



COMMISSION OF THE EUROPEAN COMMUNITIES

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**REPORT FROM THE COMMISSION TO THE COUNCIL AND THE EUROPEAN  
PARLIAMENT**

**Noise Operation Restrictions at EU Airports**

**(Report on the application of Directive 2002/30/EC)**

## 1. INTRODUCTION

Aircraft noise has been a sensitive issue for residents in areas near airports since jet aircraft became widely used in the 1960s and 1970s. This has led governments and industry to seek constant improvement in the level of noise generated by individual aircraft, notably by reaching agreement at global level (ICAO) on the introduction of increasingly stringent standards – a process that has led to the definition of so-called Chapter 2, 3 and 4 standards for aircraft. As a result, today's passenger jets are considerably quieter than their predecessors.

On the basis of the agreement that had been reached in ICAO for the banning of the older and noisier Chapter 2 jet aircraft, a total ban of Chapter 2 aircraft took effect in the EU from April 2002 onwards.

The ICAO Council adopted in June 2001 a new certification standard (Chapter 4 in Annex 16 Volume 1 to the Convention on International Civil Aviation), setting noise standards for new aircraft entering service since 1 January 2006, but no timetable was set for the phasing out of Chapter 3 aircraft.

The absence of such a timetable results in additional pressure for operating restrictions to limit noise at airports. While noise standards applicable to individual aircraft have been strengthened, growing traffic levels and more regular traffic at increasing numbers of airports continue to give concern to local residents. As a result there are demands for additional operating restrictions at individual airports to limit the impact of aircraft noise during the most sensitive periods (evening, night and weekend) or to limit the use of older, noisier aircraft that are only marginally compliant with Chapter 3.

On 26 March 2002, the Community adopted Directive 2002/30/EC on the establishment of rules and procedures with regard to the introduction of noise-related operating restrictions at Community airports<sup>1</sup>. The Directive allows Member States to introduce at individual airports new operating restrictions, in particular on aircraft that are marginally compliant with Chapter 3, provided that they do so in accordance with the so-called “Balanced Approach” set out in ICAO Assembly Resolutions A33-7 and A35-5. In the same year, the EU adopted Directive 2002/49/EC<sup>2</sup> requiring that strategic noise maps and action plans are adopted around major civil airports<sup>3</sup> as well as in agglomerations with more than 100,000 inhabitants in order to prevent, avoid and reduce the harmful effects (including annoyance) due to air traffic noise. The Commission will submit a separate report to the European Parliament and the Council on the implementation of this Directive in 2009. In 2006, the EU adopted a renewed Strategy on sustainable development<sup>4</sup> which aims at *'reducing transport noise both at source and through mitigation measures to ensure overall exposure levels minimize impacts on health'*.

Article 14 of Directive 2002/30/EC requires the Commission to report to the European Parliament and to the Council on its application of this Directive no later than five years after

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<sup>1</sup> Directive 2002/30/EC of the European Parliament and the Council of 26 March 2002 on the establishment of rules and procedures with regard to the introduction of noise-related operating restrictions at Community airports, OJ L 85 of 28.03.2002, p. 40

<sup>2</sup> Directive 2002/49/EC of the European Parliament and of the Council of 25 June 2002 relating to the assessment and management of environmental noise, OJ L 189 of 18.7.2002, p. 12

<sup>3</sup> 76 airports designated by Member States currently fall under the scope of the Directive 2002/49/EC

<sup>4</sup> Council of the European Union, Doc 10117/06, 9 June 2006

its entry into force. It specifies further that the Commission's report should be accompanied, if necessary, by proposals for revision of the Directive. The essential aim of this report is to indicate how well the objective of the Directive have been achieved and how far the application of the Directive has contributed. It therefore contains an assessment of the effectiveness of the Directive, in which particular emphasis is laid upon determining whether there is a need to revise the current definition of "marginally compliant aircraft" laid down in Article 2 d) (ie meeting the certification limits laid down in Chapter 3 by a cumulative margin of not more than 5 EPNdB5 – so-called "minus 5" aircraft) in favour of greater stringency.

In order to place this discussion in context, this report assesses changes in the Community noise climate since 2002, and to see to what extent the Directive's regulatory framework has contributed to those changes. This quantitative and qualitative work called for a detailed inventory of measures, already taken or planned at airports, under the Directive.

## **2. THE BALANCED APPROACH**

The Directive requires Member States to "adopt a balanced approach in dealing with noise problems at (their) airports" (Article 4.1). A "balanced approach"<sup>6</sup> means "an approach under which Member States consider all the available measures to address the noise problem at an airport in their territory, namely the foreseeable effect of a reduction of aircraft noise at source, of land-use planning and management, of noise abatement operational procedures and of operating restrictions" (Article 2 g)).

The Directive is in part meant to specify the circumstances in which Member States may introduce restrictions on marginally compliant aircraft, in accordance with ICAO's guidelines and at the same time contribute to the general objective to prevent a worsening of the noise climate and to limit or reduce the number of people significantly affected by the harmful effects of aircraft noise.

The right of individual airports to restrict marginal Chapter 3 aircraft operations within the Balanced Approach framework was accepted internationally in response to the complaints from some ICAO Members with regard to Regulation (EC) No 925/1997 (the so called "hushkit" Regulation). That Regulation banned from the Community "recertificated" aircraft, defined as aircraft meeting Chapter 3 only through hushkitting. It was repealed when the Directive came into force because the Directive allowed Member States to ban marginally compliant aircraft at individual airports.

## **3. INTERPRETATION OF THE DIRECTIVE**

On the basis of responses from 52 airports<sup>8</sup> it is clear that not all airports interpret the provisions of the Directive in the same way.

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<sup>5</sup> Effective Perceived Noise in decibels

<sup>6</sup> See article 2 g) of the Directive 2002/30/EC

<sup>7</sup> Regulation (EC)No.925/1999 of 29 April 1999 on the registration and operation within the Community of certain types of civil subsonic jet aeroplanes which have been modified and recertificated as meeting the standards of volume I, Part II, Chapter 3 of Annex 16 to the Convention on International Civil Aviation, third edition (July 1993), OJ of 4.5.1999, p.1

<sup>8</sup> Interviews with airports conducted by MPD Consultants for the European Commission

The obligations upon airports appear to be fairly clear: if the authorities seek to introduce new operating restrictions on civil subsonic jet aeroplanes after 28 March 2002 the Directive requires them to adopt the Balanced Approach, and to limit the restrictions to what is necessary. Furthermore, Member States introducing restrictions must follow certain procedures regarding notice of introduction, assessment and implementation. In the course of this process, the planned effect of restrictions must be quantified.

As to what the Directive permits or prohibits, there appear to be two areas of doubt:

- (1) some airports feel that it is difficult to point to what has been achieved by the Directive per se because much of what is permitted under the Directive was permitted anyway under national law and many restrictions were introduced by the Member States before 2002;
- (2) other airports feel that the Directive does not expressly prohibit any particular form of restriction.

#### **4. EFFECTS OF THE DIRECTIVE**

The majority of airport operators indicated that the Directive had not directly influenced the noise management around their airport. Some airports mentioned that what the Directive enables was already possible under national law. This holds in particular for the German and UK airports. One German airport also indicated that although the Directive enables restrictions on marginally compliant Chapter 3 aircraft, some bilateral air service agreements prohibit the introduction of such measures.

Several airports said that the Directive made the process of noise management around the airport more onerous due to the requirements of its Annex 2. This annex requires a consultation and an assessment of the costs and benefits of alternative means of reducing noise around the airport.

Two airports indicated a fear airlines might sue after the introduction of measures, under the argument that the Annex 2 requirements would not have completely been adhered to.

Some airports indicated that even though the Directive did not have direct influence on the noise management, indirectly it had contributed for a number of reasons:

- the Directive has served as a useful checklist to highlight all potential measures available;
- the emphasis of the Directive on individual airport action facilitated the introduction of restrictions;
- the Directive helped to establish a climate of trust among stakeholders;
- the Directive has set a level playing field;
- the Directive has also raised awareness of possible action and good practice among mid-sized and small airports (which do not fall under the application of the Directive).

One of the aims of the Directive was to enable noise management around airports with particular noise problems. Whether airports had such problems may in part have been dependent on what action was already permitted under their national laws. Countries that had already national laws in place that enabled airports to manage noise will have made less use of the Directive than those with no such framework. However, at those airports where the national legislation was not effective, the Directive may have contributed to noise management.

## **5. RESTRICTIONS INTRODUCED**

Restrictions on marginally compliant chapter 3 aircraft are described, based on a cumulative margin (as defined in the Directive) of 5 dB(A), hereafter referred to as "Minus 5" aircraft, as well as restrictions on aircraft with a cumulative margin of 8 dB(A) or more, night time restrictions and the use of noise budgets, including the effects these different restrictions may have on traffic. However, the different measures introduced can overlap to some extent because a clear division is not always possible.

### **5.1. RESTRICTIONS INTRODUCED: "MINUS 5"**

Non-operation rules for "minus 5" aircraft had been introduced by only two airports.

Only four airports said that they had introduced partial restrictions<sup>9</sup> on the operation of "minus 5" aircraft under the Directive, and went on to describe them. These comprised:

- three airports which introduced night bans on "minus 5" aircraft; and
- one airport which prohibited "minus 5" aircraft on new routes (a sort of non-addition rule, possibly as a precursor to a non-operation rule).

However, of the airports which had not introduced such bans or restrictions over 10 either definitely expected to do so, or had considered or were currently considering doing so, or indicated that they might do so in certain circumstances. There are also two special cases (two city airports):

of those airports which definitely expect to introduce such measures, one airport expects a total "minus 5" ban to replace a pre-Directive hushkit ban "soon"<sup>10</sup>, and one (EEA) airport uses pre-Directive national legislation to ban "minus 5" operations at night with effect from 2008;

- one airport had considered a "minus 5" ban but dropped the scheme after a major operator of a marginal aircraft type re-equipped, and the ban therefore became redundant ;

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<sup>9</sup> Article 6.1 of the Directive permits the introduction of "operating restrictions of a partial nature" on unspecified aircraft types, as part of the preferential hierarchy of actions within the Balanced Approach preceding the 'last resort' withdrawal of marginal Chapter 3 aircraft

<sup>10</sup> This airport also indicated that a more stringent definition of marginally compliant (i.e. minus 8) would not be further restrictive, as the night quota count restrictions in place were already more strict

- three airports are considering “minus 5” restrictions in the context of their noise action plans;
- two airports felt that they might have to restrict “minus 5” aircraft if local authority constraints were imposed on activity as the price of planned runway development;
- two airports felt they “might” impose “minus 5” restrictions without specifying conditions;
- two city airports admit aircraft on the basis of locally-measured noise levels to meet local Planning requirements constraining the operation of the airport, in terms of absolute (rather than certificated) noise levels; this exemplifies the question of compatibility of the Directive with Planning law in some Member States.

In the case of the following airports Member States have notified that they implement the provisions of the Directive:

“Minus 5” aircraft are banned from operating at night at Paris and will also be banned by day from 2008. This forms part of a policy to contain the overall noise nuisance to the levels observed in 1999-2001.

At UK London airports a new night flight regime was put in place which covers the period 2006-2012

At Madrid-Barajas a new set of restrictions was introduced after the summer of 2006, which include the gradual withdrawal of aircraft "minus 5" aircraft between 2007 and 2012 as well as night flight restrictions.

The remaining airports reported no restrictions imposed (or in prospect) on “minus 5” marginally compliant aircraft, in the context of the Directive.

One airport indicated that there would be more clarity if there was more harmonisation across airports in the way they define marginally compliant aircraft.

## **5.2 RESTRICTIONS INTRODUCED: "MINUS 8" AND BEYOND**

A few airports have in place or are considering restrictions that go beyond the minus 5 dB(A). Only one has already restricted “minus 8” aircraft as such and three plan to require their withdrawal:

- one airport has had a night ban on “minus 8” aircraft in place since 2003;.
- one (city) airport has the declared intention of being “Chapter 4 only” by 2010;
- another city airport indicated that any night time bans would be based on “Chapter 4” in the future;

- one airport has the declared intention of banning “minus 8” aircraft by 2008 if their absence is not achieved through natural re-equipment or voluntary co-operative action before then;

### **5.3. RESTRICTIONS INTRODUCED: NIGHT**

Partial noise operating restrictions<sup>11</sup> are not necessarily aimed at particular levels of compliance with Chapter 3. Nonetheless such general measures are also covered by the Directive in terms of requiring formal assessment before they are introduced.

Four respondent airports (three of which are city airports<sup>12</sup>) are closed during night time. One non-respondent airport is known to operate a curfew. In addition, a number of airports are closed during part of the night. Seven airports have banned marginally compliant chapter 3 aircraft during the night, one of which effectively banned chapter 3 "minus 8" aircraft. In addition, several German airports only allow aircraft from the bonus list<sup>13</sup>. Quite a number of airports have a night noise quota count system in place. Some airports have night movement limits instead of a quota count system. About twenty airports indicated that they do not have any particular restrictions at night time, apart from the potential closure of a particular runway.

### **5.4. AIRPORT NOISE BUDGETS**

Apart from the restrictions on marginally compliant aircraft, or (partial) night closures, the application of noise budgets may also be regarded as a restriction.

Noise budgets do not directly restrict the operation of a particular aircraft, in contrast to night time restrictions and restrictions on marginally compliant aircraft, but they restrict access by the fleet as a whole. Noise budgets restrict the overall noise during a certain period of time, which could be seasonally related or annual. As such, it may be more regarded as an operating restriction on the airport, than on the airlines.

On the other hand, noise budgets do limit the access of civil subsonic jet aeroplanes to an airport. Although the Directive covers also noise budgets, this is not obvious to all stakeholders.

The use of noise budgets is favoured at many airports over operating restrictions on particular aircraft. Particularly in the UK, noise budgets apply at many airports.

## **6. EFFECTS OF OPERATING RESTRICTIONS**

Some airports offered their comments on the impact of operating restrictions introduced.

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<sup>11</sup> As defined by article 2 e) of the Directive 2002/30/EC

<sup>12</sup> As designated by annex I of the Directive 2002/30/EC

<sup>13</sup> A list established by the German Federal Ministry of Transport which provides a further classification of aircraft within Chapter 3. Aircraft on this list have an advantage over aircraft not on the list, as to having less flight restrictions and /or getting charged lower landing and take-off fees

With regard to the potential for relocation, one airport remarked that because of the combination of its strategic location and its high share of point-to-point traffic, it did not fear operators relocating. On the other hand, another airport indicated that it would only consider a ban on marginal chapter 3 aircraft if it were mandatory and applied across all EU airports.

In most instances, airports indicated that in their view, airlines had responded by using less noisy aircraft and some rescheduling between night and day time in case of partial restrictions.

Only one airport indicated that the restrictions introduced had resulted in fewer services and frequencies being offered.

Related to this issue is that the restrictions imposed are not always actual restrictions in a 'practical sense'. At one airport, the restriction on marginal chapter 3 aircraft was pre-emptive, to show the commitment to noise management to the local community and to deter any potential operators. At another airport the actual noise count is less than half the noise quota count. On the other hand, there are also airports which relax their environmental limits as they start to bite.

## **7. AIRCRAFT OPERATING INDUSTRY**

The aircraft operating industry considers the Directive as protection against the use of operating restrictions as a first resort, and as a guarantee of a reasonable timescale for their introduction of restrictions and of proper assessment of the costs and benefits of such restrictions.

Some types of operator seemed to feel the marginal restriction aspects of the Directive almost irrelevant to them as the economic pressures of their business have already driven them to virtual Chapter 4 fleet composition by "natural" replacement. Other industry sectors would prefer maximum protection from restrictions in the Directive, allowing the "natural" replacement to run its course.

The express carrier industry stressed to the services of the Commission that they would like to see the Directive revised to overcome some difficulties of definition and interpretation, and to enhance and clarify the protection they feel the Directive should offer them. They consider that restrictions – including partial restrictions - on Chapter 4 aircraft should be specifically prohibited (cf. Article 6.2 for City airports) given that in their view, for example, operating restrictions and penalties based on noise levels could effectively prohibit or limit the operation of Chapter 4 compliant aircraft at night. They see operational restrictions (such as the setting of monitored noise limits and preferential runways) as a potential "grey area" requiring clarification so as to avoid possible circumvention of the Article 4.4 requirement to base restrictions on certificated noise, and so as to prohibit effectively discriminatory restrictions, even if not so designed.



## **8. LOCAL AND REGIONAL AUTHORITIES**

In the light of the evaluation process of the Directive, local and regional authorities, as well as a number of associations, have presented recommendations<sup>14</sup>. In general, those recommendations are much wider than the operating restrictions envisaged by the Directive.

With regard to the operational organisation of airports and night flights they essentially recommend that:

- more attention should be paid to population density when the flight trajectories are defined and to make maximum use of new low noise operating procedures like continuous descent approach
- noise standards of the World Health Organization<sup>15</sup> should be better taken into account
- compensation policies should be introduced for the most exposed population
- consideration should be given to the wishes and expectations of local groups via better information, public participation and mediation

They conclude that although the problems which are due to noise nuisance from night flights may differ from one European airport to another, targeted curfews and operational restrictions must lie at the heart of national and EU policies in order to avoid sleep disturbance for the population living under the flight paths.

Attention is also drawn to the importance of avoiding urban degradation which sometimes results locally from airport development. It is recommended that economic development of the peripheral areas of cities must not be dissociated from the social development of these areas. That goes beyond considering positive economic effects as a compensation for noise- and atmospheric pollution: ways must be found to avoid impoverishment which sometimes results locally from airport development.

## **9. MARGINAL AIRCRAFT IN FLEETS**

The total numbers of marginal aeroplanes using Community airports are relatively low.

Moreover, fewer short haul marginal aircraft from overseas are likely to use European airports (although they may come from the Community or Europe's neighbours). Also, some companies use foreign registered aircraft for their European operations.

Nonetheless, to put marginality in context, it is useful to show the proportions of generic types of aircraft which might be defined as marginal. This analysis is in Table 1.

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<sup>14</sup> See for instance: [http://www.airportregions.org/publications/doc/arc\\_special\\_report\\_2\\_2007.pdf](http://www.airportregions.org/publications/doc/arc_special_report_2_2007.pdf)

<sup>15</sup> See forthcoming guidelines on night-time noise at:  
[http://www.euro.who.int/Noise/activities/20040721\\_1](http://www.euro.who.int/Noise/activities/20040721_1)

Table 1: Chapter 3 Jets in Fleet Context

Marginality :	Chapter 3 Identified Jet Aircraft						Total Jet Fleets (all types)
	-0 to -5	-5 to -8	-8 to -10	-0 to -10 not further allocable	Total Chapter 3	* Unidentified Aeroplanes	
EC, EEA & Switzerland	49 1.0%	151 3.2%	245 5.2%	107 2.3%	552 11.8%	72 1.5%	4,676 100.0%
Europe	376 6.1%	219 3.6%	312 5.1%	135 2.2%	1042 17.0%	498 8.1%	6,143 100.0%
World	1201 5.6%	671 3.1%	1460 6.8%	806 3.8%	4138 19.4%	1132 5.3%	21,345 100.0%

\* Unidentified aeroplanes of types identified as including significant numbers of Chapter 3 aircraft.

Source : Consultants' analysis of JP Airline Fleets and DGAC & EASA databases.

In general, the analysis indicates that the fleet that is not chapter 4 compliant composes only a relative small share of the total fleet using EU airports.

These numbers indicate that even if all aircraft with a cumulative Chapter 3 margin of less than 10 dB were no longer allowed, this would only affect a relatively small share of total landings and take-offs.

## 10. ESTIMATION OF POPULATION NOISE EXPOSURE

Table 2 sets out for the years 2010 and 2015 three possible marginal aircraft phase out scenarios have been modelled in addition to the Base Case for these two years, as follows:

- Base Case - No change to the Directive and the way it is interpreted and applied by airports, and no change to the fleet mix;
- Scenario 1 - Band 1 aircraft phased out - effective phase-out of marginally compliant Chapter 3 aircraft at Community airports as defined in the Directive ie as meeting the certification limits of Chapter 3 by not more than a cumulative margin of 5 dB(A);
- Scenario 2 - Band 1 and 2 aircraft phased out - effective phase-out of t aircraft meeting Chapter 3 limits by not more than a cumulative margin of 8 dB(A);
- Scenario 3 – Band 2 and 3 aircraft phased out - effective phase-out of aircraft meeting Chapter 3 limits by a cumulative margin of not more than 10 dB(A), thus permitting only Chapter 4 operations.

Table 2: Estimates of Total Population Exposure for Community Airports.

	Total Population within Lden <sup>16</sup> 55dB (millions)	Total Population within Lnight <sup>17</sup> 45dB (millions)	Comment
2002	2.2	2.7	
2006	2.2	3.0	From 2002 to 2006 Lden 55dB population increases by less than 0.1million
2010 Base	2.4	3.2	From 2006 to 2010 Lden 55dB population increases by 10%
2010 Scenario 1	2.3	3.1	Lden 4% reduction over the base case Lnight 2 % reduction over base case
2010 Scenario 2	2.3	3.1	Lden 5% reduction over the base case Lnight 3 % reduction over base case
2010 Scenario 3	2.3	3.1	Lden 6% reduction over the base case Lnight 4 % reduction over base case
2015 Base	2.7	3.2	From 2010 to 2015 Lden 55dB population increases by 9%
2015 Scenario 1	2.6	3.2	Lden 4% reduction over the base case Lnight 2 % reduction over base case
2015 Scenario 2	2.6	3.2	Lden 4% reduction over the base case Lnight 2 % reduction over base case
2015 Scenario 3	2.5	3.1	Lden 5% reduction over the base case Lnight 3 % reduction over base case

<sup>16</sup> This is the noise indicator which describes the average noise during day, evening and night (24 hour period).

<sup>17</sup> his noise indicator describes the average noise during the night.

The following broad conclusions can be drawn from these results.

- Base Case contours grew very little from 2002 to 2006;
- Base Case contours are expected to grow from 2006 to 2010 with total population exposure increasing by 8-10% over this period.
- Base Case contours are expected to grow from 2010 to 2015 with total population exposure increasing with the population within Lden 55dB expected to increase by about 9%, and the population within Lnight 45dB increasing by about 2% (a lower increase due to night restrictions).
- Populations within Lnight 45dB contours are bigger than Lden 55dB, by 25-30%.
- Scenario 1 gives small benefits – a reduction in population of about 4% for Lden 55dB and 2% of Lnight 45dB.
- Scenario 2 gives similar benefits to Scenario 1 - a reduction in population of about 4-5% for Lden 55dB and 2-3% of Lnight 45dB.
- Scenario 3 gives similar benefits to Scenario 2 - a reduction in population of about 4-5% for Lden 55dB and 3-4% of Lnight 45dB.

The purpose of the figures in table 2 is focused on the overall effect on noise exposure of marginal aircraft at Community airports, rather than obtaining accurate population exposure estimates. Most airports indicated that they had Lden and Lnight contours and population estimates either complete, in progress or planned for later in the year. It could be expected, given the requirement of Directive 2002/49/EC, to have these contours reported to the Commission by December 2007. Those harmonised noise maps should provide more detailed data and more accurate population estimates than have been possible for all the airports for the purpose of this report.

A more in-depth analysis of the trends in noise emissions at five EU-airports (Amsterdam, Lisbon, Glasgow, Toulouse, Warsaw)<sup>18</sup> shows that the trends may differ from one airport to another. These five case studies indicate:

- All airports show an increase in contour area in the hypothesis of an unchanged fleet mix. This growth is 5 to 15% for the coming 4 year period (2006 to 2010) and 18 to 24% for the period 2006 – 2015.
- Even if all marginal chapter 3 aircraft would be replaced, the Lden 55 contours are estimated to grow by between 13 to 20% up to 2015. The growth in Lnight 45 contours under such a scenario lies between 14 and 22%.
- For each airport, the development in Lden 55 contour area is very similar to the development of the Lnight 45 contour area at that airport. This conforms that the increasing trend in night-time noise drives the increase in overall noise (Lden).

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<sup>18</sup> MPD Study of Aircraft Noise (2007)

- A replacement of all chapter 3 aircraft by chapter 4 aircraft would reduce the Lden 55 contour growth by about 4.5 to 6.5 percentage points.
- The impact of a replacement of all chapter 3 aircraft by chapter 4 aircraft on the Lnight 45 contour differs considerably between the case study airports.
- Results vary between a reduced growth of 1.5 to 7.0 percentage points, depending on the current night time regime in place.
- The difference in contour area between replacing all aircraft with a margin < 5 dB with chapter 3 requirements, and all aircraft with a margin < 8 dB is less than half a percentage point.

In short, these case studies confirm that contour areas, particularly during the night, are expected to grow considerably, with natural fleet replacement lowering the estimates. If the fleet would be composed of chapter 4 aircraft only, this could significantly reduce contour growth at some airports in the light of their specific local situations.

## 11. CONCLUSIONS

- The Directive puts a harmonised structure for a balanced approach in place and it has been useful in ensuring that all interests are taken into account when restrictions are considered.
- However, the Directive has only been used in the case of a limited number of airports; some stakeholders are of the opinion that it is not sufficiently clear and some Member States already had similar provisions under national law prior to the entry into force of the Directive.
- Moreover, its impact in respect of marginally compliant aircraft is limited because the number of these aircraft is comparatively small due to their natural replacement;
- More generally, the number of people affected by noise, particularly at night, has increased since the Directive came into force, due to a general increase in the number of movements, in spite of the possibility to introduce partial restrictions.
- Our prediction is that the number of people affected by noise will continue to grow although the situation may differ between airports.
- For that reason the Commission intends to examine ways of clarifying the provisions of Directive 2002/30/EC and its scope.
- It will also consider whether changes in the current Directive, such as the definition of marginally compliant aircraft, are needed. In doing so, it will take account of the outcome of the estimates described above, predicting that the growth in the number of people affected by noise could be reduced by a more stringent definition of marginally compliant aircraft.

- In 2009, the Commission will assess the implementation of Directive 2002/49/EC regarding the assessment and the management of environmental noise around airports and will submit a report to the European Parliament and the Council.

The Commission is looking forward to receiving reactions from stakeholders in the next 3 months and aims to include them in the envisaged examination of the Directive.