

UK-Ireland FAB Performance Plan for Reference Period 2 - Corrigendum

CAP 1245



UK-Ireland FAB Performance Plan for Reference Period 2 - Corrigendum

Background

On 24 June 2014 the UK and Ireland, as partners in a Functional Airspace Block (FAB), adopted and submitted to the European Commission a Performance Plan for the second reference period (2015-2019, RP2) of the Single European Sky Performance Scheme for Air Navigation Services. Developed by the UK and Irish national supervisory authorities (NSAs), the Plan sets out targets for air navigation services in the key performance areas of safety, environment, capacity and cost efficiency.

On 8 October 2014 the Performance Review Body (PRB), an advisory body of the European Commission published its <u>assessment report</u> of the Plans submitted by all FABs (Volume 2 – FAB view). In this report, the PRB made recommendations to the Commission where change in FAB Plans may be required to ensure consistency with and sufficient contribution to EU-wide targets.

On 17 October 2014 the UK and Ireland submitted a Corrigendum (see Appendix A) of our FAB Plan to the Commission, having regard to points raised by the PRB, new legal arguments, and minor technical changes. This document provides an overview of the changes made to the UK-Ireland FAB Plan.

Further background information on developing the UK-Ireland Plan under the Single European Sky Performance Scheme can be found in an <u>In Focus</u> piece from December 2013.

Changes resulting from PRB assessment

The PRB noted that the FAB target for en route capacity was not consistent with the EU-wide target and the associated FAB reference value for the year 2015. The PRB estimated the associated cost to airspace users of the additional delay at €2 million in 2015. The target for 2015 has therefore been revised from 0.26 minutes delay per flight to 0.25 minutes delay per flight to ensure consistency with the EU-wide target.

mins delay/flight	2015	2016	2017	2018	2019
FAB reference value	0.25	0.26	0.26	0.26	0.26
RP2 Plan – June 2014	0.26	0.26	0.26	0.26	0.26
RP2 Plan – October	0.25	0.26	0.26	0.26	0.26
2014 Corrigendum					

Changes resulting from new legal arguments

The UK has carefully considered a new legal argument that was raised in relation to the applicability of Article 14 of the Charging Regulation (No 391/2013) to the pass through of NERL's unforeseen pension costs (i.e. costs exempt from cost sharing). The originally submitted plan included a policy provision which allowed only 80% pass through of unforeseen pension costs when actual costs exceeded the assumed costs (and a 100% pass through when actual costs were lower than assumed). Although the intention of this provision was aimed at encouraging NERL to continue to manage its defined benefit pension costs, it is now recognised that the provisions of Article 14 do not allow for less than a full (100%) pass through of relevant costs.

The CAA has also considered legal arguments that (in respect of pensions costs) the element of the cost that can be exempt is limited to the element that is a result of unforeseen changes in national pensions law, pension accounting law or pension costs resulting from unforeseen market conditions and not the simple (mathematical) difference between actual and forecast defined benefit contributions. This will require an update of the 2012 to 2014 (inclusive) pension costs exempt from cost sharing, as the UK accepts that there have been elements of cost savings which have not been due to unforeseen circumstances and which have previously been netted off the full exempt costs.

The Single Sky Committee (SSC) has set up a Working Group on Economic Aspects to recommend guidance on costs exempt from cost sharing. The UK will reassess its current conclusion on the interpretation and application in the Plan on defined benefit pensions costs, having regard to any such guidance that is available at the relevant time.

Other minor changes

An error was found in the 2014 total service unit forecast in the UK en route reporting tables. This figure has now been updated and is consistent with the February 2014 STATFOR forecast. This change does not impact the determined cost or the determined unit cost for RP2.

Both the UK and the Irish NSAs also provided some additional information and reasoning, as requested by the PRB.

Next steps

Taking account of the PRB's advice and to allow more time for Member States to amend their Plans in light of the PRB assessment, the Commission intends to bring a draft decision on the acceptance of FAB Plans to a Single Sky Committee meeting on 14/15 January 2015. Although this decision comes after the start of RP2 (1 January 2015), in accordance with Article 16 of the Performance Regulation (No 390/2013), it will apply retrospectively as from the first day of the reference period.

Once the UK-Ireland FAB Plan is formally approved, the CAA intends to publish a consolidated version of the plan which will incorporate changes made through the Corrigendum.

APPENDIX A

Corrigendum to UK-Ireland FAB Performance Plan for RP2

Corrigendum to UK-Ireland FAB Performance Plan for RP2 13 October 2014

UK-Ireland FAB Performance Plan for RP2 – Template and Annexes

FAB

3.1.(c) (i) - Capacity KPI #1: En route ATFM delay per flight

The target for 2015 has been amended from 0.26 minutes delay per flight to 0.25 minutes delay per flight to ensure consistency with the EU-wide target and the associated FAB Reference Value from the Network Operations Plan 2014-2019 (March 2014). The amended table is attached in Appendix A.

United Kingdom

2. Investments: NATS capex

In the overview of NATS' investments it should be noted that the capex figures are presented in 2012 prices (this was noted in the Supporting Document).

3.1.(d).1 En route Charging Zone #2 (UK)

A – Cost efficiency KPI #1: Determined unit cost (DUC) for en route ANS

and

Annex C.2.1 UK ER Reporting Tables

An error was found in the Total en route Service Units figure for 2014F. Instead of 9,607,878 the figure should be 10,024,981, consistent with STATFOR February 2014 forecast.

This adjustment does not impact DC/DUC in RP2 but has an impact on the DUC in 2014 and the DUC trend calculated from 2014F-2019, which should be -4.5% per year rather than -5.3% per year. This adjustment has been made to the main template as well as the Reporting Tables¹ annexed in Annex C.2.1 of the UK-Ireland FAB Performance Plan.

The corrected tables are annexed in Appendix B and C to this Corrigendum.

¹ Note: Minor technical adjustments have been made to En route and Terminal Reporting Tables following PRU comments (submitted by the CAA to PRU on 1 September 2014).

Annex C.2.2 UK ER Additional Information

Section 1 – Total costs and unit costs, item e) Justification for the cost of capital.

In the PRB assessment report the PRB considered that the Weighted Average Cost of Capital (WACC) rate used to compute NERL en route cost of capital (5.86% in real terms) is above the upper bound of the range of values calculated with the methodology laid down in Annex C guidance, based on a report from consultants Steer Davis Gleave.

The UK would like to make the following comments with reference to NERL WACC.

Allowance for tax: The CAA has used the effective rate of tax in its calculations to be consistent with the basis of calculations in earlier control periods. The differences arise because the allowances for taxation vary from the depreciation used in statutory accounts and in this case from regulatory depreciation. In earlier periods the effective rate of tax has been lower than the statutory rate of tax. The CAA considers that it is important to be consistent over time – applying either the statutory or the effective rate of tax.

The effective rate of tax has been calculated as follows. The corporate tax rate used for NERL in the UK-Ireland FAB Performance Plan is the statutory tax rate on the taxable profit. This generates the expected tax bill. The CAA has converted the estimated tax bill, at the statutory tax rate, in pound terms into a percentage of the regulatory asset base in order to allow it to estimate the required pre-tax WACC. The "effective" tax rate of 37% (that is derived from the cost of capital calculations) is simply the number that is necessary to ensure that the pre-tax cost of equity generates sufficient allowances to cover NERL's expected tax payments at the statutory rate.

In their assessment the PRB correctly stated that the Plan refers to the fact that NERL RP2 capital allowances are lower than regulatory depreciation. However, the comment about "higher expected profits" is misleading. It should be made clear that profit before tax in RP2 is not forecast to be higher than in RP1 – in fact, profit before tax is forecast to be lower than in RP1.

Relationship between cost of equity and maximum traffic risk exposure: the pre tax rate of return on equity for NERL for RP2 (10.9% pre tax real) includes an allowance for tax. Once this is removed, the ROE is more closely aligned to the maximum post tax traffic risk exposure (i.e. a variance of less than 10% rather than 38.5% currently referred to in the PRB report). It is unclear exactly what conclusion can be drawn from this simple comparison. Traffic is not the only risk and equity would require a risk free return even if NERL were otherwise free of risk.

Higher equity beta: The incorporation of a tax rate into the equity beta calculations is not normally used by UK regulators or the UK Competition and Markets Authority. Although this is implied by the methodology laid down in the Annex C guidance (based on work by consultants Steer Davis Gleave) it is not the approach that either

NERL or CAA have used previously. In addition, the PRB has previously stated in meetings that this is guidance only at this stage and not mandatory methodology. Nonetheless, the CAA would like to note that the NERL asset beta is only just outside the SDG range.

En Route asset base per SU: In isolation, this measure is not a meaningful reference point for risk or, therefore, the cost of capital.

Furthermore the CAA would like to point out that NERL is the only ANSP with fully commercial financing. It is therefore important to consider the cost of capital on a specific case basis, rather than taking a general approach as the impact on obtaining finance can have a more immediate and serious effect. The CAA also has a statutory duty to ensure that NERL does not find it unreasonable difficult to finance its functions.

Within small tolerances, the downside to users of allowing the cost of capital below the true cost of capital (a squeeze on investment) would be worse than allowing a cost of capital above the true cost of capital (some potential excess profit to ANSP). Nevertheless, the cost of capital for RP2 is of a whole percentage point less than in RP1.

Annex C.2.2 UK ER Additional Information

Section 4 – Additional justification for the RP2 Performance Plan, item c) Interest rate assumptions.

In the PRB assessment report the PRB pointed out that information on NERL interests of loans was insufficient. The text and table below should be added at the end of the current text.

"The approach taken to NERL's cost of capital is consistent with the approach for RP1 and the regulation of utility industries in the UK and widely used elsewhere. The CAA estimated the relevant cost of capital for RP2 following a CAA commissioned study by PricewaterhouseCoopers (PwC). The table below provides additional information about NERL's existing debt. CAA and PwC's assessment of NERL's cost of capital incorporated existing debt and other relevant data points when determining the appropriate cost of debt for RP2."

Interest rate assumptions for loans financing the provision of air navigation services (Amounts in nominal terms in '000 national currency)											
ANSP/Entity: NERL 2015 D 2016 D 2017 D 2018 D 2019 D											
£600m 2026 fixed rate amortising bonds		1									
Debt amount Loan 1 (average over period)	491,595	460,596	417,399	370,701	325,998						

Interest rate %	5.25% plus a commercial ly sensitive monoline premium	5.25% plus a commercia Ily sensitive monoline premium	5.25% plus a commercia lly sensitive monoline premium	5.25% plus a commercia lly sensitive monoline premium	5.25% plus a commercia Ily sensitive monoline premium						
£275m variable rate revolving bank loan (expiry Dec 2016)	fluctuates ov Margin of 0.6	s is a revolving credit facility and therefore any balance ates over time. n of 0.65% per annum over LIBOR, plus utilisation fees of up % per annum.									
Debt amount Loan 2	TBD – future borrowings are variable and depend on NERL's performanc e and other cashflows	TBD – future borrowings are variable and depend on NERL's performan ce and other cashflows	TBD – future borrowings are variable and depend on NERL's performan ce and other cashflows	TBD – future borrowings are variable and depend on NERL's performan ce and other cashflows	TBD – future borrowings are variable and depend on NERL's performan ce and other cashflows						
Interest rate %	LIBOR + up to 1.15%	LIBOR + up to 1.15%	TBD	TBD	TBD						

Annex C.2.2 UK ER Additional Information

Section 4 – Additional justification for the RP2 Performance Plan, item h) Assumptions for costs exempt from cost-sharing

UK has carefully considered a legal argument that was raised in relation to the applicability of Article 14 of the Charging Regulation (391/2013) to the pass through of NERL pension costs. The submitted Plan included a policy provision which allowed only 80% pass through of pension costs qualifying as exempt costs under Article 14(2) when actual costs exceeded the assumed costs (and a 100% pass through when actual costs were lower than assumed). Although the intention of this provision was aimed at encouraging NERL to continue to manage DB pension costs, the UK accepts that all costs as defined in Article 14(2) incurred (including in Reference Period 1) fall to be determined in the performance plan in accordance with the provisions of Article 14 and that those provisions do not permit allowing less than a full (100%) pass through of costs falling under Article 14(2)(a).

The UK also accepts that the pass through of RP1 spectrum costs (new costs required by law) previously set at 80% will need to me amended to 100%.

The text below should therefore substitute the text following the table:

"UK intends to use the 100% pass through mechanism in respect of the following cost items:

- a. the element of variance in cash pension costs for the NERL pre-existing defined benefit scheme (which is now closed to new members) which is deemed to be outside the control of NERL (including variance in the Pensions Benefit Obligation of NATS pensioners and deferred pensioners up to the point of separation of NATS from the CAA) subject to the CAA being satisfied that the pension scheme has been well governed throughout the previous reference period;
- b. variance in spectrum costs compared to what has been assumed in the RP2 cost projections where such costs are required by law;
- c. variance in MET costs which meet the criteria in Article 14 of the Charging Regulation.

The UK intends that other variances in NERL's costs which meet the criteria in Article 14(2) should be carried forward where not to do so would result in a severe detrimental effect on the provision of the service for users now or in the future having regard to NERL's service obligations under its licence. This would particularly apply to very large additional costs of a nature which cannot be anticipated in advance."

With regard to Article 14(2) of the Charging Regulation, the CAA has also considered legal arguments as to the interpretation of Article 14(2)(a) and 14(2)(a)(i), including in particular arguments that (in respect of pensions costs) the element of the cost that can be exempt is limited to the element that is a result of unforeseen changes in national pensions law, pension accounting law or pension costs resulting from unforeseen market conditions and not the plain difference between actual and forecast defined benefit contributions. This will require an update of the 2012 to 2014 (inclusive) pension costs exempt from cost sharing, as UK accepts that some, if not all, differences previously reported for those years fall within the scope of Article 14(1) of the Charging Regulation and therefore are subject to cost sharing.

The Single Sky Committee (SSC) has set up a Working Group on Economic Aspects to recommend guidance on the interpretation of exempt costs in Article 14 of the charging regulation. The UK proposes that instead of updating the 2012-2014 costs exempt from cost sharing at this point, it will reassess its current conclusion on the interpretation and application in the Plan on defined benefit pensions costs pursuant to Articles 14(2)(a) and 14(2)(a)(i), having regard to any such guidance that is available at the relevant time.

The UK will in any event revise and resubmit the figures as part of the process to approve exempt costs to be submitted to the Commission by 1 June 2015 based on the actual outcomes for 2012 to 2014 inclusive, applying any revised interpretation of Article 14(2) and having regard to any relevant guidance from the SSC Working Group on Economic Aspects. CRCO-style en route tables will then be amended accordingly as part of the unit rate submissions to Eurocontrol.

Ireland

Performance Plan Annex C Ireland En Route Additional Information, Section 4, subsection (b) and (c)

Comment Registry UK/IRL #17, Appendix D

In their draft assessment the PRB pointed out that information provided in the Performance Plan in relation to the sections referenced above (pension & interest rate assumptions) was insufficient. The PRB requested Ireland to provide information on the underlying pension costs assumptions and interest rates on loans, in line with the requirements of the FAB Performance Plan template. This additional information is contained in Appendix D to this corrigendum.

Performance Plan Annex C Ireland Terminal ANS Additional Information, Section 4, subsection (b) and (c)

Comment Registry UK/IRL #22, Appendix D

In their draft assessment the PRB pointed out that information provided in the Performance Plan in relation to the sections referenced above (pension & interest rate assumptions) was insufficient. The PRB requested Ireland to provide information on the underlying pension costs assumptions and interest rates on loans, in line with the requirements of the FAB Performance Plan template. This additional information is contained in Appendix D to this corrigendum.

Performance Plan Annex C Ireland En Route Additional Information, Section 4, subsection (h)

Comment Registry UK/IRL #18, Appendix E

In their draft assessment the PRB pointed out that information provided in the Performance Plan in relation to the section referenced above (assumptions for costs exempt from cost-sharing) was insufficient. The replacement text provided as Appendix E to this document should be used to replace the current Performance Plan text.

Performance Plan Annex C Ireland Terminal ANS Additional Information, Section 4, subsection (h)

Comment Registry UK/IRL #23, Appendix E

In their draft assessment the PRB pointed out that information provided in the Performance Plan in relation to the section referenced above (assumptions for costs exempt from cost-sharing) was insufficient. The replacement text provided as Appendix E to this document should be used to replace the current Performance Plan text.

Performance Plan Annex D2.IAA Investment Plan Summary. Section 1 - Introduction

Comment Registry UK/IRL #42

In their draft assessment of the procedures in place to assess investments within the IAA, the PRB pointed out that "No information on the existence of a CBA, but each project "is subject to the normal tendering procedure and business case appraisal process"

As clarification the Irish NSA confirms that business case appraisal of each investment includes a cost benefit analysis. The process clearly identifies the objectives, options and associated risks for each investment. Each option (do nothing, partial investment, full investment, etc.) is appropriately "priced" using traditional CBA techniques. This additional clarifying text should be included in the Performance Plan section referenced above.

Performance Plan Part 1, Introduction, Section 1.2, Assumptions

Performance Plan supporting document, Chapter 2, Background – Traffic Assumptions Ireland Para 2.41 – 2.45

Comment Registry UK/IRL #15, Appendix F

Based on the comments made by the PRB in their draft assessment of the Ireland ER TSU forecast assumptions, the Irish NSA elected to provide further information supporting the traffic forecasts contained in the Performance Plan. These are included as Appendix F to this corrigendum, and should be considered an elaboration on the information provided in the sections referenced above.

UK-Ireland FAB Performance Plan for RP2 - Supporting Document

Chapter 4: En route capacity

Due to the abovementioned change in the 2015 FAB en route capacity target, the following changes need to be made in the Supporting Document

Figure 2: FAB en route capacity target [this table appears in the Executive Summary]

(mins delay/flight)	2015	2016	2017	2018	2019
EU wide target	0.50	0.50	0.50	0.50	0.50
FAB reference value	0.25	0.26	0.26	0.26	0.26
FAB target	0.25 ²	0.26	0.26	0.26	0.26

Figure 4.1: UK and Irish Aggregated Capacity Target: C1

(Minutes delay per flight)	2015	2016	2017	2018	2019
EU-wide Target	0.5	0.5	0.5	0.5	0.5
FAB Reference Value (Draft Proposal)	0.28	0.29	0.29	0.29	0.28
FAB Target (Draft Proposal)	0.28	0.28	0.28	0.28	0.28
FAB Reference Value (revised)	0.25	0.26	0.26	0.26	0.26
FAB Target (Final Plan)	0.25 ³	0.26	0.26	0.26	0.26

Source: CAA, IAA SRD

Paragraph 4.8 should now read:

"The UK and Ireland have set a FAB target which is fully consistent with the FAB reference value."

The change in the FAB target also requires a change in the allocation of the FAB target between the two ANSPs. This change further affects the FAB incentive scheme, as indicated below.

Figure 4.2: Allocation of FAB target

(minutes delay per flight)	2015 ⁴	2016	2017-2019
UK	0.22	0.23	0.23
Ireland	0.13	0.13	0.14

² The FAB target for 2015 was modified following comment from the PRB. ³ The FAB target for 2015 was modified following comment from the PRB.

⁴ The FAB target for 2015 was modified following comment from the PRB.

Figure 4.8: Calculation of bonus and penalty thresholds C2

Minutes/Flight	KPI	Margin non-	Incentive par	Bonus	Penalty
	target	ANSP	value (C2)*	threshold	threshold
	(C1)	attributable		(C2)*	(C2)*
		(estimate)			
NERL 2015	0.22	0.05	0.17	0.14	0.19
NERL 2016-2019	0.23	0.05	0.18	0.14	0.20
IAA	0.14	0.00	0.14	0.11	0.15

^{*} based on ANSP attributable delays only as listed in table 4.6 above.

(Rounded to 2 significant decimal places)

Source: CAA & IAA SRD

Paragraph 4.44 should now read:

"The CAA has decided:

- to confirm that the factor used for the uplift of targets and thresholds between the unweighted C2 measure and the weighted C3 measure will be as used in the draft Performance Plan. The CAA considers that this is an issue of judgement as to the appropriate period over which to observe the relationship between the C2 and C3 measures. The CAA considers that it had used an appropriate period in the draft performance Plan.
- that it should make the increase in the allowance of exempt days for system changes to 75 days over the five years (draft PP included an allowance for 50 days). These will continue to be subject to the governance applied in RP1.
- to make an adjustment to the penalty threshold of the C4 measure. In deciding to make this adjustment, the CAA acknowledges that as the C4 penalty threshold is derived from the equivalent threshold in RP1, it is logical to apply an adjustment for the expected difference of measurement between the two periods.
- not to recalibrate the C4 penalties so that the maximum penalties would become payable at an equivalent performance to RP1 as to do so would dilute the rate of penalties for any relevant level of poor performance given the SES Performance Regulation constraints on the maximum penalty.
- to apply the thresholds consistent with the four years 2016-2019 to 2015."

Chapter 5: Environment, paragraphs 5.8 to 5.44

In the PRB assessment report the PRB noted that the UK-Ireland FAB adopted annual average horizontal en route flight efficiency (KEA) targets that are consistent with the EU-wide target and the corresponding FAB reference values and a non-financial incentive to address any underperformance with respect of the FAB target. The UK has additionally adopted a performance indicator based on the 3Di metric,

which is based on a regression model incorporating flight path inefficiencies in the vertical plane as well as horizontal.

The PRB report notes that the 3Di metric does not foster high level of performance as it is not directly linked to KEA values.

As mentioned in the Supporting Document to the UK-Ireland FAB Performance Plan (Chapter 5, paragraphs 5.3 second bullet and 5.8), the big improvements in flight efficiency in UK airspace over RP2 are expected to arise from a major redesign of airspace around London (LAMP) and to a lesser extent in the Northern Terminal Control Area (NTCA). The expected gains in flight efficiency, amounting to £180 million p.a. by the end of RP2 are expected to arise as much from improving vertical trajectories as horizontal trajectories, some of it within 40NM from airports. It is conceivable that some worsening of the KPI for horizontal route extension outside 40NM may be consistent with the wider gains from all sources. In comparison, the scope for enabled fuel savings in delivering the KEA target is more limited (c. £6m of enabled fuel savings) compared with those covered by 3Di including those in TMA airspace such as LAMP and NTCA.

The objective of a metric based on flight path efficiency is that it acts as a proxy indicator for fuel inefficiencies in flight paths flown within UK airspace. Therefore, it provides a mechanism by which NATS can be incentivised to deliver optimal flight paths, in order to reduce customers' fuel burn.

In the complex UK airspace vertical flight efficiency is just as important as the horizontal flight trajectory. The UK is concerned that in certain circumstances the pursuit of horizontal flight efficiency per se could work to the detriment of overall flight efficiency.

Nonetheless, UK and the UK-Ireland FAB are committed to reaching the KEA EU target and therefore adopted the FAB reference value as the FAB target and an associated non-financial incentive scheme. This will incentivise improvement in the KEA performance to the extent that this is consistent with improving fuel efficiency overall.

Chapter 6: UK cost efficiency

Paragraphs 6.33-6.50, D16-D18, E40 and table on page 174 of the Supporting Document should be substituted with the text provided in Appendix G to amend the pensions pass through policy arrangement discussed above.

Chapter 9: Terminal ANS Ireland

Comment Registry UK/IRL #19, Appendix F

Based on the comments made by the PRB in their draft assessment of the Ireland TANS TSU forecast assumptions, the Irish NSA elected to provide further information supporting the traffic forecasts contained in the Performance Plan. These are included as Appendix F to this corrigendum, and should be considered an elaboration on the information provided in the section referenced above.

List of appendices to the Corrigendum:

Appendix A FAB CAP update

Appendix B UK ER cost efficiency update in main template

Appendix C UK ER reporting tables

Appendix D Ireland additional information on pensions and interest rate assumptions

Appendix E Ireland additional information on costs exempt

Appendix F Ireland traffic assumptions

Appendix G UK update of text on NERL's pensions

3.1.(c) - Capacity

3.1.(c).(i) - Capacity KPI #1: En route ATFM delay per flight

		2015	2016	2017	2018	2019				
		Value	Value	Value	Value	Target				
Union-wide targets		0.50	0.50	0.50	0.50	0.50				
			1	1						
FAB reference values		0.25	0.26	0.26	0.26	0.26				
FAB level		0.25	0.26	0.26	0.26	0.26				
Description of the consister reference values	cy between FAB targets and FAB	The FAB target is consistent with FAB reference value.								
Detailed justification in case	e of inconsistency									
	Select Number of ANSPs >>			2						
	IAA	0.12	0.12	0.14	0.14	0.14				
	ANSP contribution to FAB targets	0.13 0.13 0.14 0.14 0.14 Allocation of FAB target to IAA is 0.13 for 2015-2016, and 0.14 for 2017-2019.								
Matteral Issuel										
National level	NATS (Continental)	0.22	0.23	0.23	0.23	0.23				

Additional comments	
See Chapter 4 of the Supporting Document.	

ANSP contribution to FAB targets

3.1.(d).1 - En Route Charging Zone #2

A - Cost efficiency KPI #1: Determined unit cost (DUC) for en route ANS

	cost emelency ki 1#1. Determined unit cost	(=)															in GBP
			Historical data (actual 2009-201	3, latest 2014 fore	cast)				RP2 Performano	e Plan		RP1 PP	Avera	ge pct va	ariation	ı p.a.
	United Kingdom	2009 A	2010 A	2011 A	2012 A	2013 A	2014 F	2015 D	2016 D	2017 D	2018 D	2019 D	2014 D		2014F- 2019D		
	Total en route actual/forecast/determined costs in nominal terms (in national currency)	614,961,027	635,819,108	641,778,915	658,740,665	724,832,527	703,749,018	686,095,951	686,856,882	689,731,618	682,288,298	672,799,228	728,678,295	0.9%	-0.9%	0.6%	-1.6%
	Inflation %		3.34%	4.50%	2.80%	2.60%	1.86%	1.90%	1.90%	2.00%	2.00%	2.00%					
-	Inflation index (Base = 100 in 2012)	90.08	93.09	97.28	100.00	102.60	104.50	106.49	108.51	110.68	112.90	115.15	100.65	2.5%	2.0%	2.1%	2.7%
į	Total en route actual/forecast/determined costs in real terms (in national currency at 2012 prices)	682,688,716	683,035,035	659,748,725	658,740,665	706,464,451	673,421,191	644,287,417	632,975,445	623,161,440	604,349,530	584,259,225	723,985,854	-1.5%	-2.8%	-1.5%	-4.2%
	Total en route Service Units (TSU)	9,914,403	9,480,262	9,860,804	9,607,878	9,754,933	10,024,981	10,244,000	10,435,000	10,583,000	10,758,000	10,940,000	11,034,647	1.0%	1.8%	1.3%	-0.2%
-	Real en route UCs/DUCs (in national currency at 2012 prices)	68.86	72.05	66.91	68.56	72.42	67.17	62.89	60.66	58.88	56.18	53.41	65.61	-2.5%	-4.5%	-2.8%	-4.0%
		-			-												
	2012 average exchange rate (1EUR=)	0.811235	0.811235	0.811235	0.811235	0.811235	0.811235	0.811235	0.811235	0.811235	0.811235	0.811235	0.811235	1	160		11
ices	Total en route costs in real terms (in € ₂₀₁₂ prices)	841,542,483	841,969,386	813,264,621	812,021,998	870,850,556	830,118,512	794,205,645	780,261,509	768,163,899	744,974,674	720,209,587	892,448,987	-1.5%	-2.8%	-1.5%	-4.2%
2 pr	Trend in total en route costs in real terms %n/n-1		0.1%	-3.4%	-0.2%	7.2%	-4.7%	-4.3%	-1.8%	-1.6%	-3.0%	-3.3%			11	F.F.	
€2012	Real en route UCs/DUCs (in € ₂₀₁₂ prices)	84.88	88.81	82.47	84.52	89.27	82.80	77.53	74.77	72.58	69.25	65.83	80.88	-2.5%	-4.5%	-2.8%	-4.0%
£	Trend in real en route UCs/DUCs (in € ₂₀₁₂ prices) %n/n-1		4.6%	-7.1%	2.5%	5.6%	-7.2%	-6.4%	-3.6%	-2.9%	-4.6%	-4.9%					
	T	1								-							400
	Inflation index (Base = 100 in 2009)	100.00	103.34	107.99	111.01	113.90	116.01	118.22	120.46	122.87	125.33	127.84	111.73		11	FF	11
S	2009 average exchange rate (1EUR=)	0.890647	0.890647	0.890647	0.890647	0.890647	0.890647	0.890647	0.890647	0.890647	0.890647	0.890647	0.890647	1	180	10	11
orice	Total en route costs in real terms (in € ₂₀₀₉ prices)	690,465,501	690,815,764	667,264,191	666,244,648	714,512,075	681,092,406	651,626,757	640,185,926	630,260,126	611,233,921	590,914,759	732,233,071	-1.5%	-2.8%	-1.5%	-4.2%
600	Trend in total en route costs in real terms %n/n-1		0.1%	-3.4%	-0.2%	7.2%	-4.7%	-4.3%	-1.8%	-1.6%	-3.0%	-3.3%			11		111
€20	Real en route UCs/DUCs (in € ₂₀₀₉ prices)	69.64	72.87	67.67	69.34	73.25	67.94	63.61	61.35	59.55	56.82	54.01	66.36	-2.5%	-4.5%	-2.8%	-4.0%
	Trend in real en route UCs/DUCs (in € ₂₀₀₉ prices) %n/n-1		4.6%	-7.1%	2.5%	5.6%	-7.2%	-6.4%	-3.6%	-2.9%	-4.6%	-4.9%					

Description of the consistency between local and Unionwide targets The proposed UK target for en route cost efficiency (4.7% DUC reduction pa - using same 2014 base methodoly applied to the EU target or -4.5% using the updated 2014F as base) is above the EU wide target (3.3% DUC reduction pa). However, the traffic forecast used to adopt EU targets was the STATFOR low case, as oppose to the higher STATFOR base case used by the UK and considered more appropriate and reflective of expected traffic during RP2. In terms of further efficiencies identified by the CAA in the NERL element, the CAA remains of the view that its duties under the Transport Act 2000 suggest that it should go beyond the EU target to pursue the best financeable outcome for users.

B - Inflation assumptions

United Kingdom	2009 A	2010 A	2011 A	2012 A	2013 A	2014 F	2015 D	2016 D	2017 D	2018 D	2019 D
Inflation %				2.80%	2.60%	1.86%	1.90%	1.90%	2.00%	2.00%	2.00%
Inflation index (2012=100)				100.00	102.60	104.50	106.49	108.51	110.68	112.90	115.15
Eurostat HICP (actuals) and IMF CPI (forecasts)				2.80%	2.60%	1.90%	1.90%	1.90%	2.00%	2.00%	2.00%
Inflation index (2012=100) HICP and IMF				100.00	102.60	104.55	106.54	108.56	110.73	112.95	115.20
Difference in percentage points					0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cumulative difference in percentage points					0.00	0.00	0.00	0.00	0.00	0.00	0.00
Justification and data source in case of deviation from inflation references				n/a							

C - Service Units forecast for en route

	United Kingdom	2009 A	2010 A	2011 A	2012 A	2013 A	2014 F	2015 D	2016 D	2017 D	2018 D	2019 D
	Total en route service units (TSU)				9,607,878	9,754,933	10,024,981	10,244,000	10,435,000	10,583,000	10,758,000	10,940,000
	Year on Year variation TSU					1.5%	2.8%	2.2%	1.9%	1.4%	1.7%	1.7%
	STATFOR en route service units forecast (Baseline				9,607,878	9,754,933	10,024,981	10,243,983	10,434,571	10,583,207	10,757,964	10,940,437
٩	scenario)	21212			9,007,878	9,734,933	10,024,981	10,243,363	10,434,371	10,383,207	10,737,904	10,540,437
9	Year on Year variation TSU STATFOR	01010				1.5%	2.8%	2.2%	1.9%	1.4%	1.7%	1.7%
8	Difference in percentage points					0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Cumulative difference in percentage points					0.00	0.00	0.00	0.00	0.00	0.00	0.00
	STATFOR en route service units forecast (Low scenario)				9,607,878	9,754,933	9,903,172	10,030,856	10,089,790	10,129,100	10,189,205	10,254,762
Š	Year on Year variation TSU STATFOR	111111	10101	111111		1.5%	1.5%	1.3%	0.6%	0.4%	0.6%	0.6%
-	Difference in percentage points					0.00	0.01	0.01	0.01	0.01	0.01	0.01
	Cumulative difference in percentage points	21211		12121		0.00	0.01	0.02	0.03	0.04	0.06	0.07
	Explanation of the differences (if any), justification, rationale and source				n/a (note UK uses t	the base case sc	enario)					

D - Alert thresholds (en route service units)

United Kingdom	2009 A	2010 A	2011 A	2012 A	2013 A	2014 F	2015 D	2016 D	2017 D	2018 D	2019 D
Local thresholds							10%	10%	10%	10%	10%
Local thresholds set by the European Commission							10%	10%	10%	10%	10%
Detailed justification in case of deviation				n/a							

United Kingdom Currency : GBP £ All Entities

	Fore	cast	Determined	costs - Perf.	Plan RP1	Det	ermined cos	ts - Perform	ance Plan	RP2					Actua	l costs				
Cost details	2010F	2011F	2012	2013	2014	2015	2016	2017	2018	2019	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Cost details	20101	20117	2012	2013	2014	2013	2010	2017	2016	2019	2010	2011	2012	2013	2014	2013	2010	2017	2016	2013
1. Detail by nature (in nominal terms)																				
1.1 Staff	246,073	267,785	274,653	281,086	279,528	264,609	265,706	271,400	273,510	272,173	264,635	278,369	273,294	266,644	278,786					
1.2 Other operating costs (1)	181,169	181,351	191,836	196,621	199,956	171,921	175,270	178,058	179,672	180,016	171,388	158,581	166,812	176,206	170,236					
1.3 Depreciation	84,537	120,033	131,609	156,228	162,904	168,997	171,905	169,212	160,435	155,194	107,413	122,026	133,259	157,111	163,366					
1.4 Cost of capital	60,262	66,521	67,600	69,194	69,399	56,985	53,479	50,436	47,793	44,690	65,016	68,828	68,586	68,484	67,397					
1.5 Exceptional items	12,783	17,556	17,925	17,110	16,892	23,584	20,498	20,625	20,878	20,726	27,367	13,975	16,789	56,387	23,964					
1.6 Total costs	584,825	653,246	683,623	720,240	728,678	686,096	686,857	689,732	682,288	672,799	635,819	641,779	658,741	724,833	703,749					
Total % n/n-1		11.7%	4.7%	5.4%	1.2%	-5.8%	0.1%	0.4%	-1.1%	-1.4%		1%	3%	10%	-3%					
Staff % n/n-1		8.8%	2.6%	2.3%	-0.6%	-5.3%	0.4%	2.1%	0.8%	-0.5%		5%	-2%	-2%	5%					
Other op. % n/n-1		0.1%	5.8%	2.5%	1.7%	-14.0%	1.9%	1.6%	0.9%	0.2%		-7%	5%	6%	-3%	l				
2. Detail by service (in nominal terms)																				
2.1 Air Traffic Management	423,928	482,562	502,820	532,817	535,186	499,775	498,918	500,136	492,902	484,212	457,847	460,948	475,867	529,274	513,116					
2.2 Communication (2)	36,266	39,736	41,486	43,698	46,112	45,552	45,453	45,548	44,855	44,023	39,544	43,752	44,566	48,322	46,808	l				
2.3 Navigation (2)	5,033	5,688	6,014	6,396	6,729	16,983	16,977	16,869	16,413	16,127	5,396	14,302	14,799	17,654	17,387	l				
2.4 Surveillance (2)	26,257	32,965	35,497	39,172	40,756	30,364	30,299	30,362	29,900	29,345	29,622	29,559	30,109	32,211	31,202					
2.5 Search and rescue	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
2.6 Aeronautical Information (2)	3,012	4,094	4,317	4,547	4,739	4,315	4,422	4,533	4,646	4,762	3,475	3,904	3,995	4,046	4,315					
2.7 Meteorological services (2)	27,453	29,386	29,073	28,500	28,300	28,061	27,852	27,673	27,492	27,341	30,440	29,100	29,130	28,718	28,552					
2.8 Supervision costs	7,768	7,247	7,309	7,441	8,358	7,421	7,373	7,329	7,404	6,862	7,472	7,463	6,866	7,259	7,615					
2.9 Other State costs (1)	55,109	51,568	57,106	57,669	58,498	53,626	55,563	57,282	58,675	60,126	62,023	52,750	53,409	57,347	54,754					
2.10 Total costs	584,825	653,246	683,623	720,240	728,678	686,096	686,857	689,732	682,288	672,799	635,819	641,779	658,741	724,833	703,749					
Total % n/n-1		11.7%	4.7%	5.4%	1.2%	-5.8%	0.1%	0.4%	-1.1%	-1.4%		0.9%	2.6%	10.0%	-2.9%					
ATM % n/n-1		13.8%	4.2%	6.0%	0.4%	-6.6%	-0.2%	0.2%	-1.4%	-1.8%		0.7%	3.2%	11.2%	-3.1%					
CNS % n/n-1		16.0%	5.9%	7.6%	4.9%	-0.7%	-0.2%	0.1%	-1.7%	-1.8%		17.5%	2.1%	9.7%	-2.8%					
3. Complementary information (in nomi	nal terms)																			
Average asset base	,																			
3.1 Net book val. fixed assets	0	923,664	939,362	970,760	975,658	922,457	911,856	879,552	852,370	812,278	999,059	937,267	939,762	927,485	893,388					
3.2 Adjustments total assets	0	70,800	58,700	48,700	45,500	64.106	50.357	36.083	31.520	26,588	0	72,030	41.682	50,556	52,524					
3.3 Net current assets	0	-6,000	4,300	6,100	7,000	-9,617	-45,336	-50.924	-64,537	-72,650	0	12,155	33,018	37,497	52,666					
3.4 Total asset base	0	988,464		1,025,560		976,946	916,877	864,711	819,354	766,216	999,059		1,014,462	1,015,539	998,578					
Cost of capital %					•															
3.5 Cost of capital pre tax rate		6.7%	6.7%	6.7%	6.7%	5.8%	5.8%	5.8%	5.8%	5.8%	6.5%	6.7%	6.8%	6.7%	6.7%					
3.6 Return on equity	2.2%	2.2%	2.5%	2.5%	2.5%	4.0%	4.0%	4.0%	4.0%	4.0%	0.7%	0.8%	1.8%	1.8%	1.8%					
3.7 Average interest on debts	4.5%	4.5%	5.0%	5.0%	5.0%	4.5%	4.5%	5.0%	5.0%	5.0%	4.5%	4.5%	5.0%	5.0%	5.0%					
Cost of common projects																				
3.8 Total costs of common projects						0	0	0	0	0										
Costs exempted from cost sharing (Article	14(2)(b))																			
3.9 Total costs exempted from cost								,					-6,713	1,852	8,417					
4. Total costs after deduction of costs for	services to	exempted	flights (in n	ominal tern	ns)															
4.1 Costs for exempted VFR flights	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
4.2 Total determined/actual costs	584,825	653,246	683,623	720,240	728,678	686,096	686,857	689,732	682,288	672,799	635,819	641,779	658,741	724,833	703,749					
5. Cost-efficiency KPI - Determined/Actu	al Unit Cost	lin roal to-	me)																	
5.1 Inflation % (3)	3.34%	2.53%	1.70%	1.76%	1.89%	1.90%	1.90%	2.00%	2.00%	2.00%	3.34%	4.50%	2.80%	2.60%	1.86%	1				
5.2 Price index (4)	103.3	106.0	107.8	109.7	111.7	106.5	108.5	110.7	112.9	115.2	103.3	108.0	111.0	113.9	116.0	l				
5.3 Total costs real terms (5)	565,926	616,521	634,383	656,811	652,161	644,287	632,975	623,161	604,350	584,259	615,273	594,297	593,389	636,378	606,613	l				
Total % n/n-1	303,320	8.9%	2.9%	3.5%	-0.7%	3,2.37	-1.8%	-1.6%	-3.0%	-3.3%	010,270	-3.4%	-0.2%	7.2%	-4.7%	l				
5.4 Total Service Units	10.262.5	9,971.0	10,324.9	10,667.2	11,034.6	10,244.0	10,435.0	10,583.0	10,758.0	10.940.0	9.480.3	9,860.8	9,607.9	9,754.9	10.025.0	l				
Total % n/n-1	10,202.3	-2.8%	3.5%	3.3%	3.4%	_5,	1.9%	1.4%	1.7%	1.7%	3,.00.3	4.0%	-2.6%	1.5%	2.8%	1				
5.5 Unit cost	55.15	61.83	61.44	61.57	59.10	62.89	60.66	58.88	56.18	53.41	64.90	60.27	61.76	65.24	60.51	l				
Total % n/n-1	1	12.1%	-0.6%	0.2%	-4.0%		-3.6%	-2.9%	-4.6%	-4.9%	1	-7.1%	2.5%	5.6%	-7.2%	l				

Costs and asset base items in '000 - Service units in '000

(1) Including EUROCONTROL costs (see details in Table 3).

(2) To be left empty when such services are provided under the provisions of Article 3

(3) Actual/forecast inflation used for establishing the determined costs in nominal terms - actual/revised forecast inflation

(4) Forecast For RP1 base 100 in 2019 - For RP2 base 100 in 2012

Actual price index - base 100 in year 2009

(5) Determined costs (performance plan) in real terms - actual/revised forecast costs at 2009 prices for RP1; at 2012 prices for RP2

For RP1: determined costs before deduction of the costs for exempted VFR flights - For RP2: determined costs for exempted VFR flights

United Kingdom Currency : GBP £ NERL

	Fore	cast	Determined	costs - Perf.	Plan RP1	Det	ermined cos	ts - Perform	ance Plan	RP2					Actua	costs				
Cost details	2010F	2011F	2012	2013	2014	2015	2016	2017	2018	2019	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Detail by nature (in nominal terms)	•																			
1.1 Staff	228,975	249,813	256,724	263,251	261,603	248,013	249,141	254,835	256,945	255,576	246,840	261,069	255,644	249,567	261,634	1				
1.2 Other operating costs (1)	113,019	126,377	131,295	135,995	138,308	114,873	116,082	117,064	117,004	115,634	105,152	102,681	110,160	116,110	110,459					
1.3 Depreciation	79,437	114,707	126,283	150,901	157,576	163,678	166,586	163,892	155,115	150,484	101,989	116,726	127,940	151,794	158,046					
1.4 Cost of capital	59.713	66,143	67,173	68,829	69,095	54,653	51,208	48,226	45,643	42,586	64,467	68,340	68,159	68,119	67,093					
1.5 Exceptional items	12,783	17,556	11,925	11,110	10,892	17,584	14,498	14,625	14,878	14,726	26,967	13,975	10,789	50,387	17,964					
1.6 Total costs	493,927	574,596	593,400	630,087	637,473	598,801	597,515	598,642	589,585	579,007	545,415		572,693	635,978	615,196					
Total % n/n-1	133,327	16%	3%	6%	1%	330,001	-0.2%	0.2%	-1.5%	-1.8%	313,113	3.2%	1.8%	11.1%	-3.3%					
Staff % n/n-1		9%	3%	3%	-1%		0.5%	2.3%	0.8%	-0.5%		5.8%	-2.1%	-2.4%	4.8%					
Other op. % n/n-1		12%	4%	4%	2%		1.1%	0.8%	-0.1%	-1.2%		-2.3%	7.3%	5.4%	-4.9%					
2. Detail by service (in nominal terms)																				
2.1 Air Traffic Management	418,485	477,024	490,955	520,684	522,805	488,468	487,412	488,427	480,994	472,074	452,841	455,960	464,435	518,179	501,942					
2.2 Communication (2)	36,266	39,736	41,486	43,698	46,112	45,552	45,453	45,548	44,855	44,023	39,544	43,752	44,566	48,322	46,808					
2.3 Navigation (2)	5,033	5,688	6,014	6,396	6,729	16,983	16,977	16,869	16,413	16,127	5,396	14,302	14,799	17,654	17,387					
2.4 Surveillance (2)	26,257	32,965	35,497	39,172	40,756	30,364	30,299	30,362	29,900	29,345	29,622	29,559	30,109	32,211	31,202					
2.5 Search and rescue	0	0	0	0	0			,	-,	-,	0	0	0	0	0					
2.6 Aeronautical Information (2)	2,587	4,094	4,317	4,547	4,739	4,315	4,422	4,533	4,646	4,762	3,008	3,904	3,995	4,046	4,315					
2.7 Meteorological services (2)	0	0	0	0	0		·		,		0	0	0	0	0					
2.8 Supervision costs	5,300	5,039	5,107	5,289	6,257	5.565	5,567	5,569	5,680	5,794	5,062	5,263	4,766	5,263	5.565					
2.9 Other State costs (1)	0	10,050	10,023	10,301	10,075	7,554	7,385	7,334	7,096	6,881	9,942	10,050	10,023	10,301	7,977					
2.10 Total costs	493,927	574,596	593,400	630,087	637,473	598,801	597,515	598,642	589,585	579,007	545,415	562,791	572,693	635,978	615,196					
Total % n/n-1		16.3%	3.3%	6.2%	1.2%		-0.2%	0.2%	-1.5%	-1.8%		3.2%	1.8%	11.1%	-3.3%					
ATM % n/n-1		14.0%	2.9%	6.1%	0.4%		-0.2%	0.2%	-1.5%	-1.9%		0.7%	1.9%	11.6%	-3.1%					
CNS % n/n-1		16.0%	5.9%	7.6%	4.9%		-0.2%	0.1%	-1.7%	-1.8%		17.5%	2.1%	9.7%	-2.8%					
3. Complementary information (in nomi																				
Average asset base	iiai teriiis)																			
3.1 Net book val. fixed assets		913,200	930,200	962,900	969,100	877,696	868,397	837,395	811,515	772,423	987,293	926,767	930,600	919,625	886,830					
3.2 Adjustments total assets		70,800	58,700	48,700	45,500	64,106	50,357	36,083	31,520	26,588	0	72,030	41,682	50,556	52,524					
3.3 Net current assets		-6,000	4,300	6,100	7,000	-9,617	-45,336	-50,924	-64,537	-72,650	0	12,155	33,018	37,497	52,666					
3.4 Total asset base		978,000		1,017,700		932,185	873,418	822,554	778,499	726,361	987,293		1,005,300		992,020					
Cost of capital %		0.0,000	,	-,,	-,,		0.0,	,	,	,		-,,	-,,	-,,	,			1		
3.5 Cost of capital pre tax rate		6.8%	6.8%	6.8%	6.8%	5.9%	5.9%	5.9%	5.9%	5.9%	6.5%	6.8%	6.8%	6.8%	6.8%					
3.6 Return on equity		11.5%	11.5%	11.5%	11.5%	10.9%	10.9%	10.9%	10.9%	10.9%	11.8%	11.5%	11.5%	11.5%	11.5%					
3.7 Average interest on debts		3.6%	3.6%	3.6%	3.6%	2.5%	2.5%	2.5%	2.5%	2.5%	3.9%	3.6%	3.6%	3.6%	3.6%					
Cost of common projects		- 205			,-															
3.8 Total costs of common projects						0.0	0.0	0.0	0.0	0.0										
Costs exempted from cost sharing (Article	e 14(2)(b))																			
3.9 Total costs exempted from cost													-3,016	2,173	10,061					
4. Total costs after deduction of costs for	r services to	exempted	flights (in r	nominal teri	ms)															
4.1 Costs for exempted VFR flights																				
4.2 Total determined/actual costs	493,927	574,596	593,400	630,087	637,473	598,801	597,515	598,642	589,585	579,007	545,415	562,791	572,693	635,978	615,196					
5. Cost-efficiency KPI - Determined/Actu	al Unit Cost	(in real ter	ms)																	
5.1 Inflation % (3)	3.34%	2.53%	1.70%	1.76%	1.89%	1.90%	1.90%	2.00%	2.00%	2.00%	3.34%	4.50%	2.80%	2.60%	1.86%					
5.2 Price index (4)	103.3	106.0	107.8	109.7	111.7	106.5	108.5	110.7	112.9	115.2	103.3	108.0	111.0	113.9	116.0	1		1		
5.3 Total costs real terms (5)	477,966	542,293	550,659	574,597	570,533	562,312	550,642	540,864	522,236	502,810	527,790	521,153	515,877	558,366	530,283					
Total % n/n-1		13.5%	1.5%	4.3%	-0.7%		-2.1%	-1.8%	-3.4%	-3.7%		-1.3%	-1.0%	8.2%	-5.0%					
5.4 Total Service Units	10,262.5	9,971.0	10,324.9	10,667.2	11,034.6	10,244.0	10,435.0	10,583.0	10,758.0	10,940.0	9,480.3	9,860.8	9,607.9	9,754.9	10,025.0					
Total % n/n-1		-2.8%	3.5%	3.3%	3.4%		1.9%	1.4%	1.7%	1.7%		4.0%	-2.6%	1.5%	2.8%					
5.5 Unit cost	46.57	54.39	53.33	53.87	51.70	54.89	52.77	51.11	48.54	45.96	55.67	52.85	53.69	57.24	52.90					
Total % n/n-1		16.8%	-1.9%	1.0%	-4.0%		-3.9%	-3.1%	-5.0%	-5.3%		-5.1%	1.6%	6.6%	-7.6%	I	1	1	1	

- Costs and asset base items in '000 Service units in '000
 (1) Including EUROCONTROL costs (see details in Table 3).
 (2) To be left empty when such services are provided under the provisions of Article 3
 (3) Actual/forecast inflation used for establishing the determined costs in nominal terms actual/revised forecast inflation
 (4) Forecast For RP1 base 100 in 2009 For RP2 base 100 in 2012
 2014 price index base 100 in 2012: 104.50 (based on actual price index Actual price index base 100 in year 2009
 (5) Determined costs (performance plan) in real terms actual/revised forecast costs at 2009 prices for RP1; at 2012 prices for RP2
 For RP1: determined costs before deduction of the costs for exempted VFR flights For RP2: determined costs after deduction of the costs for exempted VFR flights 2014 price index base 100 in 2012: 104.50 (based on actual price index in 2013 and estimated price index in 2014)

United Kingdom Currency : GBP £ Met Office

	Fore	ast	Determined	costs - Perf.	Plan RP1	Dete	ermined cos	s - Perform	ance Plan F	RP2 Actual costs										
Cost details	2010F	2011F	2012	2013	2014	2015	2016	2017	2018	2019	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Detail by nature (in nominal terms)																				
1.1 Staff	13,025	13,942	13,700	13,400	13,300	12,911	12,718	12,550	12,377	12,230	14,200	13,700	13,730	13,618	13,552					
1.2 Other operating costs (1)	10,690	11,443	11,373	11,100	11,000	9,062	9,046	9,035	9,027	9,023	11,740	11,400	11,400	11,100	11,000					
1.3 Depreciation	3,738	4,001	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,100	4,000	4,000	4,000	4,000					
1.4 Cost of capital	0	0	0	0	0	2,088	2,088	2,088	2,088	2,088	0	0	0	0	0					
1.5 Exceptional items	0	0	0	0	0	0	0	0	0	0	400	0	0	0 740	0					
1.6 Total costs	27,453	29,386	29,073	28,500	28,300	28,061	27,852	27,673	27,492	27,341	30,440	29,100	29,130	28,718	28,552					
Total % n/n-1		7%	-1%	-2%	-1%		-0.7%	-0.6%	-0.7%	-0.5%		-4.4%	0%	-1%	-0.6%					
Staff % n/n-1		7% 7%	-2% -1%	-2% -2%	-1% -1%		-1.5% -0.2%	-1.3% -0.1%	-1.4% -0.1%	-1.2% 0.0%		-3.5% -2.9%	0% 0%	-1% -3%	-0.5% -0.9%					
Other op. % n/n-1		7%	-1%	-2%	-1%		-0.2%	-0.1%	-0.1%	0.0%		-2.9%	0%	-3%	-0.9%					
2. Detail by service (in nominal terms)																				
2.1 Air Traffic Management	0	0	0	0	0						0	0	0	0	0					
2.2 Communication (2)	0	0	0	0	0						0	0	0	0	0					
2.3 Navigation (2)	0	0	0	0	0						0	0	0	0	0					
2.4 Surveillance (2)	0	0	0	0	0						0	0	0	0	0					
2.5 Search and rescue	0	0	0	0	0						0	0	0	0	0					
2.6 Aeronautical Information (2)	0	0	0	0	0						0	0	0	0	0					
2.7 Meteorological services (2)	27,453	29,386	29,073	28,500	28,300	28,061	27,852	27,673	27,492	27,341	30,440	29,100	29,130	28,718	28,552					
2.8 Supervision costs	0	0	0	0	0						0	0	0	0	0					
2.9 Other State costs (1)		v	0	20.500	20.200	20.004	27.052	27.672	27.402	27.244		20.400	0	20.740	•					
2.10 Total costs	27,453	29,386	29,073	28,500	28,300	28,061	27,852	27,673	27,492	27,341	30,440	29,100	29,130	28,718	28,552					
Total % n/n-1 ATM % n/n-1		7.0%	-1.1%	-2.0%	-0.7%		-0.7%	-0.6%	-0.7%	-0.5%		-4.4%	0.1%	-1.4%	-0.6%					
CNS % n/n-1																				
0.13 /0.11/1.1									LI.								l .	l .	l .	
3. Complementary information (in nomin Average asset base	nal terms)																			
3.1 Net book val. fixed assets		0	0	0	0	39,505	39,505	39,505	39,505	39,505	0	0	0	0	0					
3.2 Adjustments total assets		0	0	0	0	33,303	33,303	33,303	33,303	33,303	0	0	0	0	0					
3.3 Net current assets		0	0	0	0	0	0	0	0	0	0	0	0	0	0					
3.4 Total asset base	0	0	0	0	0	39.505	39.505	39.505	39.505	39.505	0	0	0	0	0					
Cost of capital %	-		-		-		00,000	00,000		55,555										
3.5 Cost of capital pre tax rate						5.3%	5.3%	5.3%	5.3%	5.3%										
3.6 Return on equity		0.0%	0.0%	0.0%	0.0%	5.3%	5.3%	5.3%	5.3%	5.3%	0.0%	0.0%								
3.7 Average interest on debts		0.0%	0.0%	0.0%	0.0%						0.0%	0.0%								
Cost of common projects																				
3.8 Total costs of common projects						0.0	0.0	0.0	0.0	0.0										
Costs exempted from cost sharing (Article	14(2)(b))																			
3.9 Total costs exempted from cost													0.0	0	0					
4. Total costs after deduction of costs for	services to	exempted	flights (in n	ominal terr	ns)															
4.1 Costs for exempted VFR flights						0	0	0	0	0			0	0						
4.2 Total determined/actual costs	27,453	29,386	29,073	28,500	28,300	28,061	27,852	27,673	27,492	27,341	30,440	29,100	29,130	28,718	28,552					
5. Cost-efficiency KPI - Determined/Actua	al Unit Cost	(in real ter	ms)																	
5.1 Inflation % (3)	3.34%	2.53%	1.70%	1.76%	1.89%	1.90%	1.90%	2.00%	2.00%	2.00%	3.34%	4.50%	2.80%	2.60%	1.86%					
5.2 Price index (4)	103.3	106.0	107.8	109.7	111.7	106.5	108.5	110.7	112.9	115.2	103.3	108.0	111.0	113.9	116.0					
5.3 Total costs real terms (5)	26,566	27,734	26,979	25,990	25,328	26,351	25,667	25,002	24,352	23,743	29,456	26,947	26,240	25,213	24,611					
Total % n/n-1		4.4%	-2.7%	-3.7%	-2.5%	4.0%	-2.6%	-2.6%	-2.6%	-2.5%		-8.5%	-2.6%	-3.9%	-2.4%					
5.4 Total Service Units	10,262.5	9,971.0	10,324.9	10,667.2	11,034.6	10,244.0	10,435.0	10,583.0	10,758.0	10,940.0	9,480.3	9,860.8	9,607.9	9,754.9	10,025.0					
Total % n/n-1		-2.8%	3.5%	3.3%	3.4%	-7.2%	1.9%	1.4%	1.7%	1.7%		4.0%	-2.6%	1.5%	2.8%					
5.5 Unit cost	2.59	2.78	2.61	2.44	2.30	2.57	2.46	2.36	2.26	2.17	3.11	2.73	2.73	2.58	2.45					
Total % n/n-1		7.4%	-6.1%	-6.8%	-5.8%	12.1%	-4.4%	-4.0%	-4.2%	-4.1%		-12.0%	-0.1%	-5.4%	-5.0%					

Costs and asset base items in '000 - Service units in '000
(1) Including EUROCONTROL costs (see details in Table 3).
(2) To be left empty when such services are provided under the provisions of Article 3
(3) Actual/forecast inflation used for establishing the determined costs in nominal terms — actual/revised forecast inflation
(4) Forecast For RP1 base 100 in 2009 – For RP2 base 100 in 2012

Actual price index - base 100 in year 2009
(5) Determined costs (performance plan) in real terms — actual/revised forecast costs at 2009 prices for RP1; at 2012 prices for RP2

For RP1: determined costs before deduction of the costs for exempted VFR flights - For RP2: determined costs for exempted VFR flights

United Kingdom Currency : GBP £ UK CAA + DfT Eurocontrol

	Fore	cast	Determined	costs - Perf.	Plan RP1	Dete	rmined cos	ts - Perform	ance Plan F	1 RP2 Actual costs										
Cost details	2010F	2011F	2012	2013	2014	2015	2016	2017	2018	2019	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
					•							•								
Detail by nature (in nominal terms)																	1			
1.1 Staff	4,073	4,029	4,229	4,435	4,625	3,685	3,847	4,015	4,188	4,367	3,595	3,600	3,920	3,459	3,600					
1.2 Other operating costs (1)	57,461	43,532	49,168	49,526	50,648	47,987	50,141	51,959	53,641	55,358	54,496	44,500	45,252	48,996	48,777					
1.3 Depreciation	1,362	1,325	1,326	1,327	1,328	1,319	1,319	1,320	1,320	710	1,324	1,300	1,319	1,317	1,320					
1.4 Cost of capital	549	378	427	365	304	243	183	123	62	16	549	488	427	365	304					
1.5 Exceptional items	60.445	40.054	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	0	0	6,000	6,000	6,000					
1.6 Total costs	63,445	49,264	61,150	61,653	62,905	59,234	61,490	63,417	65,211	66,451	59,964	49,888	56,918	60,137	60,001					
Total % n/n-1		-22.4%	24.1%	0.8%	2.0%		3.8%	3.1%	2.8%	1.9%		-16.8%	14.1%	5.7%	-0.2%					
Staff % n/n-1		-1.1%	5.0%	4.9%	4.3%		4.4%	4.4%	4.3%	4.3%		0.1%	8.9%	-11.8%	4.1%					
Other op. % n/n-1		-24.2%	12.9%	0.7%	2.3%		4.5%	3.6%	3.2%	3.2%		-18.3%	1.7%	8.3%	-0.4%					
2. Detail by service (in nominal terms)							,							,						
2.1 Air Traffic Management	5,443	5,538	11,865	12,133	12,381	11,306	11,506	11,710	11,908	12,138	5,006	4,988	11,432	11,095	11,174					
2.2 Communication (2)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
2.3 Navigation (2)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
2.4 Surveillance (2)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
2.5 Search and rescue	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
2.6 Aeronautical Information (2)	425	0	0	0	0	0	0	0	0	0	467	0	0	0	0					
2.7 Meteorological services (2)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
2.8 Supervision costs	2,468	2,208	2,202	2,152	2,101	1,856	1,806	1,760	1,724	1,068	2,410	2,200	2,100	1,996	2,050					
2.9 Other State costs (1)	55,109	41,518	47,083	47,368	48,423	46,072	48,178	49,947	51,579	53,245	52,081	42,700	43,386	47,046	46,777					
2.10 Total costs	63,445	49,264	61,150	61,653	62,905	59,234	61,490	63,417	65,211	66,451	59,964	49,888	56,918	60,137	60,001					
Total % n/n-1		-22.4%	24.1%	0.8%	2.0%		3.8%	3.1%	2.8%	1.9%		-16.8%	14.1%	5.7%	-0.2%					
ATM % n/n-1							1.8%	1.8%	1.7%	1.9%										
CNS % n/n-1												l								
3. Complementary information (in nomi	nal terms)																			
Average asset base																				
3.1 Net book val. fixed assets		10,464	9,162	7,860	6,558	5,256	3,954	2,652	1,350	350	11,766	10,500	9,162	7,860	6,558					
3.2 Adjustments total assets		0	0	0	0						0	0	0	0	0					
3.3 Net current assets		0	0	0	0		2 0 5 4	0.000	4.050	250	0	0	0	0	0					
3.4 Total asset base	0	10,464	9,162	7,860	6,558	5,256	3,954	2,652	1,350	350	11,766	10,500	9,162	7,860	6,558					
Cost of capital %		2.00	4 70/	4.00/	4.00/	4.00/	4.00/	4.00/	4.00/	4.60/	4.70/	4.00/	4 70/	4.00/	4.00/					
3.5 Cost of capital pre tax rate		3.6%	4.7%	4.6%	4.6%	4.6%	4.6%	4.6%	4.6%	4.6%	4.7%	4.6% 4.8%	4.7%	4.6%	4.6%					
3.6 Return on equity 3.7 Average interest on debts		4.8% 4.3%	4.8% 4.3%	4.8% 4.3%	4.8% 4.3%	4.8% 4.3%	4.8% 4.3%	4.8% 4.3%	4.8% 4.3%	4.8% 4.3%	4.8% 4.3%	4.8%	4.8% 4.3%	4.8% 4.3%	4.8% 4.3%					
Cost of common projects		4.3%	4.3%	4.3%	4.3%	4.3%	4.3%	4.3%	4.3%	4.3%	4.5%	4.3%	4.3%	4.3%	4.3%		1	1	l	
3.8 Total costs of common projects						П	1	1	1	1										
Costs exempted from cost sharing (Article	e 14(2)(b))																1	L	L	
3.9 Total costs exempted from cost	//-//												-3,697	-321	-1,644					
•			All-La "														_			
4. Total costs after deduction of costs for	r services to	exempted	flights (in n	ominal terr	ns)	-						,		-1	-		ı	1		
4.1 Costs for exempted VFR flights	63,445	40.264	61.150	61,653	62,905	59,234	61,490	63,417	65,211	66,451	59,964	49,888	0	60,137	60,001					
4.2 Total determined/actual costs	63,445	49,264	61,150	61,653	62,905	59,234	61,490	63,41/	65,211	66,451	59,964	49,888	56,918	60,137	60,001		1	1	l	
5. Cost-efficiency KPI - Determined/Actu																				
5.1 Inflation % (3)	3.34%	2.53%	1.70%	1.76%	1.89%	1.90%	1.90%	2.00%	2.00%	2.00%	3.34%	4.50%	2.80%	2.60%	1.86%					
5.2 Price index (4)	103.3	106.0	107.8	109.7	111.7	106.5	108.5	110.7	112.9	115.2	103.3	108.0	111.0	113.9	116.0					
5.3 Total costs real terms (5)	61,394	46,494	56,746	56,223	56,299	55,625	56,666	57,296	57,762	57,706	58,026	46,197	51,271	52,798	51,719					
Total % n/n-1	40.000 -	-24.3%	22.0%	-0.9%	0.1%	-1.2%	1.9%	1.1%	0.8%	-0.1%		-20.4%	11.0%	3.0%	-2.0%					
5.4 Total Service Units	10,262.5	9,971.0	10,324.9	10,667.2	11,034.6	10,244.0	10,435.0	10,583.0	10,758.0	10,940.0	9,480.3	9,860.8	9,607.9	9,754.9	10,025.0					
Total % n/n-1		-2.8%	3.5%	3.3%	3.4%	-7.2%	1.9%	1.4%	1.7%	1.7%		4.0%	-2.6%	1.5%	2.8%					
5.5 Unit cost	5.98	4.66	5.50	5.27	5.10	5.43	5.43	5.41	5.37	5.27	6.12	4.68	5.34	5.41	5.16					
Total % n/n-1		-22.1%	17.9%	-4.1%	-3.2%	6.4%	0.0%	-0.3%	-0.8%	-1.8%		-23.5%	13.9%	1.4%	-4.7%		1			

Costs and asset base items in '000 - Service units in '000
(1) Including EUROCONTROL costs (see details in Table 3).
(2) To be left empty when such services are provided under the provisions of Article 3
(3) Actual/forecast inflation used for establishing the determined costs in nominal terms — actual/revised forecast inflation
(4) Forecast For RP1 base 100 in 2009 – For RP2 base 100 in 2012

Actual price index - base 100 in year 2009
(5) Determined costs (performance plan) in real terms — actual/revised forecast costs at 2009 prices for RP1; at 2012 prices for RP2

For RP1: determined costs before deduction of the costs for exempted VFR flights - For RP2: determined costs for exempted VFR flights

Table 2 - Unit rate calculation

United Kingdom

All Entities Full cost Reference Period 1 Reference Period 2 2015 2010 2012 2016 2019 Unit rate calculation 2011 2013 2014 2017 2018 1. Determined costs in nominal terms and inflation adjustment 1.1 Determined costs in nominal terms - VFR excl. - Table 1 584.825 653,246 683.623 720.240 728.678 686,096 686.857 689.732 682.288 672,799 1.2 Actual inflation rate - Table 1 3.3% 4 5% 2.8% 2.6% 1.3 Forecast inflation rate - Table 1 1.7% 1.8% 1.9% 1.9% 1.9% 2.0% 2.0% 2.0% 3.3% 2.5% 1.4 Inflation adjustment (1): year n amount to be carried over 19,638 27,520 0.0 2. Forecast and actual total service units 2.1 Forecast total service units (performance plan) 10.262.5 9.971.0 10.324.9 10.667.2 11,034.6 10,244.0 10,435.0 10,583.0 10,758.0 10,940.0 2.2 Actual total service units 9,480.3 9,860.8 9,607.9 9,754.9 2.3 Actual / forecast total service units (in %) 93.1% 3. Costs subject to traffic risk sharing 3.1 Determined costs in nominal terms - VFR excl. (reported from Table 1) 493,927 574,596 593,400 630,087 637,473 598,801 597,515 598,642 589,585 579,007 3.2 Inflation adjustment: amount carried over to year n 13,283 16,916 1,414 24,032 Traffic: amounts carried over to year n 0 34,215 0 0 3.4 Traffic risk sharing: add. revenue carried over to year n 0 0 0 0 0 0 3.5 Traffic risk sharing: revenues losses carried over to year n 0 0 0 20,183 1,980 28,754 31.977 0 3.6 Costs exempt from cost sharing: amounts carried over to year n 0 0 C 2,204 1,229 1,230 1,218 10,181 3,212 8,945 1,081 3.7 Bonus or penalty for performance 0 -986 3.8 Over(-) or under(+) recoveries (2) : amounts carried over to year n 0 -44,397 16,021 9,260 35,806 767 3,278 493,927 574,596 625,915 685,391 599,871 590,815 580,225 3.9 Total for the calculation of year n unit rate 677,754 651,368 634,974 3.10 Traffic risk sharing: add. rev. year n to be carried-over 0 C 0 0 0 3.11 Traffic risk sharing: revenue loss year n to be carried-over -20,183 -30,734 C 0 0 3.12 Over/under recoveries from traffic variations n to be carried-over 0 0 0 0 0 0 Parameters for traffic risk sharing 3.13 % additional revenue returned to users in year n+2 70% 70% 70% 70% 70% 70% 70% 70% 70% 70% 70% 70% 70% 3.14 % loss of revenue borne by airspace users 70% 70% 70% 4. Costs not subject to traffic risk sharing 4.1 Determined costs in nominal terms - VFR excl. (Table 1) 90,898 78,650 90,223 90,153 91,205 87,295 89,342 91,089 92,703 93,793 4.2 Inflation adjustment: amount carried over to year n 2,722 3,488 0 0 0 4.3 Traffic: amounts carried over to year n 0 0 0 6.281 7,759 0 0 4.4 Costs exempt from cost sharing: amounts carried over to year n 0 n 0 0 n -5,662 Λ Λ 4.5 Restructuring costs: amounts carried over to year n 0 0 0 0 0 0 4.6 Over(-) or under(+) recoveries (2): amounts carried over to year n 6,457 5,032 213 571 4.7 Total for the calculation of year n unit rate 97.355 83.682 90.436 90.724 100.208 98.542 83.680 91.089 92.703 93.793 4.8 Over/under recoveries from traffic variations n to be carried-over -6,281 -7,759 0 5. Other revenues - applied unit rate (in national currency) 5.1 Total other revenues 5.083 424 1.235 411 5.2 Total revenues from Public Authorities 0 0 O 0 C C 0 O n 5.3 of which Union assistance programmes 0 0 0 0 0 0 0 0 0 0 5.4 of which National public funding 0 0 0 0 C 0 0 5.5 Commercial activities 0 0 0 0 0 0 0 0 5.6 Other other revenues 0 0 411 5.083 424 1.235 0 0 0 5.7 Grand total for the calculation of year n unit rate 591,282 658,278 715,940 771,032 777,537 748,675 718,654 690,960 683,519 674.017 5.8 Year n unit rate (in national currency) 57.62 66.03 69.33 72.28 70.46 73.08 68.87 65.29 63.54 61.61 5.9 ANSP component of the unit rate 48.13 57.63 60.58 63.78 61.42 63.52 60.85 56.68 54.92 53.04 5.10 MET component of the unit rate 2.69 2.91 3.15 2.64 2.85 3.08 2.67 2.61 2.56 2.50 5.11 NSA-State component of the unit rate 6.80 5.49 5.60 5.86 6.19 6.48 5.35 5.99 6.06 6.07 5.12 Year n unit rate that would have applied without other revenues 57.62 66.02 69.38 72.76 70.50 73.20 68.87 65.29 63.54 61.61

Costs, revenues and other amounts in '000 GBP - Service units in '000

 $^{(1) \ \}textit{Cumulated impact of yearly differences between actual and forecast inflation-adjustment of the total determined costs}$

⁽²⁾ Over/under recoveries incurred up to the year of entry into force of the determined cost method

Table 2 - Unit rate calculation

United Kingdom

NERL Full cost Reference Period 1 Reference Period 2 2010 2011 2012 2014 2015 2016 2018 2019 Unit rate calculation 2013 2017 1. Determined costs in nominal terms and inflation adjustment 1.1 Determined costs in nominal terms - VFR excl. - Table 1 493,927 574.596 593,400 630.087 637,473 598.801 597.515 598.642 589.585 579.007 1.2 Actual inflation rate - Table 1 3.3% 4 5% 2.8% 2.6% 1.3 Forecast inflation rate - Table 1 2.5% 1.7% 1.8% 1.9% 1.9% 1.9% 2.0% 2.0% 2.0% 3.3% 1.4 Inflation adjustment (1): year n amount to be carried over 13,282. 16,916 24,032 2. Forecast and actual total service units 2.1 Forecast total service units (performance plan) 10,262.5 9.971.0 10.324.9 10,667.2 11,034.6 10,244.0 10,435.0 10,583.0 10,758.0 10,940.0 2.2 Actual total service units 9,480.3 9,860.8 9,607.9 9,754.9 2.3 Actual / forecast total service units (in %) 93.1% 91.4% 3. Costs subject to traffic risk sharing 3.1 Determined costs in nominal terms - VFR excl. (reported from Table 1) 493,927 574,596 593,400 630,087 637,473 598,801 597,515 598,642 589,585 579,007 3.2 Inflation adjustment: amount carried over to year n 13,283 16,916 1,414 24,032 3.3 Traffic: amounts carried over to year n 34,215 3.4 Traffic risk sharing: add. revenue carried over to year n 3.5 Traffic risk sharing: revenues losses carried over to year n 0 20,183 1,980 28,754 31,977 3.6 Costs exempt from cost sharing: amounts carried over to year n 2,204 1,229 1,230 1,218 10,181 3.7 Bonus or penalty for performance 3,212 8,945 1,081 986 3.8 Over(-) or under(+) recoveries (2): amounts carried over to year n -44,397 16,021 9,260 35,806 767 3,278 493,927 580,225 574,596 685,391 599,871 590,815 3.9 Total for the calculation of year n unit rate 625,915 677,754 651,368 634,974 3.10 Traffic risk sharing: add. rev. year n to be carried-over -20,183 -30,734 3.11 Traffic risk sharing: revenue loss year n to be carried-over 3.12 Over/under recoveries from traffic variations n to be carried-over Parameters for traffic risk sharing 3.13 % additional revenue returned to users in year n+2 70% 70% 70% 709 709 70% 70% 70% 70% 70% 70% 709 709 3.14 % loss of revenue borne by airspace users 70% 70% 4. Costs not subject to traffic risk sharing 4.1 Determined costs in nominal terms - VFR excl. (Table 1) 4.2 Inflation adjustment: amount carried over to year n 4.3 Traffic: amounts carried over to year n 4.4 Costs exempt from cost sharing : amounts carried over to year n 4.5 Restructuring costs: amounts carried over to year n 4.6 Over(-) or under(+) recoveries (2) : amounts carried over to year n 4.7 Total for the calculation of year n unit rate 4.8 Over/under recoveries from traffic variations n to be carried-over 5. Other revenues - applied unit rate (in national currency) 5.1 Total other revenues 411 5.083 689 0 0 0 5.2 Total revenues from Public Authorities 0 0 O 0 0 C 0 O n 5.3 of which Union assistance programmes 0 0 0 0 0 0 0 5.4 of which National public funding 0 0 0 5.5 Commercial activities 0 0 0 0 0 689 5.6 Other other revenues 0 0 411 5.083 0 0 0 5.7 Grand total for the calculation of year n unit rate 493,927 574,596 625,504 680,308 677,754 650,679 634,974 599,871 590,815 580,225 5.8 Year n unit rate (in national currency) 5.9 ANSP component of the unit rate 48.13 57.63 60.58 63.78 61.42 63.52 60.85 56.68 54.92 53.04 5.10 MET component of the unit rate 5.11 NSA-State component of the unit rate 5.12 Year n unit rate that would have applied without other revenues 48.13 57.63 60.62 64.25 61.42 63.59 60.85 56.68 54.92 53.04

Costs, revenues and other amounts in '000 GBP - Service units in '000

 $^{(1) \ \}textit{Cumulated impact of yearly differences between actual and forecast inflation-adjustment of the total determined costs}$

⁽²⁾ Over/under recoveries incurred up to the year of entry into force of the determined cost method

Table 2 - Unit rate calculation

United Kingdom Met Office

United Kingdom Met Office		Full	cost	Ref	erence Perio	od 1		Ref	erence Perio	od 2	
Uni	t rate calculation	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
1 Determined costs in	n nominal terms and inflation adjustment										
1.1 Determined costs in nominal te		27,453	29,386	29,073	28,500	28,300	28,061	27,852	27,673	27,492	27,341
1.2 Actual inflation rate - Table 1	VIII exem Tuble 1	3.3%	4.5%	2.8%	2.6%	20,500	20,001	27,032	27,075	27,132	27,51.2
1.3 Forecast inflation rate - Table 1	L	3.3%	2.5%	1.7%	1.8%	1.9%	1.9%	1.9%	2.0%	2.0%	2.0%
1.4 Inflation adjustment (1) : year r	n amount to be carried over			877	1,103						
2. Forecast and actual	total service units										
2.1 Forecast total service units (per	rformance plan)	10,262.5	9,971.0	10,324.9	10,667.2	11,034.6	10,244.0	10,435.0	10,583.0	10,758.0	10,940.0
2.2 Actual total service units		9,480.3	9,860.8	9,607.9	9,754.9						
2.3 Actual / forecast total service u	ınits (in %)			93.1%	91.4%						
3. Costs subject to traf	ffic risk sharing										
3.1 Determined costs in nominal te	erms - VFR excl. (reported from Table 1)										
3.2 Inflation adjustment : amount of											
3.3 Traffic : amounts carried over t											
3.4 Traffic risk sharing : add. reven											
3.5 Traffic risk sharing : revenues lo	·										
3.6 Costs exempt from cost sharing											
3.7 Bonus or penalty for performance3.8 Over(-) or under(+) recoveries (
3.9 Total for the calculation of year											
2.10 Troffic rick sharing and draw w	car a to be carried aver										
3.10 Traffic risk sharing : add. rev. ye 3.11 Traffic risk sharing : revenue los											
5.11 Traine fisk sharing . revenue to	ss year in to be carried over										
3.12 Over/under recoveries from tr	affic variations n to be carried-over										
Parameters for traffic risk sharing											
3.13 % additional revenue returned	•										
3.14 % loss of revenue borne by air	space users										
4. Costs not subject to		27.452	20.200	20.072	20 500	20.200	20.064	27.052	27.672	27.402	27 244
4.1 Determined costs in nominal te4.2 Inflation adjustment : amount of		27,453	29,386	29,073	28,500	28,300 877	28,061 1,103	27,852 0	27,673 0	27,492 0	27,341
4.3 Traffic : amounts carried over t				0	0	2,262	2,412	0	0	0	0
4.4 Costs exempt from cost sharing				ŭ	ŭ	2,202	0	0	0	0	0
4.5 Restructuring costs : amounts of				0	0	0	0	0	0	0	0
4.6 Over(-) or under(+) recoveries	(2) : amounts carried over to year n	110	-400	3,500	-300	0	0	0	0	0	0
4.7 Total for the calculation of year	r n unit rate	27,563	28,986	32,573	28,200	31,439	31,575	27,852	27,673	27,492	27,341
4.8 Over/under recoveries from tra	affic variations n to be carried-over			-2,262	-2,412						
5 Other revenues - an	oplied unit rate (in national currency)										
5.1 Total other revenues	piles and rate (in national carrency)						0	0	0	0	0
5.2 Total revenues from Public Aut	horities						0	0	0	0	0
5.3 of which Union assistance pr							0	0	0	0	0
5.4 of which National public fund	· ·						0	0	0	0	0
5.5 Commercial activities							0	0	0	0	0
5.6 Other other revenues							0	0	0	0	0
5.7 Grand total for the calculation	of year n unit rate	27,563	28,986	32,573	28,200	31,439	31,575	27,852	27,673	27,492	27,341
5.8 Year n unit rate (in national cur	rency)										
5.9 ANSP component of the unit ra											
5.10 MET component of the unit rat		2.69	2.91	3.15	2.64	2.85	3.08	2.67	2.61	2.56	2.50
5.11 NSA-State component of the u	nit rate										
5.12 Year n unit rate that would hav	re applied without other revenues	2.69	2.91	3.15	2.64	2.85	3.08	2.67	2.61	2.56	2.50

Costs, revenues and other amounts in '000 GBP - Service units in '000

 $^{(1) \ \}textit{Cumulated impact of yearly differences between actual and forecast inflation-adjustment of the total determined costs}$

 $^{(2) \ {\}it Over/under recoveries incurred up to the year of entry into force of the determined cost method } \\$

Table 2 - Unit rate calculation

United Kingdom

UK CAA + DfT Eurocontrol		Full	cost	Refe	erence Peri	od 1		Ref	erence Perio	od 2	
Unit rate calcula	ation	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
1. Determined costs in nominal ter	rms and inflation adjustment										
1.1 Determined costs in nominal terms - VFR ex	xcl Table 1	63,445	49,264	61,150	61,653	62,905	59,234	61,490	63,417	65,211	66,451
1.2 Actual inflation rate - Table 1		3.3%	4.5%	2.8%	2.6%		4.00/	4.00/	2.00/	2.00/	2.00/
1.3 Forecast inflation rate - Table 11.4 Inflation adjustment (1): year n amount to	he carried over	3.3%	2.5%	1.7% 1,845	1.8% 2,385	1.9%	1.9%	1.9%	2.0%	2.0%	2.0%
1.4 Illiation adjustment (1) . year if amount to	be carried over			1,045	2,363						
2. Forecast and actual total service	e units										
2.1 Forecast total service units (performance pl	lan)	10,262.5	9,971.0	10,324.9	10,667.2	11,034.6	10,244.0	10,435.0	10,583.0	10,758.0	10,940.0
2.2 Actual total service units		9,480.3	9,860.8	9,607.9	9,754.9						
2.3 Actual / forecast total service units (in %)				93.1%	91.4%						
3. Costs subject to traffic risk shari	ing										
3.1 Determined costs in nominal terms - VFR ex	_										
3.2 Inflation adjustment : amount carried over	to year n										
3.3 Traffic : amounts carried over to year n											
3.4 Traffic risk sharing : add. revenue carried ov											
3.5 Traffic risk sharing : revenues losses carried 3.6 Costs exempt from cost sharing : amounts of	-										
3.7 Bonus or penalty for performance	carried over to year ii										
3.8 Over(-) or under(+) recoveries (2) : amounts	s carried over to year n										
3.9 Total for the calculation of year n unit rate	,										
2.10 Traffic risk sharing and you was not be seen	arried aver										
3.10 Traffic risk sharing: add. rev. year n to be constitution and sharing: revenue loss year n to be											
3.12 Over/under recoveries from traffic variatio											
5.12 Over/under recoveries from traffic variatio	ons in to be carried-over										
Parameters for traffic risk sharing											
3.13 % additional revenue returned to users in y	year n+2										
3.14 % loss of revenue borne by airspace users											
4. Costs not subject to traffic risk s	sharing										
4.1 Determined costs in nominal terms - VFR ex		63,445	49,264	61,150	61,653	-	59,234	61,490	63,417	65,211	66,451
4.2 Inflation adjustment : amount carried over	to year n					1,845 4,019	2,385 5,347	0	0	0	0
4.3 Traffic: amounts carried over to year n4.4 Costs exempt from cost sharing: amounts of	carried over to year n					4,019	0,347	-5,662	0	0	0
4.5 Restructuring costs : amounts carried over	-			0	0	0	0	0	0	0	0
4.6 Over(-) or under(+) recoveries (2) : amounts	-	6,347	5,432	-3,287	871	0	0	0	0	0	0
4.7 Total for the calculation of year n unit rate		69,792	54,696	57,863	62,524	68,769	66,967	55,828	63,417	65,211	66,451
4.8 Over/under recoveries from traffic variation	ns n to he carried-over			-4,019	-5,347						
4.5 Over/under recoveries from traine variation	is it to be carried over			4,015	3,347						
5. Other revenues - applied unit ra	ate (in national currency)										
5.1 Total other revenues						424	546	0	0	0	0
5.2 Total revenues from Public Authorities							0	0	0	0	0
5.3 of which Union assistance programmes5.4 of which National public funding							0	0	0	0	0
5.5 Commercial activities							0	0	0	0	0
5.6 Other other revenues						424	546	0	0	0	0
5.7 Grand total for the calculation of year n uni	t rate	69,792	54,696	57,863	62,524	68,344	66,421	55,828	63,417	65,211	66,451
5.8 Year n unit rate (in national currency)											
5.9 ANSP component of the unit rate 5.10 MET component of the unit rate											
5.11 NSA-State component of the unit rate		6.80	5.49	5.60	5.86	6.19	6.48	5.35	5.99	6.06	6.07
,											
5.12 Year n unit rate that would have applied wit	thout other revenues	6.80	5.49	5.60	5.86	6.23	6.54	5.35	5.99	6.06	6.07
							1				

Costs, revenues and other amounts in '000 GBP - Service units in '000 $\,$

 $^{(1) \ \}textit{Cumulated impact of yearly differences between actual and forecast inflation-adjustment of the total determined costs}$

 $^{(2) \ {\}it Over/under recoveries incurred up to the year of entry into force of the determined cost method } \\$

All Entities 2010F | 2011F | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 PART A : Complementary Information on costs Forecast Determined costs - RP1 Determined costs - RP2 Actual costs Eurocontrol costs
1.1 EUROCONTROL costs (Euro)
1.2 Exchange rate (if applicable) Cost of common projects
2.1 Total costs of common projects
2.2 Common project 1
2.3 Common project 2
2.4 Common project ... Costs exempted from the cost sharing arrangements - Article 14(2)(b) Breakdown by nature

3.1 Staff

3.2 Other operating costs -3,016 -3,696.6 2,173 -320.8 10,061 -1,644 3.3 Depreciation
3.4 Cost of capital
3.5 Exceptional items
3.6 Total costs exempted from cost sharing Breakdown by factor/item

3.7 Pension
3.8 Interest rates on loans
3.9 National taxation law
3.0 New cost item required by law
3.10 New cost item required so law
3.11 International agreements
3.12 Total costs exempted from cost sharing Actual costs (for information) Restructuring costs, if authorised in accordance with Article 7(4) 4.1 Total restructuring costs

PART B : Complementary information on adjustments	Amounts	Total C/O	Before	2010	2011	2012	2013	2014	After RP1	2015	2016	2017	2018	2019	After RP2
Inflation adjustment Year 2012	16,916	16,916						16,916	0						0
Inflation adjustment Year 2013	24,032	24,032						.,.	24,032	24,032					0
Inflation adjustment Year 2014 - estimate	0	0							0		0				0
Inflation adjustment Year 2015	0	0							0			0			0
Inflation adjustment Year 2016	0	0							0				0		0
Inflation adjustment Year 2017 Inflation adjustment Year 2018	0	0							0					0	0
Inflation adjustment Year 2019	0	0							0						0
Total Inflation Adjustment	40,948.0	40,948						16,916	24,032	24,032	0	0	0	0	0
Traffic balance Year 2012	6,281	6,281						6,281	n n						1 0
Traffic balance Year 2013	7,759	7,759						0,201	7,759	7,759					0
Traffic balance Year 2014	0	0							0	,	0				0
Traffic balance Year 2015	0	0							0			0			0
Traffic balance Year 2016	0	0							0				0		0
Traffic balance Year 2017	0	0							0					0	. 0
Traffic balance Year 2018	0	0							0						0
Traffic balance Year 2019 Total Traffic Adjustment	14,039.6	14,040						6,281	7,759	7,759	0	0	0	0	0
Total Traffic Adjustment	14,055.0	14,040						0,201	7,735	1,133	U	U	U	U	U
Traffic risk sharing revenue Year 2012	0	0	44,397					0	-44,397						-44,397
Traffic risk sharing revenue Year 2013	0	0							. 0	0					0
Traffic risk sharing revenue Year 2014	0	0							0		0				0
Traffic risk sharing revenue Year 2015	0	0							0			0			0
Traffic risk sharing revenue Year 2016	0	0							0				0		0
Traffic risk sharing revenue Year 2017 Traffic risk sharing revenue Year 2018	0	0							0					U	0
Traffic risk sharing revenue Year 2019	0	0							0						0
Total Traffic Risk sharing revenue adjustment	0.0	0						0	-44,397	0	0	0	0	0	-44,397
						·									
Traffic risk sharing loss Year 2012	-22,163	22,163					20,183	1,980	0	20 754					0
Traffic risk sharing loss Year 2013 Traffic risk sharing loss Year 2014	-28,754 0	28,754							28,754	28,754	0				0
Traffic risk sharing loss Year 2015	0	0							0		U	0			0
Traffic risk sharing loss Year 2016	0	0							0			U	0		0
Traffic risk sharing loss Year 2017	0	0							o				Ü	0	0
Traffic risk sharing loss Year 2018	0	0							0						0
Traffic risk sharing loss Year 2019	0	0							0						0
Total Traffic Risk sharing loss adjustment *	-50,918	50,918						1,980	28,754	28,754	0	0	0	0	0
Costs exempted from cost sharing Year 2012	-6,713	-6,713							-6,713		-6,713				0
Costs exempted from cost sharing Year 2013	1,852	1,852							1,852		1,852				0
Costs exempted from cost sharing Year 2014	8,417	8,417							8,417		8,417				0
Costs exempted from cost sharing Year 2015	0	0							0						0
Costs exempted from cost sharing Year 2016	0	0							0						0
Costs exempted from cost sharing Year 2017	0	0							0						0
Costs exempted from cost sharing Year 2018	0	0							0						0
Costs exempted from cost sharing Year 2019	0 3,556	3,556							3,556		3,556	0	0	0	0
Total costs exempted from cost sharing CAA	3,550	3,330							3,550	0	3,330	U	0	U	U
O-u recoveries before determined costs Year 2005															
O-u recoveries before determined costs Year 2006									0						0
O-u recoveries before determined costs Year 2007									0						0
O-u recoveries before determined costs Year 2008	-6,957	6,957 4,601		6,957	E 404				0						0
O-u recoveries before determined costs Year 2009	-4,601			-500	5,101	212			0						0
O-u recoveries before determined costs Year 2010 O-u recoveries before determined costs Year 2011	-144 -571	144 571			-69	213	571		0						0
O-u recoveries before determined costs real 2011 O-u recoveries before determined costs Year 2012 (TNC only)	-3/1	3/1					3/1		U						0
O-u recoveries before determined costs Year 2013 (TNC only)															0
O-u recoveries before determined costs Year 2014 (TNC only)															0
Total carry-overs	-12,273	12,273	0	6,457	5,032	213	571	0	0	0	0	0	0	0	0
Costs exempted from cost sharing Year 2012	-3,016	-3,016							-3,016	0	2,204	1,229	1,230	1,218	-8,897
Costs exempted from cost sharing Year 2012 Costs exempted from cost sharing Year 2013	2,173	2,173							2,173	U	2,204	1,229	1,230	1,218	2,173
Costs exempted Holli Cost Sharing Teal 2015	10,061	10,061							10,061						10,061
Costs exempted from cost sharing Year 2014	10,001	10,001							0						0
Costs exempted from cost sharing Year 2014 Costs exempted from cost sharing Year 2015															
Costs exempted from cost sharing Year 2015									0						
									0						0
Costs exempted from cost sharing Year 2015 Costs exempted from cost sharing Year 2016 Costs exempted from cost sharing Year 2017 Costs exempted from cost sharing Year 2018									0 0 0						0
Costs exempted from cost sharing Year 2015 Costs exempted from cost sharing Year 2016 Costs exempted from cost sharing Year 2017	9,218	9,218							0 0 0 0 9,218	0	2,204	1,229	1,230	1,218	0 0 0 3,337

En route

Cost efficiency KPI #1: Determined unit cost (DUC) for en route ANS

			Historical data (actual 2009-201	.3, latest 2014 fo	orecast)				RP2 Performan	ce Plan		RP1 PP	Averag	ge pct va	riation p.	a.
	United Kingdom	2009 A	2010 A	2011 A	2012 A	2013 A	2014 F	2015 D	2016 D	2017 D	2018 D	2019 D	2014 D		2014F- 2019D		
	Total en route actual/forecast/determined costs in nominal terms (in national currency)	614,961,027	635,819,108	641,778,915	658,740,665	724,832,527	703,749,018	686,095,951	686,856,882	689,731,618	682,288,298	672,799,228	728,678,295	0.9%	-0.9%	0.6%	-1.6%
1d 2012	Inflation %		3.34%	4.50%	2.80%	2.60%	1.86%	1.90%	1.90%	2.00%	2.00%	2.00%					
ninal ar	Inflation index (Base = 100 in 2012)	90.08	93.09	97.28	100.00	102.60	104.50	106.49	108.51	110.68	112.90	115.15	100.65	2.5%	2.0%	2.1%	2.7%
ıcy (Non	Total en route actual/forecast/determined costs in real terms (in national currency at 2012 prices)	682,688,716	683,035,035	659,748,725	658,740,665	706,464,451	673,421,191	644,287,417	632,975,445	623,161,440	604,349,530	584,259,225	723,985,854	-1.5%	-2.8%	-1.5%	-4.2%
currer	Total en route Service Units (TSU)	9,914,403	9,480,262	9,860,804	9,607,878	9,754,933	10,024,981	10,244,000	10,435,000	10,583,000	10,758,000	10,940,000	11,034,647	1.0%	1.8%	1.3%	-0.2%
Local	Real en route UCs/DUCs (in national currency at 2012 prices)	68.86	72.05	66.91	68.56	72.42	67.17	62.89	60.66	58.88	56.18	53.41	65.61	-2.5%	-4.5%	-2.8%	-4.0%
-																	
ency es)	Inflation index (Base = 100 in 2009)	100.0	103.34	107.99	111.01	113.90	116.01	118.22	120.46	122.87	125.33	127.84	111.7	2.5%	2.0%	2.1%	2.7%
al curre 109 pric	Total en route actual/forecast/determined costs in real terms (in national currency at 2009 prices)	614,961,027	615,272,988	594,296,850	593,388,797	636,378,036	606,612,908	580,369,416	570,179,674	561,339,290	544,393,658	526,296,457	652,161,188	-1.5%	-2.8%	-1.5%	-4.2%
Loc: (20	Real en route UCs/DUCs (in national currency at 2009 prices)	62.03	64.90	60.27	61.76	65.24	60.51	56.65	54.64	53.04	50.60	48.11	59.10	-2.5%	-4.5%	-2.8%	-4.0%

Total en route actual costs RP1 in national currency (as per notification letter from the European Commission accepting Performance Plans for RP1)	614,961,027
Total en route actual costs for services to exempted VFR flights in national currency (as per November 2010 Reporting Tables)	0

Check RP1 DUR (before deduction of VFR exo):	62.03

728,078,233
0

Check RP1 DC (before deduction of VFR exo):	652,161,188	
Check RP1 DUR (before deduction of VFR exo):	59.10	

<u>Ireland – Further clarification on economic assumptions</u>

A. Additional Information 4 – (b) Pension Costs

The IAA provides pensions to its employees under four superannuation schemes which can be summarised as follows - a defined benefit scheme (2 parts) which is the main scheme and which has been closed to new members since 1 January 2012 and a Hybrid pension scheme which includes both a defined benefit element and a defined contribution element. Employees of the NSA are covered under these pension schemes.

Staff employed by the IAA across all activities, not just en route and terminal, are included in the tables presented below. It is not possible to break down these numbers as they relate to just en route and terminal staff. This information is presented on a best estimate basis.

Contributions to defined benefit pension schemes are paid at rates determined by the scheme actuary. The latest valuation of the main defined benefit scheme was as at 1 January 2012 and a rate of 39.7% was determined. The next actuarial valuation will take place as at 1 January 2015. An actuarial valuation of the defined benefit element of the hybrid pension scheme has not yet taken place. Employer contributions to the defined contribution part of the hybrid pension scheme is at a maximum of 7% of pensionable salary in excess of the defined benefit base.

As disclosed previously, the pension cost included in the determined costs for en route and terminal, based on the current actuarially assessed contribution rates, is:

	2015D €'000	2016D €'000	2017D €'000	2018D €'000	2019D €'000
En route	15,046	15,547	16,248	16,559	17,151
Terminal	2,708	2,813	2,922	3,021	3,108

Contributions included in both RP1 and RP2 have been calculated by reference to the actuarial valuation in place at the time. To the extent that the next actuarial valuation, due in mid-late 2015, proposes a higher funding rate, this will be treated as an uncontrollable cost in the ANPS's and the NSA's books.

The tables below have been prepared on an international accounting-based approach which will differ from the actuarially assessed cost of pensions.

The IAA is working towards returning the main scheme to solvency and, in this respect, has put in place an agreement between management and staff which was brokered back in 2010. Some of the measures under this agreement include:

- Corrective measures to address the pension fund deficit to be born on a 50/50 basis by the employer and staff;
- Closure of the main defined benefit scheme from 1 January 2012;
- Increase in members contributions;

- Annual contribution by the employer of 30.5% of pensionable salary plus an additional €5.4 million or 9.2%;
- Establishment of a hybrid pension scheme from 1 January 2012.

IAA Defined Benefit Pension Scheme – the main scheme

€000s	2015D	2016D	2017D	2018D	2019D
Total pension costs in respect of "Defined benefits" scheme (in nominal terms in national currency) – IFRS Calculation	€18,261	€18,746	€19,243	€19,754	€20,278
% Discount rate applied / predicted	3.00%	3.00%	3.00%	3.00%	3.00%
Duration of the pension obligation at end of year	21	20	20	19	19
% Asset value growth assumed	5%	5%	5%	5%	5%
Value of pension assets (in nominal terms in national currency)	€455,221	€482,037	€510,542	€540,834	€573,017
Value of pension liabilities (in nominal terms in national currency)	€658,943	€667,674	€676,878	€686,572	€696,775
Net funding surplus/gap (in nominal terms in national currency)	-€203,722	- €185,637	-€166,336	-€145,739	-€123,759
Number of pensionable staff	550	518	507	500	487

Some comments on these numbers include:

- 1. These numbers are based on a roll-forward of ongoing liabilities from the 1 January 2012 valuation; the next valuation is as at 1 January 2015;
- 2. Total pension costs in this table is assumed to be the pension expense for the scheme in the year including a service cost plus the interest cost less the expected return on assets;
- 3. A discount rate of 3% is assumed;
- 4. A funding proposal is in place to target the restoration to solvency of the scheme on a minimum funding standard basis by 2019;
- 5. Assets split is approximately 60% growth and 40% defensive
- 6. Pension cost and liabilities have been prepared in line with international reporting standards which is likely to be different to the methodology used to determine the contribution rate

Hybrid Pension scheme – Defined Benefit

€000s	2015D	2016D	2017D	2018D	2019D
Total pension costs in respect of "Defined benefits" scheme (in nominal terms in national currency) – IFRS Based	€ 214	€ 360	€ 251	€ 237	€ 257
% Discount rate applied / predicted	3.00%	3.00%	3.00%	3.00%	3.00%
Duration of the pension obligation at end of year	40	40	40	40	40
% Asset value growth assumed	5.00%	5.00%	5.00%	5.00%	5.00%
Value of pension assets (in nominal terms in national currency)	€ 710	€ 1,149	€ 1,644	€ 2,201	€ 2,820
Value of pension liabilities (in nominal terms in national currency)	€ 1,179	€ 1,721	€ 2,182	€ 2,651	€ 3,164
Net funding surplus/gap (in nominal terms in national currency)	-€ 469	-€ 572	-€ 537	-€ 450	-€ 344
Number of pensionable staff	62	90	98	105	118

Some comments on these numbers include:

- 1. As this is a new scheme, no actuarial valuation has been carried out yet
- 2. Total pension costs in this table is assumed to be the pension expense for the scheme in the year including a service cost plus the interest cost less the expected return on assets:
- 3. A discount rate of 3% is assumed;
- 4. Assets split is approximately 28% growth and 72% defensive
- 5. Pension cost and liabilities have been prepared in line with international reporting standards which is likely to be different to the methodology used to determine the contribution rate

Hybrid Pension scheme – Defined Contribution

€000s	2015D	2016D	2017D	2018D	2019D
Total pension cost – IFRS Basis	€53	€79	€87	€95	€109
% contribution rate (% Salary above Cap)	7%	7%	7%	7%	7%
Number of staff	43	63	69	74	83

B. Additional Information 4 – (c) Interest

The cost of capital report prepared by First Economics and included as part of the supporting documentation appended to the FAB Performance Plan sets out in detail how the cost of debt has been calculated. This cost of debt has been further confirmed in Additional Information 1 - (e) Justification for cost of capital. The ANSP has also confirmed that interest costs included in the RP2 cost base are of an immaterial nature given that no drawdown of available credit facilities has been forecast in this period.

<u>Ireland – Clarification on costs exempt from risk sharing</u>

h) Assumptions for costs exempt from cost-sharing (deemed outside the control of the ANSP, Member State or qualified entities concerned) relating to RP2 costs.

Entity/ies concerned:	NSA/EUROCONTROL								
Costs exempt from cost-sharing in RP2 - Costs attributed to each in the Performance Plan, description and assumptions on which these costs are based.									
(i) unforeseen changes in national pensions law, pension accounting law or pension costs resulting from unforeseen financial market conditions	See AI-4 b) for the assumptions								
(ii) significant changes in interest rates on loans, which finance costs arising from the provision of air navigation services	See AI-4 c)								
(iii) unforeseen new cost items not covered in the Performance Plan, but required by law	None foreseen								
(iv) unforeseen changes in national taxation law	None foreseen								
(v) unforeseen changes in costs or revenues stemming from international agreements	While it is accepted to cost base, the share included in the nation sharing keys used to be uncontrollable. The each year of RP2 with The assumptions used	of the cost- onal cost ba apportion the e impact of h the aggreg	base to be use is not use cost base at this uncontrolated adjustn	borne by the der the concerns Memollable element for RP2	ne individua ntrol of the ber States ar ent will be c carried forv	1 States and States. The e deemed to alculated for ward to RP3.			
		2015	2016	2017	2018	2019			
	EUROCONTROL 499,861 522,712 541,906 559,604 577,682 cost base								
	Ireland share %	1.37%	1.37%	1.37%	1.37%	1.37%			
	Ireland share €	6,836	7,148	7,411	7,653	7,900			

It is the intention of the NSA Ireland to use the costs exempt from cost-sharing mechanism in respect of the variance in cash pension costs for the IAA defined benefit pension scheme and the IAA defined benefit element of the Hybrid pension scheme which is deemed to be outside of the control of the IAA.

Ireland - Traffic Forecast Assumptions

1. Irish RP2 En-Route Forecast

The forecast for en-route TSUs for RP2 was updated in June 2014 to take account of the latest STATFOR forecast and is pitched exactly at the mid-point between the STATFOR base and low case forecasts from the Feb 2014 7 Year forecast (see Table 1 below).

	TSUs in 000s							
Year	2015 2016 2017 2018 201							
STATFOR Base	4,019	4,107	4,191	4,283	4,379			
STATFOR Low	3,946	3,992	4,036	4,087	4,145			
Mid point	3,983	4,050	4,114	4,185	4,262			
IRELAND RP2 Forecast	3,983	4,050	4,113	4,185	4,262			

Table 1 RP2 Forecasts

Justification for the Irish forecast can be made on the basis of the inaccuracy of previous STATFOR forecasts. In the five year period 2008 - 2012, the STATFOR forecast for the following year was an average of 3.3% too optimistic (see Table 2 below)

Date of Forecast	Forecast for Year	Forecast TSU	Actual TSU	Difference	% Difference
Dec-08	*2009	3,880,823	3,560,633	320,190	8.3%
Dec-09	2010	3,541,525	3,615,036	- 73,511	-2.1%
Sep-10	2011	3,802,543	3,771,478	31,065	0.8%
Sep-11	2012	3,997,644	3,805,985	191,659	4.8%
Sep-12	2013	3,980,457	3,812,940	167,517	4.2%
			Average Difference		3.3%
* 2009 Forecast	based on traffic fo	orecast increase	of 1.5% over 2008	3 actual	

Table 2 – STATFOR Inaccuracy

The Irish forecasts for each year of RP2 are between 0.9% and 2.7% lower than the STATFOR base case (see Table 3 below), less than the average level of STATFOR inaccuracy. Additionally, the STATFOR forecasts from Table 2 are for the following year whereas the Irish forecasts for RP2 are for as much as 5 years ahead, making it more difficult to predict the outturn.

	TSUs in 000s							
Year	2015	2016	2017	2018	2019			
STATFOR Base	4,019	4,107	4,191	4,283	4,379			
IRELAND RP2 Forecast	3,983	4,050	4,113	4,185	4,262			
Diff%	0.9%	1.4%	1.9%	2.3%	2.7%			

Table 3 – Difference between Irish & STATFOR base case forecast

The performance scheme includes a risk sharing mechanism which has a 2% dead band. This means that the traffic must be 2% below (or above) the forecast before the risk sharing mechanism kicks in. Ireland, with one of the lowest DUCs in the EUROCONTROL zone but with one of the highest costs of living, simply cannot absorb the revenue implications of this 2% traffic and therefore revenue shortfall for RP2.

2. Irish RP2 TANS Forecast

The RP2 forecast for TNSUs takes into account activity at Dublin, Cork and Shannon airports. It was updated in June 2014 to take account of the latest STATFOR forecast. It takes the budgeted TNSU figure for 2014 and applies the STATFOR base case TNSU growth rates from the Feb 2014 7 Year forecast (see Table 4 below).

Ireland RP2 TNSU Targets									
2014 2015 2016 2017 2018 2019									
STATFOR growth forecast		2.7%	2.3%	2.6%	3.2%	2.6%			
Ireland TNSU 2014 budget	137,442								
With STATFOR growth applied		141,153	144,399	148,154	152,895	156,870			
Rounded up for RP2 Targets		141,200	144,400	148,200	152,900	156,900			

Table 4 RP2 Terminal Forecasts

It is believed that base case growth predictions are appropriate in the case of Irish terminal traffic as this has been showing higher levels of growth than the en-route traffic in recent months.

We are not sufficiently optimistic to exceed base case predicted growth levels as although traffic is increasing at a moderate rate, TNSUs are not as buoyant. This is largely a result of an evolving fleet mix at Dublin which sees an increasing number of lighter aircraft operations. For example, the current Aer Lingus fleet strategy has seen it change the aircraft type on many of its services to UK regional destinations from an A320 to an ATR72 with a consequential MTOW reduction of over 50,000kgs (69%)per flight.

Annex G to UK-Ireland FAB Performance Plan Corrigendum Changes to Chapter 6 of the Supporting Document

Paragraphs 6.33 - 6.50 should now read:

Pensions

- 6.33 The CAA proposed the following interventions to vary the Draft Performance Plan from the RBP put forward by NERL:
 - passing through only 80% of the difference between actual contributions and contributions assumed as part of the determined costs when the actual contributions are greater than the assumed contributions (but continuing to pass through 100% of the difference when the actual contributions are less than the assumed contributions).
 - reducing the contributions assumed for 2018 and 2019 by a further 10%. These two years are after the next valuation of the scheme so the level of contribution is more uncertain. Should the contributions required be higher than these revised allowances, then NERL would be able to subsequently recover 80% of the shortfall in subsequent reference periods. NERL would nevertheless have a relatively small amount at stake to encourage it to lean against any cost pressures.
- 6.34 This led to a reduction in the DC in aggregate in the draft PP compared to the RBP of £16.5 million in 2012 prices over RP2.
- 6.35 A number of respondents made vigorous representations on the subject of pensions. NATS and the CAAPS trustees were concerned about the effect of the move away from 100% pass-through and its effect on certainty with which the company could service its pension commitments (known as the employer's covenant). NERL cited that this could also increase the likelihood of a future reduction in the company's credit rating and potentially, an increase in the cost of its debt and cost of capital. NATS and the CAAPS trustees argued that the asymmetric pass-through may have the opposite effect to the regulator's intentions, as it may lead the trustees to feel that they should mitigate the risk introduced by this weakening of the employer covenant by accelerating the de-risking of the investment strategy which would increase the ultimate cost of the scheme to the detriment of users. NTUS emphasised the detrimental changes to pensions which their members had agreed to already during CP2 and CP3. Revisiting the terms and conditions after the deficit starts to reduce would be met by a very hostile response and risk industrial action.

- 6.36 The Airline Community response argued that CAA had not taken strong enough action to limit the liability on pensions to that of a competitive entity. It argued for a maximum contribution rate of 20% in line with the CAA's determination for Heathrow Airport. It also criticised the fact that users have not had access to a statement of the full legal constraints on the scheme although it argued that the CAA has a duty to promote efficiency but no duty to protect this situation.
- 6.37 Pensions (and in particular DB pensions) represent a significant portion of NERL's staff costs and are a significant issue for all stakeholders.
- 6.38 Following the initial submission of the Performance Plan on 24 June, the CAA has carefully considered a new legal argument that was raised to the effect that if a cost qualifies as an exempt cost under Article 14 of the charging regulation then all of the relevant variance of costs shall be passed on to or returned to airspace users over the following reference period(s). On reflection, the CAA agrees with this legal interpretation and accordingly has withdrawn its proposal to recover only 80% of any higher relevant costs to users and replaced this with a proposal to pass on 100% of such costs to users in subsequent reference period(s).
- 6.39 With regard to Article 14(2) of the Charging Regulation, the CAA has also considered legal arguments as to the interpretation of Article 14(2)(a) and 14(2)(a)(i), including in particular arguments that (in respect of pensions costs) the element of the cost that can be exempt is limited to the element that is a result of unforeseen changes in national pensions law, pension accounting law or pension costs resulting from unforeseen market conditions and not the plain difference between actual and forecast defined benefit contributions. The Single Sky Committee has set up a working group on economic aspects to recommend guidance on the interpretation of exempt costs in Article 14 of the Charging Regulation. The CAA proposes that it will reassess its interpretation and application in the Plan on defined benefit pensions costs pursuant to articles 14(2)(a) and 14(2)(a)(i) having regard to any such guidance that is available at the relevant time.
- The CAA acknowledges that NATS has taken considerable steps to mitigate its future pension liabilities, as discussed in Appendix D. The CAA as regulator stands behind NERL's covenant to honour its eventual pension commitments. It considers that not to do so would breach its duty to secure that licence holders will not find it unduly difficult to finance activities authorised by their licences.
- 6.41 NATS has argued that its previous actions have demonstrated that it has

already acted as a commercial entity would and that the exposure of NSL to the scheme acts as a natural incentive to manage its pension liabilities and contributions. It also believed that the stewardship tests established by the CAA in previous control periods were an appropriate incentive. NATS has questioned whether any further incentive is required. It is difficult for the CAA to judge whether NATS would have acted earlier, or gone further in the prevailing circumstances, if it had had a more immediate revenue interest in the outcome.

- 6.42 Both NATS and the Airline Community have raised issues relating to the past evolution of contributions to the scheme. NATS has argued against the asymmetry of the scheme whereby users would continue to receive the return of 100% of beneficial variances at least partly on the basis that they have received benefit from contributions that were lower than service costs in CP1 and CP2. The Airline Community has argued that users should not be liable for any deficit repair costs at all as these arose because NATS was late in taking actions to mitigate the deficit. NATS also expressed concern with the lack of a previous signal of policy change in relation to the pension pass-through arrangement. On the 10% reduction in the assumed contributions in the final two years of RP2 (2018 and 2019), NATS acknowledged that there is uncertainty around projection of pension contributions in later years of RP2. While not agreeing with the CAA's rationale for proposed reductions, it said it could tolerate the reduction provided the 100% symmetric pass-through is maintained.
- The CAA notes that users did benefit from contributions which were lower than service costs in the past. It would therefore be unreasonable to absolve them from any deficit repair which has arisen in part because of market cycles over long periods.
- 6.44 [deleted]
- The CAA acknowledges users' general concerns that pension costs represent a much higher percentage of salaries than is typical in companies with similar schemes or in their own companies. The CAA acknowledges that users would be in a better position to engage on this issue if they had visibility of the relevant legal restraints which protect the rights of existing members of the DB scheme. The CAA invites NATS to release the information that it can, with a view to achieving a shared understanding with users on this issue.
- 6.46 The CAA is therefore persuaded that the legal restrictions on the Scheme's amendment power prevent an amendment to the Scheme's rules being made to reduce or stop the future accrual of benefits for the pre-existing members of the scheme. The CAA accepts that this precludes NERL from

making changes to the scheme on a scale envisaged by users. The CAA considers that in the absence of changes to the scheme itself, placing any dramatic limitation on contributions allowed in user charges would make it unreasonably difficult for NERL to finance its functions and may impact on the continuing provision of services. It therefore considers that in general it should allow a level of contribution to be funded by charges sufficient to remunerate NERL's legal commitments over the long term.

- The CAA identified a number of liability management options that are still legally possible (or which might arguably be possible).
 - The further reduction in the portion of remuneration considered as pensionable pay (e.g. removing certain allowances or pay increments on promotion). This is a measure which is within NERL's remit, as long as the resulting scheme continues to perform the intention of providing a defined benefit pension based on final salary. Moreover, NATS has already pursued this line through capping pay twice already: the last time as late as 2013.
 - Increasing the employee contribution. (The legal position appears uncertain and the CAA suggests that more analysis is needed; NATS has previously conducted its own further analysis, to the effect that increasing employee contributions will be interpreted by a Court as reducing employee benefits.)
 - A number of more minor areas to maintain challenge on the administration of the scheme.
- The CAA is not prescribing what, if any, further action should be taken (and any further action would be subject to negotiation between management and Trustees, members, and trades unions, as in any comparable situation elsewhere.)
- In respect of the 10% reduction in the assumed contributions in the final two years of RP2 (2018 and 2019), the CAA acknowledges that this is not based on a detailed analysis of the next valuation of the scheme or of subsequent contributions. The CAA has reduced the amount assumed by a small but significant amount in the knowledge that this is a timing issue where any variance can subsequently be recovered.
- 6.50 Based on these considerations the CAA:
 - confirms that the contributions assumed for 2018 and 2019 should be reduced by 10% compared to NERL's projections;

- confirms that when the relevant contributions are less than the assumed contributions 100% of the relevant difference shall be passed back to users in the following reference periods;
- has concluded following consideration of new legal arguments that when the relevant contributions are greater than the assumed contributions, 100% of the relevant difference shall be recovered from users in the following reference periods; and
- the relevant costs to be recovered will be subject to guidance from the European Commission or PRB in due course.

Table on Page 174, the NSA response to the Airline Community comment on UK pensions should be amended as follows:

Airline	Page 14	Cost	Does not agree that the CAA's	The limitations on the pension	Chapter 6
Commu		efficien	current proposals to limit pass	scheme and reasoning for the	para 6.33-
nity		cy/ UK	through to 80% goes far enough	percentage pass through are	6.50
		-	to address the overly generous	considered in the supporting	and
		pensio	and burdensome NATS pension	document.	Appendix
		ns	scheme.		D

Paragraphs D16-D17 should now read:

- D16 The CAA considers that NATS has made considerable steps to mitigate its future pension liabilities. The CAA as regulator stands behind NERL's covenant to honour its eventual pension commitments but it considers that NERL should continue to have an incentive to mitigate liabilities and the future contributions which ultimately come from users
- D17 The CAA proposes that the contributions assumed for 2018 and 2019 should be reduced by a further 10%. These two years are after the next valuation of the scheme and so the level of contribution is more uncertain. Should the relevant contributions required be higher than these revised allowances, then NERL would be able to subsequently recover the relevant shortfall in subsequent reference periods. NERL would nevertheless have a relatively small amount at stake to encourage it to lean against any cost pressures.

Figure D.1: Proposed Amendment to RBP for DB Pensions¹

	2015	2016	2017	2018	2019	Total
RBP*	75.0	74.8	75.2	75.3	73.6	374.0
Draft PP*	74.7	74.3	74.3	68.9	65.4	357.5
Difference	-0.3	-0.6	-1.0	-6.4	-8.2	-16.5

Source: NERL RBP and CAA analysis

* In both cases the overall values show the combined pension costs of DB and DC pensions.

Paragraph D18 (last paragraph of the appendix) should be deleted.

This includes both the direct effect of the adjustment in defined pensions and the additional effect of the change in staff costs.

Paragraph E40 should now read:

The CAA welcomes Oxera's analysis that attempts to assess the impact of the systematic risk (arising from systematic traffic volatility) on returns (Oxera uses EBITDA for this purpose). However, the CAA notes that in the case of airports the traffic risk is on passenger numbers, while for NATS it is on a service unit basis. As airlines pointed out, the initial round of demand volatility/shock is borne by airlines (through yield management) and then the airport. Secondly, HAL and GAL bear the full risk of their DB pension schemes.