the market, airports specialised in particular niches (freight, low-cost, charters) are emerging that can relieve pressure on the saturated main airports. Thus, point-to-point links have developed at European level, and one of the questions raised is how the balance between the activity of the major hubs and the development of the point-to-point links between secondary airports will progress (the Airports Council International (ACI) Conference in London in June 2003, addressed the theme of "the death of hubs?"). This debate can be illustrated somewhat simplistically by the opposing strategies of Airbus, whose A 380, with its capacity of about 550 seats, is banking on the reinforcement of the hubs, and also on the development of the Asian market, and of Boeing who, with its future 7E7 Dreamliner, could propose, before the end of the decade, a cheap aircraft with a long range (about 14,000 km) of half that capacity (200 to 250 seats). That aircraft is aimed at a market undergoing major regeneration, with the A 330 as the main competitor.

(1) Air traffic grows from 2 to 3 times faster than GDP during periods of economic growth, but, during serious recessions or times of crisis (Gulf War in 1991), Asian crisis in 1998, post September 11, it falls more heavily.

Before 2020, there are few alternatives to growth in Île-de-France air traffic

Since, after the long debates at the turn of the century (DUCSAI...), the French Government was not convinced of the economic and technical realism of alternative solutions such as a third airport or major development of regional airports, most of the growth in traffic will go via CDG Airport, which has caused great disappointment among local residents and associations. In an attempt to calm things down, the French Government has since adopted a significant string of measures² to reduce noise and pollution, in particular with night flights being limited at CDG Airport, and to improve compensation for noise and pollution (increase in budget allocations for noise insulation and abatement, and the "airport community" project of the Le Grand Report³...). But all of this is doing little to reduce the concern of local residents⁴, in particular since, after two years of stagnating, the traffic is on the upturn again. In spite of the desirable reinforcement of the European role of the main provincial airports – Elizabeth Bouffard-Savary reports on this subject –, a gradual transfer of a portion of the short-haul traffic to the very high speed train network which is being built out on a European scale – addressed in an article by Danièle Navarre – and the possible transfer of certain traffic segments (low-cost, charters or freight) to secondary airports⁵, the prospects for growth in traffic at Île-de-France airports remain considerable. It can be reckoned that demand will be at least 120 million passengers by 2020⁶. Even if the think on a new airport were to be resumed tomorrow⁷, since such an airport could not be operational before another twenty years or so, it will be necessary to find, in the meantime, the means for handling and coping with the growth in traffic as acceptably as possible, and to seek to integrate the airports better into their host areas.

Airports: structuring centres in the regional landscape

The region's spatial and socioeconomic context defines in part the possibilities for economic development and for diversification on the airport site. In return, such development has a regional impact, through the wealth and the jobs created, and through the role as development centre and the centrality (defined by the concept of Airport City that appeared in the United States in the nineteen seventies) that is taken on by the airport sector in the regional structure. Indeed the airport sector can go as far as to compete with other regional economic centres and the induced economic developments can limit the development potential of the airport as a transport infrastructure. All this thus directly involves planning choices at regional level.

From the aerodrome to the airport city

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.

Airports in themselves represent a very powerful magnet for employment, with over 75,000 jobs in 2003 at Roissy-CDG Airport, about half of which are dependent upon the airlines. But airports have experienced diversification in their functions. Today, with their economic environment, they constitute one of the most dynamic types of peripheral urban centres, if no the most dynamic type, within the multi-centre organisation that has established itself in the regions⁸.

(2) *Démarche d'utilité concertée pour un site aéroportuaire international* (Consulted Utility Approach for an International Airport Site)

(3) On the basis of the focuses proposed by the French infrastructure minister (*ministre de l'Équipement*) in his memo of July 25, 2002 "pour un développement durable des aéroports parisiens" ("For the Sustainable Development of Paris Airports").

(4) Report published in November 2003 and that is the subject of a Bill. The airport community (one for Orly and one for CDG), which would include a college of local authorities, and a college of businesses benefitting from the airport activity (but no representatives of the civil society), would be mainly in charge of managing an airport community services and investment fund (FISCA (fonds d'investissement et de services de la communauté aéroportuaire)). That fund, fed from various sources, would finance projects in the following five fields: environment (including noise insulation and abatement grants), town-planning, transport, employment, and information. It could be chaired by the president of the regional council and have the status of an administrative public establishment.

(5) The latest demonstration by residents brought together 2500 people, including numerous local councillors, on January 25, 2004 in Paris. Two sound-broadcasting lorries reproducing the noise of an aircraft taking off every one minute thirty, representing what the rate of take offs can be at CDG Airport, enabled them to share with Parisians the noise to which they are subjected on a daily basis.

(6) In order to reassure the local residents, the government, after having led people to believe that Schiphol (with KLM being integrated by Air France) could play a role as 3rd airport, also mentioned at the meeting of the inter-ministry committee for regional planning and development (CIADT (*comité interministériel pour l'aménagement et le développement du territoire*)) held on December 18, 2003 "a third airport network" (Beauvais, Chateauroux, Vatry), which, nevertheless, should only moderately relieve pressure from traffic on Île-de-France.

(7) Given that it is difficult to see how the two main Île-de-France airports could handle over one million movements (take-offs and landings) per year, namely 250,000 at Orly and about 750,000 at CDG. The problem for the future is plain for all to see. The increase in the average number of passengers per flight is an important variable, but cannot be decreed. The low current level of licence fees for short-haul and long-haul flights (see contribution from Jacques Raison) show that there are possible financial incentives for increasing the number of passengers per flight.

(8) It should be noted that, in its White Paper published in December 2003, the British Government abandons the idea of building a new airport in South-East England, and recommends, in particular, building a new runway at Heathrow, one of the most saturated airports in the world.

(9) Indeed care must be taken to ensure that the "technopolitan" impact of the airport, i.e. the capacity it has to attract businesses to its immediate environment, is kept under control so as not to stifle the airport function itself.

This applies to the sector of Roissy. Driven by the development of the airport and of its intermodal role, it 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 cross-roads 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. It includes highly internationally-focused sites such as Paris Nord II or the exhibition park ("parc d'expositions") of Paris Nord-Villepinte. The airport has also induced major top-of-the-range hotel activity in its immediate environment.

But the presence of the airport has also led to strong negative impacts on the urban operation of the sector, and in particular to fragmentation of the local area¹⁰. The extension of the noise zones in the noise exposure plans ("plans d'exposition au bruit" (PEBs)), that has come very late, is today posing a new problem to the local authorities concerned.

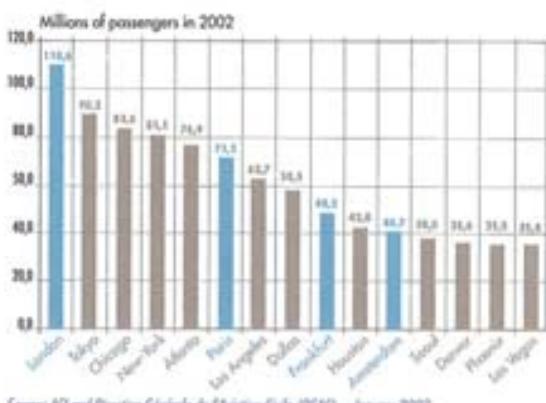
The complexity of the administrative area divisions and the multiplicity of players have so far prevented sufficient consistency from being achieved in planning policies – the article by Jacques Grangé recalls the recurrent difficulty of taking public decisions in the Roissy sector –, and prevented a significant reduction from being achieved in the gap between an international-scale development centre and a surrounding area facing difficult socio-economic realities.

(10) In his thesis "Les collectivités locales face à Roissy-CDG" (the local authorities faced with Roissy-CDG airport), Xavier Lavergne, mentioning the major projects conducted by the French State in the Plaine de France area (CDG Airport, Garenor transport and logistics park, the business parks of Parinor and Mitry-Comans...), writes "the Plaine de France has already been operating as an area serving Paris for two centuries. Its unity and its identity have been sacrificed to satisfy the technical and spatial needs of the Capital." Geography master's degree thesis, University of Paris 13, Villejuif.

(11) The contributions from Fabien Lawson address this problem of allocation of slots.

In the sector of Orly, in spite of the noise and pollution from the airport, as explained in the article by Sandrine Barreiro and by Sylvie Lartigue, the municipalities are aware of the role it plays in the development and the attractiveness of their areas. They have seen the negative effects of the most strategic lines being transferred to CDG Airport, and they would like to see Orly airport's slots being used better, with the re-opening of European and intercontinental lines¹¹. For them, seeking better drive from the airport on its surrounding area is one aspect among numerous other concerns: the environmental constraints and ill effects that affect the sector, a certain weakening of the economic fabric, and major problems as regards access and planning. The inter-municipality level is the only possible level at which to respond to the problems of this sector which is seeking new dynamism. The economic players are also mobilising themselves.

The world's 15 busiest airport systems



Source: ACI and Direction Générale de l'Aviation Civile (DGAC) – January 2003

• • • • • • • • • • • The Airport City

• • • • • • • • • • •

Airport authorities, whether they are still strongly tied to Central Government (Paris or Brussels), or whether they represent the interests of the regions and of the cities (Amsterdam-Schiphol and Frankfurt) or of private operators (London airports), have increasingly entrepreneurial and market-focused attitudes.

To meet the expectations of their users, and also to diversify their revenue and to make it less dependent on air traffic, they have strategies for increasingly diversifying the functions of their hubs: shopping centres, hotels, exhibition centres, conference centres, office and business park operations¹².

That is how an airport becomes an Airport City, i.e. an urban centre with a population of several thousand and that operates almost continuously and attracts types of user other than those directly related to air transport. From a place of transit, the airport becomes a destination.

This is particularly true since airports, which are hubs interconnecting various transport modes and various scales of mobility (from international to local), are playing increasingly complex and major roles as intermodal interchange hubs within their regions, especially when they are served by national and international train networks, as are Paris-CDG, Frankfurt or Amsterdam-Schiphol. At CDG Airport, 40% of the TGV (very high speed train) station users are local or regional users who are not users of an air transport service. The station of Schiphol is the sixth largest railway station in the Netherlands. Heathrow Airport is the largest bus station in the United Kingdom. The major airports are thus becoming hubs as much for land transport as for air transport.

(11) It should be noted that airports have a particular status which generally gives them a certain degree of freedom not enjoyed by other regional development centres with whom they can sometimes be in competition for developing shops and office programmes. This freedom is increasingly disputed. The regional and local authorities are seeking to control better what happens on the hubs.

• • • • • • • • • • •

The major issue of economic, social, and urban integration

The relationship between airport and surrounding area is a sudden collision between the global and the local. Around the Ile-de-France airports, the contrast is striking between the islands of wealth induced by the airport activity and large zones of social housing. Jacques Grangé, in a memo drafted during preparation for a European project, explains the situation well: "Economic and social integration is a major issue in Ile-de-France. Built on the outskirts of the conurbation, the airport hubs rub shoulders with pockets of highly social housing and of populations in difficulty. Orly is a major airport, but it is also one of the leading sites for social housing in Ile-de-France, with its social housing having been undergoing continuous rehabilitation for the last twenty years now. Roissy-CDG is tangential to a low-income housing area that has grown up out of the zones of worker's houses built between the wars, and that were then supplemented by the large social apartment blocks. The issue today is how to reintegrate into the economy and into employment populations who are victims of serious socio-economic and cultural handicaps.

"The rapid growth in employment in recent years at CDG Airport has made these problems even more acute. Suffering from

unemployment rates that are higher than the regional average, the local authorities expect the airport development to bring jobs for their young people, including those in difficulty."

This theme has been the subject of major partnership policies. They are mentioned below. But, on a general level, it can be said that the financial spin-off from the airport activity and from air transport on the areas that suffer the most from the resulting noise and pollution are very insufficient compared with the corrective policies and local development policies that they should be able to finance.

Integration of airports into their surrounding areas should also incorporate a large spatial planning dimension. Designed from the outset as self-contained facilities, with very few access points and dedicated internal networks that were not interconnected (access to the terminals, to the freight zones, etc.), their structure does not lend itself well to diversification of the functions on hubs and to the development of their ties with their nearby urban and economic environment.

Air transport players are opening up to their surrounding environments

Aéroports de Paris (ADP), which is overseen strictly by the relevant ministry, and which thus has limited room for manoeuvre, but which enjoys a monopoly situation on a lucrative market¹², lived for a long time as a fortress under siege. For several years now, ADP, in spite of internal reticence, has been making considerable efforts to open up to its social and urban environment by increasing the number of partnership actions it takes on various themes (employment, accessibility to the airport, etc.). It is thus developing its communications so as to make the airport world better known: opening the "Maisons de l'Environnement" (environment houses) of CDG Airport and

of Orly Airport¹³, publication every two months of *Entre Voisins* (between neighbours), a journal with a circulation of 520,000, organisation of numerous meetings with the local councillors and associations. ISO 14 001 certification has rewarded the efforts made on environment management, and thus on integrating the airport into its environment. ADP, which is not the main producer of noise and pollution, was long on its own in the firing line facing claims from local residents and local players. The airlines now seem to be understanding the need to become involved at local level. Thus Air France, which is already a partner in several initiatives, was the driving force behind the setting up, in June 2003, of the association "Pays de Roissy-CDG" (Roissy-Charles-de-Gaulle Country).

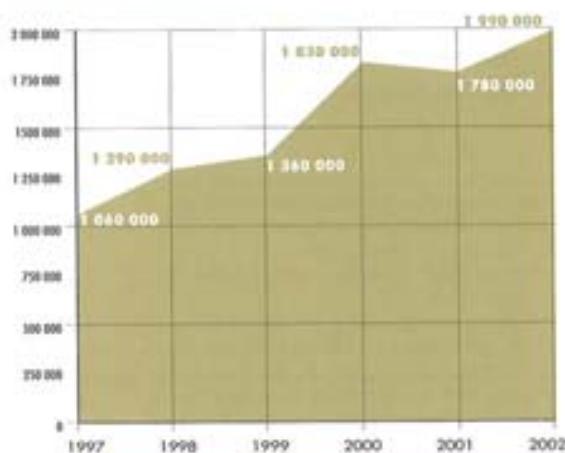
Increasing the "local integration capacity" of airports

These efforts to integrate airports economically and socially into their surrounding areas, and to have air transport players open up to a greater extent onto their surrounding environments, can, in addition to essential noise and pollution reduction policies, which remain the main priority, make it possible to increase the "local integration capacity" of the airports. Beyond the "technical capacity" of the airports (air space and land infrastructures), that is relatively easy to define, and the "environmental capacity" that is starting to be better analysed, it is their "local integration capacity," i.e. how well they are accepted by their surrounding areas, which therefore involves a large number of economic, political, and social functions, which increasingly determines their development possibilities.

(12) Its turnover for 2002 was 1.4 billion euros, 505 million of which came from airport fees, 128 million from airport taxes, and 134 million from assistance fees. A report from the Audit Office ("La Cour des Comptes") in 2002 criticises certain aspects of ADP's management and the insufficiency of its "customer" culture.

(13) Unfortunately on sites to which access is rather difficult.

Increase in TGV custom at Roissy-CDG Airport
(in numbers of travellers)



Source : SNCF

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. From air transport hubs, they are becoming land transport hubs.

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.

The search for better complementarity between air transport and the very high speed train network which is being built out on a European scale is a means for lightening the pressure from demand on the airports, today for passenger traffic, and tomorrow perhaps for freight.

Land access to Ile-de-France airports: could do better

The history of the development of the infrastructures giving access to the Ile-de-France airports is marked by a long series of disputable decisions, which can perhaps be explained in part by a strategy of competition that was poorly understood, and costly for taxpayers, between public land transport operators and air transport operators. From this point of view, the quality of service offered to users and to employees of the airport is much lower than it should be¹⁴. Danièle Navarre in particular presents an interesting comparative approach on access and services to 17 European airports, in her article on land access to airports.

At Roissy-CDG Airport, we might recall the original choice of the location of the regional express network (RER) station out in an open field, in the middle of the airport, and not serving the terminals. Today customers of the foreign airlines located at Terminal 1 still suffer from having to change mode of transport and from the poor shuttle bus service, unworthy of a major airport. During the nineteen nineties, the choice of an unsuitable internal transport

system, the SK, caused the loss of one billion francs in engineering and investment cost, and has led to a delay that means that today the airport still does not have a fast internal transport system. Fortunately, it should not be too long now before it does. The under-dimensioning of the RER station situated under Terminal 2 means that, with only two platforms, it cannot play a normal role as a terminus station, which is leading to operational restrictions on services to and from the airport, and is complicating future developments. As for Orly, the change of mode of transport (transhipping) imposed by the design of the Orlyval driverless metro and its high cost for users limits its role in serving the airport.

This explains that in Paris, in spite of the existence of rail infrastructures, they, because they are unsuitable and also probably because they are over-priced, are used by only 15% to 17% of passengers, i.e. even fewer passengers than those carried by the airport buses, even though the buses have to follow road routes that are highly saturated. And yet, in order to limit the saturation of the road infrastructures, it is essential to seek major modal transfer of passengers, and also of staff of the airport¹⁵ to public transport. The creation of the hub committees (*comités de pôles*) of the PDUs (*plans de déplacements urbains* (urban travel plans)) at CDG and Orly, led by ADP, are imparting an advantageous dynamic drive to players to work towards this aim.

As for the CDG-Express project which was to connect the Paris Gare de l'Est station to Roissy-CDG Airport, it will not be built as planned but, after a public debate conducted very openly and constructively in the autumn of 2003, it has opened the way towards seeking the most suitable possible solution for improving access to the airport. Other airport access projects are being considered in the longer term.

Very high speed train Europe and air-rail intermodality

On a larger scale, one of the very positive points is the fact that Roissy-CDG Airport enjoys access via the TGV (very high speed train). As shown by Danièle Navarre's second article, air transport has a competition-complementarity relationship with the TGV 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 one of the best positioned airports on the TGV network¹⁶. Using the TGV network for fast rail freight could contribute to reducing problems related to air freight which is subjected to increasing technical and environmental constraints. That is the subject addressed by Brigitte Millour's article.

Airports, major tools for regional development

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 networks. It is a gateway to the region, a means of access to the region's suppliers and to its external markets, and it is an asset for attracting locations of registered offices,

(14) We never see the Ile-de-France airports ranking high up the hit-parades of international airport user satisfaction surveys, on the theme of accessibility or on other themes.

(15) 90% of the 100,000 airport staff use their own car to travel to work.

(16) Air France emphasises that it cannot become too dependent on the SNCF (French rail operator) for carrying passengers to its hub because of insufficient guarantees of continuity in the service. In the event of a strike, services to and from Roissy-CDG would be among the first to be stopped. It should also be noted that the TGV network also has limits to its capacity.

businesses, and industries, and investments, which are 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 in 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. Thus, in value terms, air transport handles 20% of regional imports and 30% of regional exports.

In his contribution, Bernard Attali reminds us that Île-de-France airports are strategic infrastructures for attracting international investors, and key infrastructures for regional competitiveness.

The analysis of the local tax revenue generated by airport activities, conducted by Jean-Pierre Chauvel, shows that eight of the top ten Île-de-France municipalities in terms of tax revenue are located at or in the vicinity of Roissy-CDG or Orly¹⁷. This alone illustrates the strategic importance of the airport sector for the local authorities and communi-

ties in question. The core of the airport activity represented about 500 taxpayers and 174 million euros of local business tax in 2002, 30 million of which is allocated to funds for balancing out differences between the more wealthy counties and the less-privileged ones. But the search for better distribution of the tax revenue from airports, which is distributed very inequitably to municipalities who are subjected to the noise and pollution from them, is still on the agenda. Sylvie Lartigue shows, in the cases of Roissy-CDG and Orly, the disparity of the effects of economic drive from the airports on their surrounding areas.

An active partnership for employment and training in the Roissy sector

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 by the various players, and in particular by ADP.

Nouredine Cherradi presents the role of the "emploi Roissy-CDG" (Roissy-CDG employment) GIP¹⁸ and the holding of a first local area conference in November 2002, which marked a major step in the approach that aims to reconcile the expectations of the airport players with the expectations 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.

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

(18) Public interest group.

(19) Advisory Council for Aeronautical Research in Europe.

Noise and pollution: the challenge of achieving control and transparency

The downside of the essential role played by airports in the regional economies is the extent of the noise and pollution to which the local populations are subjected, and more generally the ill-effects of air transport on the environment. These aspects are developed in the article by Claire Moulinié and Erwan Cordeau.

Progress that is not keeping up with the increase in traffic, and a regulatory framework that is increasingly stringent

Air transport is an industry with long cycles, since an aircraft remains in service for about thirty years. There has been significant progress as regards reducing noise and pollutant emissions. Over the period for 1970 to 1990, the trend was a 1 dB per year reduction for noise, and a 2% per year decrease in fuel consumption, and thus in pollutant emissions. That trend has slowed since with the gradual renewal of the fleets and the withdrawal of chapter-2 aircraft and is now 0.5 dB per year for noise, and 1% for fuel consumption. Air transport, taking advantage of the international nature of its activity and of the high concentration of its industry, has apparently not improved its environmental performance at the same rate as land transport modes have and, since its traffic is growing much more steeply, its environmental impact, in particular as regards greenhouse gas emissions, is growing.

An increasingly strict framework is gradually being put in place, from international or European regulations to commitments made locally, e.g. under charters. Research is mobilised in Europe around strategy focuses and objectives defined by the ACARE¹⁹, but there remains much to do to make airports bearable neighbours for local residents. For noise abatement, it will require technological breakthroughs.

• • • • • • •

Safety and security¹: a permanent concern

Today, the aircraft remains the safest means of transport (1 death for 2 billion kilometres travelled by one passenger). Admittedly, the number of accidents has increased since the nineteen seventies, but the risk per flight has remained stable. However, although they are rare, plane crashes are particularly dramatic. The crash of the Concorde on July 25, 2000 at Gonesse remains in everyone's mind.

Insofar as about 85% of plane crashes take place during takeoff or landing², the areas close to airports are particularly concerned by this threat. Local residents' representatives are calling for an "air safety observatory" to be set up, and they want more transparency on the part of airlines and of ADP. It is the *Direction générale de l'aviation civile* (DGAC, or Directorate-General of Civil Aviation) who is in charge of inspecting aircraft to ensure that they are airworthy³, within the framework of procedures regulated at international and European levels.

Air transport has regularly been a target for terrorist attacks in flight or against airport terminals, but the terror attacks of September 11, 2001, in which aircraft were used for major terrorist acts, have put the spotlight onto the problems of security in air transport and airports, which are part of the State's sovereign responsibilities. Since then, the specific policies have been heavily reinforced⁴, at the price of heavy investment⁵. The use of cutting-edge technologies has developed (automatic control and detection systems, biometry, etc.). The number of employees⁶ and the cost of security and insurance for air transport have increased enormously. In addition to internal audits, the airports are subjected to various levels of audit at national level (Gesac⁷) and at European level (ECAC⁸).

Progress of safety and security spending in the budget of the DGAC

	2000	2001	2002	2003
Millions of euros	90	127	243	323

Source: DGAC

(1) Safety concerns prevention of accidents due to technical problems related to the reliability or the maintenance of an aircraft. Security concerns prevention of intentional acts of malice.

(2) 25% of accidents take place during the takeoff and initial height-gathering phase, which represents 2% of the average flight time, and 43% take place during the final approach and landing phase, which represents 4% of the flight time. Fewer than 5% of accidents take place during the cruising phase, which represents 60% of the average flight time.

(3) The SFACT (*service de la formation aéronautique et du contrôle technique*, or aeronautical training and testing service) acts at certification level, in collaboration with the JAAs (Joint Aviation Authorities, bringing together the civil aviation authorities of 36 European countries). The *groupement pour la sécurité de l'aviation civile* (GSAC, or group for civil aviation safety) is in charge of overseeing the method of manufacture and maintenance of aircraft.

(4) Hold luggage is now 100% inspected.

(5) 230 million, i.e. the price of 2 Airbuses, for ADP since September 11, 2001.

(6) In 2001, 2000 people were employed by specialist companies for performing security and safety tasks at the Paris airports, in addition to 200 ADP employees. These figures are respectively 4,200 and 450 in 2003 – Source: *Aéroports Magazine*, issue No. 343.

(7) *Groupe d'experts sûreté de l'aviation civile* (Civil aviation safety assessors group).

(8) European Civil Aviation Conference



Measured aircraft noise

Aircraft and engine model	Year commissioned	range km	max mass on takeoff	number of passengers	Most frequent level / maximum in dB(A)mcx				
					Approach		Takeoff		
					10 km	5 km	5 km	10 km	15 km
CRJ 200 (CF34-3 B 1)	1992	3045	23 t	50	67,5 / 71	73 / 76	70,5 / 74	0 / 65	0 / 0
BAE 146-200 (ALF 502 R-5)	1983	2000	42 t	85/100	70 / 73	75 / 77,5	76 / 82,5	69,5 / 73	67 / 72,5
Fokker 100 (TAY 650-15)	1986	2700	44 t	107/122	67,5 / 74,5	74 / 79	78 / 82	71 / 74,5	67 / 71
B737-500 (CFM56-3-C-1)	1990	4400	59 t	110/132	71,5 / 75,5	78 / 81,5	78 / 82,5	71 / 75	67 / 70,5
B737-300 (CFM56-3C-1)	1984	4200	62 t	128/140	72 / 75,5	78 / 81,5	83,5 / 85	71 / 74,5	69,5 / 72,5
A 319-100 (CFM56-5B5/P)	1996	3250	64 t	115/140	72,5 / 76	76 / 79	75 / 79,5	68 / 72	66,5 / 70,5
A 320-100 (CFM56-5A1)	1988	3500	68 t	150/180	71,5 / 76,5	77,5 / 80,5	76,5 / 82,5	71 / 74	69 / 72,5
MD-83 (JT8D-219)	1985	4600	72 t	155/172	72,5 / 77	78 / 82,5	87,5 / 92,5	79 / 82,5	77 / 80,5
A 320-200 (CFM56-5A1)	1988	5500	77 t	150/180	72 / 76,5	77,5 / 80	77,5 / 82	70,5 / 73,5	69 / 72,5

Progress: it is now possible to talk in terms of measured noise rather than merely of certified noise. This table gives the most frequent and maximum noise levels, on the basis of a large number of measurements, of various types of aircraft (with their engine types) at various distances from the airport.

According to DGAC: measuring and understanding noise close to airports

The development in the traffic must be accompanied by development in keeping its impacts under control and in internalising its environmental costs.

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," and if air transport meets its environmental obligations, the increase in its cost will show that it cannot be a mode of transport for the masses.

In Île-de-France, the important levels of noise and pollution are increasingly ill-accepted

In Île-de-France, 1.8 to 2.3 million people live in 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 one million movements per year. Emissions from CDG Airport 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 assess and to reduce noise and pollution, in particular with the adoption of a noise index defined on the basis of measurements – rather than on the basis of aircraft certification data –, and that index will gain in consistency through the increase in the number of measurement stations²⁰, and with the decisions taken to reduce night flights at Roissy-CDG²¹. But much remains to be done, and the level of complaint from local residents is considerable. Such complaint expresses an increase in the inconvenience related to noise (difficult to define because it incorporates complex factors) – Bernard Barraqué shows in his article how various researchers are working to go beyond the medico-acoustic approach

to inconvenience, which was the preferred approach up until now and which does not explain very much. Such complaint also expresses concern about the impact of air traffic activity on health, and about the future increase in traffic, and loss of confidence in the official "line." For Simone Nérome, President of 'ADVOCNAR'²² who, as a doctor, is particularly aware of the problem of impact on health, it is essential to re-establish that confidence. Such complaint also expresses a demand for the impartiality of technical experts and assessors to be guaranteed. The setting up of ACNUSA²³, in 1999, is first response to that demand. Roger Léron, its President sets out its concerns. Among the players who are fighting to reduce noise and pollution, there are also local councillors. The example of Val-d'Oise, which is the Île-de-France département that is subjected to the most airport noise and pollution, shows how the council had to organise itself to cope with its cumbersome neighbour, namely CDG Airport. In particular, it has set up an observation group and a noise mission²⁴ and it is organising its own measurement campaigns. It is also heavily involved in debates on reviewing the noise exposure plan (PEB). All of these complaints and questions are also part of increasing awareness among the populations of problems related to the environment and, more generally, the debates on the development of air transport, the preferred vector of globalisation, touch divisions that run deep through our society as regards the type of development that is desirable.

Towards management at airport level

When we read ADP's annual reports on its environmental policy, we perhaps forget that they are describing only the action that corresponds to the perimeter for action by ADP. But actually over one thousand businesses are present on

the Île-de-France airports, from large groups to small businesses, with a very wide range of trades and of environmental impacts. Liabilities are thus diluted through a very complex interplay of players. Beyond its action in its own field of responsibility, ADP 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. Such is the approach presented to us by Frank Le Gall, head of environment management at ADP.

Governance and consultation: the difficult art of compromise

The article by Guillaume Faburel illustrates how, 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.

(20) In addition, at the end of January 2004, the regional council decided to set up a *Bruitparif* (Paris Region noise monitoring and control agency) like "Airparif", the Paris region's agency for monitoring and controlling quality of air. The non-profit-making associations strongly wanted this new structure to be set up.

(21) On the basis of the focuses presented by the French infrastructure minister in his memo of July 25, "for sustainable development for the Paris airports."

(22) Association de défense contre les nuisances aériennes (Association for defense against aircraft noise and pollution).

(23) Autorité de contrôle des nuisances sonores aéroportuaires (Authority for monitoring and controlling aircraft noise).

(24) For its part, Val-de-Marne has set up a county sound environment observatory or "Observatoire départemental de l'environnement sonore" (ODES).

In Ile-de-France, as shown by the DUC-SAI procedure⁽²⁵⁾ 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, even if the situation is difficult everywhere.

The difficult governance of local areas in which airports are located 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, be it for the great public debates conducted on projects for new infrastructures or for attempts to manage better, on a daily basis, the relations between the airport and its environment, new practices are developing and 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. Mention might thus be made of the Airport Consultative Committees (ACCs) in England, the Communauté Aéropor-tuaire (Airport Community) set up for Brussels Airport, and the *Regionales Dialog Forum* in Frankfurt. The very precise contractualisation of the commitments of airports to the local communities that is implemented in England in the form of a Legal Agreement is an interesting procedure. In addition to the precise improvements that it makes possible, e.g. as regards noise and pollution reduction or compensation, or as regards land transport services, that type of undertaking offers the advantage, for local residents, of having guarantees as regards the planned development of the airport, and, for the airport authorities, of offering good medium-term visibility for the programming of their development and of the necessary investments.

However, everywhere in Europe, the conditions on which airport development can be accepted are always difficult to find.

Roger Jones thus shows us how, for fifteen years, 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, in particular since it proposes to build a new runway at Stansted, and also at Heathrow, one of the most saturated airports in the world. It should also be noted that the idea of a new airport has been abandoned.

Consultation in the Netherlands is often held up as an example. It is possible that consultation is facilitated by the national consensus that exists on the development of main port and airport infrastructures, in a country whose domestic market is limited and whose economy has, for centuries, been based on international trade. Marielle Prins presents the 2002 Schiphol law, which has regulated the building of the fifth runway, by setting precise safety and environment limits. But when somewhat dubious calculation errors were made by the Schiphol Group when defining the noise quotas taken into account in the law, the Dutch State revised the law so as not to jeopardise the activity of the airport.

Ile-de-France: seeking the most suitable mode of governance

The article by Fouad Awada, which ends this issue of *Les Cahiers de l'IAURIF*, brings the focus back to Ile-de-France. Relations between the Ile-de-France airports and the local areas in which they are located have, until now, been relations of conflict, managed in disjointed

(25) "We should think about how to go from the public debate as an "event" to a genuine culture of consultation," comments Jacques Theys, head of the "Centre de prospective et de veille scientifique" (Centre for forward-thinking and science watch) of the French Infrastructure Ministry ("ministère de l'Équipement"), during the week devoted to the theme "Is it possible to agree about airports?" ("Peut-on s'entendre autour des aéroports?"), in Paris on June 26, 2002.

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 DGAC²⁶, 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 mode 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 Ile-de-France. But in France, there is a considerable lack of thinking from the authorities on the themes of consulta-

tion – for which Jean-Marie Gourdin, President of the UFCNA (French Union against aircraft pollution), reminds us of the conditions – and of governance in airport sectors²⁷, compared with our European neighbours. Their experience can definitely teach us a lot, even if the situation is not easy anywhere, and the road to participative democracy is a demanding and difficult one. It is not possible to do without genuine surveys and broad debates on subjects that are as complex and that involve such important issues.

The combat to reduce noise and pollution and to obtain fair compensation for them is, of course, essential, but it is necessary also to develop a broader strategic vision for enhancing the areas coming under the influence of airports, so that airports are tools that are as effective as possible at the service of employment, business, and attractiveness of the region.

Breakdown per département of negative and positive impacts of airports

	Population on flight paths East-facing configuration	Population on flight paths West-facing configuration	Local business tax revenue 2002 (all beneficiaries)	Jobs at CDG + Orly Airports (2000)
	< 1 000 m < 3 000 m	< 1 000 m < 3 000 m		
95 - Val d'Oise	76,4 % 27,2 %	31 % 39,1 %	31,3 %	10,8 %
93 - Seine St Denis	0 % 3,5 %	0 % 5,6 %	23,2 %	14,3 %
77 - Seine & Marne	0,7 % 12,7 %	54 % 15,5 %	9,1 %	13,3 %
91 - Essonne	9 % 17,7 %	0,01 % 6,2 %	25,4 %	14,1 %
94 - Val-de-Marne	6,1 % 2,3 %	14 % 1,1 %	8,9 %	9,3 %
75 - Paris	0 % 0 %	0 % 0 %	1,4 %	10,4 %
78 - Yvelines	7,8 % 22,2 %	0 % 8 %	0,02 %	2,7 %
92 - Hauts de Seine	0 %	0 % 16,9 %	0,05 %	5 %
Provinces	0 % 7,2 %	0 % 7,4 %		19,9 %
Total CDG + Orly	531,701 inhabitants – 100 % 2,453,528 inhabitants – 100 %	159 619 – 100 % 1 970 585 – 100 %	173.5 million euros 100 %	93,617 jobs 100 %

Sources:

- Estimate of populations living on flight paths - INSTAT for ACNUSA - May 2003
- Local business tax 2002 (all airport firms, even off the hub) - DGI
- Jobs 2000 - socio-economic impact of Ile-de-France airports - INSTAT for ADP - March 2003

(26) In part because of the putting in place of a "single European sky," which is leading to a large portion of the air navigation regulations being transferred to the European Commission, assisted by the "single sky committee of Eurocontrol, the DGAC must separate clearly its various functions as service provider, watchdog, and sovereign authority. In 2002, the DGAC received about 800 million euros in route licence fees, 190 million in licence fees for territorial services (RSTCA). In addition it received 200 million euros in civil aviation tax, which feed in particular the "fonds d'intervention pour les aéroports et le transport aérien" (fund for action on airports and air transport) (IATA).

(27) The parliamentary report by the information mission chaired by François-Michel Gonnot includes, in its first two proposals, elements on this theme that deserve to be explored in more depth, in particular when he mentions a "genuine contract" with the Ile-de-France residents.



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 Ile-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 Ile-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.



Seb/Dal

Transport aérien : l'Île-de-France dans son contexte

Etienne Berthon
Dte - IAURIF

L'Île-de-France dispose d'un des plus importants systèmes aéroportuaires mondiaux et concentre sur ses aéroports une part importante du trafic national.

Après le foisonnement qui a suivi la libéralisation du transport aérien en Europe, en 1993, la crise actuelle a favorisé un vaste processus de reconcentration. Le système s'organise, en Europe, autour de trois grandes alliances, dont l'une, Skyteam, est menée par Air France. Air France, qui assure la moitié du trafic sur l'Île-de-France, devient un acteur de premier plan au niveau mondial. C'est une chance pour l'Île-de-France et un défi.

En effet, malgré le renforcement souhaitable du rôle des grands aéroports de province et un report progressif d'une partie du trafic court-courrier sur le réseau de train à grande vitesse qui se met en place à l'échelle européenne, les perspectives de croissance du trafic sur les aéroports franciliens restent importantes. Quels que soient les choix faits dans les années prochaines sur un éventuel nouvel aéroport, celui-ci ne pouvant voir le jour avant une vingtaine d'années, il faut bien trouver les moyens de gérer et d'encadrer, de la façon la plus acceptable possible, la croissance du trafic.

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.



Comprendre la logique des hubs

Gilles Bordes-Pagès¹

Air France

Air France a pu développer sur Roissy-CDG le *hub* le plus puissant d'Europe. Ce fut la condition de sa survie dans un marché déréglementé. C'est aujourd'hui un atout qui lui permet de jouer un rôle de premier plan au niveau mondial. Outil de rationalisation pour la compagnie, outil d'aménagement du territoire qui permet de raccorder les villes de province aux grandes destinations européennes et mondiales, le *hub* permet aussi d'offrir aux Franciliens des destinations et des fréquences que ne permettrait pas le seul marché régional.

(1) Directeur du développement



Le trafic international et les aéroports régionaux

Elisabeth Bouffard Savary
DTA-DGAC

Le trafic international, y compris avec l'Union européenne, représente 70 % du trafic aérien en France et il est concentré à 70 % sur les aéroports franciliens. Mais les principaux aéroports régionaux s'ouvrent de plus en plus à ce trafic. Il a représenté pour eux près de vingt millions de passagers en 2002, dont environ le quart transporté par des compagnies à bas-coûts. C'est un trafic principalement tourné vers l'Union européenne et le Maghreb. Le renforcement de la vocation internationale des aéroports régionaux, et par là du rayonnement des principales métropoles françaises, est une des priorités de la politique nationale des transports. Il importe de renforcer l'attractivité de ces aéroports pour les compagnies aériennes, seules à décider, en fin de compte, de l'ouverture des lignes.

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.

(1) Chef du bureau des études stratégiques et prospectives.

(2) Direction des transports aériens. Direction générale de l'aviation civile.



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 Ile-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 regions. 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 Iaurif, with support from Aéroports de Paris, as part of the European project Interreg IIIC COFAR (Common Options For Airport Regions). "L'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.



L. Béchet / Aéroports de Paris

De l'aérodrome à l'aéroport-ville : l'impact des aéroports sur leur territoire d'accueil

Étienne Berthon
Dae - IAURIF

Les territoires se structurent autour des pôles d'échanges. Les aéroports, portes d'entrée internationales des métropoles, où convergent des modes de transports d'échelles et de nature très diverses, ont vu leurs fonctions se diversifier et ont induit tout un environnement économique. Ils jouent un rôle majeur dans la structure multipolaire qui s'est mise en place dans les régions¹. Mais cet impact technopolitain des aéroports doit être contrôlé pour ne pas étouffer la fonction aéroportuaire elle-même.

(1) Cet article est une synthèse d'une étude réalisée par l'Iaurif, avec l'appui d'Aéroports de Paris, dans le cadre du projet européen Interreg IIIC COFAR (Common Options For Airport Regions) : L'Airport City et son intégration régionale – Rapport final, juin 2001 (consultable sur le site www.iaurif.org). Cette étude existe aussi en anglais : *Airport City and Regional Embeddedness – Final report*, mai 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.



S. Henry/AFP

Roissy, le dynamisme du pôle de développement dans un environnement social en difficulté

Étienne Berthon
Dce-IAURIF

Le secteur de Roissy, tiré par le développement de l'aéroport et de son rôle de pôle intermodal, a connu une forte croissance des emplois, alors que l'emploi stagnait au niveau régional. Il occupe la première place dans le marché régional des zones d'activités et sa situation au croisement des deux axes logistiques majeurs que sont l'A1 et la Francilienne Est y accentue la pression de la demande. Mais la présence de l'aéroport a entraîné aussi des impacts négatifs sur le fonctionnement urbain du secteur. La complexité des découpages territoriaux et la multiplicité des acteurs n'ont pas permis, jusqu'à maintenant, une cohérence suffisante des politiques d'aménagement ni une réduction significative de la fracture entre un pôle de développement d'échelle internationale et un territoire environnant aux réalités socio-économiques difficiles.

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.



© AFP - Sevna image - I. Hamzaoglu

Plaine de France, un territoire indécidable ?

**Une rétrospective
de la planification urbaine
dans le secteur de Roissy**

Jacques Grangé⁽¹⁾
Tremblay-en-France

Ce qui frappe, quand on regarde rétrospectivement l'évolution du territoire de la Plaine de France, c'est la difficulté de la décision publique sur cet espace. Avant de se prononcer sur la configuration d'une planification urbaine autour de Roissy-CDG, il n'est pas intéressant de regarder l'évolution de cette planification dans les dernières décennies, qu'on pourrait caractériser comme le difficile passage d'une rationalité substantielle à une rationalité procédurale.

(1) Directeur de l'Aménagement

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.



© Géry/Dal

Mobilisation intercommunale autour de l'aéroport d'Orly : la recherche du juste compromis

Sandrine Barreiro

Dadi

Sylvie Lartigue

Dedi

IAURIF

Les sept communes du pôle Orly-Rungis vivent la présence de l'aéroport comme une absolue nécessité pour le développement et l'attractivité de leur territoire et souhaiteraient une meilleure utilisation des créneaux de l'aéroport avec la réouverture de liaisons européennes et intercontinentales. Elles ont aussi à faire face aux contraintes et nuisances environnementales qui touchent une partie de la population, à une certaine fragilisation du tissu économique, à des problèmes importants en matière de desserte et d'aménagement.

L'intercommunal est le seul niveau de réponse possible. Sept communes du Val-de-Marne se sont ainsi associées pour travailler ensemble à donner une identité à leur territoire et tendre vers un certain équilibre entre les intérêts économiques, le maintien de l'emploi et le respect du cadre de vie. De leur côté, les acteurs économiques se mobilisent aussi.



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.



© Helen Rognon

L'accessibilité terrestre aux aéroports

Danièle NAVARRE
Ds - Iaurif

Les grands aéroports européens sont, pour la plupart, connectés au réseau autoroutier régional et reliés au centre par un mode ferroviaire.

La forte concurrence du mode routier, voiture particulière et taxi, fait que la majorité des aéroports affichent une part d'utilisation des transports en commun par les passagers aériens comprise entre 25 % et 35 %.

Cette part dépasse cependant 40 % dans quelques cas, lorsque l'aéroport bénéficie d'une liaison directe ou dédiée avec le centre, d'une accessibilité ferroviaire régionale et nationale, voire internationale, de bonnes connexions entre les aérogares et les gares ferroviaires.

C'est pourquoi plusieurs aéroports projettent une amélioration significative de leur desserte en transports collectifs, notamment l'aéroport de Paris—Charles-de-Gaulle qui met en place un système automatique de desserte interne et envisage la réalisation d'une liaison dédiée avec le centre de 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.



Plan de déplacements urbains : le projet de pôle de CDG

Brigitte Millour¹
Aéroports de Paris

Aéroports de Paris anime depuis 2001 les comités de pôle chargés de mettre en œuvre sur les aéroports d'Orly et Charles-de-Gaulle les principes du Plan de déplacements urbains d'Île-de-France en faveur des transports collectifs. Ces comités de pôle constituent une nouvelle dynamique de gestion partenariale des déplacements aéroportuaires dont la priorité affichée est l'amélioration des conditions de mobilité et d'accès des salariés et des riverains des aéroports. Avec 100 000 employés concernés dont 90 % viennent en voiture, l'enjeu est d'importance. Mais les spécificités de fonctionnement des pôles aéroportuaires en termes d'horaires et de rythme de travail ne facilitent pas les choses. C'est pourquoi aucune piste d'amélioration n'est négligée dans les projets de pôle qui intègrent aussi bien les infrastructures que la qualité des espaces de transport, les circulations douces, l'offre de transport collectif ou la politique des entreprises.

(1) Département Stratégie Aéroports de Paris – Chef de projet – brigitte.millour@adp.fr

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.



© Frédéric Delo / AFP / Gamma

L'Europe de la grande vitesse et l'intermodalité passagers air-rail

Danièle Navarre
DI-IAURIF

La grande vitesse ferroviaire se développe un peu partout dans le monde et en particulier en Europe, où 3 270 km de lignes nouvelles sont déjà en service.

Cette offre nouvelle concurrence le transport aérien sur les courtes distances et on peut s'attendre à des basculements de parts de marché de l'avion vers le train à l'intérieur de l'Europe. Mais la grande vitesse et l'avion peuvent aussi jouer la complémentarité : report des trajets courts sur le train et récupération de la capacité libérée au profit des vols moyen et long courrier.

Cette complémentarité est à rechercher aussi bien au niveau des déplacements de ville à ville, où le train est concurrentiel sur les parcours de moins de trois heures, que du rabattement des passagers aériens vers les aéroports.



Le fret aérien et l'intermodalité

Brigitte Millour⁽¹⁾
Aéroports de Paris

Malgré une conjoncture générale assez morose depuis les attentats de septembre 2001, le fret aérien continue sa croissance, porté par la libéralisation des échanges et l'internationalisation des économies. Longtemps parent pauvre du transport aérien, le fret gagne en importance en raison de la très forte valeur ajoutée des produits transportés et du développement de services intégrés sur le créneau de l'express. Cependant, cette expansion est contrariée par le renforcement des contraintes techniques et environnementales que connaissent les principaux aéroports européens où se concentre l'activité fret.

L'avenir semble donc plutôt à une croissance mesurée sur les grands aéroports et au développement de capacités alternatives sur des aéroports régionaux bien situés ou via la constitution d'un réseau de fret ferroviaire à grande vitesse.

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.

(1) Département Stratégie Aéroports de Paris - Chef de projet - brigitte.millour@adp.fr



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 metropolisation, 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.



© AFP - Service Imag - Paul pe poza

L'impact économique des aéroports franciliens

Etienne Berthon
Dce-Iaurif

Le système aéroportuaire régional a un impact économique direct, par les emplois et les richesses qu'il crée : plus de 100 000 emplois sur les aéroports, 10 à 11 milliards de flux financiers directs générés par les entreprises des plates-formes au bénéfice de l'Île-de-France. Mais il constitue surtout un outil essentiel au service de la vocation touristique de la région, première région touristique au monde, et pour le fonctionnement et le développement de l'ensemble de ses secteurs d'activités, qu'il permet de brancher sur les flux de l'économie mondiale.

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).



Géo/DRÉF

La fiscalité locale générée par les activités aéroportuaires

Jean-Pierre Chauvel
Ddhegl-IAURIF

Huit des dix communes franciliennes disposant du potentiel fiscal ou, plus simplement, de la richesse fiscale la plus importante sont situées sur ou à proximité de Roissy-Charles-de-Gaulle ou d'Orly¹. Ceci suffit à illustrer l'importance stratégique du secteur aéroportuaire pour les collectivités concernées.

La fiscalité locale acquittée par les entreprises concerne d'une part la taxe professionnelle et d'autre part la taxe foncière bâtie. Le cœur de l'activité aéroportuaire représente environ 500 contribuables et 174 millions d'euros de taxe professionnelle (TP) en 2002 dont 30 alimentent les fonds départementaux de péréquation.

La recherche d'une meilleure répartition des retombées fiscales des aéroports est toujours à l'ordre du jour.

(1) Les deux autres communes sont Rungis (MIN) et Puteaux (La Défense).



La disparité des effets d'entraînement des aéroports sur leurs territoires

Sylvie Lartigue
Dedi-IAURIF

L'Île-de-France bénéficie d'un système aéroportuaire puissant, en termes de trafic passager et d'activités fret, et performant par le nombre de destinations et de possibilités de correspondance offertes.

Si, à l'échelle régionale, le dispositif aéroportuaire francilien contribue ainsi à l'attractivité globale de la Région, les deux plates-formes ont connu, ces quinze dernières années, des évolutions très contrastées. Roissy-Charles-de-Gaulle a connu un essor important de son trafic avec, en particulier, la constitution du *hub* d'Air France-Skyteam. Sur Orly, plafonné en nombre de mouvements et dont la vocation est essentiellement domestique et DOM-TOM, le trafic stagne. Il en résulte un impact très différencié sur le développement «local» des territoires qui constituent l'aire d'influence des deux aéroports¹.

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) Cet article s'appuie sur les résultats de l'étude *L'impact socio-économique des aéroports franciliens*, réalisée par l'IAURIF pour Aéroports de Paris (ADP) – mars 2003.

(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-départemental [inter-county] partnership will be broadened to other fields as well.



© Roissy CDG

Emploi et formation dans le secteur de Roissy : un partenariat actif au service de tous

Noureddine Cherrodji

GIP Emploi Roissy

Roissy-CDG, deuxième aéroport européen, recrute environ 8 000 personnes par an. Le transport aérien est une industrie encore jeune, ses métiers sont très divers et en constante évolution. Pour répondre aux besoins de ce secteur d'activité et favoriser l'accès à l'emploi des populations proches de l'aéroport, un large partenariat a été développé depuis quelques années autour du GIP emploi Roissy-CDG. La réunion d'une première conférence territoriale, en novembre 2002, a marqué une étape importante de la démarche qui vise à concilier les attentes des acteurs aéroportuaires et celles des communautés riveraines. Depuis quelques années, l'offre de formation s'est fortement développée dans le secteur de Roissy et les acteurs travaillent à la préparation d'un schéma territorial des formations qui permettra d'assurer la meilleure cohérence globale possible. Dans le cadre de la préparation du volet territorial du contrat de plan État-Région, le partenariat interdépartemental s'élargit aussi à d'autres champs.

(1) Directeur du GIP emploi Roissy-CDG. GIP : groupement d'intérêt public.



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 Ile-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" (Ile-de-France Environment), air transport and sustainable development are not incompatible, "provided that we get started on making them compatible."



© H. Rognat

Les nuisances aéroportuaires : réalités et perceptions

Erwan Cordeau

Deur - IAURIF

Claire Moulinié

Doe - IAURIF

Le transport aérien améliore doucement ses performances environnementales. En tendance, le bruit a diminué de 1 décibel et la consommation de carburant de 2 % par an entre 1970 et 1990 puis 0,5 décibel et 1 % par la suite. C'est insuffisant pour compenser l'accroissement des mouvements. L'état de la réglementation environnementale se resserre mais sans une sérieuse rupture technologique l'avion propre et silencieux n'est pas pour demain. En Ile-de-France, les survols à moins de 3 000 mètres concernent de 2 à 2,5 millions de personnes. Autour d'Orly et de CDG, environ 50 000 personnes sont exposées aux plus fortes nuisances. Et il n'y a pas que 2 aéroports. Il y en a 25 autres, qui totalisent un million de mouvements annuels. Les émissions de CDG sont du même ordre que celles induites par le boulevard périphérique...

Des mesures significatives de mesure et de réduction des nuisances sont prises, mais beaucoup reste à faire et la plainte des populations riveraines est forte : augmentation de la gêne liée au bruit, difficile à définir car elle intègre des facteurs complexes ; inquiétude quant à l'impact de l'activité aérienne sur la santé et l'augmentation à venir du trafic, perte de confiance dans le "discours" officiel, sentiment que les politiques de compensation sont bien modestes...

Pour Marc Ambroise-Rendu, président d'IDF Environnement, transport aérien et développement durable ne sont pas incompatibles "à condition que l'on s'y mette".



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.

La gêne due au bruit au voisinage des aéroports : autre approche, autre politique

Bernard Barraud¹

CNRS
LATTIS

À partir du constat que la gêne exprimée dans les enquêtes corrélait assez mal avec les mesures acoustiques, plusieurs chercheurs se sont mobilisés, notamment dans le cadre du comité de recherches Concertation, décision et environnement. Quand on va au-delà de l'approche médico-acoustique de la gêne, privilégiée jusque là, on s'aperçoit qu'elle est fortement liée à la situation psychologique et sociale des habitants et qu'elle a aussi une dimension territoriale et collective.

Pour dépasser les blocages actuels, il faut d'abord rétablir un minimum de confiance entre les acteurs en conflit, mais aussi arriver à constituer à la fois une représentation partagée de ce qu'est la gêne, et une représentation des forces en présence dans le débat considérée comme équitable par tous. Cette double représentation n'est pas assurée actuellement.

(1) Directeur de recherche

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.



© ADP - Service Image - I. Bulté

Objectif aéroport écologique : le management environnemental sur les aéroports

Franck Le Gall¹
Aéroports de Paris

Plus de mille entreprises sont présentes sur les aéroports franciliens, du grand groupe à la PME, avec des métiers et des impacts environnementaux très divers. Il en résulte des responsabilités diluées dans un jeu d'acteurs très complexe. Au-delà de son action dans son propre champ de compétence, ADP cherche à élargir le management environnemental à l'échelle de l'ensemble du territoire aéroportuaire et de ses acteurs, sur la base d'une éthique comportementale et d'un concept d'écologie industrielle à faire partager par tous.

(1) Responsable du management environnemental

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.



© S. Delo

L'action d'un conseil général : le Val-d'Oise

Conseil général du Val-d'Oise

Le Val-d'Oise est le département d'Île-de-France le plus fortement soumis aux nuisances aéroportuaires. Le conseil général a dû s'organiser pour faire face à cet encombrant voisin.

Il a notamment créé un groupe d'observation et une mission bruit et organise ses propres campagnes de mesure. Mais son souci d'élargir l'échelle du débat l'a conduit à organiser une conférence internationale dont il a été présenter les conclusions au sommet de Johannesburg sur le développement durable.



Governance, and consultation: the difficult art of compromise

In Ile-de-France, as shown by the DUCSAI procedure on the "3^e 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.



© AFP - Sipa/Sipa Image - Photo Per Petterson

Développement des infrastructures aéroportuaires : le débat impossible ?

Guillaume Faburel⁽¹⁾

Institut d'urbanisme de Paris
Université Paris XIII

En Europe comme aux États-Unis, le développement aéroportuaire est source de conflits permanents. Les modes d'évaluation du bruit et de la gêne sonore sont contestés. Les coalitions d'opposition s'élargissent aux élus et aux experts, et l'utilité même des projets est parfois remise en cause. La région apparaît progressivement comme l'échelle des compromis à trouver.

(1) Maître de conférences, Centre de recherche sur l'espace, les transports, l'environnement et les institutions locales

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.



L. Berthon/IAURIF

La difficile gestion du développement aéroportuaire en Europe

Étienne Berthon
Dce-IAURIF

La multiplicité des acteurs, de leurs intérêts, de leurs stratégies complique encore la gestion du développement aéroportuaire, conflictuel par nature. De plus, les aéroports européens sont souvent situés à la charnière de plusieurs limites politico-administratives : au lieu d'être au centre d'un territoire de planification, ils sont aux marges de plusieurs. Partout en Europe, de nouvelles pratiques se développent, de nouvelles structures sont créées pour essayer de dépasser les antagonismes, construire une vision mieux partagée des enjeux, trouver les compromis les plus acceptables possibles et une meilleure cohérence dans les politiques menées. Mais le chemin est long et difficile.



À la recherche de l'introuvable nouvelle piste pour le Sud-Est anglais

Roger Jones

Chef du groupe planification des grandes infrastructures de transport
Comté du West Sussex

Depuis quinze ans, le gouvernement anglais cherche désespérément où construire une nouvelle piste dans le Sud-Est anglais, dont le système aéroportuaire est fortement saturé. Aujourd'hui, c'est plutôt deux ou trois pistes qu'il faudrait et la solution est toujours aussi peu évidente. Le Livre blanc (*White Paper*) récemment publié ne va pas clore le débat.

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.



La concertation à la hollandaise, un modèle qui marche ?

Marielle Prins
Prins DC consultant

Depuis des siècles, les Pays-Bas ont bâti leur économie sur les échanges internationaux et, aujourd'hui, le port de Rotterdam et l'aéroport d'Amsterdam-Schiphol, ses deux « main ports », sont des atouts essentiels. Malgré les oppositions locales autour de l'aéroport, il y a un large consensus national pour permettre leur développement. Si l'activité de l'aéroport est assez strictement encadrée par des limites en matière de sécurité et d'environnement, les arbitrages de l'État se font toujours en faveur du transport aérien.

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.



© Yves Image

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.

Gouvernance métropolitaine, gouvernance aéroportuaire : acteurs et enjeux en Île-de-France

Fouad Awada
DG - IAURIF

Les relations entre les aéroports franciliens et les territoires qui les accueillent ont été, jusqu'ici, des relations conflictuelles, gérées de manière plutôt éclatée et en termes de « points acquis » et de « concessions accordées ». Les évolutions en cours du contexte institutionnel (nouvelle vague de décentralisation) et du paysage aéroportuaire (restructuration de la DGAC¹, évolution des statuts d'ADP et d'Air France...), et le rapprochement, chaque jour, de la « limite de l'acceptable » en ce qui concerne l'intensité des nuisances supportées par les riverains, incitent à réformer les modes de gestion de ces relations aéroports-territoires. Des rapports parlementaires évoquent d'ores et déjà des pistes pour une plus grande intégration des sujets en débat et pour un rôle accru du conseil régional d'Île-de-France.

(1) Direction générale de l'aviation civile.

AAA : Amsterdam Airport Area (Pays-Bas)	DDE : Direction départementale de l'équipement	OSP : Obligations de service public
ACARE : Advisory Council for Aeronautical Research in Europe	DGAC : Direction générale de l'aviation civile	PADOG : Plan d'aménagement et d'organisation générale
AOC : Airport Consultative Committee (Grande Bretagne)	DRE : Direction régionale de l'équipement	PARP : Projet d'aménagement de la région parisienne
ACI : Airport Council International	DREEP : Direction régionale de l'équipement de la région Ile-de-France	PDU : Plan de déplacement urbain
ACNUSA : Autorité de contrôle des nuisances sonores aéroportuaires	DTA : Direction des transports aériens	PEB : Plan d'exposition au bruit
ADEF : Association des études foncières	DUCSAI : Démarche d'utilité concertée pour un site aéroportuaire international	PEX : Prés expérimentaux
ADEME : Agence de l'environnement et de la maîtrise de l'énergie	DUP : Déclaration d'utilité publique	PFV : Planfeststellungsverfahren (Allemagne)
ADOR : Association pour le développement économique du pôle Orly-Rungis	ECAC : European Civil Aviation Conference	PGS : Plan de gène sonore
ADP : Aéroport de Paris	EERA : East of England Regional Assembly (L'assemblée régionale de l'Est de l'Angleterre)	PIB : Produit intérieur brut
ADVOCNAIR : Association de défense contre les nuisances aériennes	ENGREF : Ecole nationale du génie rural des eaux et forêts	PLU : Plan local d'urbanisme
AEA : Association of European Airlines	EPA : Etablissement public d'aménagement	PNR : Parc naturel régional
AEE : Aviation Environment Federation (Grande Bretagne)	ERE : Enquête régionale sur l'emploi	PNUE : Programme des Nations-Unies pour l'environnement
AFMAE : Association pour la formation aux métiers de l'aérien	ERPURS : Évaluation des risques de la pollution urbaine sur la santé en Ile-de-France	POS : Plan d'occupation du sol
AFPA : Association nationale de formation professionnelle des adultes	FAA : Federal Aviation Administration (Etats-Unis)	PPA : Plan de protection de l'atmosphère
APU : Auxiliary Power Units	FAC : Francfort Airport Center (Allemagne)	PPRI : Plan de prévention des risques d'inondation
ARC : Airport Region Conference	FDPTP : Fonds départemental de péréquation de la taxe professionnelle	PREDIT : Programme national de recherche et d'innovation dans les transports terrestres
ARC : Association des représentants des compagnies aériennes en France	FIDESE : Fonds interdépartemental pour l'environnement et le développement économique	PSA : Plan de servitudes aéronautiques
ARD : Agence régionale de développement	FNAM : Fédération nationale de l'aviation marchande	PUMA : Pôle universitaire des métiers de l'aérien
ARISO : Autoroute interurbaine de Seine et Oise	FNCA : Fonds de compensation des nuisances aéroportuaires	PVFRM : Planungswert Frankfurt Region RheinMain (Allemagne)
ASAS : Airport Surface Access Strategies (Grande Bretagne)	GATCOM : Gatwick Airport Consultative Committee (Grande Bretagne)	RDF : Régionales Dialogforum (Forum de dialogue régional) (Allemagne)
ATAG : Air Transport Action Group	GDS : Global Distribution System (Systèmes d'information et de réservations informatisées)	RER : Réseau express régional
ATFs : Airport Transport Forums (Grande Bretagne)	GEMACA : Group for European Metropolitan Areas Comparative Analysis	RFF : Réseau ferré de France
BAA : British Airport Authority (Grande Bretagne)	GIE : Groupement d'intérêt économique	ROV : Raumordnungsverfahren (Allemagne)
BIAC : Brussels International Airport Company (Belgique)	GIFAS : Groupement des industries françaises aéronautiques et spatiales	SADC : Schiphol Area Development Company (Pays-Bas)
BTTP : Bâtiment et travaux publics	GIP : Groupement d'intérêt public	SAT : Système automatique de transport
CA : Communauté d'agglomérations	GLA : Greater London Authority (L'autorité du grand Londres, Grande Bretagne)	SCARA : Syndicat des compagnies aériennes autonomes
CAEP : Comité on Aviation Environmental Protection	HACC : Heathrow Airport Consultative Committee (Grande Bretagne)	SCOT : Schéma d'orientation territorial
CAMAS : CEA des métiers d'assistance aéroportuaire	IATA : International Air Transport Association	SDAC : Schiphol Area Development Company (Pays-Bas)
CARE : Communities Against Runway Expansion (Etats-Unis)	ICE : InterCityExpress [Les trains grandes lignes (Allemagne)]	SDMAC : Schiphol Area Development Company (Pays-Bas)
CBC : Crawley Borough Council (Grande Bretagne)	IDE : Investissements directs étrangers	SDMU : Schéma directeur d'aménagement et d'urbanisme
CC : Communauté de communes	IDF : Ile-de-France	SDAURIF : Schéma directeur d'aménagement et d'urbanisme de la Région d'Ile-de-France
CCAR : Commission consultative d'aide aux riverains	IDFE : Ile-de-France Environnement	SDAURP : Schéma directeur d'aménagement et d'urbanisme de la Région Parisienne
CCE : Commissions consultatives de l'environnement	IFEN : Institut français de l'environnement	SDRIF : Schéma directeur de la Région d'Ile-de-France
CCIP : Chambre de commerce et d'industrie de Paris	INRETS : Institut national de recherche sur les transports et leur sécurité	SEERA : South East of England Regional Assembly (L'assemblée régionale du Sud-Est de l'Angleterre)
CEEVO : Comité d'expansion économique du Val-d'Oise	INSEE : Institut national de la statistique et des études économiques	SERAS : South East Regional Air Services (Grande Bretagne)
CEPT : Contrat d'études prospectives territorialisé	IQV : Indicateur de qualité de vie	SIEVO : Syndicat intercommunal de l'est du Val-d'Oise
CFA : Centre de formation d'apprentis	LAEQ : niveau moyen de bruit sur une période (bruit ambiant)	SIGARIF : Système d'information géographique régional d'Ile-de-France
CIDB : Centre d'information et de documentation du bruit	LAMax : niveau de bruit d'un événement distinct (bruit ponctuel)	SNAGFA : Syndicat national des agents et groupes de fret aérien
CIF : Comité interprofessionnel de fret des aéroports parisiens	LATTS : Laboratoire techniques territoires sociétés	SNECMA : Société nationale d'études et de construction de moteurs d'avion
CIFT Aéro : Centre international de formation technique aéronautique	LAURE : Loi sur l'air et l'utilisation rationnelle de l'énergie	STIF : Syndicat des transports d'Ile-de-France
CNB : Conseil national du bruit	LHR : Londres Heathrow Region (Grande Bretagne)	STP : Syndicat des transports parisiens
CNDP : Commission nationale du débat public	LMD : Licence, maîtrise, doctorat soit Bac+3/5/8	TGAP : Taxe générale sur les activités polluantes
CNR : Centre national de la recherche scientifique	LTMU : Laboratoire théories des mutations urbaines	TMA : Terminal Manoeuvring Area
COFAR : Common Options For Airport Regions (projet Interreg II C)	ITPs : Local Transport Plans (Grande Bretagne)	TNL : Toekomstige Nederlandse Luchtwacht
COHOR : Coordination des horaires	MIN : Marché d'intérêt national	Infrastructure (infrastructures futures pour la navigation aérienne aux Pays-Bas)
CPA : Colis postaux aérien	MMD : Masse maximale au décollage	TP : Taxe professionnelle
CPDP : Comité professionnel du pétrole	NADP : Noise Attenuation Departure Procedure	TVM : Trans-Val-de-Marne
CREDOC : Centre de recherche pour l'étude et l'observation des conditions de vie	NAF : Nomenclature d'activités françaises	UCCFGA : Union des chambres de commerce et d'établissements gestionnaires d'aéroports
CRESSON : Centre de recherches sur l'espace sonore de Grenoble	NATMAG : Noise and Track Monitoring Advisory Group (Groupe consultatif pour le monitoring du bruit et des trajectoires) (Grande Bretagne)	UE : Union européenne
CROS : Commission de la concertation régionale sur l'aéroport de Schiphol	NIMBY : Not In My Back Yard "Pas chez moi!"	UFCNA : Union française contre les nuisances aériennes
CRIV : Centre de ressources et de valorisation	NLR : National Aerospace Laboratory (Laboratoire spatial et d'aviation des Pays-Bas)	UVF : Umlandverband Frankfurt (Allemagne) devenu (PVFRM) (Planungswert Frankfurt Region RheinMain), Allemagne]
CSTA : Chambre syndicale du transport aérien	ONACI : Organisation de l'aviation civile internationale	VAE : Validation des acquis de l'expérience
DATAR : Délégation à l'aménagement du territoire et à l'action régionale	ONA : Observatoire des nuisances aériennes	VPI : Volume de protection environnemental
dB : Décibel, unité de mesure de l'intensité sonore	OBS : Observatoire régional de la santé	WSOC : West Sussex County Council (Grande-Bretagne)
		ZAD : Zone d'aménagement différé
		ZAE : Zone d'activité économique
		ZALA : Zones d'activités liées aux aéroports
		ZNE : Zone naturelle d'équilibre
		ZUP : Zone à urbaniser en priorité

Associations et organismes internationaux

AIA - Association of European Airlines : www.aea.be
 Agence européenne de l'environnement : www.eea.eu.int
 Airports Council International - ACI : www.airports.org
 Airport Regions Conference - ARC : www.airportregions.org
 Air Transport Action Group - ATAG : www.atag.com
 Alliances : www.skyteam.com - www.staralliance.com - www.oneworld.com
 Commission Européenne : www.europa.eu.int/index_fr.htm
 Comité sur l'Aviation Environnementale Protection - CAEP : voir site www.icao.int
 Eurocontrol : www.eurocontrol.fr - www.eurocontrol.int - www.ecocnav.com
 European Business Aviation Association - EBAA : www.ebaa.org
 International Air Transport Association - IATA : www.iata.org et www.iataonline.com
 International Civil Aviation Organization - ICAD ou OMCI : www.icao.int
 Programme des Nations-Unies pour l'Environnement - UNEP : www.globallyreporting.org
 The International Air Cargo Association : www.ifaco.org
 Transport et Environnement : www.t-e.eu

Informations générales sur le transport aérien
www.airwise.com - <http://btcweb.biz> -
www.europepages.fr (nombreux liens)
www.ponymi.gov/aviation/internationaleairports.htm (liens avec aéroports)

Air Cargo World - www.aircargoworld.com

Constructeurs d'avions

Airbus : www.airbus.com
 Boeing : www.boeing.com
 EADS : www.eads.com
 SNECMA : www.snehma-moteurs.com

EUROPE**Allemagne**

Aéroport de Francfort : www.fraport.com - www.frankfurt-airport.de
 Groupe de médiation sur l'extension de l'aéroport de Francfort : www.mediation-flughafen.de
 Forum de dialogue régional [Régionales Dialogforum-RDF] : [www.dialogforum-flughafen.de](http://dialogforum-flughafen.de)
 Aéroport de Munich : www.munich-airport.de
 Lufthansa : www.lufthansa.com - Lufthansa cargo : www.lhcargo.com
 German Advisory Council On Global Change (WBGU) : www.wbgu.de

Autriche

Aéroport de Vienne : www.viennairport.com et www.english.viennairport.com
 Austrian Airlines : www.aua.co.at

Belgique

Aéroport de Bruxelles : www.brusselsairport.be
 Structure de médiation - Forum de concertation : www.airportmediation.be
 Association Bruxelles Air Libre : www.bruairlibre.be

Danemark

Aéroport de Copenhague : www.rph.dk / CPH / UK

Espagne

Iberia : www.iberia.com
 Aéroports de Madrid et de Barcelone : www.aena.es
Grande Bretagne
 Department For Transport : www.dft.gov.uk
 British Airways : www.britishairways.com - Cargo : www.baworldcargo.com
 BAA - British Airport Authority : www.baa.co.uk
 Aéroport de Londres Heathrow : www.heathrow.co.uk

Aéroport de Gatwick :

www.baa.co.uk/main/airports/gatwick/ ou www.gatwickairport.co.uk
 Aéroport de Stansted : www.baa.co.uk/main/airports/stansted/
 Manchester airport Ltd : www.manoairport.co.uk
 Airport Consultative Committee - ACCs :
 - Groupe de liaison : www.ukaccs.info
 - Heathrow : www.lhr-acc.org/
 - London City : www.lccrc.org/
 - Luton : www.llacc.com/
 - Gatwick : www.westsussex.gov.uk/yourcouncil/meetings/other/gatwick/home.htm

- Stansted : www.suffolk.org.uk/saffire/environ/stanexpan/store/index.html
 Transports : www.londontransport.co.uk - www.heathrowexpress.co.uk

Irlande

Aéroport de Dublin - Aer Rianta : www.dublin-airport.com - www.aer-rianta.ie
 Aer Lingus : www.aerlingus.ie
 Ryanair : www.ryanair.com

Italie

Aéroport de Rome-Da Vinci : www.adr.it
 Aéroport de Milan Malpensa : www.se-airportimilano.it/eng/Malpensa
 Alitalia : www.alitalia.it

Pays-Bas

Aéroport d'Amsterdam schiphol : www.schipol.nl - www.schipholview.nl - www.schipholrealestate.com
 KLM : www.klm.com

Suède

Aéroport de Stockholm-Arlanda : www.lfh.se/site/airports/arlanda/eng/index.asp

Suisse

Unique Zurich Airport Ltd : www.uniqueairport.com

FRANCE**Pouvoirs publics - administration**

DATAR : www.datar.gouv.fr
 Direction générale de l'aviation civile : www.dgac.fr
 Direction régionale de l'Industrie, de la recherche et de l'environnement de la région Ile-de-France : www.ile-de-france.drire.gouv.fr
 Ministère de l'Aménagement du territoire et de l'environnement : www.environnement.gouv.fr
 Ministère de l'équipement, des transports, du logement, du tourisme et de la mer : www.equipement.gouv.fr
 Mission interministérielle de l'effet de serre : www.effet-de-serre.gouv.fr
 Service technique des bases aériennes : www.stba.aviation-civile.gouv.fr/

Information, médiation, recherche

AFUTA : association française des usagers du transport aérien : www.afuta.fr
 Agence de l'environnement et de la maîtrise de l'énergie (ADEME) : www.ademe.fr
 Airparif [organisme chargé de la surveillance de la qualité de l'air en Ile-de-France] : www.airparif.asso.fr
 Autorité de contrôle des nuisances aéroportuaires : www.acnaa.fr
 Centre d'études sur les réseaux, les transports, l'urbanisme et les constructions publiques (CERTU) : www.certu.fr
 Centre d'information et de documentation sur le bruit : www.infobruit.org
 Commissions consultatives de l'environnement - Voir le site d'ADP : www.odp.fr
 COMUTA - Comité des usagers du transport aérien (observatoire des retards) - voir site DGAC : www.dgac.fr

FNA - Fédération nationale d'aéronautique -

www.fna.asso.fr
 Institut français de l'environnement (IFEN) : www.ifen.fr
 Institut national de recherche sur les transports et leur sécurité (INRETS) : www.inrets.fr
 Institut du transport aérien (ITA) : www.ita-paris.com
 Observatoire régional de la santé d'Ile-de-France - Évaluation des risques de la pollution urbaine sur la santé : www.ors-idf.org - www.erpars.org
 ONERA - Office national d'études et de recherches aéronautiques : www.onera.fr
 Rapports parlementaires : www.assemblee-nat.fr - www.senat.fr
www.aviation-pilote.com
www.monicore.com [index des sites sur l'environnement avec liens]
www.paris-touristoffice.com ["liens utiles" - compagnies aériennes]

Transports terrestres

Projet CDG express : www.cdgeexpress.org - www.debatpublic-cdgeexpress.org
 Site du Plan de déplacements urbains Ile-de-France : www.pdu-ifl.org
 Syndicat des transports d'Ile-de-France : www.stif-idf.fr

Aéroports et acteurs du transport aérien

Fédération nationale de l'aviation marchande (FNAM) : www.fnam.fr
 UCCEGA - Union des chambres de commerce et d'établissements gestionnaires d'aéroport : www.uccega.aeroport.fr
 Aéroports de Paris (ADP) : www.adp.fr
 Air France : www.airfrance.com
 FedEx : www.fedex.com
 Aéroports de Paris : www.adp.fr
 Aéroport de Nice : www.nice.aeroport.fr
 Aéroport de Lyon Saint Exupéry : www.lyon.aeroport.fr
 Aéroport de Marseille : www.marseille.aeroport.fr
 Aéroport de Toulouse Blagnac : www.toulouse.aeroport.fr
 Aéroport de Vatry : www.vatry.com

Acteurs locaux secteur de Roissy

CEEVO (Comité d'expansion du Val-d'Oise) : www.ceevo95.fr
 Communauté de communes Roissy-Porte de France : www.plainedefrance.fr/partenaires/roissy_en_france.shtml
 EPA Plaine de France : www.plainedefrance.fr
 GIE Paris Nord 2 : www.parisnord2.fr

Associations de défense

Association de défense contre les nuisances Aériennes : <http://www.adcnair.free.fr>
 Comité des victimes de la pollution et du bruit : SOS bruit : www.sos-bruit.com
 DERAP - Défense des intérêts des riverains de l'aérodrome de Pontoise : <http://efcna.com/drop/ouwww.drop.fr>
 FNAUT - Fédération nationale des associations d'usagers des transports : www.fnatc.asso.fr
 Île-de-France environnement : www.assoc-idf.org
 Observatoire des nuisances aériennes : www.nuisances-aeriennes.com
 Sons Terra : www.sonterra.asso.fr
 UCSAID - Union contre les sites aéroportuaires à impact dangereux : www.ucsaid.net
 Union française contre les nuisances aériennes : www.ufca.org
 Villes et aéroports : www.villeaeroport.org