



**NOTICE BY  
COMMISSION FOR AVIATION REGULATION RELATING  
TO THE DETERMINATION ON THE MAXIMUM LEVELS  
OF AIRPORT CHARGES  
SETTING OUT THE ISSUES TO BE REVIEWED AND  
SEEKING REPRESENTATIONS FROM INTERESTED  
PARTIES OR THE PUBLIC**

Commission Paper CP4/2003

7<sup>th</sup> November 2003

Commission for Aviation Regulation  
3<sup>rd</sup> Floor, Alexandra House  
Earlsfort Terrace  
Dublin 2  
Ireland

Tel: +353 1 6611700  
Fax: +353 1 6611269

**E-mail [info@aviationreg.ie](mailto:info@aviationreg.ie)**

# TABLE OF CONTENTS

<b>1. INTRODUCTION .....</b>	<b>4</b>
1.1. STATUTORY REMIT AND BACKGROUND.....	4
1.2. DECISION TO REVIEW .....	5
1.3. PURPOSE AND STRUCTURE OF PAPER.....	5
1.4. REPRESENTATIONS .....	6
1.5. SUBMISSION OF REPRESENTATIONS .....	7
1.6. INDEMNITY .....	7
<b>2. MATTERS FOR REVIEW .....</b>	<b>8</b>
2.1 MATTERS RELATING TO 9/11 .....	8
2.1.1 <i>Passenger traffic forecasts.</i> .....	8
2.1.2 <i>Security costs</i> .....	8
2.2 MATTERS OF COMPUTATION .....	9
2.2.1 <i>RAB and Depreciation.</i> .....	9
2.2.2 <i>Tax.</i> .....	11
2.2.3 <i>Projection of opex and commercial revenue.</i> .....	11
2.2.4 <i>Inflation of regulatory fees.</i> .....	11
2.2.5 <i>Computation of the X factor.</i> .....	12
2.2.6 <i>The correction terms (K &amp; W) in the regulatory formula.</i> .....	13
2.3 MATTERS OF ADMINISTRATION.....	14
2.4 SUB-CAP ON OFF-PEAK LANDING AND TAKE-OFF CHARGES.....	14
<b>3. NEW DATA .....</b>	<b>15</b>
3.1. NEW TRAFFIC FORECAST .....	15
3.2. HIGHER SECURITY COSTS.....	15
3.3. RAB.....	15
<b>4. CALCULATION OF THE YIELDS .....</b>	<b>16</b>
4.1. BEFORE 2004 .....	16
4.2. 2004 AND AFTER.....	18
4.3. PROPOSED REVISED YIELDS .....	19

<b>5. ADJUSTMENTS TO THE FORMULA.....</b>	<b>21</b>
5.1. K AND W TERMS IN THE REGULATORY FORMULA .....	21
5.2. CALENDAR YEAR.....	22
<b>6. SUB-CAP ON OFF-PEAK LANDING AND TAKE-OFF CHARGES.....</b>	<b>25</b>
<b>7. SUMMARY OF PROPOSALS .....</b>	<b>27</b>

## **CONTENTS OF TABLES**

TABLE 1	Comparison Of Centerline Traffic Forecast Provided By Aer Rianta For The Determination With The Forecast Provided For Review.....	28
TABLE 2	The Revenues Sought By Aer Rianta To Cover Higher Airport Security Costs .....	29
TABLE 3A:	Incremental Security Costs - Aer Rianta (Euro's).....	31
TABLE 3B	Incremental Security Costs – Dublin Airport (Euro's).....	31
TABLE 4A:	Calculation Of Regulatory Asset Base And Depreciation - Aer Rianta .....	32
TABLE 4B:	Calculation Of Regulatory Asset Base And Depreciation – Dublin Airport.....	32
TABLE 5:	Prior Period Adjustments.....	33
TABLE 6A:	Effect Of Proposed Changes On Maximum 2004 Yield And X Factor - Aer Rianta.....	34
TABLE 6B:	Effect Of Proposed Changes On Maximum 2004 Yield And X Factor - Dublin Airport.....	34
TABLE 7A	Calculation Of The 2004 Yield For Aer Rianta.....	35
TABLE 7B	Calculation Of The 2004 Yield For Dublin Airport.....	36

## **1. INTRODUCTION**

### **1.1. Statutory remit and background**

Section 32 (14)(a) of the Aviation Regulation Act, 2001 (the "Act") sets out the Commission for Aviation Regulation's (the Commission) functions with regard to a review of the Determination on the Maximum Level of Airport Charges. In summary, the Act gives the Commission the discretionary power to hold a review if it considers there are substantial grounds on or after the expiration of a period of 2 years following the making of the original Determination dated **26 August 2001** (the "Determination").

In compliance with Section 14(c) of the Act, the Commission is required, in undertaking a review of a determination, to do the following:-

- publish a notice in a daily newspaper stating that it proposes to make a determination;
- specify a period of not less than 1 month within which interested parties or the public can make representations;
- produce a reasoned report on the outcome of its review of a determination.

If the Commission sees fit to amend the Determination, the amended Determination will in accordance with the Act remain in force for the remainder of the period of the Determination.

The Commission published a Notice on **16 April 2003** listing a number of issues, which might constitute substantial grounds for a review. A further Notice was published on **4 June 2003** inviting by 4 July 2003, submissions as to whether there are substantial grounds for a review and if so, the specific grounds that would form the basis of a review. Submissions were received from eight interested parties and placed on the Commission's website.

Following evaluation of the submissions received and careful consideration of relevant issues relating to the holding of a review, the Commission concluded that “substantial grounds” should be interpreted in a manner consistent with the Commission’s statutory objective observed in the Determination i.e. the development and operation of cost-effective airports that meet the requirements of users. The application of this interpretation led to the decision to review the Determination and this decision and the principles underlying it were published on **16 October 2003 as CP3/2003**.

## **1.2. Decision to Review**

In CP3/2003 the Commission decided to conduct a review of the Determination on the basis of the following substantial grounds:

- (i) Analysis of the commercial consequences (particularly as to changes in passenger traffic and security requirements) for airport management and the airline business sector arising from such exogenous events as September 11<sup>th</sup> and the war in Iraq.
- (ii) The correction of matters of computation, calculation and application arising out of information received by the Commission after the date of the Determination, including the substantial volume of information exchanged between the parties in the course of the Judicial Review (Record Number 2001/707JR) (the “Judicial Review”).

## **1.3. Purpose and Structure of Paper**

The purpose of this Paper is to set out the detail of the issues to be reviewed and to seek representations from interested parties or the public on those issues. The Paper has been divided into the following Sections:-

**Section 2** sets out the particular issues for review.

**Section 3** presents the adjusted values for three important sets of data that have changed since the Determination; the traffic forecasts, the additional security costs, and the Regulatory Asset Base (RAB).

**Section 4** sets out the proposed new Maximum Levels of Airport Charges; distinguishing the impact on the yields in the regulatory periods that have elapsed, from those that have yet to start. January 2004 constitutes the boundary between the two sets of periods.<sup>1</sup>

**Section 5** describes two proposed changes to the regulatory formula.

**Section 6** discusses a proposed change in aircraft classification for the off-peak runway charges.

**Section 7** summarises the Commission's proposals in relation to a revised Determination.

#### **1.4. Representations**

The Commission now wishes to invite representations on the proposals to amend the Determination as set out in this Paper. These proposals are preliminary. A decision will, as in the case of the Determination, only be made following the consideration by the Commission of all representations received.

##### 1.1. \_\_\_\_\_

<sup>1</sup> Because of the move from a regulatory to a calendar year, the period 24 September 2003 – 31 December 2003 requires special treatment; this is discussed in section 5 below.

### **1.5. Submission of Representations**

In accordance with statutory requirements, a consultation period of one month is being provided for the making of representations by interested parties or the public with respect to the proposals. Representations, which may be in hard copy or electronic form, should be addressed to;

Mr. Cathal Guiomard, Head of Economic Affairs, Commission for Aviation Regulation, 3<sup>rd</sup> Floor, Alexandra House, Dublin 2 or at  
[info@aviationreg.ie](mailto:info@aviationreg.ie)

**The closing date for receipt of representations is 5.00 p.m. on Monday 8 December 2003.**

This deadline will be strictly adhered to and representations received after this deadline will not be taken into account by the Commission. It should be noted that the time of receipt, whether in electronic form, by post, courier, hand delivery or fax shall be deemed to be the time the response was actually received in the offices of the Commission.

### **1.6. Indemnity**

Any party submitting information to the Commission in response to a document inviting submissions acknowledges that the Commission intends to publish that information on the website of the Commission, in reports of the Commission and elsewhere as required or appropriate. Parties submitting such information to the Commission consent to such publication. Any party submitting information to the Commission shall have sole responsibility for the contents of such information and shall indemnify the Commission in relation to any loss or damage of whatsoever nature and howsoever arising suffered by the Commission as a result of publication or dissemination of such information either on its website, in its reports or elsewhere.

## **2. MATTERS FOR REVIEW**

### **2.1 Matters relating to 9/11**

These matters concern the commercial consequences (particularly as to changes in passenger traffic and security requirements) for airport management and the airline business sector arising from such exogenous events as September 11<sup>th</sup> and the war in Iraq. The matters subject to review here are limited to exogenous factors deemed to be outside the general business risk of Aer Rianta.

#### **2.1.1 Passenger traffic forecasts.**

The Determination was based on the Aer Rianta centreline traffic forecasts produced in 2000. Actual traffic levels for international traffic achieved after 2000 have been generally lower than the levels forecasted in 2000. The effects on traffic after 9/11 are deemed by the Commission to be an exogenous factor outside the general business risk of Aer Rianta, and therefore, the Commission proposes to use the Aer Rianta 2002 centreline traffic forecasts starting at the commencement of the next regulatory period, which is January 2004 (see section 2.3 below for the move to a calendar year basis of regulation). The data are in Table 1.

#### **2.1.2 Security costs**

The Determination projected opex security costs to grow during the 5 years of the Determination in line with inflation and passenger traffic. In addition, the Determination included in the recoverable capex programme projects required for security. Aer Rianta submit that actual increases in opex security costs exceed what is projected in the Determination and that additional security capex projects have been required - this is set out in Table 2 in gross amounts. The Commission has calculated the opex security increment sought by Aer Rianta by subtracting from the Aer Rianta gross amounts the projected opex security costs included in the Determination; this is set out in Table 3.



(The Commission has not included the equivalent calculation of the capex security increment. The largest element of capex security, hold baggage screening, had been included in the recoverable capex in the Determination. The impact on maximum yields of any additional security capex included at the review would be calculated in the same manner as other recoverable capex.)

The Commission's security increment calculations have been provided for illustrative purposes in Table 3 and subsequent tables. The Commission specifically invite representations from all interested parties or the public on both the level of increased security costs and what portion of such costs should be borne by airport users in light of the statutory objective of the Commission as set out in Section 33 of the Act.

## **2.2 Matters of Computation**

These matters concern the correction of matters of computation, calculation and application arising out of information received by the Commission after the date of the Determination, including the substantial volume of information exchanged between the parties in the course of the Judicial Review. The Commission proposes to incorporate in the review a correction of all matters of computation, calculation and application of which it is aware.

### **2.2.1 RAB and Depreciation.**

In the Determination, indexed depreciation was calculated by spreading the gross value of the assets over the estimated remaining useful life of the assets, namely 15 years, excluding imprudent assets and without indexing the capex. It should be recalled that the Commission sought but did not have available to it at the time of the Determination, the asset-by-asset breakdown of the indexed fixed asset register. In May 2003 the Commission received from Aer Rianta its indexed fixed asset register, which it now proposes to use for

purposes of calculation of the RAB and indexed depreciation. As before, the Commission proposes to roll forward the RAB each year in line with inflation. The Commission also proposes to calculate indexed depreciation on an asset-by-asset basis using the rates of depreciation now provided by Aer Rianta, excluding imprudent assets and including the indexed CAPEX. In addition, minor revisions have been made regarding the indexing and percentages applied in calculating the value of the write-down of imprudent assets.

Depreciation is calculated in line with the statement of accounting policy in the Aer Rianta Annual accounts, which is to write off the cost of tangible fixed assets, other than land, on a straight-line basis over the estimated useful lives as follows:

Terminal complexes	10-50 years
Airfields	10-50 years
Plant & equipment	2-20 years
Other property	10-50 years

The effects of the contemplated revisions to the calculations of the RAB and depreciation charges are illustrated in Tables 4A and 4B. The following specific revisions are proposed:

- i) Removal of fully depreciated assets each regulatory year from the Aer Rianta fixed asset register;
- ii) The depreciation charge in the Yield formula is now calculated on the indexed fixed asset register;
- iii) The calculation of the depreciation charges to roll forward the RAB is also on an asset-by-asset basis using the rates supplied by Aer Rianta; this means that, unlike in the Determination, the depreciation charge used to calculate the RAB and the

depreciation charge used to calculate the Yield are now identical;

- iv) The indexation of the recoverable CAPEX programme;
- v) The move to a calendar year basis.

#### 2.2.2 Tax.

In the Determination, the headline corporation tax rates were applied to the return on capital, and 25% was applied to an estimate of interest income that Aer Rianta was expected to earn in the period of the Determination. Aer Rianta has provided more detailed information regarding their actual and estimated future tax rates. Aer Rianta proposed a range of effective tax rates ranging from 14.5% to 18.5%. After receiving advice and carrying out calculations based on the 2002 Aer Rianta tax computation, the Commission proposes to use 15% for purposes of calculating Aer Rianta's future tax liability. For the purposes of tax computation, the Commission intends to use the depreciation as calculated from the rates and details in the Aer Rianta's Fixed Asset Register, and the capital allowances as calculated from the more detailed information received from Aer Rianta.

#### 2.2.3 Projection of opex and commercial revenue.

In the Determination, 2001 opex and commercial revenue were projected to grow in line with passenger numbers from a benchmark of passengers as at 2000 in error. The Commission proposes to use the 2001 benchmark, applying the 2001 passenger numbers for the base period.

#### 2.2.4 Inflation of regulatory fees.

The Commission prepared a 5-year budget of its own costs for the Determination. This budget took inflation into account but it was again

inflated in the financial model in error. However, as this factor is a pass-through item in the formula it is only necessary to correct this matter in future periods. The Commission proposes to correct this from 2004 onwards.

#### 2.2.5 Computation of the X factor.

Regulated prices are set for a number of years into the future. In order to calculate the price cap for the second and subsequent years, a percentage rate of change needs to be applied. This adjustment factor consists of two terms: an allowance for inflation (the rate of change of the CPI) and a factor X, being a real price change. The latter is set with the intention of producing a rate of return equivalent to Aer Rianta's cost of capital, after allowing for such matters as traffic forecasts, efficiency improvements, and capital expenditures. In the Determination, the method used to calculate the X factor did not, over the five-year period, operate to bring prices from their starting value to the value the Commission considered appropriate for the last regulatory year. This omission had two causes, both related to the definition of X. First, the X value was set to include inflation (the CPI) but the regulatory formula published with the Determination also allowed for inflation, causing the yield to be higher than the Commission's policy intent. Furthermore, the X term was defined as an average of the annual changes in the maximum yields of each year. Depending on the precise evolution of the annual maxima over the five-year period, this procedure might not give the regulated firm the yield that accorded with the Commission's policy intent. Therefore, the Commission now proposes to define the X value, first, net of the CPI and, second, such as to give a smooth evolution of yields over the regulatory period, but producing the same revenues as would be provided by yield before smoothing. These modifications will ensure that the formula gives rise to the yields intended by the Commission's Determination over the regulatory period.

#### 2.2.6 The correction terms (K & W) in the regulatory formula.

The regulatory formula (set out in the Determination) contains a term (the K term) that has the effect of carrying forward into subsequent regulatory years any deviations between the maximum yield and the average charge actually collected by Aer Rianta. In other words, if the company under-collects in a given year, the monies in question are brought forward into the following (and if necessary later) years, with interest due, and remain collectable by the company during the remainder of the regulatory period. Similarly, a W term provides for any difference between the Commission's forecast budget (incorporated into the financial model) and its actual expenditure. The Commission is now aware that the definition of the K and the W terms in the regulatory formula could give rise, in certain circumstances, to Aer Rianta over or under-collecting the maximum yield. This would not accord with the Commission's policy intent. Therefore, the Commission proposes to revise the regulatory formula to ensure that the company collects the yield intended by the Commission's policy. In addition, the move from a regulatory to a calendar year basis of regulation will require an additional correction term to be added to the formula.

Both these matter are discussed more fully in Section 5 below.

### **2.3 Matters of Administration.**

The Commission deems it appropriate to use the review to make certain adjustments in the Determination for reasons of transparency and administrative efficiency. The inclusions of these matters in the review have no adverse consequences for preserving the incentive effects of the Determination.

➤ **Currency denomination**

The Determination was denominated in Irish pounds. The Commission proposes to denominate the Determination in euro.

➤ **Annual regulatory period.**

The Determination had an annual regulatory period of September/September. The Commission proposes to align the annual regulatory period with the calendar year, which is also Aer Rianta's accounting year, within the parameters of the statutory framework.

### **2.4 Sub-Cap on Off-Peak Landing and Take-Off Charges**

It has been brought to the Commission's attention that off-peak landing and take-off charges and the corresponding classification of aircraft may have been determined in such a way as to cause unfair discrimination between different aircraft types. This is explained in Section 6 below.

### **3. NEW DATA**

This section of the Paper presents the values used for the Determination, and the proposed new values, in respect of three key classes of information.

#### **3.1. New Traffic Forecast**

The Aer Rianta traffic forecasts (produced in 2000) used in the Determination and the new Aer Rianta traffic forecasts that the Commission proposes to use (from January 2004 forwards) are set out in Table 1.

#### **3.2. Higher Security Costs**

Table 2 reports, under four headings, the revenues sought by Aer Rianta in connection with the additional security costs at its airports consequent on the heightened security environment after the attacks of 9/11.

Tables 3A and 3B present, for Aer Rianta and for Dublin Airport, the additional costs by year and type, and the Commission's estimate of the portion of that cost that is not already provided for in the financial model and in the existing price caps. The Table distinguishes between the regulatory periods that have elapsed, and those that have yet to begin. (For the treatment of the last part of 2003, see Section 5 below)

#### **3.3. RAB**

Five changes to the RAB are proposed, as described in Section 2.2.1 above.

Tables 4A and 4B show that the combined application of these proposed revisions to the RAB, results in:

- A higher return on capital resulting from the higher RAB; and
- A lower depreciation charge.

## **4. CALCULATION OF THE YIELDS**

### **4.1. Before 2004**

Table 5 reports the maximum per passenger yields to reflect the matters of computation that the Commission proposes to adjust retrospectively, namely the X-factor, the passenger benchmarks, the tax calculation, and the RAB and depreciation. The differences between the adjusted caps and the average yields actually collected by Aer Rianta in the regulatory years 2001/02 and 2002/03 are then expressed as an adjustment factor, K. This K factor incorporates both the adjustment to the maximum yield and any over-or under-collection of charges by the airport operator.

In Table 5, the columns present the impacts in the first three regulatory periods. The rows show the separate effects of each proposed change.

The first row expresses the original maximum yield, derived using the regulatory formula of the Determination.

The second row shows the impact of the adjustment in the calculation of the X value (as described in Section 2.2.5 above).

Row three of Table 5 gives the maximum yield under the combined impact of the changes to the X factor, to the RAB, and to depreciation. The fourth and fifth rows present the impact of the corrected opex and revenue benchmarks (as described in sections 2.2.3), and of aligning the tax and regulatory years and the application of the new tax estimates (as described in section 2.2.2 above).

Row six brings together the changes already discussed. Row 9 shows the impact of the additional security costs (discussed in section 2.1.2 above), which is combined with the other proposed changes in row 10.



The difference between the adjusted cap (line 10) and the average yield actually collected by Aer Rianta (line 14) is then expressed<sup>2</sup> as a per-passenger correction term (line 15). Line 16 represents the corresponding budgetary correction factor. The K and W terms, summed in accordance with the regulatory formula over the first two regulatory years, take the values in the boxes (lines 15 and 16, Aer Rianta column 3 and Dublin Airport column 3) in Table 5.

In total, there was a cumulative under collection of revenues at the company level in the first two regulatory years. These amounts (of €1.12 plus €0.15) have been carried forward into the calculation of the 2004 company price cap (lines 11 and 12 of Table 6A). It should be noted that the greater part of the W term relates to the costs to the Commission of defending the Judicial Review. The costs of this action were awarded to the Commission and these are in the course of being prepared for taxation. When the Commission is paid its taxed costs in this case, then these expenses will not need to be covered by the levy which will be reduced accordingly in 2005.

At the Dublin Airport level, the cumulative K and W terms over the first two regulatory years (of -€0.30 plus €0.15) involve a net over-collection of -€0.15, which has also been carried forward into the calculation of the Dublin Airport price cap (lines 11 and 12 of Table 6B). As with the company cap, the impact of the W term may prove to be temporary.

1.1. \_\_\_\_\_

<sup>2</sup> Using the CP1 (line 11), the X factor (line 12) and the market interest rate (line 13) according to the definition of the K term in the regulatory formula of the Determination. **Note:** an interest allowance for the final quarter of 2003 remains to be added.

## 4.2. 2004 and after

Table 6 reports the effects of the proposed adjustments to the calculation of the maximum per passenger yield, discussed in section 2 of this Paper. In contrast to Table 5, the values of Table 6 are based on the new 2002 Aer Rianta centreline traffic forecasts. The revised traffic forecasts used in Table 6 have a lower starting base in 2002 than previously expected, as well as slower growth in 2003. However, for the remainder of the regulatory period projected growth is similar to or greater than that projected at the time of the Determination. The lower passenger numbers result in lower operating costs and commercial revenues (which roughly offset each other) and a lower denominator in the yield calculation, resulting in higher yields (i.e. prices are capped at a higher level).

The first column presents the impact on the maximum 2004 per-passenger yield; the second column gives the X factor which, combined with the CPI inflation rate, is used to generate the 2005 and 2006 yields. The rows of the table show the separate impact of each proposed change.

The first row expresses the original maximum yield for 2004, derived using the regulatory formula of the Determination, on a calendar year basis.<sup>3</sup>

The second row estimates the impact on the maximum yield of the adjustment in the calculation of the X value, (as described in section 2.2.5 above). The third row estimates the impact of the revised RAB and depreciation on the maximum yield, (as described in section 2.2.1 above).

1.1. \_\_\_\_\_

<sup>3</sup> Taking, 75% of the 2003/04 cap and 25% of the 2004/05 cap.

Line four of Table 6 gives the maximum yield under the combined impact of the previous changes (X, RAB, depreciation) plus the revision to the tax liability estimate, (as described in 2.2.2 above). The fifth and sixth lines present the impact of the corrected indexation of the regulatory fees, and the revised opex and revenue benchmarks, (as described in section 2.2.3 and 2.2.4 above).

Line 7 of Table 6 brings together the proposed changes to X, RAB, depreciation, tax, fees and benchmarks. In line eight, the impact of the revised passenger forecasts, (as discussed in section 2.1.2 above) is given, and in line nine the impact of the additional security costs (as discussed in section 2.1.2 above).

All the proposed adjustments are then combined to give a maximum 2004 yield in line 10 of Table 6.

To this must be added the impact of the adjustments in the regulatory period before 2004<sup>4</sup> as described in Section 4.1. These are reported in lines 11 and 12 of Table 6.

### **4.3 Proposed Revised Yields**

In summary, this Paper proposes a maximum yield for Aer Rianta for 2004 of €7.56, with an associated negative X value of 2.9%, and a maximum yield for Dublin Airport of €4.89, with an associated negative X value of 3.8%.

For the 99-day period 24 September 2003 to 31 December 2003, it is proposed that the adjusted company cap be €5.84 and the adjusted cap for Dublin Airport be €4.81. (These figures appear in Table 5, on

1.1. \_\_\_\_\_

<sup>4</sup> For the treatment of the period 24 September 2003 to 31 December 2003, see section 5 of this paper.

line 10 of the third Aer Rianta column, and of the third Dublin Airport column).

For compliance purposes, the Commission proposes to assess compliance over the fifteen-month period from September 2003 to December 2004, and to apply any correction to the 2005 cap.

## **5. ADJUSTMENTS TO THE FORMULA**

### **5.1. K and W terms in the regulatory formula**

The Commission proposes to amend the price cap formulae to take account of a defect in the way that error correction terms are calculated.

The intention of the error correction term (K) in the price cap formulae was to ensure that in a particular regulatory year, Aer Rianta either recovers (with interest) any under-charging from the previous regulatory year or repays (with interest) any over-charging from the previous regulatory year.

However, at present the price cap formulae are specified in such a way that effectively double counts error corrections from previous regulatory periods. This feature is not a problem for the price cap formulae applying to the regulatory period 24 September 2002 to 23 September 2003 because this is the first regulatory period for which an error correction term applies. But for the regulatory periods subsequent to this, the current price cap formulae would accumulate all previous error correction terms in the price cap calculation, rather than making a one-off adjustment for the previous year only. This may lead to double counting.

Thus the specification of the price cap formulae for the Aer Rianta company price cap and the Dublin Airport sub-cap is inconsistent with the intentions of the Commission at the time of the Determination.

The Commission, therefore, proposes to amend the price cap formulae for the Aer Rianta company price cap and the Dublin Airport sub-cap to address this issue. This requires a separation between the component of the price cap formulae that rolls forward the previous period's price

cap, adjusting for the X-factor and the change in the Consumer Price Index, and the component of the formulae providing the error correction term; only the former should be rolled forward into the subsequent regulatory year's price cap, while the latter should apply on a one-off basis.

The amended error correction terms would ensure that, over the remainder of the price control period, the average revenue allowance of Aer Rianta is equal to the average revenue that Aer Rianta would have collected if there were no under-recovery or over-recovery in any regulatory period.

In addition, the current price cap formulae for the company cap and the Dublin Airport sub-cap include a further error correction factor, the W term. This is intended to make an adjustment for the difference between the Commission for Aviation Regulation's actual costs and expenses and budgeted costs and expenses (both expressed on a per passenger basis) recoverable through the relevant airport charges. The current double counting feature applying to the K term also applies to the W term. The Commission therefore proposes to make corresponding amendments to the price control formulae in respect of the W term.

## **5.2. Calendar Year**

The Commission proposes to make a change to the timing of the regulatory periods over which annual price caps are computed. At present, regulatory years run for the period 24 September to 23 September the following year. However, these regulatory periods do not coincide with accounting periods used by Aer Rianta, which run on a calendar year basis. This misalignment places a significant administrative burden on Aer Rianta and also impedes the timely flow of regulatory information to the Commission. For this reason the

Commission wishes to pursue changes that will allow the regulatory period to be aligned with the calendar year.

The Commission proposes to make the transition to a regulatory period aligned with the calendar year through a termination of the current regulatory period on 31 December 2003 so that it would only run for the 99 days from 24 September 2003. This would allow regulatory periods to be aligned with the calendar year from 1 January 2004.

First, no error correction term would be applied in the calendar year 2004 to take account of under- or over-recovery of revenue by Aer Rianta in the period 24 September 2003 to 31 December 2003. This would not be practical for such a short regulatory period. Instead, an additional error correction term would be added to the price cap formulae for the calendar year 2005, allowing any under- or over-recovery in this sub-period to be corrected for. In this case the appropriate error correction term would be adjusted to reflect the difference between the number of days, across which the under- or over-recovery took place (the 99 days from 24 September 2003 to 31 December 2003) and the number of days over which the error correction would be applied (the 365 days in the calendar year 2005). The appropriate interest rate adjustment would also need to take account of the slightly longer period of elapsed time between under or over-recovery and the allowance in the price cap formulae.

Error correction factors for under- or over-recovery in the periods from 1 January 2004 onwards would be treated as originally intended, adjusted to reflect the change in the period over which the appropriate interest rate is calculated.

Changes to the timing of the regulatory period mean that the X factors currently specified in the price cap formulae need to be converted to X

factors applicable to a calendar year basis. The X values for the calendar years from 2004 would be recomputed such that the change in the date at which a new X-factor adjustment is implemented (from 24 September to 1 January) has no effect on the expected average revenue allowance of Aer Rianta.

Changes to the timing of the regulatory period also require changes to the input data used for the inflation adjustment. At present the price cap from a previous regulatory period is rolled forward according to the percentage change in the Consumer Price Index between that published in the most previous July and that published in the preceding July. Under a regulatory period based on a calendar year it is necessary that the price cap from the previous calendar year is subject to a corresponding inflation adjustment; i.e. the change in the Consumer Price Index between that published in the most previous October and that published in the preceding October. It is possible that changes to the time profile of inflation adjustments caused by the change in the timing of the regulatory period may have a small impact on the average revenue allowances that Aer Rianta is entitled to under the price caps, although any material changes may be addressed through the specification of an additional correction factor to take account of such an impact.



## **6. SUB-CAP ON OFF-PEAK LANDING AND TAKE-OFF CHARGES**

It has been brought to the Commission's attention that off-peak landing and take-off charges and the corresponding classification of aircraft, may have been determined in such a way as to cause unfair discrimination between different aircraft types. The Commission has examined the methodology and found this to be the case. For example, the charges result in discrimination against the aircraft type A319. This is the result of determining charges for *categories* of aircraft, rather than aircraft-specific charges, which dilutes the relationship between charges and the marginal damage imposed by different aircraft types, represented by their Aircraft Classification Numbers (ACN). The Commission's objective in applying aircraft categories was to ease the administrative burden of adopting an off-peak runway charging structure based on damage, by maintaining a traditional weight-related element in the charging formula.

The Commission will endeavour to refine the methodology in such a way that the revised classification of aircraft eliminates any issue of discrimination. This may, in addition, require slight changes to the existing per tonne charges and/or the addition of one or two additional charging categories. In doing so, the Commission would wish to strike the appropriate balance between administrative ease and efficient charges.

It has also been brought to the Commission's attention that the ACNs used (for the purposes of calculating charges in 2001) for certain aircraft types was based on information that was not universally agreed. The Commission will endeavour to use ACNs that are up-to-date, as well as representative of the operating characteristics of aircraft at Dublin airport. For the latter purpose, the Commission has requested and received precise aircraft fleet information from Aer Lingus, British Midland and Ryanair and would welcome such information from any airline operating at Dublin.

Off-peak landing and take off charges in 2001 were based on the calendar year 2000 aircraft mix for scheduled and charter operations. This consisted of 71 aircraft types. The Commission has since received the calendar year 2002 aircraft mix for scheduled, charter *and cargo* operations. As well as being more representative, because cargo operations are included, this new information is more up-to-date and better reflects the current operating situation at Dublin Airport. The new data is also more detailed in that it gives information for specific registered aircraft, allowing the Commission to use ACNs that better reflect the operating characteristics of aircraft using the airport.

The availability of better information also has a bearing on the off-peak periods, which were based on traffic distributions that reflected inaccurate data on cargo operations. The Commission intends to examine the currently defined off-peak periods to ensure that they reflect with reasonable accuracy the current situation at Dublin airport, whilst bearing in mind the need to provide a reasonably stable charging environment within which airlines can plan their schedules. The Commission also intends to align the summer and winter seasons used for the purposes of the off-peak sub-cap with airline scheduling seasons. Therefore, the summer season will now be April to September (instead of May to October) and winter will be October to March (instead of November to April).

## **7. SUMMARY OF PROPOSALS**

The Commission for Aviation Regulation proposes to review the existing Determination on the Maximum Levels of Airport Charges by:-

- (i) applying new traffic forecasts from January 2004;
- (ii) considering allowing Aer Rianta a higher security cost base each year of the quinquennium (both as to opex and capex);
- (iii) adjusting the values of certain data used to calculate yields (i.e. the RAB, the depreciation charge, the tax charge, the opex and revenue projections and the projections of the Commission budget) to take account of information received since the Determination;
- (iv) changing the currency denomination from Irish pounds to Euros and shifting the regulatory period to a calendar year basis from January 2004;
- (v) amending the regulatory formula in respect of the treatment of correction factors (i.e. the K and the W terms) and to adjust for the move to a calendar year; and
- (vi) refining the methodology of the off-peak runway sub-cap, and the associated aircraft classifications.

TABLE 1 Comparison Of Centerline Traffic Forecast Provided By Aer Rianta  
For The Determination With The Forecast Provided For Review

**ALL FIGURES ARE CALENDAR YEAR FIGURES IN '000's**

**Figures shown in Bold indicate where the CAR intend to switch to the new forecast**

<b>Dublin Airport</b>	2001	2002	2003	2004	2005	2006
Varied Determination Feb 2002	<b>15,192</b>	<b>16,070</b>	<b>16,931</b>	17,863	18,838	19,720
Forecast 2002 Aer Rianta Report	14,334	15,000	15,752	<b>16,780</b>	<b>17,711</b>	<b>18,725</b>
<i>Difference</i>	(858)	(1,070)	(1,179)	(1,083)	(1,127)	(995)
<b>Shannon Airport</b>						
	2001	2002	2003	2004	2005	2006
Varied Determination Feb 2002	<b>2,559</b>	<b>2,659</b>	<b>2,752</b>	2,871	2,992	3,099
Forecast 2002 Aer Rianta Report	2,405	2,240	2,307	<b>2,471</b>	<b>2,587</b>	<b>2,718</b>
<i>Difference</i>	(154)	(419)	(445)	(400)	(405)	(381)
<b>Cork Airport</b>						
	2001	2002	2003	2004	2005	2006
Varied Determination Feb 2002	<b>1,709</b>	<b>1,807</b>	<b>1,901</b>	2,012	2,122	2,223
Forecast 2002 Aer Rianta Report	1,775	1,906	2,014	<b>2,184</b>	<b>2,309</b>	<b>2,427</b>
<i>Difference</i>	66	99	113	172	187	204
<b>TOTAL ART</b>						
	2001	2002	2003	2004	2005	2006
Varied Determination Feb 2002	<b>19,460</b>	<b>20,536</b>	<b>21,584</b>	22,746	23,952	25,042
Forecast 2002 Aer Rianta Report	18,514	19,146	20,073	<b>21,435</b>	<b>22,607</b>	<b>23,870</b>
<i>Difference</i>	(946)	(1,390)	(1,511)	(1,311)	(1,345)	(1,172)

TABLE 2 The Revenues Sought By Aer Rianta To Cover Higher Airport Security Costs

**Schedule 1**

**Actual Airport Police and ASU payroll costs / FTE's 2001 – 2003 by year**

	<b>Dublin</b>		<b>Total</b>	
Actual Y/E Dec 2001				
Total Cost	<b>€ 10,342,599</b>		<b>€ 15,914,488</b>	
FTE's & Average Cost	221 FTE's	€ 46,799	321.92 FTE's	€ 49,436
Actual Y/E Dec 2002				
Total Cost	<b>€ 11,557,915</b>		<b>€ 17,878,739</b>	
FTE's & Average Cost	261.9 FTE's	€ 44,131	367.92 FTE's	€ 48,594
Expected Y/E Dec 2003				
Total Cost	<b>€ 12,104,323</b>		<b>€ 19,547,874</b>	
FTE's & Average Cost	264.9 FTE's	€ 45,694	377 FTE's	€ 51,851

Payroll costs are inclusive of Employer PRSI, Employer Pension contributions, overtime, RDAs and any other pay related costs.  
FTE= Full Time Equivalent Staff Member, ASU = Airport Search Unit

**Schedule 2**

**Forecast Airport Police & ASU Payroll Costs / FTE's 2004 - 2006**

	<b>Dublin</b>		<b>Total</b>	
Forecast 2004				
Total Cost	<b>€ 14,092,035</b>		<b>€ 22,495,434</b>	
FTE's & Average Cost	314.4 FTE's	€ 44,822	435.85 FTE's	€ 49,892 *
Forecast 2005				
Total Cost	<b>€ 15,401,834</b>		<b>€ 24,252,507</b>	
FTE's & Average Cost	320.6 FTE's	€ 48,041	440.8 FTE's	€ 53,199 *
Forecast 2006				
Total Cost	<b>€ 16,698,187</b>		<b>€ 26,500,313</b>	
FTE's & Average Cost	325.6 FTE's	€ 51,284	454.3 FTE's	€ 56,450 *

\* - Part of the security cost is outsourced

Payroll costs are inclusive of Employer PRSI, Employer Pension contributions, overtime, RDAs and any other pay related costs.

**Schedule 3 - Insurance Analysis**

<b>Commercially sensitive</b>	<b>Actual 2001</b>	<b>Actual 2002</b>	<b>Expected 2003</b>	<b>Forecast 2004</b>	<b>Forecast 2005</b>	<b>Forecast 2006</b>
Total Insurance Costs (including War and Terrorism)	€ 3,161,459	€ 6,970,896	€ 8,519,310			

### Schedule 4 - Security CAPEX Analysis

<b>Dublin</b>		<b>Description</b>
Equipment Sept 2001 - 2006	€ 4,896,264	Includes CCTVs; Screening, X-Ray, Threat Imaging, Access Control and various equipment
Hold Baggage Screening	€ 10,085,000	
Facilities	€ 6,106,540	Screening facilities; ASU; New comms rooms, boundary fence; Security gates, Perimeter fencing, Cargo area, Energy centre and misc facilities
<b>TOTALS</b>	<b>€ 21,087,804</b>	
<b>Shannon</b>		<b>Description</b>
Equipment Sept 2001 - 2006	€ 1,220,066	CCTVs, APFS Petrol Vehicles, Access Control System, Fibre Optic Ring
Hold Baggage Screening	€ 3,300,000	
Facilities	€ 2,059,531	Fencing; Security compound, Fuel farm, Staff Screening, Road development, Perimeter fence; misc work
<b>TOTALS</b>	<b>€ 6,579,597</b>	
<b>Cork</b>		<b>Description</b>
Equipment Sept 2001 - 2006	€ 618,271	CCTVs and vehicles, Access Control and local provisions
Hold Baggage Screening	€ 6,200,000	New terminal HBS
Facilities	€ 281,300	Staff airside access & Desks
<b>TOTALS</b>	<b>€ 7,099,571</b>	

TABLE 3A: Incremental Security Costs - Aer Rianta (Euro's)

Insurance	Regulatory Years				Calendar Years		
	2001/2002	2002/2003	Q4 2003	2004	2005	2006	
Operator's Estimated Insurance Expense	5,228,172	8,132,207	2,129,828 #				
2001 Determination Projected Insurance Expense	2,440,081	3,520,109	953,525				
<b>Discrepancy</b>	2,788,091	4,612,098	1,176,303	5,059,538	5,294,490	5,825,153	
<b>Operating Expense</b>							
Operator's Estimated OPEX	17,387,676	19,130,590	4,886,969	22,495,434	24,252,508	26,500,313	
2001 Determination Projected Security OPEX	19,135,551	20,710,999	5,635,476	20,069,539	21,795,932	23,686,470	
<b>Discrepancy</b>	(1,747,875)	(1,580,409)	(748,507)	2,425,895	2,456,576	2,813,843	
<b>Total Insurance &amp; Operating Expense Increment</b>	<b>1,040,216</b>	<b>3,031,689</b>	<b>427,796</b>	<b>7,485,433</b>	<b>7,751,066</b>	<b>8,638,996</b>	

TABLE 3B Incremental Security Costs - Dublin Airport (Euro's)

Insurance	Regulatory Years				Calendar Years		
	2001/2002	2002/2003	Q4 2003	2004	2005	2006	
Operator's Estimated Insurance Expense	4,083,202	6,351,253	1,663,395 #				
2001 Determination Projected Insurance Expense	1,739,509	2,519,332	684,210				
<b>Discrepancy</b>	2,343,694	3,831,921	979,186	4,162,610	4,360,055	4,788,857	
<b>Operating Expense</b>							
Operator's Estimated OPEX	11,254,086	11,967,721	3,026,081	14,092,035	15,401,834	16,698,187	
2001 Determination Projected Security OPEX	12,452,058	13,525,747	3,673,372	13,230,605	14,383,605	15,663,316	
<b>Discrepancy</b>	(1,197,972)	(1,558,026)	(647,292)	861,430	1,018,229	1,034,871	
<b>Total Insurance &amp; Operating Expense Increment</b>	<b>1,145,722</b>	<b>2,273,895</b>	<b>331,894</b>	<b>5,024,040</b>	<b>5,378,284</b>	<b>5,823,728</b>	

Notes

\* CAR has not included the Aer Rianta Insurance figures for 2001 as the impact of Sept 11th on insurance was not felt until 2002

# Blocked out figures indicate commercially sensitive information received from Aer Rianta

TABLE 4A: Calculation Of Regulatory Asset Base And Depreciation - Aer Rianta

	<b>Determination</b>		<b>Review</b>
Regulatory year starting:	Sep 2003	V	Jan 2004
Indexed cost of assets	1,682,021,195		1,189,661,004
Indexed accumulated depreciation	<u>1,020,384,435</u>		<u>327,452,989</u>
Indexed net assets (RAB)	661,636,760		862,208,015
x WACC (pre-inflation; post-tax)	<u>6.00%</u>		<u>6.00%</u>
= Return on Capital	39,698,206		51,732,481
Depreciation charge	58,511,543		50,364,135

TABLE 4B: Calculation Of Regulatory Asset Base And Depreciation – Dublin Airport

	<b>Determination</b>		<b>Review</b>
Regulatory year starting:	Sep 2003	V	Jan 2004
Indexed cost of assets	1,078,806,759		827,655,049
Indexed accumulated depreciation	<u>587,043,236</u>		<u>216,198,183</u>
Indexed net assets (RAB)	491,763,523		611,456,866
x WACC (pre-inflation; post-tax)	<u>6.00%</u>		<u>6.00%</u>
= Return on Capital	29,505,811		36,687,412
Depreciation charge	41,588,012		34,928,970



TABLE 5: Prior Period Adjustments

	Regulatory year	Aer Rianta			Dublin Airport		
		1 Sep-01	2 Sep-02	3 Sep-03	1 Sep-01	2 Sep-02	3 Sep-03
1	February 2002 <u>Maximum rate</u> Varied Determination	€6.34	€6.14	€5.94	€5.38	€5.12	€4.88
2	- revised X-factor	€0.00	(€0.19)	(€0.36)	€0.00	(€0.16)	(€0.31)
3	Revised depreciation, RAB and X-factor	€6.32	€6.11	€5.90	€5.35	€5.03	€4.74
4	- revised benchmarks	(€0.05)	(€0.05)	(€0.04)	(€0.02)	€0.00	€0.00
5	- tax and regulatory year aligned and revised effective tax rates	(€0.31)	(€0.24)	(€0.16)	(€0.31)	(€0.23)	(€0.16)
6	All combined	€5.96	€5.83	€5.71	€5.02	€4.79	€4.58
7	Security increment	€1,040,216	€3,031,689	€2,918,165	€1,145,722	€2,273,895	€4,139,643
8	Passengers	20,267,000	21,322,000	22,455,500	15,850,500	16,715,750	17,630,000
9	Per passenger increment	€0.05	€0.14	€0.13	€0.07	€0.14	€0.23
10	Maximum rate incl. security adj	€6.01	€5.97	€5.84	€5.09	€4.93	€4.81
11	CPI	4.20%	3.10%		4.20%	3.10%	
12	X	5.10%	5.10%		7.50%	7.50%	
13	I	3.18%	2.17%		3.18%	2.17%	
14	Actual yield collected	€5.61	€5.31		€5.33	€5.00	
15	K		(€0.41)	(€1.12)		€0.25	€0.30
16	W		€0.02	€0.15		€0.02	€0.15
17	Maximum yield, inc. K and W	€6.01	€6.41		€5.11	€4.70	
18	Published Rate*	€6.34	€6.99	€8.48	€5.38	€5.26	€5.28

\* Including K and W in first and second regulatory years, but not third since these corrections are to be applied in 2004.

TABLE 6A: Effect Of Proposed Changes On Maximum 2004 Yield And X Factor - Aer Rianta

Scenario		Maximum rate 2004	X-factor (negative)
1 February 2002 Varied Determination*		€5.93	6.2/3.4% #
2 - <i>adjusted application of X-factor*</i>		(€0.40)	
3 - <i>revised calculation of RAB and depreciation</i>		(€0.19)	
4 Revised RAB and depreciation, taxation and X-factor		€5.65	2.5%
5 - <i>revised indexation of regulatory fees</i>		(€0.01)	
6 - <i>revised opex and revenue benchmarks</i>		(€0.03)	
7 All computation and information adjustments		€5.62	2.5%
8 - <i>revised passenger forecasts</i>		€0.32	
9 - <i>security adjustment</i>		€0.26	
10 All proposed adjustments		€6.29	2.9%
11 c/f of adjustments	K	€1.12	
12 prior to January 2004 (see Table 5)	W	€0.15	
<b>13 New Price Cap for 2004</b>		<b>€7.56</b>	<b>2.9%</b>

TABLE 6B: Effect Of Proposed Changes On Maximum 2004 Yield And X Factor - Dublin Airport

Scenario		Maximum rate 2004	X-factor (negative)
1 February 2002 Varied Determination*		€4.86	7.8/4.4% #
2 - <i>adjusted application of X-factor*</i>		(€0.34)	
3 - <i>revised calculation of RAB and depreciation</i>		(€0.31)	
4 Revised RAB and depreciation, taxation and X-factor		€4.47	3.5%
5 - <i>revised indexation of regulatory fees</i>		(€0.01)	
6 - <i>revised opex and revenue benchmarks</i>		€0.00	
7 All computation and information adjustments		€4.46	3.6%
8 - <i>revised passenger forecasts</i>		€0.28	
9 - <i>security adjustment</i>		€0.22	
10 All proposed adjustments		€5.04	3.8%
11 c/f of adjustments	K	(€0.30)	
12 prior to January 2004 (see Table 5)	W	€0.15	
<b>13 New Price Cap for 2004</b>		<b>€4.89</b>	<b>3.8%</b>

\* adjusted from regulatory (Oct-Sept) to calendar year values

# 6.2% for 2003/04 and 3.4% thereafter

**Note** K is minus the figure in table 5

TABLE 7A Calculation Of The 2004 Yield For Aer Rianta

<b>Aer Rianta</b>	<b>€</b>
RAB @ 1 January 2004	862,208,015
Multiplied by WACC	6%
= Return on Capital	51,732,481
Plus : Depreciation	50,364,135
OPEX	222,622,775
less reduction in OPEX due to efficiency gains	(24,662,087)
Security Adjustment	7,485,433
Regulatory Fees	1,731,888
= Sub-total	309,274,625
Plus : Taxation	8,052,675
Minus : Gross Commercial Revenue	(182,455,171)
= Maximum Allowable Revenue	134,872,130
Divide by No of Passengers	21,435,000
<b>= Maximum Average Revenue per Passenger</b>	<b>€ 6.29</b>
Carry forward of adjustments from "	"K" €1.12
Period prior to 2004	"W" €0.15
<b>= Maximum Average Revenue per Passenger incl W &amp; K</b>	<b>€ 7.56</b>

Unlike in the Yield tables that accompanied the Determination, in this Yield table the cost of sales has been excluded from the Opex total and instead netted off against Gross Commercial Revenues.

TABLE 7B Calculation Of The 2004 Yield For Dublin Airport

<b>Dublin Airport</b>		<b>€</b>
RAB @ 1 January 2004		611,456,866
Multiplied by WACC		6%
= Return on Capital		36,687,412
Plus : Depreciation		34,928,970
OPEX		146,145,591
less reduction in OPEX due to efficiency gains		(16,808,886)
Security Adjustment		5,024,040
Regulatory Fees		1,228,815
= Sub-total		207,205,942
Plus : Taxation		5,472,791
Minus : Gross Commercial Revenue		(128,052,159)
= Maximum Allowable Revenue		84,626,656
Divide by No of Passengers		16,780,000
<b>= Maximum Average Revenue per Passenger</b>		<b>€ 5.04</b>
Carry forward of adjustments from	"K"	(€0.30)
period prior to 2004	"W"	€0.15
<b>= Maximum Average Revenue per Passenger incl W &amp; K</b>		<b>€ 4.89</b>

Unlike in the Yield tables that accompanied the Determination, in this Yield table the cost of sales has been excluded from the Opex total and instead netted off against Gross Commercial Revenues.