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NEW FRENCH LAW AND REGULATIONS ON THE CONTROL OF NOISE AROUND MAIN AIRPORTS

L. Jacob*, M. Vallet**

* Direction Générale de l'Aviation Civile, 50 rue Henry Farman, 75015, Paris, France

** Institut National de Recherche sur les Transports et leur Sécurité, 25 avenue François Mitterrand -
Case 24, 69675, Bron, France

Tel.: 33 1 58 09 41 88 / Fax: 33 1 58 09 47 87 / Email: jacob_laetitia@sba.dgac.fr

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ABSTRACT

Since 1992, the extension of Paris-Charles de Gaulle airport has been a great subject of debate between the public and the different authorities. Finally, in september 1997, it was decided to build two new runways in this airport on the express condition that a special institution, defined as a guarantee for the respect of the sound environment, should be created. The French Minister of Transport decided to create this institution, an independent authority, by a law, in order to have the Parliament express their point of view on this very political issue. This resulted the 12th of July 1999 in the law creating the "ACNUSA", airport noise annoyance control authority. This authority can actually be considered as a "referee" in all the relationships between airports and their surrounding communities. It consists of an 8 members assembly (amongst which 5 experts) with a general competence to make all kind of recommendations on noise measurement (noise index, noise monitoring on main airports...) and noise mitigation regulations. Moreover, the ACNUSA is responsible for the quality of the information given to the public on these subjects and is able to give penalties up to \$13 000 to airlines which do not comply with the rules set by the minister of transport in order to reduce noise around airports, especially during night-time. The ACNUSA should begin to work in the beginning of the year 2000 and will probably imply great changes in all the coordination process conducted with neighborhood communities around airports.

1 - INTRODUCTION

The continuous growth of air traffic since the mid-90's on the main French airports (Paris, Nice, Marseille, Toulouse, Lyon...) makes the noise issue very accurate in the neighborhood communities. Moreover, airport extension projects like the construction of two new runways in Paris-Charles de Gaulle airport (due to enter into service by spring 2001) or the extension of Lyon-St Exupéry planned within the next 10 or 20 years, are a matter of worry for the populations.

The elected officials and the residents of the neighborhood communities look very closely at all these changes in airport infrastructures and more generally in air traffic organization and they have many claims regarding the noise pollution. Thus, the Government was urged to enhance its noise environment protection policy around airports and decided to have the Parliament adopt a law to create a national airport noise control authority (ACNUSA).

Moreover, traffic restrictions can be taken, especially during the night, to ensure noise emissions reduction around some environmentally "sensitive" airports. The development of a consultation process between the official authorities, the local communities, the airport and the airlines is also a challenge on the biggest French airports.

2 - THE ACNUSA

The airport noise annoyance control authority (ACNUSA) has been created last summer (law dated July 12th, 1999) to be actually independent from anyone interested in air transport or elected in any

community, and act as a referee in all the relationships between an airport and its environment. The ACNUSA has its own budget and consists in an 8 members assembly named for 6 years and non-removable:

- a President,
- 2 members chosen by the Parliament (but they must not be elected representatives),
- 5 experts in air traffic, air navigation, acoustics, noise annoyance and human health.

The ACNUSA has been commissioned to:

- give technical recommendations on aircraft noise measurement around airports. More precisely, the ACNUSA will have to define the appropriate noise index for these measures.
- give any tools to evaluate the noise annoyance felt by the communities.
- give any recommendations on noise mitigation policies held by the airport authorities or the Government regarding noise pollution due to the airport activity. More precisely, the ACNUSA advice must be taken before any official approval of noise exposure maps for land use planning or for sound insulation programs in the neighborhood communities.
- give an advice on any change on take-off, approach or landing procedures.
- refer any infringement to noise abatement regulations to the administration.
- pronounce financial penalties to the airlines violating traffic restrictions set up on airports to protect the noise environment (night-time curfews for the noisiest aircraft for example).

2.1 - Noise monitoring systems

On the 9 main French airports (Paris-Charles de Gaulle, Paris-Orly, Nice, Toulouse, Lyon, Marseille, Bordeaux, Strasbourg, Mulhouse), the ACNUSA will have to define all the technical instructions concerning monitoring systems (noise measurement and flight track monitoring). More precisely, standards will be set concerning noise measurement (units), the number and location of the noise measuring stations and the operation of the system (correlation with the actual traffic, presentation of the results...).

The airports will be responsible for the installation and the operation of the noise monitoring systems but the ACNUSA will look at the conformity to the standards she sets.

The ACNUSA will also check that the results of the noise measurements are properly publicized and made available to anybody (elected representatives, local communities...).

For the public, this process is a real guarantee of reliability and transparency of the information they're given.

Nowadays, Aéroports de Paris (ADP) are the only ones in France to have a monitoring system displayed to the public. SONATE consists of 15 noise measuring stations located around Orly and Charles de Gaulle. The noise levels are presented in correlation with the flight tracks followed by the aircraft and an annual report of the measures (using LeqA) is available. Every three months, a free publication of ADP shows the noise levels for each station around Paris-Charles de Gaulle airport.

Other French airports are on their ways to implement noise monitoring systems. Thus, the action of the ACNUSA to harmonize the technical requirements is very useful, especially as the European Community is about to adopt a directive on noise in the environment.

2.2 - The ACNUSA as a consultative assembly

The French administration will have to take into account the advice of the ACNUSA on many documents concerning airports environment protection.

First of all, the ACNUSA must be conferred before adopting a new regulation concerning noise abatement around airports. It can be either for general regulations, for example the definition of a new zoning around airports for land use planning, or for specific restriction of use on one of the main airports. For example, the ACNUSA must be consulted to establish a night-time curfew for chapter 2 aircraft (the International Civil Aviation Organization (ICAO) sets standards to classify aircraft depending on their noise levels measured during take-off and landing; the "chapter 2" of this classification correspond with the oldest and noisiest aircraft; these chapter 2 aircraft will be banned from the European community from the 1st of april 2002) or if noise abatement procedures are defined for the noisiest aircraft.

The ACNUSA must also be consulted before the approval of noise exposure maps for land use planning or sound insulation programs and before any change on a take-off, approach or landing procedure on

one of the 9 main airports. This consultation implies a noise impact study. The French Civil Aviation Authorities are working on a noise impact model based on INM (Integrated Noise Model) and taking into account topography and meteorological conditions (wind dispersion for example) around the airports.

At least, mediation and refereeing are two important tasks of the ACNUSA. Anyone interested in the relationships between an airport and its environment can refer to the ACNUSA. This authority will be answerable for the respect of all commitments taken to reduce the noise impact around airports. More precisely, the ACNUSA will be a guarantee for the charters of environmental quality approved by the airports, the local authorities, the airlines, the pilots, the air traffic controllers, the local communities and the elected representatives to be put into practice.

To achieve all these missions, the ACNUSA have its own budget (USD 700 000 for 2000) and is able to launch any studies she'd be interested in and to ask any expert to work for her.

3 - THE CO-OPERATION PROCESS WITH LOCAL RESIDENTS NEAR THE FRENCH AIRPORTS

3.1 - Environmental Consultative Committee (CCE)

The CCE bring together local elected officials, Government representatives, local residents' associations, airlines, airport representatives, pilots and air transport staff representatives. About 85 airports have a CCE. These commissions must be consulted on any serious question regarding development and operation of the airport and on any question related to the noise impact of the airport activity. They have been created by a law in 1985 but the recent law of July 1999 strengthened their position in the airport development process.

3.2 - The environmental quality charters

The French Minister of transportation asked the CCE of the 9 main airports to write environmental quality charters for noise. These charters are formal documents approved by the CCE and they lay down the following aims:

- to better define noise inconvenience in order to better combat it,
- to reduce noise problems caused by aviation by working to:
 - reduce noise at source by encouraging airlines to change their fleet and by getting the Government involved in the following-up of different programs launched in Europe.
 - promote noise reducing initiative and practical methods.
 - provide improved help for local residents;
 - keep urban sprawl in check in the vicinity of airports.
- Create a mechanism of global indicators that can be estimated to be sure that the commitments taken to level-off the noise annoyance are kept.
- Foster an authentic system of partnership with local residents by:
 - ensuring their right to information;
 - granting the CCE full responsibility for monitoring respect for the charter and setting up its own permanent technical committee to that end.

Within these charters, commitments to make some specific studies are taken. For example, when working with the CCE of Paris-Charles de Gaulle, the French Minister for transportation and the Minister for environment decided that a noise annoyance survey should be done in the vicinity of the 2 main airports in Paris.

This survey aimed to better understand the noise annoyance expressed by the population and correlate it to the actual noise levels due to air traffic. This survey also pointed out that the communication with the local communities is not so easy because of misunderstanding on the vocabulary used.

Indeed, 1373 persons were questioned and:

- 597 said they know what is a decibel;
- less than 50 said they know what is a noise exposure map;
- 2 said they know what is the "psophic index", which is the acoustic index used in France to evaluate the noise impact of aviation.

- 721 said they do not know any of these words.

4 - OTHER REGULATIONS – CONCLUSION

4.1 - Airport use restrictions

In order to reduce the noise exposure of the local communities living around the main commercial airports, the Minister for transportation took different decrees (on Paris-Charles de Gaulle, Paris-Le Bourget, Toulouse, Nice, Lyon) restricting the traffic on these airports. The main restrictions are:

- ban on engine testing between 10 pm and 6 am, with possible exemptions from 10 to 11 pm and 5 to 6 pm;
- ban on night-time flights operated with chapter 2 aircraft;
- requirement of noise abatement procedure for takeoffs and climb phases in order to limit noise pollution.

On Paris-Charles de Gaulle and Paris-Orly, a decree set a rule to decrease the number of chapter 2 aircraft operating from these airports. These aircraft are indeed great contributors to the total sound energy generated by the traffic on these airports.

The airports authorities are clearly attached to the close respect of these restrictions and any infringement should be publicized.

4.2 - Financial penalties

In 1998, a decree of the French Government created a financial penalties system to fine the airlines or the pilots working for their own when they do not respect the restriction of use taken to reduce the noise impact of an airport activity.

The Minister of transportation used to be the one to pronounce the financial penalties. The ACNUSA is now devoted to do so. The fines are decided upon a special commission advice and can be up to USD 11500. Since 1998, in Paris-Charles de Gaulle, about 1300 penalties were pronounced, representing a total amount of about USD 3.5 Million. Today, the number of infringements is decreasing.

The whole official mechanism set up by the French Government result in a bigger awareness of all the different people working in the air transport activity to their environment.

The ACNUSA will contribute to this policy by being a referee in all the relationships and a guarantee for the respect of the right to information of the communities.

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