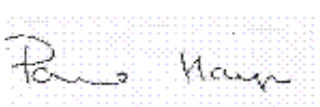
FAB Performance Plan

UK-Ireland FAB

Second Reference Period (2015-2019)

Signatories

Performance plan details	
FAB Name	UK-Ireland FAB
Version number	3 (State submission to Commission/PRB)
Date of issue	23/06/2014
Date of adoption	27/06/2014

Member State	Name, title and signature of representative
Ireland	 **John J. Fearon** Director General Civil Aviation Department of Transport, Tourism and Sport
United Kingdom	 **Patricia Hayes** Director General Civil Aviation Department for Transport

Additional comments	-

Table of Content

Mapping between the template for the FAB performance plan and Annex II of the performance Regulation

Structure of ANNEX II of the performance Regulation	Link with PRB Performance Plan template			
	Body of Performance Plan	Annex C For cost-effiency		Other annexes
		RT ref.	AI ref.	
1. INTRODUCTION	1			
1.1. Description of the situation (scope of the plan, list of air navigation service providers covered, etc.).	1.1.			
1.2. Description of the macroeconomic scenario for the reference period including overall assumptions (traffic forecast, etc.)	1.2.			
1.3. Description of the outcome of the stakeholder consultation in order to prepare the performance plan and the agreed compromises as well as the points of disagreement and the reasons for disagreement.	1.3.			Annex A
1.4. Description of the actions taken by air navigation service providers to implement the Network Strategy Plan at functional airspace block level and other guiding principles for the operation of the functional airspace block in the long term perspective..	1.4.			Annex B
1.5. List of airports submitted to the performance scheme in application of Article 1 of the Regulation, with their average number of IFR air transport movements.	1.5.			
1.6. List of exempted airports pursuant to Article 1(5) of Implementing Regulation (EU) No 391/2013 together with their average number of IFR air transport movements.				
2. INVESTMENT	2			Annex D
2.1. Description and justification of the cost, nature and contribution to achieving the performance targets of investments in new ATM systems and major overhauls of existing ATM systems, including their relevance and coherence with the European ATM Master Plan, the common projects referred to in Article 15a of Regulation (EC) No 550/2004, and, as appropriate, the Network Strategy Plan.				
2.2. The description and justification referred to in point 2.1 shall in particular:				
(i) relate the amount of the investments, for which description and justification is given following point 2.1, to the total amount of investments;				
(ii) differentiate between investments in new systems, overhaul of existing systems and replacement investments;				
(iii) refer each investment in new ATM systems and major overhaul of existing ATM systems to the European ATM Master Plan, the common projects referred to in Article 15a of Regulation (EC) No 550/2004, and, as appropriate, the Network Strategy Plan;				

(iv) detail the synergies achieved at functional airspace block level or, if appropriate, with other Member States or functional airspace blocks, in particular in terms of common infrastructure and common procurement;				
(v) detail the benefits expected from these investments in terms of performance across the four key performance areas, allocating them between the en route and terminal/airport phases of flight, and the date as from which benefits are expected;				
(vi) provide information on the decision-making process underpinning the investment, such as the existence of a documented cost-benefit analysis, the holding of user consultation, its results and any dissenting views expressed.				
3. PERFORMANCE TARGETS AT LOCAL LEVEL	3			
3.1. Performance targets in each key performance area, set by reference to each key performance indicator as set out in Annex I, Section 2, for the entire reference period, with annual values to be used for monitoring and incentive purposes:	3.1			
(a) Safety	3.1.(a)			
(i) level of effectiveness of safety management: local targets for each year of the reference period;	3.1.(a).(i)			
(ii) application of the severity classification based on the Risk Analysis Tool (RAT) methodology: local targets for each year of the reference period (percentage);	3.1.(a). (ii)			
(iii) just culture: local targets for the last year of the reference period.	3.1.(a). (iii)			
	3.1.(a). (iv) - Optional section - Additional Safety KPI(s)			
(b) Environment	3.1.(b)			
(i) description of the process to improve route design;	3.1.(b).(i) & (ii)			
(ii) average horizontal *en route* flight efficiency of the actual trajectory.				
	3.1.(b).(iii) - Optional section - Additional Environment KPI(s)			
(c) Capacity	3.1.(c)			
(i) minutes of average *en route* ATFM delay per flight;	3.1.(c).(i)			
(ii) minutes of average terminal ATFM arrival delay per flight;	3.1.(c).(ii)			
(iii) the capacity plan established by the air navigation service provider(s).	3.1.(c).(iii)			
	3.1.(c).(iv) - Optional section - Additional Capacity KPI(s)			
(d) Cost-efficiency	3.1.(d)			

(i) determined costs for *en route* and terminal air navigation services set in accordance with the provisions of Article 15(2)(a) and (b) of Regulation (EC) No 550/2004 and in application of the provisions of Implementing Regulation (EU) No 391/2013 for each year of the reference period;	3.1.(d).1.A 3.1.(d).2.A			
(ii) *en route* and terminal service units forecast for each year of the reference period;	3.1.(d).1.A 3.1.(d).2.A 3.1.(d).1.C 3.1.(d).2.C	RT 1 (5.4)		
(iii) as a result, the determined unit costs for the reference period;	3.1.(d).1.A 3.1.(d).2.A	RT 1 (5.5)		
(iv) description and justification of the return on equity of the air navigation service providers concerned, as well as on the gearing ratio and on the level/composition of the asset base used to calculate the cost of capital comprised in the determined costs;		RT 1 (3.1-3.4, 3.6)	AI 1 e)	
(v) description and explanation of the carry-overs from the years preceding the reference period;		RT 1 (3.1-3.4, 3.6)	AI 3 c), d), e)	
(vi) description of economic assumptions, including: — inflation assumptions used in the plan as compared to an international source such as the IMF (International Monetary Fund) Consumer Price Index (CPI) for the forecasts and Eurostat Harmonised Index of Consumer Price for the actuals. Justification of any deviation from these sources,	3.1.(d).1.B 3.1.(d).2.B	RT 1 (5.1-5.2)		
— assumptions underlying the calculation of pension costs comprised in the determined costs, including a description on the relevant national pension regulations and pension accounting regulations in place and on which the assumptions are based, as well as information whether changes of these regulations are anticipated,			AI 4 b)	
— interest rate assumptions for loans financing the provision of air navigation services, including relevant information on loans (amounts, duration, etc.) and explanation for the (weighted) average interest on debt used to calculate the cost of capital pre tax rate and the cost of capital comprised in the determined costs,		RT 1 (3.7)	AI 4 c)	
— adjustments beyond the provisions of the International Accounting Standards;			AI 1 Item c)	
(vii) if applicable, description in respect to the previous reference period of relevant events and circumstances set out in Article 14(2)(a) of Implementing Regulation (EU) No 391/2013 using the criteria set out in Article 14(2)(b) of Implementing Regulation (EU) No 391/2013 including an assessment of the level, composition and justification of costs exempt from the application of Article 14(1)(a) and (b) of Implementing Regulation (EU) No 391/2013;		RT 3 (3.1-3.12)	AI 3 b)	

(viii) if applicable, a description of any significant restructuring planned during the reference period including the level of restructuring costs and a justification for these costs in relation to the net benefits to the airspace users over time;		RT 3 (4.1)	AI 4 d)	
(ix) if applicable, restructuring costs approved from previous reference periods to be recovered.		RT 3 (4.1)	AI 4 e)	
3.2. Description and explanation of the consistency of the performance targets with the relevant Union-wide performance targets. When there is no Union-wide performance target, description and explanation of the targets within the plan and how they contribute to the improvement of the performance of the European ATM network.	3.1.(a).(i) 3.1.(a). (ii) 3.1.(a). (iii) 3.1.(a). (iv) 3.1.(b).(i) & (ii) 3.1.(b).(iii) 3.1.(c).(i) 3.1.(c).(ii) 3.1.(c).(iii) 3.1.(c).(iv) 3.1.(d).1.A 3.1.(d).2.A	RT 3 (4.1)	AI 4 e)	
3.3. Description and explanation of the interdependencies and trade-offs between the key performance areas, including the assumptions used to assess the trade-offs.	3.3			
3.4. Contribution of each air navigation service provider concerned to the achievement of the performance targets set for the functional airspace block in accordance with Article 5(2)(c)(ii).	3.1.(a).(i) 3.1.(a). (ii) 3.1.(a). (iii) 3.1.(a). (iv) 3.1.(b).(i) & (ii) 3.1.(b).(iii) 3.1.(c).(i) 3.1.(c).(ii) 3.1.(c).(iii) 3.1.(c).(iv)	RT 1 (All)	AI 4 a)	
4. INCENTIVE SCHEMES	4			
4.1. Description and explanation of the incentive schemes to be applied on air navigation service providers.	4.1			
5. MILITARY DIMENSION OF THE PLAN	5			
Description of the civil-military dimension of the plan describing the performance of FUA application in order to increase capacity with due regard to military mission effectiveness, and if deemed appropriate, relevant performance indicators and targets consistent with the indicators and targets of the performance plan.				
6. ANALYSIS OF SENSITIVITY AND COMPARISON WITH THE PREVIOUS PERFORMANCE PLAN	6			
6.1. Sensitivity to external assumptions.	6.1			
6.2. Comparison with previous performance plan.	6.2			
7. IMPLEMENTATION OF THE PERFORMANCE PLAN	7			
Description of the measures put in place by the national supervisory authorities to achieve the performance targets, such as:				
(i) monitoring mechanisms to ensure that the ANS safety programmes and business plans are implemented;				

(ii) measures to monitor and report on the implementation of the performance plans including how to address the situation if targets are not reached during the reference period.				

SECTION 1: INTRODUCTION

Mapping between the template for the FAB performance plan and Annex II of the performance Regulation				
Structure of ANNEX II of the performance Regulation	Link with PRB Performance Plan template			
	Body of Performance Plan	Annex C For cost-effiency		Other annexes
		RT ref.	AI ref.	
1. INTRODUCTION	1			
1.1. Description of the situation (scope of the plan, list of air navigation service providers covered, etc.).	1.1.			
1.2. Description of the macroeconomic scenario for the reference period including overall assumptions (traffic forecast, etc.)	1.2.			
1.3. Description of the outcome of the stakeholder consultation in order to prepare the performance plan and the agreed compromises as well as the points of disagreement and the reasons for disagreement.	1.3.			Annex A
1.4. Description of the actions taken by air navigation service providers to implement the Network Strategy Plan at functional airspace block level and other guiding principles for the operation of the functional airspace block in the long term perspective..	1.4.			Annex B
1.5. List of airports submitted to the performance scheme in application of Article 1 of the Regulation, with their average number of IFR air transport movements.	1.5.			
1.6. List of exempted airports pursuant to Article 1(5) of Implementing Regulation (EU) No 391/2013 together with their average number of IFR air transport movements.				

1 - INTRODUCTION

1.1 - The situation

NSAs responsible for drawing up the Performance Plan	Civil Aviation Authority UK; Irish Aviation Authority Safety Regulation Division
NSA responsible for the coordination within the FAB	Civil Aviation Authority UK
List of accountable entities	UK: Department for Transport Civil Aviation Authority NATS (En Route) Plc (NERL) NATS Service Limited (NSL) UK Met Office Ireland: Irish Aviation Authority (ANSP) Irish Aviation Authority Safety Regulation Division (NSA) Met Eireann
Geographical scope	UK, Ireland

Additional comments	-

1.2 - Description of the macroeconomic scenario including overall assumptions

The plan has been developed in the strategic context of the UK and Ireland's full commitment to contribute to the improvement of the safety and economic performance of European ATM.

UK: The GDP assumptions underpinning the traffic forecast are those used by STATFOR, based on UK (CAA) recommendation, which was based on the average of the HM Treasury comparison of independent forecasts for the UK economy published in November 2013. CPI assumptions are consistent with the IMF April 2014 forecast, while RPI was derived using the IMF CPI forecast and applying a 'wedge' (See Chapter 2 of the Supporting Document). Traffic forecasts are those published by STATFOR in February 2014. The UK uses the base case scenario of the traffic forecasts.

Ireland: GDP assumptions are based on forecasts from the Department of Finance, Ireland. Inflation assumptions are consistent with the IMF April 2014 forecast. Traffic forecasts are the mid-point between STATFOR February 2014 base case and low case forecasts adjusted for local conditions.

Economic assumtpions, institutional context for ANS provision and status of aviation safety in RP2 are discussed in Chapter 2 of the Supporting Document.

1.3 - Stakeholder consultation

Number of Meetings	5

Meeting #1	
Name of meeting	Written consultation and a consultation meeting on the draft UK-Ireland Performance Plan for RP2 in London, UK
Date	14 March 2014
Type of event	meeting/written consultation
Level	FAB
Stakeholders	All UK and Irish stakeholders
Deadline for responses	04/04/2014 (draft Plan published 19/02/2014)
Main issues	Chapter 11 of the Supporting Document includes a summary table of all stakeholder comments and the NSAs response to them. NATS disagreed with interventions made to NERL's business plan (incl. WACC, opex contingency, staff costs and specifically pensions, employee share ownership scheme) in terms of en route cost efficiency. NATS also disagreed with the 1% efficiency target for terminal cost efficiency. NATS raised minor/technical issues in relation to other KPAs. IAA ANSP did not raise any issues. Airport users considered that the interventions made to NERL and IAA's business plans were insufficient in terms of cost efficiency. Users also considered there was room for more stretch on targets in the remaining KPAs. Written representations were also made by: NATS Trade Unions, Dublin Airport Authority, Manchester Airports Group, CAA Pensions Scheme, ATC Branch IMPACT, GATCO, IAA PSEU and Trustees of NATS employee share ownership scheme. All stakeholder responses are available online from: http://www.caa.co.uk/default.aspx?catid=5&pagetype=90&pageid=16033
Actions agreed upon	It was agreed that NSAs will review received submissions and make amendments to the plan where appropriate.
Points of disagreement and reasons	The Supporting Document provides an overview of representations received and justifies amendments to the draft Plan as appropriate. In particular, Chapter 11 of the Supporting Document provides a summary table of all stakeholder representations and the NSAs response to them.
Additional comments	Presentation from the Consultation Meeting is available from: http://www.caa.co.uk/docs/5/140311%20UK-Ireland%20Performance%20Plan%20for%20RP2%20(2015-2019)%20slides%20FINAL.pdf Transcript from the Consultation Meeting is available from: http://www.caa.co.uk/docs/5/RP2%20Stakeholder%20Consultation%20Meeting%2014.03.2014%20-%20Transcript.pdf

Meeting #2	
Name of meeting	Bilateral meeting between the CAA and NATS (ANSP)
Date	21 March 2014
Type of event	Bilateral meeting
Level	National
Stakeholders	NATS (ANSP)
Deadline for responses	04/04/2014 (draft Plan published 19/02/2014)
Main issues	The meeting's focus was on NERL's en route cost efficiency area. NATS disagreed with the CAA's interventions on NERL's business plan. During the meeting NATS presented an overview of two alternative business plan versions as a counter-response to the CAA's interventions.
Actions agreed upon	It was agreed that NATS will submit a written representation to the stakeholder consultation in which they will elaborate on general points raised at the meeting and include constructive suggestions on improving the plan.
Points of disagreement and reasons	NATS written representation formed part of the FAB stakeholder consultation responses (see Meeting #1)
Additional comments	Minutes from the meeting are attached in Annex A.

Meeting #3	
Name of meeting	Bilateral meeting between the CAA and Airspace users
Date	21 March 2014
Type of event	Bilateral meeting
Level	National
Stakeholders	Airspace users
Deadline for responses	04/04/2014 (draft Plan published 19/02/2014)
Main issues	Airlines considered that the CAA's interventions to NERL's business plan to improve cost efficiency, in particular staff costs (pensions) and cost of capital, were insufficient. They were generally content with the en route capacity and environment targets but considered that safety targets (EoSM and Just Culture) could be above those set at EU level. Main issues raised by the airlines during the bilateral are summarised below: Safety/EoSM - ANSP target should be pitched more at the D/E level rather than the C/D level Safety/Just Culture - target should be moved forward and possibly include a qualitative measure Environment/3Di - deadbands around 3Di were too generous to NATS Capacity/TANS - capacity target for terminal was insufficiently stretching, especially for Heathrow Cost efficiency/WACC - level of WACC applied by the CAA was too high Cost efficiency/staff costs - actions being taken to address staff costs issues in NERL were not sufficient and these continued to be too high Cost efficiency/pensions - CAA intervention on pension costs was not enough; staff costs should be looked at as a package and additional efficiencies should be identified Other - airlines considered that progress on developing synergies within the FAB were not apparent in the plan, or at least the presentation given during Stakeholder Consultation meeting (Meeting #1)
Actions agreed upon	It was agreed that the Airline Community will submit a written representation to the stakeholder consultation in which they will elaborate on general points raised at the meeting and include constructive suggestions on improving the plan.
Points of disagreement and reasons	The Airline Community written representation formed part of the FAB stakeholder consultation responses (see Meeting #1)
Additional comments	Minutes from the meeting are attached in Annex A.

Meeting #4	
Name of meeting	Bilateral meeting between the CAA and NATS trade unions (NTUS)
Date	21 March 2014
Type of event	Bilateral meeting
Level	National
Stakeholders	NATS trade unions
Deadline for responses	04/04/2014 (draft Plan published 19/02/2014)
Main issues	NTUS mainly disagreed with the CAA's interventions in staff costs (pay and pensions assumptions) and considered the level of cost of capital to be too low. NTUS also considered that the Just Culture training target should have a qualitative measure. Main issues raised by NTUS are summarised below: Safety/Just Culture - target should include a qualitative measure Environment/TA incentive - LAMP should be incentivised rather than TA Cost efficiency/WACC - unclear why WACC is lower than in RP1 Cost efficiency/staff costs - disagreement with CAA interventions (concern CAA did not make an appropriate allowance for salary progression) Cost efficiency/pensions - disagreement with CAA intervention on the pass through of pension costs Cost efficiency/share ownership - disagreement with CAA intervention on the scheme's costs Cost efficiency/contingency - disagreement with CAA intervention and concern that lack of the allowance will not facilitate the ambitions of the business plan Other - NTUS proposed to include a new target of 'Social Dialogue' at the FAB level
Actions agreed upon	It was agreed that NTUS will submit a written representation to the stakeholder consultation in which they will elaborate on general points raised at the meeting and include constructive suggestions on improving the plan.

Points of disagreement and reasons	NTUS written representation formed part of the FAB stakeholder consultation responses (see Meeting #1)
Additional comments	Minutes from the meeting are attached in Annex A.

Meeting #5	
Name of meeting	Bilateral meeting between the Irish NSA and Airspace users (IATA supported by Airline representatives)
Date	06 March 2014
Type of event	Bilateral Meeting
Level	National
Stakeholders	Airspace Users
Deadline for responses	N/A
Main issues	-Cost efficiency/WACC - unclear why WACC is lower for the UK than Ireland -Cost efficiency/staff costs - disagreement with Irish NSA assertion that staff costs are reasonable and sustainable. - Expressed regret that more/earlier opportunities for consultation were not afforded to the Industry by the Irish NSA
Actions agreed upon	It was agreed that the attendees would consider the Irish NSA responses to their queries, and submit a written representation to the issues raised as part of their response to the multilateral stakeholder consultation.
Points of disagreement and reasons	The main issues (and others discussed) were subsequently captured and formed part of the FAB stakeholder consultation responses (see Meeting #1)
Additional comments	-

1.4 - Actions to implement the Network Strategy Plan at FAB level, and other guiding principles for the operation of the FAB in the long-term perspective

Number of Actions	6

Action 1	**2015**	**2016**	**2017**	**2018**	**2019**
Planned date of entry into operation		Initial date to start delivering FRA is c2016/17			
Description	Establishing Free Route Airspace (FRA) in Prestwick.				
Reference to NSP and evidence of compliance	Links to NSP Strategic Objective SO3				
Contribution to reaching the performance targets	One of key enables for achieving a flexible airspace structure. This will provide benefits in terms of environment (en route flight efficiency).				
Additional comments					

Action 2	**2015**	**2016**	**2017**	**2018**	**2019**
Planned date of entry into operation					
Description	Procedures were established in 2013 that extended the use of AMAN data and speed reductions to absorb delay in the en-route and terminal operations, and this will be extended to our European neighbours in a trial due to start in March 2014.				
Reference to NSP and evidence of compliance	Links to NSP Strategic Objective SO3/SO5/SO6				
Contribution to reaching the performance targets	This trial involves neighbouring ANSPs providing speed advice to aircraft, in their airspace, under clearly defined procedures to reduce delay at Heathrow airport.				
Additional comments					

Action 3	**2015**	**2016**	**2017**	**2018**	**2019**
Planned date of entry into operation					
Description	On-going Q-Management programme is developing tools and techniques including the trial in Action 2 to eliminate airborne holding by 2020.				
Reference to NSP and evidence of compliance	Links to NSP Strategic Objective SO3/SO5/SO6				
Contribution to reaching the performance targets	This will provide significant fuel savings for customers as well as reducing the environmental impact of aviation.				
Additional comments					

Action 4	**2015**	**2016**	**2017**	**2018**	**2019**
Planned date of entry into operation	X				
Description	Introduction of Time Based Separation (TBS) for Heathrow in 2015.				
Reference to NSP and evidence of compliance	Links to NSP Strategic Objective SO4/SO5/SO6				
Contribution to reaching the performance targets	This will enable resilience in NATS operations and maintain relatively normal landing rates in adverse conditions, particularly strong winds.				
Additional comments					

Action 5	**2015**	**2016**	**2017**	**2018**	**2019**
Planned date of entry into operation					
Description	NATS are utilising the Risk Analysis Tool (RAT) in 2014 in the UK to assess ATC incidents. IAA have been using the tool since 2012.				
Reference to NSP and evidence of compliance	Links to NSP Strategic Objective SO7				
Contribution to reaching the performance targets	This will contribute to reaching safety targets in RP2 (KPI#2).				
Additional comments					

Action 6	**2015**	**2016**	**2017**	**2018**	**2019**

Planned date of entry into operation					
Description	Dynamic Sectorisation trial phase 1 started in January 2014 and concludes September 2014.				
Reference to NSP and evidence of compliance	Links to NSP Strategic Objective SO3/SO5/SO6				
Contribution to reaching the performance targets	This involves delegation of some of Prestwick ACC airspace to Ireland with IAA providing an executive ATC service in other ANSP airspace.				
Additional comments					

1.5 - List of airports for RP2

List of airports submitted to the Performance and Charging Regulations						
Number of airports	10					
ICAO code	**Airport name**	**State**	**IFR air transport movements**			
			2011	**2012**	**2013**	**Average**
EGBB	BIRMINGHAM	United Kingdom	90,921	90,900	91,697	91,173
EGCC	MANCHESTER	United Kingdom	166,810	168,506	168,925	168,080
EGGW	LONDON LUTON	United Kingdom	98,798	98,255	97,075	98,043
EGKK	LONDON GATWICK	United Kingdom	251,399	246,933	250,528	249,620
EGLC	LONDON/CITY	United Kingdom	68,202	70,554	73,680	70,812
EGLL	LONDON HEATHROW	United Kingdom	481,223	475,395	471,901	476,173
EGPF	GLASGOW	United Kingdom	75,830	77,506	77,823	77,053
EGPH	EDINBURGH	United Kingdom	112,238	109,405	110,073	110,572
EGSS	LONDON STANSTED	United Kingdom	146,839	141,839	143,113	143,930
EIDW	DUBLIN INTERNATIONAL	Ireland	160,378	162,286	169,301	163,988

List of airports exempted from the Performance and Charging Regulations
Refer to list of airports exempted from the RP2 FAB performance plans, published by PRB.

Additional comments
Cork and Shannon airports will be included for the terminal cost efficiency target but not for any other KPIs. Dublin, Cork and Shannon are covered by a single charging zone, and it is not considered easily possible for the ANSP to allocate its TANS costs to individual airports, Ireland will therefore include a terminal cost efficiency target that covers all three airports.

SECTION 2: INVESTMENTS

Mapping between the template for the FAB performance plan and Annex II of the performance Regulation				
Structure of ANNEX II of the performance Regulation	Link with PRB Performance Plan template			
	Body of Performance Plan	Annex C For cost-effiency		Other annexes
		RT ref.	AI ref.	
2. INVESTMENT	2			Annex D
2.1. Description and justification of the cost, nature and contribution to achieving the performance targets of investments in new ATM systems and major overhauls of existing ATM systems, including their relevance and coherence with the European ATM Master Plan, the common projects referred to in Article 15a of Regulation (EC) No 550/2004, and, as appropriate, the Network Strategy Plan.				
2.2. The description and justification referred to in point 2.1 shall in particular:				
(i) relate the amount of the investments, for which description and justification is given following point 2.1, to the total amount of investments;				
(ii) differentiate between investments in new systems, overhaul of existing systems and replacement investments;				
(iii) refer each investment in new ATM systems and major overhaul of existing ATM systems to the European ATM Master Plan, the common projects referred to in Article 15a of Regulation (EC) No 550/2004, and, as appropriate, the Network Strategy Plan;				
(iv) detail the synergies achieved at functional airspace block level or, if appropriate, with other Member States or functional airspace blocks, in particular in terms of common infrastructure and common procurement;				
(v) detail the benefits expected from these investments in terms of performance across the four key performance areas, allocating them between the en route and terminal/airport phases of flight, and the date as from which benefits are expected;				
(vi) provide information on the decision-making process underpinning the investment, such as the existence of a documented cost-benefit analysis, the holding of user consultation, its results and any dissenting views expressed.				

2 - INVESTMENTS

Number of ANSPs	2

IAA

Additional comments
This information has been redacted as many of IAA investment projects will be subject to commercial tenders during RP2.

NATS (Continental)

Number of capex	6

Name of capex 1	**Airspace Development**
Description	Projects that revise airspace and route network structures, including those investments that are required to deliver airspace concepts supporting the NATS/IAA FAB, the Future Airspace Strategy, FABEC and the FAB4/Borealis alliances. These projects are focused on improving safety and capacity of the network together with providing fuel savings through improved routing and network structures. Where appropriate (e.g. raising the Transition Altitude) synergies and agreements are secured with neighbouring ANSPs to provide effective transition and inter-centre coordination.
Accountable entity	NATS

Justification of the cost, nature and contribution		
Differentiation	*Overhaul of existing system*	Redesign of existing airspace
Replacement investment	*No*	n/a
Common project	*Yes*	Pilot Common Project: AF1 - PBN in high density TMAs AF3 - Initial free routing (DCT) in some airspace

Other investment (in line with interoperability Regulations, the IDP, Master Plan essentials or the NSP)	*Yes*	SOs from NSP: NSP SO3: Implement a seamless and flexible airspace enabling Free Routes NSP SO4: Plan optimum capacity and flight efficiency NSP SO5: Facilitate business trajectories and cooperative traffic management SES Interoperability IRs: (EU) No 176/2011 - Functional Airspace Blocks (FABs) ESSIP Objectives: NAV03 - Implementation of P-RNAV OI Steps: AOM-0501 - Free Routing for Flights both in cruise and vertically evolving within low to medium complexity environments (to be reviewed) AOM-0603 - Enhanced Terminal Airspace for RNP-based Operations
Joint investment	*Yes*	Airport operators affected by the revised airspace design
Synergies achieved at FAB level or other MS	YES	Projects supporting the UK-IE FAB, the Future Airspace Strategy, FABEC and the FAB4/Borealis alliances
Consultation with stakeholders	YES	Consultation with NATS customers over July to September 2013 as part of consultation on NATS Business Plan for RP2.
Decision-making process	YES	Approval in accordance with NATS investment governance processes. Progress reported to customers and UK CAA via NATS annual Service & Investment Plan process. The implementation of airspace change is subject to agreement of the CAA following public consultation, which may result in changes to the airspace design initially proposed to secure the necessary approvals. Effective airspace interfaces are required with the arrival and departures routes to and from airports (i.e. SIDs and STARs) which are owned by (and the responsibility of) the airport operator below 4,000ft.

KPA	Impact	Expected benefits per KPA	Date of expected benefits	Area <En-route/ Terminal/ Airport/ Phases
Safety	YES	7 point reduction in RI (Risk Index)	Phased delivery over RP2	
Environment	YES	220kT CO2 reduction		
Capacity	YES	13 additional fpbh (flights per busy hour)		
Cost efficiency	YES	£0.5 million in opex savings		

Name of capex 2	**LAMP**
Description	Projects that revise airspace and route network structures to deliver LAMP. This will include the development and deployment of revised arrival and departure routes to and from the five London Airports (Heathrow, Gatwick, Stansted, Luton and City) using Performance Based Navigation (PBN) concepts. Point Merge and Tromboning will be used to develop more efficient arrival profiles. The investment will be deployed in two phases: phase 1 will use the existing Transition Altitude of 6,000ft; phase 2 will deliver within a raised TA of 18,000ft.
Accountable entity	NATS

Justification of the cost, nature and contribution

Differentiation	*Overhaul of existing system*	Redesign of existing airspace
Replacement investment	*No*	n/a
Common project	*Yes*	Pilot Common Project: AF1 - PBN in high density TMAs
Other investment (in line with interoperability Regulations, the IDP, Master Plan essentials or the NSP)	*Yes*	<u>SOs from NSP:</u> NSP SO3: Implement a seamless and flexible airspace enabling Free Routes NSP SO4: Plan optimum capacity and flight efficiency NSP SO5: Facilitate business trajectories and cooperative traffic management NSP SO6: Integrate airport and network operations <u>ESSIP Objectives:</u> NAV03 - Implementation of P-RNAV <u>OI Steps:</u> AOM-0603 - Enhanced Terminal Airspace for RNP-based Operations
Joint investment	*Yes*	Airport operators affected by the revised airspace design
Synergies achieved at FAB level or other MS	NO	n/a
Consultation with stakeholders	YES	Consultation with NATS customers over July to September 2013 as part of consultation on NATS Business Plan for RP2.
Decision-making process	YES	Approval in accordance with NATS investment governance processes. Progress reported to customers and UK CAA via NATS annual Service & Investment Plan process. The implementation of airspace change is subject to agreement of the CAA following public consultation, which may result in changes to the airspace design initially proposed to secure the necessary approvals. Effective airspace interfaces are required with the arrival and departures routes to and from airports (i.e. SIDs and STARs) which are owned by (and the responsibility of) the airport operator below 4,000ft.

KPA	Impact	Expected benefits per KPA	Date of expected benefits	Area <En-route/ Terminal/ Airport/ Phases
Safety	YES	20 point reduction in RI	Phased from 2015 with full delivery by 2020	
Environment	YES	639kT CO2 reduction		
Capacity	NO	n/a	n/a	n/a
Cost efficiency	NO	n/a	n/a	n/a

Name of capex 3	**Centre Systems Software Development**
Description	Investments that will sustain or enhance existing systems at the Swanwick and Prestwick Centres and the Corporate & Technical Centre, including iFACTS, Electronic Flight Data, Air/Ground Datalink and similar software-based applications. These reduce the underlying risks of system failure / interuption through appropriate sustainment / enhancement strategies as well as enhancing Traffic and Airspace Management systems to ensure the improved network efficiency from Airspace Developments.
Accountable entity	NATS

Justification of the cost, nature and contribution		
Differentiation	*Overhaul of existing system*	
Replacement investment	*No*	n/a
Common project	*Yes*	Pilot Common Project: AF1 - Extended AMAN; AF2 - Time Based Separation; AF3 - Flexible Airspace Management
Other investment (in line with interoperability Regulations, the IDP, Master Plan essentials or the NSP)	*Yes*	SOs from NSP: NSP SO7: Ensure network safety, security and robustness SES Interoperability IRs: (EU) No 1207/2011 - Surveillance Performance and Interoperability (SPI); (EC) No 29/2009 - Data Link Services (DLS); (EC) No 30/2009 - Amends (EC) No 1032/2006 re supporting data link services; (EC) No 1032/2006 - Co-ordination and Transfer (COTR); (EU) No 1035/2011 - Common Requirements, replaces (EC) 2096/2004, amends (EC) 482/2008, (EU) 691/2010; (EU) No 73/2010 - Aeronautical Data Integrity (ADQ) ESSIP Objectives: AOM19 - Implement Advanced Airspace Management; ATC15 - Implement, in En-Route operations, information exchange mechanisms, tools and procedures in support of Basic AMAN operations; COM11 - Implementation of Voice over Internet Protocol (VoIP) in ATM; ITY-ADQ - Ensure quality of aeronautical data and aeronautical information; ITY-AGDL - Initial ATC air-ground data link services above FL-285, ITY-COTR - Implementation of ground-ground automated co-ordination processes OI Steps: AO-0303 - Time Based Separation for Final Approach - full concept, AOM-0206-A - Flexible Military Airspace Structures in Step 1, TS-0303 - Arrival Management into Multiple Airports, TS-0305 - Arrival Management Extended to En Route Airspace
Joint investment	*No*	n/a
Synergies achieved at FAB level or other MS	NO	n/a
Consultation with stakeholders	YES	Consultation with NATS customers over July to September 2013 as part of consultation on NATS Business Plan for RP2.
Decision-making process	YES	Approval in accordance with NATS investment governance processes. Progress reported via NATS annual Service & Investment Plan process.

KPA	Impact	Expected benefits per KPA	Date of expected benefits	Area <En-route/ Terminal/ Airport/ Phases
Safety	YES	1 point reduction in RI	Phased delivery in 2016	
Environment	YES	125kT CO2 reduction	Phased delivery from 2017	
Capacity	YES	5 additional fpbh	Phased delivery over RP2	
Cost efficiency	YES	£0.2 million in opex savings	Phased delivery from 2017	

Name of capex 4	**CNS Infrastructure**

Description	Investments that will sustain and enhance the remote infrastructure facilities and allied ground data distribution networks. This programme will enhance ground based communications networks to provide System Wide Information Management (SWIM) compliant infrastructure, reduce the use of ground-based navigation aids and introduce new technologies as they become available. These projects underpin the resiliance of our key communication and navigation infrastructure. Mandates and Implementing Rules for sustained ground infrastructure will be complied with (e.g. types and levels of surveillance and navigation coverage) and new concepts deployed/enhanced where required (e.g. air/ground datalink).
Accountable entity	NATS

Justification of the cost, nature and contribution		
Differentiation	*Overhaul of existing system*	
Replacement investment	*No*	n/a
Common project	*Yes*	Pilot Common Project: AF5 - SWIM server
Other investment (in line with interoperability Regulations, the IDP, Master Plan essentials or the NSP)	*Click to select*	<u>SOs from NSP:</u> NSP SO2: Deploy interoperable and effective information management systems NSP SO8: Optimise CNS resource allocation and costs <u>SES Interoperability IRs:</u> (EC) 1265/2007 - 8.33 kHz Channel Spacing(EU) No 1207/2011 - Surveillance Performance and Interoperability (SPI); (EC) No 633/2007 - Flight Message Transfer Protocol (FMTP); (EC) No 29/2009 - Data Link Services (DLS); (EC) No 30/2009 - Amends (EC) No 1032/2006 re supporting data link services; (EU) No 1079/2012 - 8.33kHz Channel Spacing above & below FL195 <u>ESSIP Objectives:</u> COM10 - Migrate from AFTN to AMHS, COM11 - Implementation of Voice over Internet Protocol (VoIP) in ATM, ITY-AGDL - Initial ATC air-ground data link services above FL-285, NAV03 - Implementation of P-RNAV, NAV10 - Implement APV procedures
Joint investment	*No*	n/a
Synergies achieved at FAB level or other MS	NO	Not explicit, but will contribute to interoperability between systems across the European ATM network
Consultation with stakeholders	YES	Consultation with NATS customers over July to September 2013 as part of consultation on NATS Business Plan for RP2.
Decision-making process	YES	Approval in accordance with NATS investment governance processes. Progress reported via NATS annual Service & Investment Plan process.

KPA	Impact	Expected benefits per KPA	Date of expected benefits	Area <En-route/ Terminal/ Airport/ Phases
Safety	NO	n/a	n/a	n/a
Environment	NO	n/a	n/a	n/a
Capacity	NO	n/a	n/a	n/a
Cost efficiency	YES	£1.4 million in opex savings	Phased delivery over RP2	

Name of capex 5	**CO2 and Fuel Saving**
Description	Investments that will provide aircraft with more efficient flight trajectories thereby reducing operator fuel costs.
Accountable entity	NATS

Justification of the cost, nature and contribution		
Differentiation	*Overhaul of existing system*	Redesign of existing airspace
Replacement investment	*No*	n/a
Common project	*No*	n/a
Other investment (in line with interoperability Regulations, the IDP, Master Plan essentials or the NSP)	*Yes*	<u>SOs from NSP:</u> NSP SO4: Plan optimum capacity and flight efficiency NSP SO5: Facilitate business trajectories and cooperative traffic management
Joint investment	*No*	n/a
Synergies achieved at FAB level or other MS	NO	n/a
Consultation with stakeholders	YES	Consultation with NATS customers over July to September 2013 as part of consultation on NATS Business Plan for RP2.
Decision-making process	YES	Approval in accordance with NATS investment governance processes. Progress reported via NATS annual Service & Investment Plan process.

KPA	Impact	Expected benefits per KPA	Date of expected benefits	Area <En-route/ Terminal/ Airport/ Phases
Safety	NO	n/a	n/a	n/a
Environment	YES	27kT CO2 reduction	Phased delivery over RP2	
Capacity	NO	n/a	n/a	n/a
Cost efficiency	NO	n/a	n/a	n/a

Name of capex 6	**iTEC FDP/NCW**
Description	Investments that will deliver advanced systems and tools to provide the platform for SESAR-based operations, notably ITEC-FDP, ITEC-CWP and allied controller safety & productivity tools. This investment is being progressed in collaboration with the Spanish ANSP (AENA), the Dutch ANSP (LVNL) and the German ANSP (DFS) to deliver a system with a common core to share costs and risk and provide a common platform across several key European ANSPs. Bespoke/additional functionality is only being developed where needed to support specific operational concepts. Work is ongoing to ensure that ITEC-FDP platform is fully interoperatble with the other main FDP system being developed in Europe (CoFlight).
Accountable entity	NATS

Justification of the cost, nature and contribution		
Differentiation	*Overhaul of existing system*	
Replacement investment	*Yes*	
Common project	*Yes*	Pilot Common Project: AF3 - Route free in Prestwick upper
Other investment (in line with interoperability Regulations, the IDP, Master Plan essentials or the NSP)	*Yes*	<u>SOs from NSP:</u> NSP SO2: Deploy interoperable and effective information management systems <u>SES Interoperability IRs:</u> (EU) No 1206/2011 - Aircraft Identification (ACID); (EC) No 633/2007 - Flight Message Transfer Protocol (FMTP); (EC) No 29/2009 - Data Link Services (DLS); (EC) No 30/2009 - Amends (EC) No 1032/2006 re supporting data link services; (EC) No 1033/2006 - Flight Plans in the pre-flight phase; (EC) No 1032/2006 - Co-ordination and Transfer (COTR); (EU) No 1079/2012 - 8.33kHz Channel Spacing above & below FL195; (EU) No 73/2010 - Aeronautical Data Integrity (ADQ) <u>ESSIP Objectives:</u> ATC12 - Implement automated support for conflict detection and conformance monitoring; ATC17 - Electronic Dialogue as Automated Assistance to Controller during Coordination and Transfer <u>OI Steps:</u> AOM-0501 - Free Routing for Flights both in cruise and vertically evolving within low to medium complexity environments (to be reviewed); CM-0205 - Conflict Detection and Resolution in En Route using trajectory data in Predefined and User Preferred Routes environments
Joint investment	*Yes*	AENA, LVNL, DFS
Synergies achieved at FAB level or other MS	YES	Investment is being progressed in collaboration with the Spanish ANSP (AENA), the Dutch ANSP (LVNL) and the German ANSP (DFS) to deliver a system with a common core to share costs and risk and provide a common platform across several key European ANSPs
Consultation with stakeholders	YES	Consultation with NATS customers over July to September 2013 as part of consultation on NATS Business Plan for RP2.
Decision-making process	YES	Approval in accordance with NATS investment governance processes. Progress reported via NATS annual Service & Investment Plan process.

KPA	Impact	Expected benefits per KPA	Date of expected benefits	Area <En-route/ Terminal/ Airport/ Phases
Safety	YES	15 point reduction in RI	Phased to 2022	
Environment	NO	n/a	n/a	n/a
Capacity	YES	5 additional fpbh	Phased to 2022	
Cost efficiency	NO	n/a	n/a	n/a

Name of investment	Total CAPEX for the project	Planned Amount of Capital Expenditures (in national currency)					Lifecycle (Amortisation period in years)	Allocation en route / terminal ANS (%)	Planned date of entry into operation (IOC / FOC dates)
		2015	2016	2017	2018	2019			

Airspace Development	53.3	8.1	8.3	6.8	6.1	7.5	9	78/6	Phased delivery over RP2
LAMP	60.5	5.4	6.4	6.7	4.5	0.9	9	78/6	Phased from 2015 will full LAMP delivery by 2020
Centre Systems Software Development	191.4	50.8	45.6	30.4	27.3	25.1	6-12	78/6	Phased delivery over RP2
CNS Infrastructure	119.7	17.7	18.0	22.4	21.0	13.5	7-20	78/6	Phased delivery over RP2
CO2 and Fuel Saving	5.0	1.8	1.0	1.0	1.0	1.0	9	78/6	Phased delivery over RP2
iTEC FDP/NCW	204.8	31.5	34.5	29.8	27.6	27.8	20	78/6	Phased to 2022
Sub-total of **main capex** above (1)	634.7	115.3	113.8	97.2	87.5	75.9			
Sub-total other Capex (2)	67.4	12.9	10.5	9.5	9.4	12.4	6-20	78/6	Phased delivery over RP2
Total capex (1) + (2)	702.1	128.2	124.3	106.7	96.9	88.2			

Additional comments
In addition to the provisions of the Performance Scheme and the RP2 Performance Plan, the CAA also *intends* to hold NERL accountable for the delivery of key elements of Future Airspace Strategy - such as harmonisation of the transition altitude, terminal airspace redesign under the London Airspace Modernisation Programme (LAMP) and implementation of the European ATM Master Plan - through a NERL Licence Condition under the Transport Act 2000. Achievement or otherwise of key Future Airspace Strategy deliverables, for which NERL is a major contributor, would be assessed against plans for specific programmes. NERL would submit periodic reports to the CAA for assessment by an Independent Reporter. The CAA considers this approach would provide a significant reputational incentive on NERL, by providing a clear focus on delivery of planned and funded investments by NERL. This is subject to a separate consultation on introduction of a new Licence Condition.

SECTION 3: PERFORMANCE TARGETS

Mapping between the template for the FAB performance plan and Annex II of the performance Regulation				
Structure of ANNEX II of the performance Regulation	Link with PRB Performance Plan template			
	Body of Performance Plan	Annex C For cost-effiency		Other annexes
		RT ref.	AI ref.	
3. PERFORMANCE TARGETS AT LOCAL LEVEL	3			
3.1. Performance targets in each key performance area, set by reference to each key performance indicator as set out in Annex I, Section 2, for the entire reference period, with annual values to be used for monitoring and incentive purposes:	3.1			
3.2. Description and explanation of the consistency of the performance targets with the relevant Union-wide performance targets. When there is no Union-wide performance target, description and explanation of the targets within the plan and how they contribute to the improvement of the performance of the European ATM network.	3.1.(a).(i) 3.1.(a). (ii) 3.1.(a). (iii) 3.1.(a). (iv) 3.1.(b).(i) & (ii) 3.1.(b).(iii) 3.1.(c).(i) 3.1.(c).(ii) 3.1.(c).(iii) 3.1.(c).(iv) 3.1.(d).1.A 3.1.(d).2.A	RT 3 (4.1)	AI 4 e)	
3.3. Description and explanation of the interdependencies and trade-offs between the key performance areas, including the assumptions used to assess the trade-offs.	3.3			
3.4. Contribution of each air navigation service provider concerned to the achievement of the performance targets set for the functional airspace block in accordance with Article 5(2)(c)(ii).	3.1.(a).(i) 3.1.(a). (ii) 3.1.(a). (iii) 3.1.(a). (iv) 3.1.(b).(i) & (ii) 3.1.(b).(iii) 3.1.(c).(i) 3.1.(c).(ii) 3.1.(c).(iii) 3.1.(c).(iv)	RT 1 (All)	AI 4 a)	

SECTION 3.1.(a): SAFETY KPA

Mapping between the template for the FAB performance plan and Annex II of the performance Regulation				
Structure of ANNEX II of the performance Regulation	Link with PRB Performance Plan template			
	Body of Performance Plan	Annex C For cost-effiency		Other annexes
		RT ref.	AI ref.	
(a) Safety	3.1.(a)			
(i) level of effectiveness of safety management: local targets for each year of the reference period;	3.1.(a).(i)			
(ii) application of the severity classification based on the Risk Analysis Tool (RAT) methodology: local targets for each year of the reference period (percentage);	3.1.(a). (ii)			
(iii) just culture: local targets for the last year of the reference period.	3.1.(a). (iii)			
	3.1.(a). (iv) - Optional section - Additional Safety KPI(s)			

3 - PERFORMANCE TARGETS AT LOCAL LEVEL

3.1 - Key Performance Areas

3.1.(a) - Safety

3.1.(a).(i) - Safety KPI #1: Level of Effectiveness of Safety Management

		2015 Target	2016 Target	2017 Target	2018 Target	2019 Target
Union-wide targets at State level		-	-	-	-	C
Union-wide targets at ANSP level	For Safety Culture MO	-	-	-	-	C
	For all other MOs	-	-	-	-	D
FAB level	**Regulatory authorities**	-	-	-	-	C
	Description of the consistency between local and Union-wide targets	NSA targets consistend with Union-wide targets				
	Detailed justification in case of inconsistency	n/a				
	ANSPs (for Safety Culture MO)	-	-	-	-	C
	ANSPs (for all other Mos)	-	-	-	-	D
	Description of the consistency between local and Union-wide targets	ANSP targets consistend with Union-wide targets				
	Detailed justification in case of inconsistency	n/a				
	Select Number of States >>	2				
National level	***Ireland***	-	-	-	-	C
	United Kingdom	-	-	-	-	C
	Select Number of ANSPs **for Safety Culture MO** >>	2				
National level	***IAA***	-	-	-	-	C
	NATS NERL	-	-	-	-	C
	Select Number of ANSPs **for all other MOs** >>	2				
National level	***IAA***	-	-	-	-	D
	NATS NERL	-	-	-	-	D

Additional comments
As this is a FAB target it applies to the FAB en route, so IAA and NATS (NERL) only. Qualifying airports (those with at least 70,000 IFR movements per year) will still be required to respond to the effectiveness of safety management (EoSM) questionnaire and the NSAs will monitor them accordingly.

3.1.(a).(ii) - Safety KPI #2: Application of the severity classification based on the Risk Analysis Tool (RAT) methodology

Ground Score		2015 Target	2016 Target	2017 Target	2018 Target	2019 Target
Union-wide targets	SMIs	-	-	>= 80%	-	100%
	RIs	-	-	>= 80%	-	100%
	ATM-S	-	-	>= 80%	-	100%

FAB level	SMIs			80.00%	80.00%	100.00%
	RIs			80.00%	80.00%	100.00%
	ATM-S			80.00%	80.00%	100.00%
Description of the consistency between local and Union-wide targets		FAB targets consistent with Union-wide targets				
Detailed justification in case of inconsistency		n/a				

Select Number of ANSPs >>	2

National level	***IAA***	SMIs	-	-	80.00%	80.00%	100.00%
		RIs	-	-	80.00%	80.00%	100.00%
		ATM-S			80.00%	80.00%	100.00%
	NATS NERL	SMIs	-	-	80.00%	80.00%	100.00%
		RIs	-	-	80.00%	80.00%	100.00%
		ATM-S			80.00%	80.00%	100.00%

Additional comments
As this is a FAB target it applies to the FAB en route, so IAA and NATS (NERL) only. Qualifying airports (those with at least 70,000 IFR movements per year) will still be required to respond to the Risk Analysis Tool (RAT) questionnaire and the NSAs will monitor them accordingly.

Overall Score		2015 Target	2016 Target	2017 Target	2018 Target	2019 Target
Union-wide targets	SMIs	-	-	>= 80%	>= 80%	>= 80%
	RIs	-	-	>= 80%	>= 80%	>= 80%
	ATM-S	-	-	>= 80%	-	100%

FAB level	SMIs			80.00%	80.00%	80.00%
	RIs			80.00%	80.00%	80.00%
	ATM-S			80.00%	80.00%	100.00%
Description of the consistency between local and Union-wide targets		FAB targets consistent with Union-wide targets				
Detailed justification in case of inconsistency		n/a				

Select Number of States >>	2

National level	***Ireland***	SMIs	-	-	80%	80%	80%
		RIs	-	-	80%	80%	80%
		ATM-S	-	-	80%	80%	100%
	United Kingdom	SMIs	-	-	80%	80%	80%
		RIs	-	-	80%	80%	80%
		ATM-S	-	-	80%	80%	100%

Additional comments
As this is a FAB target it applies to the FAB en route, so IAA and NATS (NERL) only. Qualifying airports (those with at least 70,000 IFR movements per year) will still be required to respond to the Risk Analysis Tool (RAT) questionnaire and the NSAs will monitor them accordingly.

3.1.(a).(iii) - Safety KPI #3: Just Culture

		2019 Target
FAB level	**Regulatory authorities**	Have you established a common FAB approach in certain areas for Just Culture improvements?
		YES
		If YES, please specify details and level of presence. If NO, please specify any impediments, intent for common FAB approach.
		It is recognised that within any organisation the ambient corporate culture is derived from the leadership within that organisation. This is equally a truth when combining corporate cultures from two or more organisations working in a common approach to service delivery. Recognising that this is true for the UK-Ireland FAB and in a continuing effort to promote and operate within Just Culture principles and processes, the UK and Ireland NSAs have agreed on common NSA Just Culture FAB policy and exhort ANSPs to take note of the principles therein and implement the equivalent in ANSP policies. Just Culture targets for both NSAs and participating ANSPs have also been set within the FAB Plan. Just Culture is discussed in further detail in the Supporting Document (see Chapter 3 and Appendix B).
	ANSPs	Have you established a common FAB approach in certain areas for Just Culture improvements?
		YES
		If YES, please specify details and level of presence. If NO, please specify any impediments, intent for common FAB approach.
		UK and Ireland have agreed on common policy and targets for this KPI at the FAB level. The Policy is attached in Appendix B of the Supporting Document.

Number of States	2

		What actions have you undertaken to optimise Just Culture?
National level	***Ireland***	The NSAs adopted a Policy Statement on JC and agreed on joint targets for this KPI at the FAB level. The UK & Irish NSAs will ensure that formal JC training is provided to all NSA personnel. At a minimum 60% of staff will have completed the training by end of 2017 and all by 2019. The NSAs will ensure that a Just Culture training requirement (to include continuation training) is documented in staff training and induction programmes. NSAs also will identify common measures to analyse the quality of and the outputs from JC training and the achievement of the targets (see Chapter 3 of the Supporting Document for details).
	United Kingdom	The NSAs adopted a Policy Statement on JC and agreed on joint targets for this KPI at the FAB level. The UK & Irish NSAs will ensure that formal JC training is provided to all NSA personnel. At a minimum 60% of staff will have completed the training by end of 2017 and all by 2019. The NSAs will ensure that a Just Culture training requirement (to include continuation training) is documented in staff training and induction programmes. NSAs also will identify common measures to analyse the quality of and the outputs from JC training and the achievement of the targets (see Chapter 3 of the Supporting Document for details).

Number of ANSPs	2

		What actions have you undertaken to optimise Just Culture?
National level	***IAA***	The FAB ANSPs will ensure that formal Just Culture training is provided to staff at all levels of accountability in the organisation from the highest management level to front line operators. At a minimum 60% of staff will have completed the training by end of 2017 and all by 2019. The ANSPs will ensure that a Just Culture training requirement (to include continuation training) is documented in staff training and induction programmes.
		What actions have you undertaken to optimise Just Culture?

	NATS NERL	The FAB ANSPs will ensure that formal Just Culture training is provided to staff at all levels of accountability in the organisation from the highest management level to front line operators. At a minimum 60% of staff will have completed the training by end of 2017 and all by 2019. The ANSPs will ensure that a Just Culture training requirement (to include continuation training) is documented in staff training and induction programmes.

Additional comments
Just Culture is discussed in further detail in the Supporting Document (see Chapter 3 and Appendix B).

SECTION 3.1.(b): ENVIRONMENT KPA

Mapping between the template for the FAB performance plan and Annex II of the performance Regulation				
Structure of ANNEX II of the performance Regulation	Link with PRB Performance Plan template			
	Body of Performance Plan	Annex C For cost-effiency		Other annexes
		RT ref.	AI ref.	
(b) Environment	3.1.(b)			
(i) description of the process to improve route design;	3.1.(b).(i) & (ii)			
(ii) average horizontal *en route* flight efficiency of the actual trajectory.				
	3.1.(b).(iii) - Optional section - Additional Environment KPI(s)			

3.1.(b) - Environment

3.1.(b).(i) & (ii) - Environment KPI #1: Horizontal en route flight efficiency (KEA)

	2015 Value	2016 Value	2017 Value	2018 Value	2019 Target
Union-wide targets	-	-	-	-	2.60%
FAB reference values	3.36%	3.27%	3.18%	3.09%	2.99%
FAB level	3.36%	3.27%	3.18%	3.09%	2.99%
Description of the consistency between FAB targets and FAB reference values	FAB targets consistent with EU targets				
Detailed justification in case of inconsistency	n/a				
ANSP contribution to local targets	See Chapter 5 of the Supporting Document.				

Description of the process to improve route design
In RP1 NATS introduced the 3Di metric based on a linear regression model incorporating flight path inefficiencies in the vertical planse as well as horizontal which can be modelled to act as a proxy measurement for fuel efficiencies resulting from the flight path. NATS will continue to use this metric in RP2 although it will be reformulated. See Environment incentives, as well as Chapter 5 of the Supporting Document for further details.

Additional comments
-

3.1.(a).(iii) - Optional section - Additional Environment KPI(s)

Number of additional Environment KPIs	1

UK only - 3Di

	2015 Target	2016 Target	2017 Target	2018 Target	2019 Target
UK (NATS)	29.7	29.3	28.9	28.1	27.7
Contribution to the improvement of the European ATM network performance	This metric and the incentive attached to it has the potential to guide operational decision-making in a way which aims to improve fuel efficiency through optimal flight paths.				
ANSP contribution to local targets	This is just applicable to NATS				

KPI details	
KPI description and rationale	See Chapter 5, paragraphs 5.8 - 5.44, of the Supporting Document for details.
Formula, metric and parameters	
Data sources	

Additional comments
-

SECTION 3.1.(c): CAPACITY KPA

Mapping between the PRB FAB performance plan template and the Annex II of EU Regulation 390/2013				
Structure of ANNEX II of Regulation 390/2013	Link with PRB template			
	Level 1' FAB PP	Level2' FAB PP - Annex C		FAB PP Other annexes
		RT ref.	AI ref.	
(c) Capacity	3.1.(c)			
(i) minutes of average *en route* ATFM delay per flight;	3.1.(c).(i)			
(ii) minutes of average terminal ATFM arrival delay per flight;	3.1.(c).(ii)			
(iii) the capacity plan established by the air navigation service provider(s).	3.1.(c).(iii)			
	3.1.(c).(iv) - Optional section - Additional Capacity KPI(s)			

3.1.(c) - Capacity

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

		2015 Value	2016 Value	2017 Value	2018 Value	2019 Target
Union-wide targets		0.50	0.50	0.50	0.50	0.50
FAB reference values		0.25	0.26	0.26	0.26	0.26
FAB level		0.26	0.26	0.26	0.26	0.26
Description of the consistency between FAB targets and FAB reference values		The FAB target is constant at 0.26 mins/flight throughout RP2 rather than fluctuating between 0.25 and 0.26. Target for 2016-2019 is consistent with FAB reference value. The reference value of 0.26 by 2019 is reflected in the FAB target throughout RP2.				
Detailed justification in case of inconsistency						
Select Number of ANSPs >>		2				
National level	***IAA***	0.13	0.13	0.14	0.14	0.14
	ANSP contribution to FAB targets	Allocation of FAB target to IAA is 0.13 for 2015-2016, and 0.14 in 2017-2019				
	NATS (Continental)	0.23	0.23	0.23	0.23	0.23
	ANSP contribution to FAB targets	Allocation of FAB taget to NATS is 0.23 throughout RP2				

Additional comments
See Chapter 4 of the Supporting Document.

3.1.(c).(ii) - Capacity KPI #2: Terminal and airport ANS ATFM arrival delay per flight

Number of States	2

Ireland

		2015 Value	2016 Value	2017 Value	2018 Value	2019 Target
National level		0.18	0.18	0.20	0.20	0.22
Contribution to the improvement of the European ATM network performance		See Additional comments below.				
Number of airports		1				
Airport level	***EIDW (DUBLIN INTERNATIONAL)***	0.18	0.18	0.20	0.20	0.22
	Airport contribution to national targets	Dublin is the only airport in Ireland for which a terminal capacity target will be set for RP2; therefore, the Dublin target constitutes the Irish national target				

Additional comments
The forecast level of traffic growth over the RP2 period will be challenging. Growth is not expected to be evenly distributed throughout the operating day but will most likely be focused on the peak, more commercially attractive periods. This will add pressure to already capacity constrained periods and given that there are no significant airport infrastructure enhancements planned for the RP2 period, an increase in delay is expected as traffic increases. Also, it is noted that targets for delay at Dublin include all reasons (incl. weather) in the calculation of delay and traffic is forecast to increase each year. Higher levels of traffic will result in greater congestion during weather events (e.g. low visibility, snow, high winds etc.) as capacity is reduced to cope with the impact of the weather. More congestion will lead to increased levels of delay.

United Kingdom

		2015 Value	2016 Value	2017 Value	2018 Value	2019 Target
National level		0.87	0.78	0.78	0.78	0.78
Contribution to the improvement of the European ATM network performance		Over RP2 both TSUs and IFR movements at the 9 airports are set to increase. There are a number of factors including airspace design changes that are likely to improve the capacity results. However there is uncertainty around this, holding down delay levels form a time of low traffic to one with forecast traffic growth should provide sufficent changllenge to both Airports and ANSPs.				
Number of airports		9				
Airport level	***EGBB (BIRMINGHAM)***	0.05	0.05	0.05	0.05	0.05
	Airport contribution to national targets	This is an average amount per year over RP2.				
	EGCC (MANCHESTER)	0.32	0.32	0.32	0.32	0.32
	Airport contribution to national targets	This is an average amount per year over RP2.				
	EGGW (LONDON LUTON)	0.12	0.12	0.12	0.12	0.12
	Airport contribution to national targets	This is an average amount per year over RP2.				
	EGKK (LONDON GATWICK)	0.58	0.58	0.58	0.58	0.58
	Airport contribution to national targets	This is an average amount per year over RP2.				
	EGLC (LONDON/CITY)	1.42	1.42	1.42	1.42	1.42
	Airport contribution to national targets	This is an average amount per year over RP2.				
	EGLL (LONDON HEATHROW)	2.32	1.98	1.98	1.98	1.98
	Airport contribution to national targets	This is an average amount per year over RP2.				
	EGPF (GLASGOW)	0.01	0.01	0.01	0.01	0.01
	Airport contribution to national targets	This is an average amount per year over RP2.				
	EGPH (EDINBURGH)	0.15	0.15	0.15	0.15	0.15
	Airport contribution to national targets	This is an average amount per year over RP2.				
	EGSS (LONDON STANSTED)	0.10	0.10	0.10	0.10	0.10
	Airport contribution to national targets	This is an average amount per year over RP2.				

Additional comments
Over RP2 both TSUs and IFR movements at the 9 airports are set to increase. There are a number of factors including airspace design changes that are likely to improve the capacity results. However there is uncertainty around this, holding down delay levels form a time of low traffic to one with forecast traffic growth should provide sufficent changllenge to both Airports and ANSPs. UK target values are presented as an average amount per year over RP2. See Chapter 8 of the Supporting Document.

3.1.(c).(iii) - Capacity Plans

In order to avoid duplication, Member States will not be requested to attach ANSPs capacity plans when submitting the performance plans, for as long as they are already available to the PRB and the Commission. In any case, they are an integral part of the FAB performance plans.

SECTION 3.1.(d): COST-EFFICIENCY KPA

Mapping between the template for the FAB performance plan and Annex II of the performance Regulation				
Structure of ANNEX II of the performance Regulation	Link with PRB Performance Plan template			
	Body of Performance Plan	Annex C For cost-effiency		Other annexes
		RT ref.	AI ref.	
(d) Cost-efficiency	3.1.(d)			
(i) determined costs for *en route* and terminal air navigation services set in accordance with the provisions of Article 15(2)(a) and (b) of Regulation (EC) No 550/2004 and in application of the provisions of Implementing Regulation (EU) No 391/2013 for each year of the reference period;	3.1.(d).1.A 3.1.(d).2.A			
(ii) *en route* and terminal service units forecast for each year of the reference period;	3.1.(d).1.A 3.1.(d).2.A 3.1.(d).1.C 3.1.(d).2.C	RT 1 (5.4)		
(iii) as a result, the determined unit costs for the reference period;	3.1.(d).1.A 3.1.(d).2.A	RT 1 (5.5)		
(iv) description and justification of the return on equity of the air navigation service providers concerned, as well as on the gearing ratio and on the level/composition of the asset base used to calculate the cost of capital comprised in the determined costs;		RT 1 (3.1-3.4, 3.6)	AI 1 e)	
(v) description and explanation of the carry-overs from the years preceding the reference period;		RT 1 (3.1-3.4, 3.6)	AI 3 c), d), e)	
(vi) description of economic assumptions, including: — inflation assumptions used in the plan as compared to an international source such as the IMF (International Monetary Fund) Consumer Price Index (CPI) for the forecasts and Eurostat Harmonised Index of Consumer Price for the actuals. Justification of any deviation from these sources,	3.1.(d).1.B 3.1.(d).2.B	RT 1 (5.1-5.2)		
— assumptions underlying the calculation of pension costs comprised in the determined costs, including a description on the relevant national pension regulations and pension accounting regulations in place and on which the assumptions are based, as well as information whether changes of these regulations are anticipated,			AI 4 b)	
— interest rate assumptions for loans financing the provision of air navigation services, including relevant information on loans (amounts, duration, etc.) and explanation for the (weighted) average interest on debt used to calculate the cost of capital pre tax rate and the cost of capital comprised in the determined costs,		RT 1 (3.7)	AI 4 c)	
— adjustments beyond the provisions of the International Accounting Standards;			AI 1 Item c)	

International Accounting Standards;				
(vii) if applicable, description in respect to the previous reference period of relevant events and circumstances set out in Article 14(2)(a) of Implementing Regulation (EU) No 391/2013 using the criteria set out in Article 14(2)(b) of Implementing Regulation (EU) No 391/2013 including an assessment of the level, composition and justification of costs exempt from the application of Article 14(1)(a) and (b) of Implementing Regulation (EU) No 391/2013;		RT 3 (3.1-3.12)	AI 3 b)	
(viii) if applicable, a description of any significant restructuring planned during the reference period including the level of restructuring costs and a justification for these costs in relation to the net benefits to the airspace users over time;		RT 3 (4.1)	AI 4 d)	
(ix) if applicable, restructuring costs approved from previous reference periods to be recovered.		RT 3 (4.1)	AI 4 e)	

3.1.(d) - Cost Efficiency

List of En Route Charging Zones

Number of en route charging zones	2

1	***Ireland***
2	***United Kingdom***

List of Terminal Charging Zones

Number of terminal charging zones	4

1	***Ireland***
2	***United Kingdom - Zone A***
3	***United Kingdom - Zone B***
4	***United Kingdom - Zone C***

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

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

in EUR

		Historical data (actual 2009-2013, latest 2014 forecast)						RP2 Performance Plan					RP1 PP	Average pct variation p.a.			
	Ireland	**2009 A**	**2010 A**	**2011 A**	**2012 A**	**2013 A**	**2014 F**	**2015 D**	**2016 D**	**2017 D**	**2018 D**	**2019 D**	**2014 D**	**2009A-2019D**	**2014F-2019D**	**2011A-2019D**	**2014D-2019D**
nominal prices	Total en route actual/forecast/determined costs in nominal terms (in national currency)	105,073,026	109,804,000	115,647,000	109,850,000	105,864,000	116,101,000	118,736,300	122,057,800	126,241,100	129,930,900	131,310,200	121,577,000	2.3%	2.5%	1.6%	1.6%
	Inflation %		-1.60%	1.20%	1.90%	0.50%	0.60%	1.10%	1.20%	1.40%	1.70%	1.70%					
	Inflation index (Base = 100 in 2012)	98.55	96.97	98.14	100.0	100.50	101.10	102.22	103.44	104.89	106.67	108.49	102.2	1.0%	1.4%	1.3%	1.2%
	Total en route actual/forecast/determined costs in real terms (in national currency at 2012 prices)	106,620,579	113,232,959	117,844,293	109,850,000	105,337,313	114,834,377	116,163,132	117,996,691	120,355,822	121,802,956	121,038,321	118,944,301	1.3%	1.1%	0.3%	0.3%
	Total en route Service Units (TSU)	3,560,633	3,615,036	3,771,478	3,805,985	3,812,940	3,885,900	3,982,600.0	4,049,624.0	4,113,288.0	4,184,878.0	4,262,135.0	4,004,000	1.8%	1.9%	1.5%	1.3%
	Real en route UCs/DUCs (in national currency at 2012 prices)	29.94	31.32	31.25	28.86	27.63	29.55	29.17	29.14	29.26	29.11	28.40	29.71	-0.5%	-0.8%	-1.2%	-0.9%
€2012 prices	2012 average exchange rate (1EUR=)	1	1	1	1	1	1	1	1	1	1	1	1				
	Total **en route** costs in real terms (in €$_{2012}$ prices)	106,620,579	113,232,959	117,844,293	109,850,000	105,337,313	114,834,377	116,163,132	117,996,691	120,355,822	121,802,956	121,038,321	118,944,301	1.3%	1.1%	0.3%	0.3%
	Trend in total **en route** costs in real terms %n/n-1		6.2%	4.1%	-6.8%	-4.1%	9.0%	1.2%	1.6%	2.0%	1.2%	-0.6%					
	Real **en route** UCs/DUCs (in €$_{2012}$ prices)	29.94	31.32	31.25	28.86	27.63	29.55	29.17	29.14	29.26	29.11	28.40	29.71	-0.5%	-0.8%	-1.2%	-0.9%
	Trend in real **en route** UCs/DUCs (in €$_{2012}$ prices) %n/n-1		4.6%	-0.2%	-7.6%	-4.3%	7.0%	-1.3%	-0.1%	0.4%	-0.5%	-2.4%					
€2009 prices	Inflation index (Base = 100 in 2009)	100.00	98.40	99.58	101.47	101.98	102.59	103.72	104.97	106.43	108.24	110.08	103.72				
	2009 average exchange rate (1EUR=)	1	1	1	1	1	1	1	1	1	1	1	1				
	Total **en route** costs in real terms (in €$_{2009}$ prices)	105,073,026	111,589,431	116,133,833	108,255,574	103,808,387	113,167,605	114,477,073	116,284,019	118,608,909	120,035,038	119,281,501	117,217,875	1.3%	1.1%	0.3%	0.3%
	Trend in total **en route** costs in real terms %n/n-1		6.2%	4.1%	-6.8%	-4.1%	9.0%	1.2%	1.6%	2.0%	1.2%	-0.6%					
	Real **en route** UCs/DUCs (in €$_{2009}$ prices)	29.51	30.87	30.79	28.44	27.23	29.12	28.74	28.71	28.84	28.68	27.99	29.28	-0.5%	-0.8%	-1.2%	-0.9%
	Trend in real **en route** UCs/DUCs (in €$_{2009}$ prices) %n/n-1		4.6%	-0.2%	-7.6%	-4.3%	7.0%	-1.3%	-0.1%	0.4%	-0.5%	-2.4%					

Description of the consistency between local and Union-wide targets	In RP2, Ireland plans to again deliver on cost-efficiency targets, resulting in progressive unit reductions over the course of the reference period, and contributing positively to the EU wide targets. The opening 2015 determined costs are below the 2014 determined costs, and deemed appropriate based on 2014 forecasts. The decrease in total actual costs in 2013 (relative to 2012 & 2014) is largely influenced by an exceptionally high number of retirements in that year.

B - Inflation assumptions

Ireland	2009 A	2010 A	2011 A	2012 A	2013 A	2014 F	2015 D	2016 D	2017 D	2018 D	2019 D
Inflation %				1.90%	0.50%	0.60%	1.10%	1.20%	1.40%	1.70%	1.70%
Inflation index (2012=100)				100.00	100.50	101.10	102.22	103.44	104.89	106.67	108.49
Eurostat HICP (actuals) and IMF CPI (forecasts)				1.90%	0.50%	0.59%	1.12%	1.23%	1.45%	1.68%	1.68%
Inflation index (2012=100) HICP and IMF				100.00	100.50	101.09	102.22	103.48	104.98	106.74	108.53
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

	Ireland	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)				3,805,985	3,812,940	3,885,900	3,982,600	4,049,624	4,113,288	4,184,878	4,262,135
	Year on Year variation TSU					0.2%	1.9%	2.5%	1.7%	1.6%	1.7%	1.8%
Baseline	STATFOR **en route** service units forecast (Baseline scenario)				3,805,985	3,812,940	3,885,941	4,019,231	4,107,186	4,191,019	4,283,117	4,379,144
Baseline	Year on Year variation TSU STATFOR					0.2%	1.9%	3.4%	2.2%	2.0%	2.2%	2.2%
Baseline	Difference in percentage points					0.00	0.00	-0.01	-0.01	0.00	0.00	0.00
Baseline	Cumulative difference in percentage points					0.00	0.00	-0.01	-0.01	-0.02	-0.02	-0.03
Low	STATFOR **en route** service units forecast (Low scenario)				3,805,985	3,812,940	3,839,872	3,945,968	3,992,062	4,035,558	4,086,640	4,145,127
Low	Year on Year variation TSU STATFOR					0.2%	0.7%	2.8%	1.2%	1.1%	1.3%	1.4%
Low	Difference in percentage points					0.00	0.01	0.00	0.01	0.00	0.00	0.00
Low	Cumulative difference in percentage points					0.00	0.01	0.01	0.01	0.02	0.02	0.03
	Explanation of the differences (if any), justification, rationale and source				Traffic forecast is the mid-point between STATFOR February 2014 base case and low case forecasts adjusted for local conditions. See the Supporting Document, Chapter 2, section Economic Assumptions for further details.							

D - Alert thresholds (en route service units)

Ireland	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							

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

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

in GBP

	United Kingdom	Historical data (actual 2009-2013, latest 2014 forecast)						RP2 Performance Plan					RP1 PP	Average pct variation p.a.			
		2009 A	2010 A	2011 A	2012 A	2013 A	2014 F	2015 D	2016 D	2017 D	2018 D	2019 D	2014 D	2009A-2019D	2014F-2019D	2011A-2019D	2014D-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%
	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	9,607,878	10,244,000	10,435,000	10,583,000	10,758,000	10,940,000	11,034,647	1.0%	2.6%	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	70.09	62.89	60.66	58.88	56.18	53.41	65.61	-2.5%	-5.3%	-2.8%	-4.0%
€2012 prices	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				
	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%
	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%					
	Real **en route** UCs/DUCs (in €$_{2012}$ prices)	84.88	88.81	82.47	84.52	89.27	86.40	77.53	74.77	72.58	69.25	65.83	80.88	-2.5%	-5.3%	-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%	-3.2%	-10.3%	-3.6%	-2.9%	-4.6%	-4.9%					
€2009 prices	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				
	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				
	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%
	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%					
	Real **en route** UCs/DUCs (in €$_{2009}$ prices)	69.64	72.87	67.67	69.34	73.25	70.89	63.61	61.35	59.55	56.82	54.01	66.36	-2.5%	-5.3%	-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%	-3.2%	-10.3%	-3.6%	-2.9%	-4.6%	-4.9%					

Description of the consistency between local and Union-wide targets	The proposed UK target for en route cost efficiency (4.7% DUC reduction pa) 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	9,607,878	10,244,000	10,435,000	10,583,000	10,758,000	10,940,000
	Year on Year variation TSU					1.5%	-1.5%	6.6%	1.9%	1.4%	1.7%	1.7%
Baseline	STATFOR **en route** service units forecast (Baseline scenario)				9,607,878	9,754,933	10,024,981	10,243,983	10,434,571	10,583,207	10,757,964	10,940,437
Baseline	Year on Year variation TSU STATFOR					1.5%	2.8%	2.2%	1.9%	1.4%	1.7%	1.7%
Baseline	Difference in percentage points					0.00	-0.04	0.04	0.00	0.00	0.00	0.00
Baseline	Cumulative difference in percentage points					0.00	-0.04	0.00	0.00	0.00	0.00	0.00
Low	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
Low	Year on Year variation TSU STATFOR					1.5%	1.5%	1.3%	0.6%	0.4%	0.6%	0.6%
Low	Difference in percentage points					0.00	-0.03	0.05	0.01	0.01	0.01	0.01
Low	Cumulative difference in percentage points					0.00	-0.03	0.02	0.03	0.04	0.06	0.07
	Explanation of the differences (if any), justification, rationale and source				The minor difference occurs due to rounding of Sus (Note UK uses the base case scenario).							

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							

3.1.(d).2 - En Route ANS at FAB level

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

		Historical data (actual 2009-2013, latest 2014 forecast)						RP2 Performance Plan					RP1 PP	Average percentage variation per annum			
		2009 A	2010 A	2011 A	2012 A	2013 A	2014 F	2015 D	2016 D	2017 D	2018 D	2019 D	2014 D	2009A-2019D	2014F-2019D	2011A-2019D	2014D-2019D
€2012 prices	Total en route Service Units (TSU)	13,475,036	13,095,298	13,632,282	13,413,863	13,567,873	13,493,778	14,226,600	14,484,624	14,696,288	14,942,878	15,202,135	15,038,647	1.2%	2.4%	1.4%	0.2%
	Trend in Total en route Service Units (TSU)%n/n-1		-2.82%	4.10%	-1.60%	1.15%	-0.55%	5.43%	1.81%	1.46%	1.68%	1.73%					
	Total en route costs in real terms (in €$_{2012}$ prices)	948,163,061	955,202,345	931,108,914	921,871,998	976,187,870	944,952,889	910,368,778	898,258,199	888,519,721	866,777,630	841,247,909	1,011,393,288	-1.2%	-2.3%	-1.3%	-3.6%
	Trend in total en route costs in real terms (in €$_{2012}$ prices) %n/n-1		0.74%	-2.52%	-0.99%	5.89%	-3.20%	-3.66%	-1.33%	-1.08%	-2.45%	-2.95%					
	Real en route UCs/DUCs (in €$_{2012}$ prices)	70.36	72.94	68.30	68.73	71.95	70.03	63.99	62.01	60.46	58.01	55.34	67.25	-2.4%	-4.6%	-2.6%	-3.8%
	Trend in real en route UCs/DUCs (in €$_{2012}$ prices)%n/n-1		3.66%	-6.36%	0.62%	4.69%	-2.67%	-8.62%	-3.09%	-2.51%	-4.06%	-4.60%					
€2009 prices	Total en route costs in real terms (in €$_{2009}$ prices)	795,538,527	802,405,195	783,398,024	774,500,222	818,320,462	794,260,011	766,103,830	756,469,944	748,869,034	731,268,958	710,196,260	849,450,946	-1.1%	-2.2%	-1.2%	-3.5%
	Trend in total en route costs in real terms (in €$_{2009}$ prices) %n/n-1		0.86%	-2.37%	-1.14%	5.66%	-2.94%	-3.54%	-1.26%	-1.00%	-2.35%	-2.88%					
	Real en route UCs/DUCs (in €$_{2009}$ prices)	59.04	61.27	57.47	57.74	60.31	58.86	53.85	52.23	50.96	48.94	46.72	56.48	-2.3%	-4.5%	-2.6%	-3.7%
	Trend in real en route UCs/DUCs (in €$_{2009}$ prices)%n/n-1		3.79%	-6.21%	0.47%	4.46%	-2.41%	-8.51%	-3.02%	-2.43%	-3.96%	-4.54%					

Description of benefits and synergies achieved at functional airspace block level
Joint Network Management – In March 2013, following a 12 month trial, the IAA and NATS, introduced joint network management into normal day to day operation. The NATS Flow Management Position at Swanwick now provides Network Management services for the combined airspace of Ireland and the UK. This cooperation has allowed the IAA to meet its network management obligations without having to create its own Flow Management Position, thereby avoiding in excess of €1.1 Million in OPEX (staff costs) each year.

3.1.(d).3 - Terminal Charging Zone #1

A - Cost efficiency KPI #2: Determined unit cost (DUC) for terminal ANS

in EUR

	Ireland	RP2 Performance Plan 2015 D	2016 D	2017 D	2018 D	2019 D	Avg pct var p.a. 2015D-2019D
	Total terminal determined costs in nominal terms (in national currency)	24,604,200	26,128,100	26,882,700	27,666,300	28,248,400	3.5%
	Inflation %	1.10%	1.20%	1.40%	1.70%	1.70%	
	Inflation index (Base = 100 in 2012)	102.22	103.44	104.89	106.67	108.49	1.5%
	Total terminal determined costs in real terms (in national currency at 2012 prices)	24,070,995	25,258,765	25,629,446	25,935,610	26,038,639	2.0%
	Total terminal Service Units (TSU) used for the determined unit cost	141,200	144,400	148,200	152,900	156,900	2.7%
	Real terminal DUCs (in national currency at 2012 prices)	170.47	174.92	172.94	169.62	165.96	-0.7%
€2012 prices	2012 average exchange rate (1EUR=)	1	1	1	1	1	
€2012 prices	Total terminal determined costs in real terms (in €2012 prices)	24,070,995	25,258,765	25,629,446	25,935,610	26,038,639	2.0%
€2012 prices	Trend in total terminal determined costs in real terms %n/n-1		4.9%	1.5%	1.2%	0.4%	
€2012 prices	Real terminal DUCs (in €2012 prices)	170.47	174.92	172.94	169.62	165.96	-0.7%
€2012 prices	Trend in real terminal DUCs (in €2012 prices) %n/n-1		2.6%	-1.1%	-1.9%	-2.2%	
€2009 prices	Inflation index (Base = 100 in 2009)	103.72	104.97	106.43	108.24	110.08	
€2009 prices	2009 average exchange rate (1EUR=)	1	1	1	1	1	
€2009 prices	Total terminal determined costs in real terms (in €2009 prices)	23,721,615	24,892,145	25,257,446	25,559,165	25,660,699	2.0%
€2009 prices	Trend in total terminal determined costs in real terms %n/n-1		4.9%	1.5%	1.2%	0.4%	
€2009 prices	Real terminal DUCs (in €2009 prices)	168.00	172.38	170.43	167.16	163.55	-0.7%
€2009 prices	Trend in real terminal DUCs (in €2009 prices) %n/n-1		2.6%	-1.1%	-1.9%	-2.2%	

Description and justification of how the local targets contribute to the performance of the European ATM network	In RP2, Ireland plans to deliver on cost-efficiency targets, resulting in an overall unit rate reduction over the course of the reference period, and contributing positively to a reduction in EU wide TANS costs. The Terminal DUC for Ireland for RP2 reflects the actual cost of service provision for the three State airports (Dublin, Shannon & Cork). A significant factor in ascertaining this cost is the requirement to maintain existing service levels at two relatively low density airports (Cork and Shannon). As more TANS data is gathered on an EU wide level, a meaningful comparison with other service providers will be possible

B - Inflation assumptions

Ireland	2015 D	2016 D	2017 D	2018 D	2019 D
Inflation %	1.10%	1.20%	1.40%	1.70%	1.70%
Inflation index (2012=100)	102.2	103.4	104.9	106.7	108.5
Eurostat HICP (actuals) and IMF CPI (forecasts)	1.12%	1.23%	1.45%	1.68%	1.68%
Inflation index (2012=100) HICP and IMF	102.22	103.48	104.98	106.74	108.53
Difference in percentage points		0.00	0.00	0.00	0.00
Cumulative difference in percentage points		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 terminal

Ireland	2015 D	2016 D	2017 D	2018 D	2019 D
Total terminal service units (TNSU)	141,200	144,400	148,200	152,900	156,900
Year on Year variation TNSU		2.3%	2.6%	3.2%	2.6%
STATFOR terminal service units forecast (Baseline scenario)	111,615	114,198	117,140	120,874	124,023
Year on Year variation TNSU STATFOR		2.3%	2.6%	3.2%	2.6%
Difference in percentage		0.00	0.00	0.00	0.00
Cumulative difference in percentage		0.26	0.27	0.26	0.27

Explanation of the differences (if any), justification, rationale and source	Traffic forecast is the mid-point between STATFOR February 2014 base case and low case forecasts adjusted for local conditions. See the Supporting Document, Chapter 2, section Economic Assumptions for further details.

D - Alert thresholds (terminal service units)

Ireland	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				

3.1.(d).3 - Terminal Charging Zone #2

A - Cost efficiency KPI #2: Determined unit cost (DUC) for terminal ANS

#N/A

	United Kingdom - Zone A - NO AIRPORTS	RP2 Performance Plan 2015 D	2016 D	2017 D	2018 D	2019 D	Avg pct var p.a. 2015D-2019D
€2012 prices	Total terminal determined costs in nominal terms (in national currency)						0.0%
	Inflation %						
	Inflation index (Base = 100 in 2012)						0.0%
	Total terminal determined costs in real terms (in national currency at 2012 prices)						0.0%
	Total terminal Service Units (TSU) used for the determined unit cost						0.0%
	Real terminal DUCs (in national currency at 2012 prices)						0.0%
€2012 prices	2012 average exchange rate (1EUR=)						
	Total terminal determined costs in real terms (in €2012 prices)						0.0%
	Trend in total terminal determined costs in real terms %n/n-1						
	Real terminal DUCs (in €2012 prices)						0.0%
	Trend in real terminal DUCs (in €2012 prices) %n/n-1						
€2009 prices	Inflation index (Base = 100 in 2009)						
	2009 average exchange rate (1EUR=)						
	Total terminal determined costs in real terms (in €2009 prices)						0.0%
	Trend in total terminal determined costs in real terms %n/n-1						
	Real terminal DUCs (in €2009 prices)						0.0%
	Trend in real terminal DUCs (in €2009 prices) %n/n-1						
	Description and justification of how the local targets contribute to the performance of the European ATM network	Note: This zone is meant for contestable airports.					

B - Inflation assumptions

United Kingdom - Zone A - NO AIRPORTS	2015 D	2016 D	2017 D	2018 D	2019 D
Inflation %					
Inflation index (2012=100)					
Eurostat HICP (actuals) and IMF CPI (forecasts)					
Inflation index (2012=100) HICP and IMF					
Difference in percentage points					
Cumulative difference in percentage points					
Justification and data source in case of deviation from inflation references					

C - Service Units forecast for terminal

United Kingdom - Zone A - NO AIRPORTS	2015 D	2016 D	2017 D	2018 D	2019 D
Total terminal service units (TNSU)					
Year on Year variation TNSU					
STATFOR terminal service units forecast (Baseline scenario)					
Year on Year variation TNSU STATFOR					
Difference in percentage					
Cumulative difference in percentage					
Explanation of the differences (if any), justification, rationale and source					

D - Alert thresholds (terminal service units)

United Kingdom - Zone A - NO AIRPORTS	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					

3.1.(d).3 - Terminal Charging Zone #3

A - Cost efficiency KPI #2: Determined unit cost (DUC) for terminal ANS

in GBP

	United Kingdom - Zone B	RP2 Performance Plan 2015 D	2016 D	2017 D	2018 D	2019 D	Avg pct var p.a. 2015D-2019D
	Total terminal determined costs in nominal terms (in national currency)	143,249,315	145,634,970	148,818,538	151,328,527	153,751,622	1.8%
	Inflation %	1.90%	1.90%	2.00%	2.00%	2.00%	
	Inflation index (Base = 100 in 2012)	106.54	108.56	110.73	112.95	115.20	2.0%
	Total terminal determined costs in real terms (in national currency at 2012 prices)	134,461,151	134,151,569	134,396,188	133,983,263	133,459,434	-0.2%
	Total terminal Service Units (TSU) used for the determined unit cost	1,153,063	1,181,964	1,204,982	1,230,444	1,256,452	2.2%
	Real terminal DUCs (in national currency at 2012 prices)	116.61	113.50	111.53	108.89	106.22	-2.3%
€2012 prices	2012 average exchange rate (1EUR=)	0.811235	0.811235	0.811235	0.811235	0.811235	
€2012 prices	Total terminal determined costs in real terms (in $€_{2012}$ prices)	165,748,706	165,367,088	165,668,626	165,159,618	164,513,900	-0.2%
€2012 prices	Trend in total terminal determined costs in real terms %n/n-1		-0.2%	0.2%	-0.3%	-0.4%	
€2012 prices	Real terminal DUCs (in $€_{2012}$ prices)	143.75	139.91	137.49	134.23	130.94	-2.3%
€2012 prices	Trend in real terminal DUCs (in $€_{2012}$ prices) %n/n-1		-2.7%	-1.7%	-2.4%	-2.5%	
€2009 prices	Inflation index (Base = 100 in 2009)	118.27	120.52	122.93	125.38	127.89	
€2009 prices	2009 average exchange rate (1EUR=)	0.890647	0.890647	0.890647	0.890647	0.890647	
€2009 prices	Total terminal determined costs in real terms (in $€_{2009}$ prices)	135,992,853	135,679,744	135,927,150	135,509,520	134,979,724	-0.2%
€2009 prices	Trend in total terminal determined costs in real terms %n/n-1		-0.2%	0.2%	-0.3%	-0.4%	
€2009 prices	Real terminal DUCs (in $€_{2009}$ prices)	117.94	114.79	112.80	110.13	107.43	-2.3%
€2009 prices	Trend in real terminal DUCs (in $€_{2009}$ prices) %n/n-1		-2.7%	-1.7%	-2.4%	-2.5%	

Description and justification of how the local targets contribute to the performance of the European ATM network	In the UK TANS is financed through commercial agreement between the airport operator and an ANSP. The target for TANS consists of a 1% fall in forecast cost over the period plus the additional cost reductions driven by the growth in traffic. This target has been set at half the level of the EU wide en route target prior to traffic. Over the RP2 period all of the contracts for the towers in charging zone B are up for renewal, the UK considers that over this period it may be possible to drive greater efficiencies though the commercial contract process than through applying stringent regulation to the costs at those towers.

B - Inflation assumptions

United Kingdom - Zone B	2015 D	2016 D	2017 D	2018 D	2019 D
Inflation %	1.90%	1.90%	2.00%	2.00%	2.00%
Inflation index (2012=100)	106.5	108.6	110.7	112.9	115.2
Eurostat HICP (actuals) and IMF CPI (forecasts)	1.90%	1.90%	2.00%	2.00%	2.00%
Inflation index (2012=100) HICP and IMF	106.54	108.56	110.73	112.95	115.20
Difference in percentage points		0.00	0.00	0.00	0.00
Cumulative difference in percentage points		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 terminal

United Kingdom - Zone B	2015 D	2016 D	2017 D	2018 D	2019 D
Total terminal service units (TNSU)	1,153,063	1,181,964	1,204,982	1,230,444	1,256,452
Year on Year variation TNSU		2.5%	1.9%	2.1%	2.1%
STATFOR terminal service units forecast (Baseline scenario)	1,153,063	1,181,964	1,204,982	1,230,444	1,256,452
Year on Year variation TNSU STATFOR		2.5%	1.9%	2.1%	2.1%
Difference in percentage		0.00	0.00	0.00	0.00
Cumulative difference in percentage		0.00	0.00	0.00	0.00

Explanation of the differences (if any), justification, rationale and source	n/a

D - Alert thresholds (terminal service units)

United Kingdom - Zone B	**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				

3.1.(d).3 - Terminal Charging Zone #4

A - Cost efficiency KPI #2: Determined unit cost (DUC) for terminal ANS

#N/A

	United Kingdom - Zone C (London Approach)	RP2 Performance Plan 2015 D	2016 D	2017 D	2018 D	2019 D	Avg pct var p.a. 2015D-2019D
	Total terminal determined costs in nominal terms (in national currency)	12,011,867	12,371,198	12,749,490	13,092,087	13,398,855	2.8%
	Inflation %	1.90%	1.90%	2.00%	2.00%	2.00%	
	Inflation index (Base = 100 in 2012)	106.49	108.51	110.68	112.90	115.15	2.0%
	Total terminal determined costs in real terms (in national currency at 2012 prices)	11,279,902	11,400,723	11,518,959	11,596,559	11,635,573	0.8%
	Total terminal Service Units (TSU) used for the determined unit cost	884,691	905,513	921,933	940,093	958,830	2.0%
	Real terminal DUCs (in national currency at 2012 prices)	12.75	12.59	12.49	12.34	12.14	-1.2%
€2012 prices	2012 average exchange rate (1EUR=)	0.811235	0.811235	0.811235	0.811235	0.811235	
	Total terminal determined costs in real terms (in $€_{2012}$ prices)	13,904,604	14,053,539	14,199,288	14,294,945	14,343,036	0.8%
	Trend in total terminal determined costs in real terms %n/n-1		1.1%	1.0%	0.7%	0.3%	
	Real terminal DUCs (in $€_{2012}$ prices)	15.72	15.52	15.40	15.21	14.96	-1.2%
	Trend in real terminal DUCs (in $€_{2012}$ prices) %n/n-1		-1.3%	-0.8%	-1.3%	-1.6%	
€2009 prices	Inflation index (Base = 100 in 2009)	118.27	120.52	122.93	125.38	127.89	
	2009 average exchange rate (1EUR=)	0.890647	0.890647	0.890647	0.890647	0.890647	
	Total terminal determined costs in real terms (in $€_{2009}$ prices)	11,403,392	11,525,536	11,645,067	11,723,516	11,762,957	0.8%
	Trend in total terminal determined costs in real terms %n/n-1		1.1%	1.0%	0.7%	0.3%	
	Real terminal DUCs (in $€_{2009}$ prices)	12.89	12.73	12.63	12.47	12.27	-1.2%
	Trend in real terminal DUCs (in $€_{2009}$ prices) %n/n-1		-1.3%	-0.8%	-1.3%	-1.6%	

Description and justification of how the local targets contribute to the performance of the European ATM network	The London Appraoch service is different in kind from the services provided at the individual towers. The London approach charge relates to 5 airports. There are capacity and safety benefits to collocating this function in what is a particularly complex area of airspace. The service is part of the licensed monopoly operated under the NATS En Route licence whereas the five individual airport towers are operated under commercial contracts which could be operated by ANSPs other than NATS and could in the future be considered as contestable (or fall bellow the 70000 movement threshold) and thus not subject to the full provisions of the performance regime. Bracketing the tower service for the 5 airports and London approach together could act as an impediment to the development of a competive market for towers in the future.

B - Inflation assumptions

United Kingdom - Zone C (London Approach)	2015 D	2016 D	2017 D	2018 D	2019 D
Inflation %	1.90%	1.90%	2.00%	2.00%	2.00%
Inflation index (2012=100)	106.5	108.5	110.7	112.9	115.2
Eurostat HICP (actuals) and IMF CPI (forecasts)	1.90%	1.90%	2.00%	2.00%	2.00%
Inflation index (2012=100) HICP and IMF	106.54	108.56	110.73	112.95	115.20
Difference in percentage points		0.00	0.00	0.00	0.00
Cumulative difference in percentage points		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 terminal

United Kingdom - Zone C (London Approach)	**2015 D**	**2016 D**	**2017 D**	**2018 D**	**2019 D**
Total terminal service units (TNSU)	884,691	905,513	921,933	940,093	958,830
Year on Year variation TNSU		2.4%	1.8%	2.0%	2.0%
STATFOR terminal service units forecast (Baseline scenario)					
Year on Year variation TNSU STATFOR					
Difference in percentage					
Cumulative difference in percentage					
Explanation of the differences (if any), justification, rationale and source	TNSU forecast for London Approach is consistent with February 2014 STATFOR base case scenario traffic forecast for the 5 airports covered (Heathrow, Gatwick, Stansted, Lutron and London City).				

D - Alert thresholds (terminal service units)

United Kingdom - Zone C (London Approach)	**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				

3.2 - Consistency of the performance targets with the relevant Union-wide performance targets or, when there is no Union-wide target, contribution to the performance of the European ATM network

This section has been integrated within each individual KPI - See Supporting Document for details.

3.3 - Description of KPAs interdependencies and trade-offs

The Plan considers the interdependencies between the KPAs, including an evaluation of the impact on safety of the plan, with any mitigation required to maintain safety assurance. This is based upon inputs from NERL and IAA (see Appendix F), and which flow from their business plans.

There are clear interdependencies between the 4 KPAs covered by performance plans. Safety is clearly an element which must not be compromised while the other three elements bearing on flight efficiency, delay and cost efficiency are factors which can be weighed up from the perspective of users based on largely commercial criteria.

The FAB ANSPs assessed how their individual contributions to the FAB Plan impact on safety. They also completed interdependency analyses that identified potential changes to the elements of the functional system and the possible mitigation measures to be considered.

The ANSP individual contributions have been assessed by the FAB NSAs to ensure consistency and also to guard against any negative impact when combined. Both IAA and NATS (NERL) ANSPs have used 'safety assessment of change' methodology to ensure that the changes planned over the RP2 period have no negative impact and where an impact is identified that appropriate mitigations have been put in place or are planned to be in place to permit the change process to take place.

For UK, no cumulative or addictive effects have been noted and the plan is considered to deliver the same level of safety with increasing traffic density. The application and maintenance of SMS will provide an appropriate level of safety assurance coupled with NSA oversight activity.

Interdependencies and trade-offs between KPAs are discussed further in Chapter 10 of the Supporting Document.

3.4 - Contribution of each air navigation service provider

This section has been integrated within each individual KPI - See Supporting Document for details.

SECTION 4: INCENTIVE SCHEMES

Mapping between the template for the FAB performance plan and Annex II of the performance Regulation				
Structure of ANNEX II of the performance Regulation	Link with PRB Performance Plan template			
	Body of Performance Plan	Annex C For cost-effiency		Other annexes
		RT ref.	AI ref.	
4. INCENTIVE SCHEMES	4			
4.1. Description and explanation of the incentive schemes to be applied on air navigation service providers.	4.1			

4 - INCENTIVE SCHEMES

4.1 - Incentive schemes for the environment targets

Number of incentive schemes	3

Incentive for Environment KPI#1	
Entity being incentivised	ANSPs
KPI description	Non-financial incentive attached to horizontal flight efficiency to address underperformance in relation to the adopted FAB target: The ANSPs shall be required to report to their respective NSAs in years where these targets are not met setting out: -The extent to which there remain substantial horizontal flight inefficiencies to be addressed; -The extent to which there have been any exceptional events or uncontrollable factors and the extent to which these factors have affected the ANSPs ability to meet the target; -The extent to which achieving additional flight efficiencies would prejudice greater gains elsewhere; -The scale of flight efficiency benefits (for UK, including vertical trajectories and benefits within 40NM of airports) generated since the start of RP2. For UK, this may include a quantification of savings in fuel burn.
Type of incentive	non-financial
Formula	n/a
Justification	Given the fact that the KEA is a new metric and not yet fully understood, the NSAs are cautious about including a financial incentive as it might not be appropriate and proportionate. However, understanding that any underperformance in relation to the adopted FAB target needs to be addressed, a non-financial incentive has been included.
Description of performance variation levels and the applicable level of bonuses and penalties	n/a
Additional comments	See Chapter 5 of the Supporting Document.

UK Incentive on the 3Di metric	
Entity being incentivised	NATS
KPI description	financial incentive on the 3Di metric score
Type of incentive	financial
Formula	In RP1, NATS introduced the 3Di metric, which is based on a linear regression model incorporating flight path inefficiencies in the vertical plane as well as horizontal. The modelling is two-stage and is based on a sample of flights for which the estimated fuel inefficiency due to flight path is regressed upon the various components of flight path inefficiency. The resulting coefficients are then applied to flight path inefficiencies, and a "3Di score" estimated for each flight in the year using UK airspace. The annual average of these scores ("the 3Di metric") provides an objective measure to which financial incentives can be attached. The annual 3Di metric is effectively an index, which is more informative as a comparator rather than an absolute number. See Chapter 5 of the Supporting Document for details on par values, width of deadband, and boundaries at which maximum bonus and penalty accrue.
Justification	This metric and the incentive attached to it has the potential to guide operational decision-making in a way which aims to improve fuel efficiency through optimal flight paths.
Description of performance variation levels and the applicable level of bonuses and penalties	See Chapter 5 of the Supporting Document.
Additional comments	See Chapter 5 of the Supporting Document.

UK Incentive on Transition Altitude	
Entity being incentivised	*NATS*
KPI description	Implementation of a harmonised TA of 18,000ft
Type of incentive	financial

Formula	See Chapter 5 of the Supporting Document.
Justification	To complement the capex provision, and mindful of the associated environmental benefits, the CAA proposes to incentivise NERL for the timely implementation of the harmonised TA in the London and Scottish FIRs.
Description of performance variation levels and the applicable level of bonuses and penalties	For the first three years of RP2, NERL will be eligible for a bonus for performance under the 3Di incentive. The bonus or penalty shall not exceed a maximum of 1% of NERL's en route revenue from user charges for the given year, and will be paid/recovered in year n+2. In 2018 to the end of RP2, NERL's eligibility to earn bonuses will be contingent on the successful implementation of a harmonised TA of 18,000 ft by the end of Q1 2018. Furthermore, NERL will be liable to pay penalties equal to 1% of its en route revenue from user charges from Q2 2018 and each subsequent year of RP2, until a harmonised TA of 18,000 ft is implemented. If a harmonised TA of 18,000 ft is implemented by the end of Q1 2018, NERL will be subject to the 3Di bonus and penalty mechanism described above in 2018 and 2019.
Additional comments	See Chapter 5 of the Supporting Document.

4.1 - Incentive schemes for the capacity targets

Number of incentive schemes	3

C2	
Entity being incentivised	ANSPs
KPI description	Bonus/Penalty incentive mechanism to apply to en route ATFM delay per flight
Type of incentive	financial
Formula	See Chapter 4 of the Supporting Document.
Justification	financial incentive required by Regulation
Description of performance variation levels and the applicable level of bonuses and penalties	The incentive on each ANSP common to UK and Ireland would have the following characteristics: -incentives calculated on a calendar year basis for and by paid in year n+2; -no bonus payable to either NERL or the IAA for a relevant year unless the FAB target for that year had been met and similarly no penalty would be payable unless the FAB target for that year had been missed; -the calculation of performance as for the KPI target for capacity except that it would only be for those causes listed in article 15(g) of the Charging Regulation; -subject to the FAB performance being above or below target , any bonus or penalty would be then applied to each of the en route ANSPs based on their performance; -there will be a par value for this measure for each ANSP consistent with the annual KPI values but adjusted to take account of the fact that it is limited to the causes listed in article 15(g) of the Charging Regulation; -there will be a dead-band of -20% to +10% around the par value (so bonuses would only start to be paid when the delay was less than 80% of the par values and penalties when the delay was more than 110% of the par value); -there would be a smooth sliding scale with the maximum penalty to be paid where delay is at 150% and a maximum bonus at 40% of the par value.
Additional comments	See Chapter 4 of the Supporting Document.

C3	
Entity being incentivised	UK: NERL
KPI description	"Impact Score" - placing greater weight on long delays and operationally critical departures in the morning and, to a lesser extent, the evening peaks.
Type of incentive	financial
Formula	See Chapter 4 of the Supporting Document.
Justification	It reflects the relatively high impact of long delays and early delays that have a disproportionate knock-on effect on the punctuality of subsequent flights.
Description of performance variation levels and the applicable level of bonuses and penalties	The rates for bonuses/penalties have been calibrated to allow a maximum bonus of 0.75% of the DC for 2015 at the forecast number of flights. 50% of the total capacity penalty and 75% of the bonus will be attributable to C3 . This will be subject to the constraint that bonuses will only be paid if the FAB as a whole is also meeting the FAB-wide target for C1 and penalties will only be paid if the FAB as a whole is achieving a C1 delay worse than the FAB-wide target.
Additional comments	See Chapter 4 of the Supporting Document.

C4	
Entity being incentivised	UK: NERL
KPI description	"Daily Excess Delay Score" based on weighted delays exceeding pre-determined thresholds on a daily basis.
Type of incentive	financial
Formula	See Chapter 4 of the Supporting Document.
Justification	C4 provides an incentive to avoid days where there is a particularly severe disruption which has a disproportionate impact on airline service. Unlike the FAB incentive and C3, this is generally due to some form of system failure rather than any underlying shortfall in ongoing capacity.
Description of performance variation levels and the applicable level of bonuses and penalties	No bonuses would be applicable to this KPI .
Additional comments	See Chapter 4 of the Supporting Document.

4.1 - Incentive schemes for the cost-efficiency targets

The parameters used by the Member States in the setting of the risk-sharing mechanism defined in Article 13 and 14 of the charging Regulation will be detailed under lines 3.13 and 3.14 of Reporting Table 2 as per Annex Therefore, the information is included in the Reporting Tables attached in Annex C.

SECTION 5: MILITARY DIMENSION OF THE PLAN

Mapping between the template for the FAB performance plan and Annex II of the performance Regulation				
Structure of ANNEX II of the performance Regulation	Link with PRB Performance Plan template			
	Body of Performance Plan	Annex C For cost-effiency		Other annexes
		RT ref.	AI ref.	
5. MILITARY DIMENSION OF THE PLAN	5			
Description of the civil-military dimension of the plan describing the performance of FUA application in order to increase capacity with due regard to military mission effectiveness, and if deemed appropriate, relevant performance indicators and targets consistent with the indicators and targets of the performance plan.				

5 - MILITARY DIMENSION OF THE PLAN

Attached in Annex E.

Additional (Key) Performance Indicators (and targets) relevant to civil military p

Attached in Annex E.

SECTION 6: ANALYSIS OF SENSITIVITY AND COMPARISON WITH THE PREVIOUS PERFORMANCE PLAN

Mapping between the template for the FAB performance plan and Annex II of the performance Regulation				
Structure of ANNEX II of the performance Regulation	Link with PRB Performance Plan template			
	Body of Performance Plan	Annex C For cost-effiency		Other annexes
		RT ref.	AI ref.	
6. ANALYSIS OF SENSITIVITY AND COMPARISON WITH THE PREVIOUS PERFORMANCE PLAN	6			
6.1. Sensitivity to external assumptions.	6.1			
6.2. Comparison with previous performance plan.	6.2			

6 - ANALYSIS OF SENSITIVITY AND COMPARISON WITH THE PREVIOUS PERF

6.1 - Sensitivity to external assumptions

UK:
Sensitivity analysis was focused on NERL as it bears traffic risk and represents 85% of the UK rate.
The CAA has considered the impact on NERL's financial position of a number of downside scenarios:
a. outturn traffic is lower than assumed in the proposals in each year. Two scenarios were considered: 5 and 10 per cent;
b. outturn operating costs are 5 per cent higher than the CAA's proposals in each year of RP2; and
c. a combined scenario in which traffic is 5 per cent lower and operating costs are 5 per cent higher than assumed.

The CAA's approach has been to model downside scenarios for NERL, and then to assess the impact on its overall financial position (assuming management takes no mitigating action). In relation to each scenario, the CAA assessed whether banking covenants would be triggered or breached, the likely credit rating, the level of the new debt required, and the maximum gearing.

The CAA found that by reducing dividends as appropriate:
a. NERL would not trigger or breach its banking covenant under the scenarios tested;
b. NERL remained within the gearing cap set by CP3 Price Control; and
c. using three Moody's ratios – gearing (net debt to RAB), adjusted interest cover ratio (AICR) and funds from operations divided by cash interest – under each scenario the ratios suggested that NERL would maintain an investment grade credit rating, although under the combined scenario there is a risk that NERL would not be able to maintain such a rating. However, this scenario is at the outer edge of those tested, and would inevitably prompt significant management action.

En-route costs are sensitive to a wide range of variances subject to criteria of the Performance Scheme. Any variances of those costs should be passed through to airspace users in RP3. This applies to both over- and under-provision. In addition, variances from the determined cost of the EUROCONTROL will be recovered/reimbursed through an adjustment mechanism to the level of charges. Cost variances which do not meet the criteria in the Performance Scheme for alert mechanisms or pass through will be borne by the entity concerned.

IRELAND:
In the course of our analysis and validation of the individual entities that form the cost base for RP2, IAA SRD considered the potential impact from significant deviations in assumptions regarding external factors. Given that the IAA ANSP represents such a significant portion of the overall Irish rate, our sensitivity analysis focussed here.

A variety of scenarios were considered. These included an assessment of the impact on the ANSPs financial state from actual traffic levels being up to 15% lower than assumed in the proposals. We also considered factors that might push operating costs higher than the levels allowed by the NSA. Our findings were guided by the historical information available from RP1.

Significant deviations as described above will put pressure on the IAA ANSPs ability to deliver on the targets assigned in RP2. Cash-flow management would be extremely challenging at the outer limits of the sensitivity analysis. This would have a direct impact on the potential to deliver returns (dividends) to shareholders. The main mitigating factor against unsustainable rises in financing and associated costs is the strong "cash" position, and relatively low debt gearing of the IAA ANSP at the commencement of RP2.

Having considered all these factors, IAA SRD are satisfied that there is a tolerable degree of resistance to significant deviations in external assumptions, in the context of a challenging regulatory framework. We recognise that En-route costs are sensitive to a wide range of variances subject to criteria of the Performance Scheme. Any variances of those costs should be passed through to airspace users in RP3. This applies to both over- and under-provision. In addition, variances from the determined cost of the EUROCONTROL will be recovered/reimbursed through an adjustment mechanism to the level of charges. Cost variances which do not meet the criteria in the Performance Scheme for alert mechanisms or pass through will be borne by the entity concerned.

6.2 - Comparison with previous performance plan

RP1 performance plan was developed at the national level and did not include national targets for Safety and Environment. However, in the Addendum of its RP1 Plan, UK has introduced a performance indicator for Environment using the 3Di metric.

See Annex G for a general target comparison between RP1 and RP2.

SECTION 7: IMPLEMENTATION OF THE PERFORMANCE

Mapping between the template for the FAB performance plan and Annex II of the performance Regulation				
Structure of ANNEX II of the performance Regulation	Link with PRB Performance Plan template			
	Body of Performance Plan	Annex C For cost-effiency		Other annexes
		RT ref.	AI ref.	
7. IMPLEMENTATION OF THE PERFORMANCE PLAN	7			
Description of the measures put in place by the national supervisory authorities to achieve the performance targets, such as:				
(i) monitoring mechanisms to ensure that the ANS safety programmes and business plans are implemented;				
(ii) measures to monitor and report on the implementation of the performance plans including how to address the situation if targets are not reached during the reference period.				

7 - IMPLEMENTATION OF THE PERFORMANCE PLAN

The FAB Supervisory Committee is responsible for the oversight of the UK-Ireland FAB. A FAB NSA Performance Group (FNPG), which reports to the Committee, will monitor the implementation of the Plan. It will agree and establish mechanisms/processes for collecting and assessing performance-related data and measure performance against targets.

NSAs will monitor the performance of the accountable entities. This will include the use of the ANSP annual plans, reports and 5-year business plans (as required under the EASA oversight and common requirements regulations).

Accountable entities will report actual performance in the previous RP2 year to the appropriate NSA by April the following year, starting from April 2015. If any performance shortfalls are identified the appropriate NSA shall make enquiries with the entity concerned, identify causes and potential corrective measures. Shortfalls will be reported to FNPG who will then monitor the implementation and impact of the corrective measures to determine their effectiveness. FNPG will also be responsible for ensuring the CAA/IAA SRD executives as well as DfT/DTTAS are kept appraised as required. In the UK the FNPG will also coordinate closely with the NATS Licence Management Coordination Committee (NLMCC), responsible for oversight of all aspects of the NATS Licence.

FNPG shall provide formal reports to CAA/IAA SRD executives and DfT/DTTAS on the status of monitoring of the Plan, and achievement against targets on a quarterly basis, by exception, and annually.

Based on ANSPs' performance reports FNPG shall prepare an Annual Progress Report and submit it to the FAB Supervisory Committee and the DfT/DTTAS.

DfT/DTTAS shall assess and approve the Annual Progress Report and submit it to the PRB.

Where appropriate, the FNPG, through the States, will notify the EC and PRB of any persistent under performance.

NSA commitment for data provision

	Active			Inactive
	Date of implementation	Periodicity	Focal point	
Airport dataflow				
Civil Military dataflow				

Number of other dataflows	Click to select number of other dataflows

Additional comments
-

8 - ANNEXES

The following annexes will be provided as part of the local performance plans. These should be completed with any other documentation relevant for the targets justifications.

Annex A. Public consultation material

Annex B. Relevant documentation in line with the NSP

Annex C. Reporting Tables

Annex C.1.1 IE ER Reporting Tables
Annex C.1.2 IE ER Additional Information
Annex C.1.3 IE TNC Tables
Annex C.1.4 IE TNC Additional Information

Annex C.2.1 UK ER Reporting Tables
Annex C.2.2 UK ER Additional Information
Annex C.2.3 UK TNC Zone B Reporting Tables
Annex C.2.4 UK TNC Zone B Additional Information
Annex C.2.5 UK TNC Zone C Reporting Tables
Annex C.2.6 UK TNC Zone C Additional Information

Annex D. ANSPs investment plans

Annex D.1 NATS Investments
Annex D.2 IAA Investments

Annex E. FUA

Annex F. Safety Assessment

Annex G. Comparison of RP1 and RP2 targets

Annex A

Consultation Documents

1. Post-consultation Performance Plan (NSA initial submission to State):
   FAB Performance Plan: UK-Ireland FAB - Second reference period (2015-2019) (May 2014)
   UK-Ireland RP2 performance plan supporting document (May 2014)

2. Responses to Consultation:
   Responses to consultation on draft UK-Ireland FAB performance plan for RP2 (April 2014)

3. Transcript and presentation from Stakeholder Consultation meeting:
   RP2 Stakeholder Consultation meeting 14 March 2014 - transcript (March 2014)
   UK-Ireland FAB Performance Plan for RP2 - Stakeholder consultation (March 2014)

4. Draft Performance Plan published for consultation:
   Draft UK-Ireland RP2 Performance Plan - Consultation document (February 2014) responses
   FAB Performance Plan: UK-Ireland FAB - Second Reference Period (2015-2019) - template

5. Consultancy studies:
   GAD analysis of pension costs for CAA's RP2 price control review of NERL (March 2014)
   NERL non-staff opex review - report by Capita for the CAA
   Assessing the efficiency of NERL's total employment costs in RP2: a research report for the CAA - report by IDS
   Estimating the cost of capital for NERL - report by pwc for the CAA
   What is the cost of capital for NATS (En Route) plc for RP2? - a report for NERL by Oxera
   NERL RP2 capex review - phase 1 report by Arup and Helios (January 2014)
   NATS cost allocation - final report by CEPA and BDO (October 2013)

6. London Approach:
   CAP1158 - Regulatory treatment of London Approach charges in Reference Period 2 (2015-2019) of the Single European Sky Performance Scheme: CAA conclusions (February 2014)
   Regulatory treatment of London Approach charges in Reference Period 2 (2015-19) of the Single European Sky performance scheme (October 2013) responses (NERL, Airlines for America, British Airways, Heathrow Airport, IATA)

7. UK TANS:
   CAP1157 - The CAA's approach to the regulation of terminal air traffic service in RP2 (February 2014)
   Approach to terminal air navigation services regulation in RP2 - a consultation (December 2013) responses (NSL, British Airways, GATCO, Heathrow Airport, IATA, Manchester Airport Group, Prospect/PCS)
   Terminal Air Navigation Services - draft RP2 Business Plan (December 2013)
   UK TANS charge benchmarking - consultancy report by Capita for CAA (December 2013)

8. Other:
   RP2 airline community - Special interests paper (December 2013)
   In focus - developing the UK-Ireland performance plan for RP2 - December 2013 update
   RP2 Revised Business Plan (2015-2019) (October 2013)
   Appendices to RP2 Revised Business Plan (October 2013)
   Letter with CAA requirements for the RP2 Revised Business Plan (October 2013)
   Agreed modifications to the requirements following publication of PRB recommendations for EU-wide targets (October 2013)
   RP2 Customer Consultation working group: Report from co-chairs (September 2013)
   Letter to NERL setting out CAA requirements for NERL Revised Business Plan (RBP) (September 2013)
   The CAA process update for the economic regulation of NERL and contribution to the UK-Ireland FAB Performance Plan for Reference Period 2 (2015-2019) of the Single European Sky Performance Scheme: A mandate for Customer Consultation between NERL and airspace users (April 2013)
   A consultation on the CAA's process for developing economic regulation for Reference Period 2 under the Single European Sky (July 2012), responses, workshop

RP2 bilateral meeting with Airlines

21/03/2014, 11.00-12.30, CAA House – Conference Room 1

Attendees:

Airlines: Mark Gardiner (Airline Chair/BA), Vicki Schupke-Ranson (BA), Dave Wood (BA), Simon Elliot (TUI), Rory Sergison (Aer Lingus), Geoff Clarke (Virgin), Ian Clayton (Ryanair)

CAA: Andrew Haines, Iain Osborne, David King, Graham Ward, David Gray, Matt Claydon, Mike Goodliffe, Anna Zalewska

---

Meeting Notes:

1. The Airline Community provided an overview of their initial concerns on the draft UK-Ireland FAB performance plan for RP2 in relation to the four key performance areas of safety, environment, capacity and cost efficiency. Main concern for the airlines was that cost efficiency targets for NATS were not sufficiently stretching.

<u>Safety</u>

2. The airlines considered the **effectiveness of safety management** target was not challenging enough and suggested it should be pitched more at a D/E level than the proposed C/D level. The airlines stated that although this is not a material challenge of the target, arguments supporting a general challenge of the safety envelope will form a part of the formal submission to the Consultation.
3. The target for application of severity classification scheme (using **RAT** methodology) was considered reasonable.
4. The airlines considered that having 100% staff trained by 2019 on the **Just Culture** was not a sufficient target. They considered this target should be moved to 2017. The CAA asked if the airlines thought this would risk losing out on quality and sought the airlines' opinion on introducing a target/measure of effectiveness of Just Culture training. The airlines considered that 5 years of RP2 is an elongated period for completing the training and noted that the starting point was not no knowledge. It was also mentioned that airlines would be supportive of a process that accelerated the training but also looks at it being comprehensive and effective.

<u>Environment</u>

5. The airlines expressed their support of the transparency and monitoring of the horizontal flight efficiency (KEA) target. The fact that there was no bonus on 3Di if harmonised transition altitude was not delivered was considered positive. The airlines also considered it would be beneficial to extend 3Di to IAA.
6. The airlines considered that the **deadbands around 3Di** were too generous but did not raise a material challenge. The CAA pointed out that this is a very complicated and composite metric and, until the data is understood well enough, interventions can make the measure randomised. The airlines stated that they wound generally like savings to be demonstrated and that the key to this measure was transparency.

7. The airlines asked the CAA to provide information on current and future environment savings. The CAA stated it would ask NATS for information.

Capacity

8. The airlines were supportive of the capacity indicators. They were particularly supportive of the fact that no bonus would be paid for C3 if the C1 target was not met. The airlines also considered it would be beneficial to extend the C4 measure to IAA.

Terminal ANS capacity and cost efficiency

9. The airlines considered the TANS targets to be insufficiently stretching. The airlines considered that for example the 2.66 capacity target for Heathrow was not challenging and did not reflect improvement in the last two years nor recognised improvements in RP2. Concerns were also raised that lack of an incentive scheme on TANS could create a perverse incentive to perform better on en route and overlook TANS performance.

En route Cost efficiency

10. The airlines raised challenge on the level of **WACC** applied by the CAA. The airlines raised concern that NATS' WACC was higher than Heathrow's WACC, as the level of risk for NATS should be much lower. The CAA stated that the CAA's assumptions were based on analysis of what it considered appropriate and pointed out that on vanilla basis – which is a more valid comparator – Heathrow's WACC is lower than that of NATS.
11. The airlines considered that actions being taken to address the **staff costs** issues in NERL were not sufficient. The airlines were especially concerned about the DB **pensions** scheme and explained that, despite requests, NATS did not provide the airlines with information on the limiting legislation around the scheme. Concerns were also raised about NATS' ATCO training college. The airlines considered there were barriers to entry to the labour market and little freedom of movement, which created further inefficiencies.
12. The airlines considered that even with legal constraints on pensions, which limit further efficiencies, and the CAA's position that it is not for the regulator to micro-manage the business and impose a cap on pay, the CAA should look at the whole staff costs package, set a more challenging target, and NATS' management will have to understand that "something has to give".
13. The airlines stated that they were aware of what they are pushing for in terms of more challenge on staff costs and understand the risk.

General

14. The airlines considered that progress on developing synergies within the **FAB** was not apparent in the plan, or at least the presentation given during Stakeholder Consultation. The airlines particularly stated they were not supportive of another contingency centre in Ireland. The airlines also considered that the Dynamic Sectorisation programme should continue after the current trial.
15. The airlines sought clarification on all incentive deadbands in the plan and why some were symmetrical and some asymmetrical. The CAA clarified that if there was a higher level of confidence in the data then the CAA could propose more particular deadbands.
16. The airlines stated they would like to see an annual review process of how the plan is going.

17. The airlines stated that their **written submission** to the Consultation will elaborate on the general points raised at the meeting.

RP2 bilateral meeting with NATS

21/03/2014, 13.30-15.00, CAA House – Conference Room 1

Attendees:

NATS: Richard Deakin, Nigel Fotherby, Martin Rolfe

CAA: Andrew Haines, Iain Osborne, David King, Graham Ward, David Gray, Matt Claydon, Mike Goodliffe, Anna Zalewska

---

Meeting Notes:

1. NATS provided the CAA with an overview of CP3 return, NERL's revised business plan (RBP) assumptions, an analysis of the effects of CAA's interventions on customers, and NERL's proposals going forward.

2. NATS presented the savings achieved in CP3 but argued that there was little, if any, scope to repeat this performance in RP2 due to the nature of the savings. NATS also stated that full contingency allowance was spent during RP1 mainly on redundancies.

3. NATS considered that efficiencies identified in NERL's RBP were sufficiently ambitious as they maximised customer benefit in terms of interdependencies between price, service and fuel; exceeded EU targets (especially cost efficiency target); and provided a deliverable balance of performance and risk. NATS also pointed out that the RBP was heavily reliant on employee engagement and goodwill. NATS questioned the level of analysis that had gone into the plan to consider what the consequences of the interventions on cost might have on service.

4. NATS considered that over the combined years of RP1 and RP2, NERL's RBP cost reduction will exceed EU targets. NATS was concerned that applying an even further challenging target would put the ANSP at a disadvantage in comparison to other ANSPs in Europe.

5. While the RBP proposed a price reduction of 18% by end of RP2, NATS disagreed with the additional 4% reduction as a result of the CAA's interventions. NATS expressed concern that the CAA's interventions in the elements of the RBP will ripple over other building blocks of the plan.

6. NATS considered that CAA's proposed opex cuts, reduction in pension pass through, penalty on the targeted harmonisation of transition altitude, and reduced allowance for risk within cost of capital (equity beta) will diminish staff engagement & goodwill, reduce NERL's ability to deal with unplanned costs hence forcing NERL to take a less aggressive approach to delivering projects, and affect service outputs and level of staff resource to deliver projects. NERL was particularly concerned that the interventions will require NERL to re-assess its business plan and possibly reconsider engagement in leading SESAR delivery given the additional pressure on opex and lack of allowance for contingency.

7. Although stating that it considered the RBP to be the best plan for NERL, NATS provided two alternative proposals following the CAA's draft interventions. These included reinstating: half of the allowance for pay progression; costs of the employee share plan scheme (while accepting lower share price growth); contingency costs (with a second proposal of lower contingency than in the RBP); and the symmetry in pension pass through (while accepting CAA adjustment to pension costs). NATS also disagreed with the CAA's calculation of cost of capital and stated that details will follow in its written submission.

8. On contingency costs NATS stated that its targets were already aggressively stretching and with no contingency allowance there was no headroom to get anything wrong. NATS also stated that the asymmetrical pension pass through could be detrimental to its credit rating and result in Trustees being more prudent in making assumptions.

9. NATS stated that their written submission to the Consultation will elaborate on the general points raised during the meeting.

RP2 bilateral meeting with NATS Trade Unions (TUs)

20/03/2014, 14.00-15.00, CAA House – K4 Enterprise

Attendees:

TUs: Angus McCormick, Emily Boase, Aaron Curtins, Suresh Tewari, Geoff Budd

CAA: Iain Osborne, Matt Claydon, Mike Goodliffe, Anna Zalewska

---

Meeting Notes:

1. TUs provided an overview of their initial concerns on the draft UK-Ireland FAB performance plan for RP2 in relation to the four key performance areas of safety, environment, capacity and cost efficiency. Main issues were around the level of ambition in cost (particularly in respect of staff). TUs also expressed disappointment in the FAB's response to the **EU pilot letter** [on how the FAB fulfils the requirements of Article 9a of Regulation (EC) No 550/2004]. It was pointed out that TUs were not consulted on this. The TUs will provide ideas on the improvement of collaboration within the FAB in their written submissions.

2. **Safety.** TUs were generally supportive of the safety performance indicators and the Just Culture policy. However, TUs were concerned that the Just Culture training target did not include a measure for the level and effectiveness of the training.

3. **Environment.** TUs were generally supportive of the environment performance indicator. TUs were content with the inclusion of the 3Di metric and recognised it as a well understood measure. However, concerns were raised on the penalty bar around transition altitude (TA) and the timing included in the draft plan (implementation of TA of 18,000 ft by the end of 2017). TUs considered that incentives would be better placed around the delivery of LAMP as this programme was more beneficial to users. TUs also suggested aligning the targeted date with the end of the winter period (not the middle of it) as the current timing put training requirement in a very narrow window. The CAA explained that the TA element could be incentivised with more certainty than a wider target. The CAA stated that it will look into the target date.

4. **Capacity.** TUs were supportive of the capacity indicators.

5. **Cost efficiency.** TUs expressed concern over the level of additional interventions the CAA has developed and asked what the CAA based these decisions on in such a short period of time. TUs were particularly concerned about the interventions to staff costs and questioned the level of cost of capital in comparison to that of the IAA. On the other hand, TUs stated they were content with capex and staff numbers assumptions.

6. The CAA explained that all interventions were explained in the draft plan. These were based on the CAA's analysis of what it considered achievable as well as several analyses by independent expert consultants (whose reports are published on the CAA website). The CAA

also stated it will publish a waterfall chart between RP1 headline WACC and the RP2 proposal.

7. TUs raised the following points on cost efficiency:
    a. **Staff costs.** TUs expressed disagreement with the IDS report on staff costs. While acknowledging that it is hard to benchmark in the industry, TUs considered the 'other staff costs' data used in the report was not fit for purpose. In relation to salary uplifts, the TUs were concerned that the CAA did not make an appropriate allowance for salary progression which is something contractual. TUs agreed to point the CAA towards European comparators in terms of pay in their written submission.
    b. **Pensions.** TUs were concerned about the 80% pass through between actual and assumed contributions. TUs stated that effort continues to make this more efficient but that it is hard to identify even further improvements. TUs considered part of the justification to members for accepting changes to the scheme was in order to protect the full cost pass through. TUs expressed concern that this may cause the Trustees to approach the scheme more conservatively.
    c. **Share Ownership.** TUs expressed their support of the scheme and considered that it builds a relationship between the staff and the employer in which staff feel more a part of the company. TUs considered this has a positive impact on relations with customers.
    d. **Contingency.** TUs were concerned whether the proposed allowances will facilitate all the ambitions of the draft plan. TUs were concerned with the CAA's intervention on contingency costs given the interventions to other building blocks. The CAA explained that efficiencies were identified in all building blocks but that the CAA had no evidence that a 'worse outturn' was more likely than a 'better outturn'. The CAA stated it considered the bar to be reasonably high.

8. **Social dialogue.** TUs expressed concern with the level of social dialogue at the FAB level. TUs also noted a decrease in the level of social dialogue with NATS, including within the RP2 process. TUs proposed to include a new target/metric within the FAB plan on the level of engagement and effectiveness of social dialogue. It was noted that this will be detailed in TUs' formal submission to the stakeholder consultation.

9. TUs stated they will submit a **written representation** to the stakeholder consultation in which TUs will elaborate on general points raised at the meeting and include constructive suggestions on improving the plan.

Note of meeting with Airline Community representatives 17 April 2014

Present Airlines: Vicki Schupke-Ranson (BA); Mark Gardiner (BA); David Wood (BA); and Rory Sergison (Aer Lingus)

Present CAA: Thomas Carr

The CAA requested a meeting with the Airline Community to explore in more detail their response to the UK-IE performance plan in relation to targets for terminal air navigation services (TANS). This sets out an agreed note of the meeting.

The CAA informed the airline community that it was mostly concerned that the meeting focus on the development of the targets proposed by the airline community that would affect LHR.

Premise of the response

The main premise of the Airlines response is that towers, particularly the London towers, have limited impact on the inbound ATFM delay at airports. For arrivals, the tower has no impact upon the operational efficiency of the airspace through which the arriving aircraft pass. NERL have sole responsibility for managing the separation and timing of the aircraft up to and on the approach. A similar picture also occurs with regards departures. The Airlines consider that the targets would be more effective and better placed on NERL rather than on the tower operations.

Scope of the targets

The Airlines disagreed with both the CAA's starting point of the target and that the target was flat over RP2. The Airlines stated that through air navigation charges they have/will pay for a number of improvements that will impact on ATFM delay over RP2 that are not reflected in current target, especially in the LHR contribution. Given the movements cap at LHR which has put the airport in an effective steady state, the limiting factor on delay is the airspace.

On the starting point for the target recent performance of ATFM delay has been low, taking a historic average at 2.66 minutes delay appeared high. It appears higher when consideration is taken for time based separation, which as in their response; the airlines indicated that NATS have stated this will reduce ATFM delay by 50% saving 80,000 minutes of delay each year. The airlines noted that time based separation significantly reduces the impacts of head winds which is a significant contributor to ATFM delay at LHR. This should be in place at LHR by May 2015. In light of this the Airlines considered that a target of over 2 minutes as they proposed in 2015 was generously high but the Airlines considered that it may be appropriate to have a lead in to the targeting regime to allow bedding in of TBS.

For 2016 from the initial target the Airlines have applied the full impact of time based separation. The airlines had analysis conducted by HAL which indicated that headwinds are the main weather issue at LHR for 70% of the operating time. The Airlines would check with LHR whether this information could be shared. Given that Headwinds account for 70% of ATFM delay and that time based separation would reduce this delay by 50% the airlines reduced the target by a factor of 35%.

Changes to the ILS at Heathrow in 2017 will reduce the impact from ATFM delay caused by fog. At a simplistic level it is understood that the minimum separation required in order to protect the

localiser signal will be decreased from 6nm to 5nm; this should result in 6 extra landings per hour during fog. This will result in consequent reduction of ATFM delay at LHR.

The airlines expect that in 2018 Independent Parallel Approaches (IPAs) will be delivered. The airlines pointed out that this removes the dependency between the runways such that there is no requirement for additional spacing between arriving aircraft conducting parallel approaches on both runways. The Airlines stated that this is already in place at Atlanta. The airlines noted that it would not have a significant impact on ATFM delay directly but that it would increase the resilience of the airport and aid recovered from delays. Similarly TEAM reduced disruption issues but did not have a major impact.

The Airlines consider that the largest impact on ATFM delay will come from the delivery of LAMP in 2019. The Airlines consider that this should effectively remove most of the impacts from ATFM delay, apart from Fog and snow clearance. The Airlines considered that reducing ATFM delay to 0 would not be possible or efficient and therefore opted to match the LHR target to the LGW target in 2019.

The airlines explained the rationale for this, that due to the mode of runway operation at LGW, main causes of ATFM there were Fog and Snow clearance. The various initiatives at LHR would in effect, take LHR to a position equivalent to LGW, and hence they felt that a matching target to what LGW was able to achieve was appropriate and sensible.

The Airlines consider that the CAA's consideration of the impact of the A380 was overstated due to the arrival and departure patterns of the A380's. For example a proportion of A380 movements occur at the shoulders of the day, when runway and airspace capacity are not an issue and impact is negligible. This weighting towards the start and end of day is likely to remain, due to these being the optimal departure/arrival times for the routes where the A380 is most used.

Departure targets

The CAA stated that given the scope of the regulation and the timetable it would be unable to consider particular issues around the implementation of departure delay targets.

The Airline community considered that departure delay was the big ticket item and reducing this would have a significant impact on overall delay and on the customer experience. The airlines themselves are rated on departure punctuality and some market services around their departure punctuality as a result departure delay has a much higher profile. There are a number of links at LHR between departure delay and the Q6 resilience work.

LAMP, as with arrivals, will deliver significant improvements in departure delay, and is perhaps the true measure of the success of the LAMP project. As set out in the Co-chairs report departure delay was a topic of discussion as part of NERLs customer consultation.

At LHR there is now available through the Airport Collaborative Decision Making (A-CDM) there is now the ability to accurately measure the airspace responsible delay. The Airlines consider that a target based on the difference between tactical of the blocks time and target start up approval time highlights only delay attributable to airspace as this is effectively the delay after Airport and Airline responsible delays.

The optimal result for the Airlines would be for departure delay to be targeted and incentivised as it is of critical importance to both their operation and passenger experience.

The airlines anticipate that under the “gate to gate” EU ATM philosophy, measures involving departures start up delay are likely to be implemented in RP3. Recognising the issues raised by CAA around timing and restrictions of the current EU regime, the airlines would therefore perceive it to be a helpful and necessary step towards an RP3 full incentivised measure, for CAA to include in RP2, modulated year on year targets that they would like to see NERL try to achieve during RP2, albeit without financial incentivisation.

The FAB

The Airlines raised that most of the issues that are relevant for LHR are also relevant for DUB. The Airlines considered that there could be significant improvements to overall FAB efficiency through linking the systems in operation at the airports to better co-ordinated traffic between the FAB members. The rapid implementation of A-CDM across Europe will also enable cross-FAB co-ordination and measurement of departure targets.

Note of meeting with Heathrow Airport Ltd 28 April 2014

Present Heathrow: Kathryn Greenhalgh, Mark Burgess and Jane Dawes

Present CAA: Thomas Carr

The CAA requested a meeting with Heathrow to discuss the implication of the UK-IE performance scheme consultation and the response to the Heathrow tower operation.

The CAA outlined the detail of the RP2 consultation and the response from the airline community. The CAA focussed on the airspace changes that will be affecting operations at Heathrow notably time-based separation, independent parallel approaches (IPA) and LAMP.

ATFM delay target

Heathrow noted that time-based separation was likely to have some impact on the ATFM delay target. However Heathrow was less certain of the impact that the other airspace changes may have on ATFM delay. Heathrow stated that there is still a significant level of risk in the application of the IPA and LAMP. The risk is in both the programmes being delivered and the scope of what will be deliverable. With IPA although this is due to be implemented during RP2 this is dependent on a CAA safety case. With LAMP there are likely to be significant community impacts. Heathrow is concerned that the community impacts of LAMP will reduce the scope of what is possible.

With respect to both the forth coming changes Heathrow noted that these are out of scope of the tower to deliver. Heathrow pointed out the ability of the Tower to impact ATFM delay is limited given that handover happens at only 6NM out of the airport. The main impact on ATFM delay is from the approach service, for which Heathrow has no contractual levers.

Contract [confidential]

✂

Contestability

Heathrow stated that it considered it has seen some change in the industry following the recent tender processes and the consultations run by the CAA. Heathrow stated that there feels like momentum may be building and that NATS appears to be more receptive now that it may have been a year or so ago.

The CAA set out that it is considering the potential of a separate Heathrow charging zone as a result of the consultation. Heathrow did not raise any particular concerns with this. However it would like to maintain the flexibility in the approaches available to it. The CAA reiterated that it considers that delivery of TANS through a competitive market is its preferred option and one which it considers should drive the best outcomes.

Departure delayed

The CAA outlined the Airline Community response on departure delays using data from the available thanks to the A-CDM system.

Heathrow considered that the data was likely to be available to implement targets similar to that suggested by the Airline Community. The data would only be available at Heathrow and not at other airports until they have implemented an A-CDM system. Heathrow, as part of its work on resilience and improving the passenger experience, are reviewing a number of metrics through which it can target performance of the entire airport community and the A-CDM system gives Heathrow a much clearer view of performance at the airport. Heathrow noted that departure targets would be clearly attributable to the ANSP, Airport or Airline, where as with ATFM delay it is not necessarily in the gift of the ANSP to influence the outcome.

Next steps

The CAA and Heathrow would explore the possibility of a wider discussion on Heathrow airspace as part of the ongoing RP2 or Q6 resilience work.

Annex B

UK/IRE FAB Planned Actions for RP2 to Address the Specific Objectives of the Network Strategy Plan (NSP)

Introduction

This short paper describes the UK/IRE FAB planned programmes and actions during RP2 to address the capacity element (Chapter 17) of the LSSIP and discussed with the Network Manager as part of the annual Network Capacity Planning cycle.

The NSP itself has been drafted by the Network Manager and has been raised through various forums, with a permanent Task Force having now been established to review and enable Network Management Board approval of the revised plan by March 2014 following stakeholder input.

UK/IRE FAB Proposed Actions Through RP2

In addition to our on-going improvement activities such as Traffic Management enhancement, configuring sectors to better match demand and cross training programme the following projects are expected to contribute to capacity or delay reduction benefits through RP2.

1. Establishing Free Route Airspace (FRA) in Prestwick - FRA figures high in the NSP and Ireland are already complete; Initial date to start delivering FRA is c2016/17. **(Directly links to NSP Strategic Objective SO3)**

2. We have established procedures in 2013 that extended the use of AMAN data and speed reductions to absorb delay in the En-Route and Terminal Operations, and this will be extended to our European neighbours in a trial due to start in March this year. This trial involves neighbouring ANSPs providing speed advice to aircraft, in their airspace, under clearly defined procedures to reduce delay at Heathrow airport. **(Directly links to NSP Strategic Objective SO3/SO5/SO6)**

3. On-going Q-Management programme is developing tools and techniques including the trial above to eliminate airborne holding by 2020 proving significant fuel savings for customers as well as reducing the environmental impact of aviation. **(Directly links to NSP Strategic Objective SO3/SO5/SO6)**

4. We intend to introduce Time Based Separation (TBS) for Heathrow in 2015 which will be a world first for NATS. This will enable resilience in our operations and maintain relatively normal landing rates in adverse conditions, particularly strong winds. **(Directly links to NSP Strategic Objective SO4/SO5/SO6)**

5. NATS are utilising the Risk Analysis Tool (RAT) this year in UK to assess ATC incidents ahead of the need to utilise it by commencement of RP2. The IAA have been using the tool since 2012.
   (Directly links to NSP Strategic Objective SO7)

6. Dynamic Sectorisation trial started with IAA in January 2014 and concludes in September 2014. This involves delegation of some of Prestwick ACC airspace to Ireland with IAA providing an executive ATC service in other ANSP airspace.
   (Directly links to NSP Strategic Objective SO3/SO5/SO9)

UK/IRE FAB Proposed Programmes and Actions Through RP2 – By Area and Timeframe

London Area Control

<table>
<tr><th>2014</th><th>2015</th><th>2016</th><th>2017</th><th>2018</th><th>2019</th></tr>
<tr><td colspan="6">Traffic Management Improvements</td></tr>
<tr><td colspan="6">Adaptation of sector configurations to demand</td></tr>
<tr><td colspan="6">Flexible use of existing staff (including cross-sector training) more closely related to sector demand</td></tr>
<tr><td colspan="6">Improved ATFCM, including STAM</td></tr>
<tr><td colspan="6">Complexity reduction and improved traffic presentation between sectors / ANSPs</td></tr>
<tr><td>Further benefits from the implementation of iFACTS (Nov 2011)</td><td></td><td>TMA transition sectors enhancement – RNP development</td><td></td><td colspan="2">Transition to new controller working positions</td></tr>
<tr><td colspan="2">FAB dynamic sectorisation
Trials</td><td></td><td></td><td>Common transition altitude for the FAB</td><td></td></tr>
<tr><td></td><td></td><td>Phased implementation of TC Airspace Program LAMP 1A</td><td>Phased implementation of TC Airspace Program LAMP 1B</td><td>Phased implementation of TC Airspace Program LAMP 1C</td><td>Phased implementation of TC Airspace Program LAMP 2A</td></tr>
<tr><td colspan="6">CPDLC</td></tr>
<tr><td colspan="6">UK / Ireland FAB initiatives</td></tr>
<tr><td colspan="6">Developing Queue Management programme</td></tr>
<tr><td colspan="6">On-going recruitment to maintain agreed business service levels</td></tr>
<tr><td>Commonwealth Games</td><td>Rugby World Cup</td><td></td><td>Athletic World Championship</td><td></td><td></td></tr>
</table>

London Terminal Control

2014	2015	2016	2017	2018	2019
Traffic Management Improvements					
Adaptation of sector configurations to demand					
Flexible use of existing staff					
Improved ATFCM, including STAM					
Complexity reduction and improved traffic presentation between sectors / ANSPs					
Developing Queue Management programme					
Collaborative TMA developments				Common transition altitude for the FAB	
TC sector improvements				Transition to new controller working positions	
		Phased implementation of TC Airspace Program LAMP 1A	Phased implementation of TC Airspace Program LAMP 1B	Phased implementation of TC Airspace Program LAMP 1C	Phased implementation of TC Airspace Program LAMP 2A

Prestwick

2014	2015	2016	2017	2018	2019
Traffic Management Improvements					
Adaptation of sector configurations to demand					
Flexible use of existing staff					
Improved ATFCM, including STAM					
Complexity reduction and improved traffic presentation between sectors / ANSPs					
FAB dynamic sectorisation Trials				Common transition altitude for the FAB	
		iTEC / Common work station		NTCA airspace development (Manchester TMA)	
CPDLC					
UK / Ireland FAB initiatives					

Dublin

2014	2015	2016	2017	2018	2019
	Point merge RWY 10	Tower electronic strips		Common transition altitude for the FAB	
		Sector capacity re-evaluation (CAPAN)			
		Upgrade of the ATM system	Upgrade of the ATM system		
Improved ATFCM, including STAM					
On-going recruitment to maintain staff levels					
Cross rating training					
UK / Ireland FAB initiatives					
	A-CDM at Dublin airport	Training for ATM system upgrade	Training for Transition altitude		

Shannon

2014	2015	2016	2017	2018	2019
Extra sectors as required – Dynamic sectorisation available					
FAB dynamic sectorisation Trials		Sector capacity re-evaluation (CAPAN)		Common transition altitude for the FAB	
Improved ATFCM, including STAM					
		ATM system upgrade		ATM system upgrade	
CPDLC					
On-going recruitment to maintain staff levels					
UK / Ireland FAB initiatives					
Developing Queue Management programme					
Training for CPDLC upgrade	Training for ATM system upgrade		Training for Transition altitude and ATM system upgrade		

Table 1 - Total Costs and Unit Costs

Ireland
Currency: Euro
All Entities

	Forecast		Determined costs - Perf. Plan RP1			Determined costs - Performance Plan 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**
1. Detail by nature (in nominal terms)																				
1.1 Staff	57,588	65,343	64,736	65,598	67,174	63,935	66,143	69,125	69,730	71,674	61,422	62,881	60,861	59,334	*63,286*					
1.2 Other operating costs (1)	32,924	32,560	35,801	36,502	37,214	39,974	39,709	40,060	40,871	40,421	30,921	29,919	32,598	30,954	*35,642*					
1.3 Depreciation	12,585	15,861	11,158	10,535	10,600	9,605	10,812	11,570	13,090	12,906	12,217	16,021	9,995	9,636	*10,600*					
1.4 Cost of capital	5,560	6,873	6,810	6,974	6,716	5,349	5,521	5,613	6,368	6,436	5,371	6,953	6,523	6,067	*6,700*					
1.5 Exceptional items	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*0*					
1.6 Total costs	108,657	120,637	118,505	119,609	121,704	118,863	122,185	126,368	130,058	131,437	109,931	115,774	109,977	105,991	116,228					
Total % n/n-1		11.0%	-1.8%	0.9%	1.8%	-2.3%	2.8%	3.4%	2.9%	1.1%		0.1	-0.1	0.0	0.1					
Staff % n/n-1		13.5%	-0.9%	1.3%	2.4%	-4.8%	3.5%	4.5%	0.9%	2.8%		0.0	0.0	0.0	0.1					
Other op. % n/n-1		-1.1%	10.0%	2.0%	2.0%	7.4%	-0.7%	0.9%	2.0%	-1.1%		0.0	0.1	-0.1	0.2					
2. Detail by service (in nominal terms)																				
2.1 Air Traffic Management	61,202	91,395	87,874	88,541	89,401	90,187	91,697	94,883	98,375	99,783	80,688	87,412	80,754	77,316	*86,166*					
2.2 Communication (2)	5,322	2,758	2,864	3,132	3,958	3,000	3,070	3,175	3,295	3,350	2,314	2,600	2,632	2,735	*3,048*					
2.3 Navigation (2)	4,435	3,039	3,026	3,035	2,924	2,515	2,550	2,650	2,745	2,785	3,027	3,010	2,781	2,650	*2,954*					
2.4 Surveillance (2)	17,739	4,385	4,703	4,688	4,792	4,062	4,170	4,329	4,566	4,626	3,866	4,100	4,322	4,094	*4,562*					
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)	1,574	1,669	1,721	1,775	1,831	1,500	1,525	1,550	1,575	1,600	1,891	1,633	1,500	1,442	*1,603*					
2.7 Meteorological services (2)	6,720	6,560	6,658	6,735	6,802	6,810	8,077	8,413	7,871	7,398	6,463	6,149	6,541	6,541	*6,800*					
2.8 Supervision costs	1,646	1,858	2,042	2,002	2,059	1,462	1,482	1,506	1,532	1,558	1,623	1,699	1,636	1,454	*1,490*					
2.9 Other State costs (1)	10,019	8,973	9,617	9,701	9,937	9,327	9,614	9,862	10,099	10,338	10,059	9,171	9,811	9,759	*9,605*					
2.10 Total costs	108,657	120,637	118,505	119,609	121,704	118,863	122,185	126,368	130,058	131,437	109,931	115,774	109,977	105,991	*116,228*					
Total % n/n-1		11.0%	-1.8%	0.9%	1.8%	-2.3%	2.8%	3.4%	2.9%	1.1%		5.3%	-5.0%	-3.6%	9.7%					
ATM % n/n-1		49.3%	-3.9%	0.8%	1.0%	0.9%	1.7%	3.5%	3.7%	1.4%		8.3%	-7.6%	-4.3%	11.4%					
CNS % n/n-1		-63.0%	4.0%	2.5%	7.5%	-18.0%	2.2%	3.7%	4.5%	1.5%		5.5%	0.3%	-2.6%	11.4%					
3. Complementary information (in nominal terms)																				
Average asset base																				
3.1 Net book val. fixed assets	74,133	91,640	86,202	84,020	79,012	62,930	64,953	66,035	74,918	75,718	71,613	92,707	82,569	73,096	*78,824*					
3.2 Adjustments total assets	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
3.3 Net current assets	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
3.4 Total asset base	74,133	91,640	86,202	84,020	79,012	62,930	64,953	66,035	74,918	75,718	71,613	92,707	82,569	73,096	*78,824*					
Cost of capital %																				
3.5 Cost of capital pre tax rate	7.5%	7.5%	7.9%	8.3%	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%	7.5%	7.5%	7.9%	8.3%	*8.5%*					
3.6 Return on equity	7.3%	7.3%	9.8%	10.3%	10.5%	8.9%	8.9%	8.9%	8.9%	8.9%	7.3%	7.3%	9.8%	10.3%	*10.5%*					
3.7 Average interest on debts	4.4%	3.8%	4.6%	5.0%	5.2%	5.1%	5.1%	5.1%	5.1%	5.1%	4.4%	4.4%	4.6%	5.0%	*5.2%*					
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													52	-79	0					
4. Total costs after deduction of costs for services to exempted flights (in nominal terms)																				
4.1 Costs for exempted VFR flights	127	127	127	127	127	127	127	127	127	127	127	127	127	127	*127*					
4.2 Total determined/actual costs	108,530	120,510	118,378	119,482	121,577	118,736	122,058	126,241	129,931	131,310	109,804	115,647	109,850	105,864	*116,101*					
5. Cost-efficiency KPI - Determined/Actual Unit Cost (in real terms)																				
5.1 Inflation % (3)	-1.60%	1.30%	1.00%	1.40%	1.60%	1.10%	1.20%	1.40%	1.70%	1.70%	-1.60%	1.20%	1.90%	0.50%	*0.60%*					
5.2 Price index (4)	98.4	99.7	100.7	102.1	103.7	102.2	103.4	104.9	106.7	108.5	98.4	99.6	101.5	102.0	102.6					
5.3 Total costs real terms (5)	**110,423**	**121,025**	**117,709**	**117,166**	**117,340**	**116,163**	**117,997**	**120,356**	**121,803**	**121,038**	**111,718**	**116,261**	**108,381**	**103,933**	***113,291***					
Total % n/n-1		9.6%	-2.7%	-0.5%	0.1%		1.6%	2.0%	1.2%	-0.6%		4.1%	-6.8%	-4.1%	9.0%					
5.4 Total Service Units	**3,464.0**	**3,631.0**	**3,826.0**	**3,906.0**	**4,004.0**	**3,982.6**	**4,049.6**	**4,113.3**	**4,184.9**	**4,262.1**	**3,615.0**	**3,771.5**	**3,806.0**	**3,812.9**	***3,885.9***					
Total % n/n-1		4.8%	5.4%	2.1%	2.5%	-0.5%	1.7%	1.6%	1.7%	1.8%		4.3%	0.9%	0.2%	1.9%					
5.5 Unit cost	**31.88**	**33.33**	**30.77**	**30.00**	**29.31**	**29.17**	**29.14**	**29.26**	**29.11**	**28.40**	**30.90**	**30.83**	**28.48**	**27.26**	***29.15***					
Total % n/n-1		4.6%	-7.7%	-2.5%	-2.3%		-0.1%	0.4%	-0.5%	-2.4%		-0.3%	-7.6%	-4.3%	7.0%					

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 price indexes - For RP1 base 100 in 2009 - For RP2 base 100 in 2012 2014 price index base 100 in 2012: 101.10 *(based on actual price index in 2013 and estimated price index in 2014)*
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

Table 1 - Total Costs and Unit Costs

Ireland
Currency: Euro
IAA

	Forecast		Determined costs - Perf. Plan RP1			Determined costs - Performance Plan 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**
1. Detail by nature (in nominal terms)																				
1.1 Staff	51,922	59,514	58,749	59,768	61,250	57,863	59,818	62,554	63,753	66,061	55,575	57,197	55,107	53,662	57,600					
1.2 Other operating costs (1)	20,205	20,998	23,471	23,894	24,340	28,447	27,360	27,357	27,861	27,264	18,623	18,584	20,364	18,872	23,433					
1.3 Depreciation	12,585	15,861	11,158	10,535	10,600	9,605	10,313	11,063	12,575	12,383	12,217	16,021	9,995	9,636	10,600					
1.4 Cost of capital	5,560	6,873	6,810	6,974	6,716	5,349	5,521	5,613	6,368	6,436	5,371	6,953	6,523	6,067	6,700					
1.5 Exceptional items	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
1.6 Total costs	90,272	103,246	100,188	101,171	102,906	101,264	103,012	106,587	110,556	112,144	91,786	98,755	91,989	88,237	98,333					
Total % n/n-1		0.1	0.0	0.0	0.0	-1.6%	1.7%	3.5%	3.7%	1.4%		7.6%	-6.9%	-4.1%	11.4%					
Staff % n/n-1		0.1	0.0	0.0	0.0	-5.5%	3.4%	4.6%	1.9%	3.6%		2.9%	-3.7%	-2.6%	7.3%					
Other op. % n/n-1		0.0	0.1	0.0	0.0	16.9%	-3.8%	0.0%	1.8%	-2.1%		-0.2%	9.6%	-7.3%	24.2%					
2. Detail by service (in nominal terms)																				
2.1 Air Traffic Management	61,202	91,395	87,874	88,541	89,401	90,187	91,697	94,883	98,375	99,783	80,688	87,412	80,754	77,316	86,166					
2.2 Communication (2)	5,322	2,758	2,864	3,132	3,958	3,000	3,070	3,175	3,295	3,350	2,314	2,600	2,632	2,735	3,048					
2.3 Navigation (2)	4,435	3,039	3,026	3,035	2,924	2,515	2,550	2,650	2,745	2,785	3,027	3,010	2,781	2,650	2,954					
2.4 Surveillance (2)	17,739	4,385	4,703	4,688	4,792	4,062	4,170	4,329	4,566	4,626	3,866	4,100	4,322	4,094	4,562					
2.5 Search and rescue						0	0	0	0	0										
2.6 Aeronautical Information (2)	1,574	1,669	1,721	1,775	1,831	1,500	1,525	1,550	1,575	1,600	1,891	1,633	1,500	1,442	1,603					
2.7 Meteorological services (2)	0	0	0	0	0	0	0	0	0	0	0		0	0	0					
2.8 Supervision costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
2.9 Other State costs (1)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
2.10 Total costs	90,272	103,246	100,188	101,171	102,906	101,264	103,012	106,587	110,556	112,144	91,786	98,755	91,989	88,237	98,333					
Total % n/n-1		14.4%	-3.0%	1.0%	1.7%	-1.6%	1.7%	3.5%	3.7%	1.4%		7.6%	-6.9%	-4.1%	11.4%					
ATM % n/n-1		49.3%	-3.9%	0.8%	1.0%	0.9%	1.7%	3.5%	3.7%	1.4%		8.3%	-7.6%	-4.3%	11.4%					
CNS % n/n-1		-63.0%	4.0%	2.5%	7.5%	-18.0%	2.2%	3.7%	4.5%	1.5%		5.5%	0.3%	-2.6%	11.4%					
3. Complementary information (in nominal terms)																				
Average asset base																				
3.1 Net book val. fixed assets	74,133	91,640	86,202	84,020	79,012	62,930	64,953	66,035	74,918	75,718	71,613	92,707	82,569	73,096	78,824					
3.2 Adjustments total assets	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
3.3 Net current assets	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
3.4 Total asset base	74,133	91,640	86,202	84,020	79,012	62,930	64,953	66,035	74,918	75,718	71,613	92,707	82,569	73,096	*78,824*					
Cost of capital %																				
3.5 Cost of capital pre tax rate	7.5%	7.5%	7.9%	8.3%	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%	7.5%	7.5%	7.9%	8.3%	*8.5%*					
3.6 Return on equity	7.3%	7.3%	9.8%	10.3%	10.5%	8.9%	8.9%	8.9%	8.9%	8.9%	7.3%	7.3%	9.8%	10.3%	*10.5%*					
3.7 Average interest on debts	4.4%	3.8%	4.6%	5.0%	5.2%	5.1%	5.1%	5.1%	5.1%	5.1%	4.4%	4.4%	4.6%	5.0%	*5.2%*					
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*					
4. Total costs after deduction of costs for services to exempted flights (in nominal terms)																				
4.1 Costs for exempted VFR flights	127	127	127	127	127	127	127	127	127	127	127	127	127	127	*127*					
4.2 Total determined/actual costs	90,145	103,119	100,061	101,044	102,779	101,137	102,885	106,460	110,429	112,017	91,659	98,628	91,862	88,110	98,206					
5. Cost-efficiency KPI - Determined/Actual Unit Cost (in real terms)																				
5.1 Inflation % (3)	-1.60%	1.30%	1.00%	1.40%	1.60%	1.10%	1.20%	1.40%	1.70%	1.70%	-1.60%	1.20%	1.90%	0.50%	0.60%					
5.2 Price index (4)	98.4	99.7	100.7	102.1	103.7	102.2	103.4	104.9	106.7	108.5	98.4	99.6	101.5	102.0	102.6					
5.3 Total costs real terms (5)	**91,740**	**103,578**	**99,515**	**99,104**	**99,216**	**98,946**	**99,461**	**101,497**	**103,521**	**103,254**	**93,278**	**99,171**	**90,654**	**86,524**	**95,849**					
Total % n/n-1		12.9%	-3.9%	-0.4%	0.1%		0.5%	2.0%	2.0%	-0.3%		6.3%	-8.6%	-4.6%	10.8%					
5.4 Total Service Units	**3,464.0**	**3,631.0**	**3,826.0**	**3,906.0**	**4,004.0**	**3,982.6**	**4,049.6**	**4,113.3**	**4,184.9**	**4,262.1**	**3,615.0**	**3,771.5**	**3,806.0**	**3,812.9**	**3,885.9**					
Total % n/n-1		4.8%	5.4%	2.1%	2.5%	-0.5%	1.7%	1.6%	1.7%	1.8%		4.3%	0.9%	0.2%	1.9%					
5.5 Unit cost	**26.48**	**28.53**	**26.01**	**25.37**	**24.78**	**24.84**	**24.56**	**24.68**	**24.74**	**24.23**	**25.80**	**26.29**	**23.82**	**22.69**	**24.67**					
Total % n/n-1		7.7%	-8.8%	-2.5%	-2.3%		-1.1%	0.5%	0.2%	-2.1%		1.9%	-9.4%	-4.7%	8.7%					

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 price indexes - For RP1 base 100 in 2009 - For RP2 base 100 in 2012 2014 price index base 100 in 2012: 101.10 *(based on actual price index in 2013 and estimated price index in 2014)*
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

Table 1 - Total Costs and Unit Costs

Ireland
Currency: Euro
MET

	Forecast		Determined costs - Perf. Plan RP1			Determined costs - Performance Plan 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**
1. Detail by nature (in nominal terms)																				
1.1 Staff	4,480	4,480	4,421	4,385	4,428	4,551	4,783	5,004	4,383	3,993	4,561	4,346	4,421	4,317	*4,160*					
1.2 Other operating costs (1)	2,240	2,080	2,237	2,350	2,374	2,259	2,795	2,902	2,973	2,882	1,902	1,803	2,120	2,224	*2,640*					
1.3 Depreciation						0	499	507	515	523										
1.4 Cost of capital																				
1.5 Exceptional items																				
1.6 Total costs	6,720	6,560	6,658	6,735	6,802	6,810	8,077	8,413	7,871	7,398	6,463	6,149	6,541	6,541	6,800					
Total % n/n-1		-2.4%	1.5%	1.2%	1.0%	0.1%	18.6%	4.2%	-6.4%	-6.0%		-4.9%	6.4%	0.0%	4.0%					
Staff % n/n-1		0.0%	-1.3%	-0.8%	1.0%	2.8%	5.1%	4.6%	-12.4%	-8.9%		-4.7%	1.7%	-2.4%	-3.6%					
Other op. % n/n-1		-7.1%	7.5%	5.1%	1.0%	-4.8%	23.7%	3.8%	2.4%	-3.1%		-5.2%	17.6%	4.9%	18.7%					
2. Detail by service (in nominal terms)																				
2.1 Air Traffic Management																				
2.2 Communication (2)																				
2.3 Navigation (2)																				
2.4 Surveillance (2)																				
2.5 Search and rescue																				
2.6 Aeronautical Information (2)																				
2.7 Meteorological services (2)	6,720	6,560	6,658	6,735	6,802	6,810	8,077	8,413	7,871	7,398	6,463	6,149	6,541	6,541	*6,800*					
2.8 Supervision costs																				
2.9 Other State costs (1)																				
2.10 Total costs	6,720	6,560	6,658	6,735	6,802	6,810	8,077	8,413	7,871	7,398	6,463	6,149	6,541	6,541	6,800					
Total % n/n-1		-2.4%	1.5%	1.2%	1.0%		18.6%	4.2%	-6.4%	-6.0%		-4.9%	6.4%	0.0%	4.0%					
ATM % n/n-1																				
CNS % n/n-1																				
3. Complementary information (in nominal terms)																				
Average asset base																				
3.1 Net book val. fixed assets																				
3.2 Adjustments total assets																				
3.3 Net current assets																				
3.4 Total asset base																				
Cost of capital %																				
3.5 Cost of capital pre tax rate																				
3.6 Return on equity																				
3.7 Average interest on debts																				
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														0	*0*					
4. Total costs after deduction of costs for services to exempted flights (in nominal terms)																				
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	6,720	6,560	6,658	6,735	6,802	6,810	8,077	8,413	7,871	7,398	6,463	6,149	6,541	6,541	6,800					
5. Cost-efficiency KPI - Determined/Actual Unit Cost (in real terms)																				
5.1 Inflation % (3)	-1.60%	1.30%	1.00%	1.40%	1.60%	1.10%	1.20%	1.40%	1.70%	1.70%	-1.60%	1.20%	1.90%	0.50%	0.60%					
5.2 Price index (4)	98.4	99.7	100.7	102.1	103.7	102.2	103.4	104.9	106.7	108.5	98.4	99.6	101.5	102.0	102.6					
5.3 Total costs real terms (5)	**6,829**	**6,581**	**6,613**	**6,597**	**6,558**	**6,662**	**7,808**	**8,021**	**7,379**	**6,819**	**6,568**	**6,175**	**6,446**	**6,414**	**6,628**					
Total % n/n-1		-3.6%	0.5%	-0.2%	-0.6%		17.2%	2.7%	-8.0%	-7.6%		-6.0%	4.4%	-0.5%	3.3%					
5.4 Total Service Units	**3,464.0**	**3,631.0**	**3,826.0**	**3,906.0**	**4,004.0**	**3,982.6**	**4,049.6**	**4,113.3**	**4,184.9**	**4,262.1**	**3,615.0**	**3,771.5**	**3,806.0**	**3,812.9**	**3,885.9**					
Total % n/n-1		4.8%	5.4%	2.1%	2.5%	-0.5%	1.7%	1.6%	1.7%	1.8%		4.3%	0.9%	0.2%	1.9%					
5.5 Unit cost	**1.97**	**1.81**	**1.73**	**1.69**	**1.64**	**1.67**	**1.93**	**1.95**	**1.76**	**1.60**	**1.82**	**1.64**	**1.69**	**1.68**	**1.71**					
Total % n/n-1		-8.1%	-4.6%	-2.3%	-3.0%		15.3%	1.1%	-9.6%	-9.3%		-9.9%	3.4%	-0.7%	1.4%					

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 price indexes - For RP1 base 100 in 2009 - For RP2 base 100 in 2012 2014 price index base 100 in 2012: 101.10 *(based on actual price index in 2013 and estimated price index in 2014)*
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

Table 1 - Total Costs and Unit Costs

Ireland
Currency: Euro
NSA

	Forecast		Determined costs - Perf. Plan RP1			Determined costs - Performance Plan RP2					Actual costs									
Cost details	**2010F**	**2011F**	**2012**	**2013**	**2014**	**2,015.00**	**2,016.00**	**2,017.00**	**2,018.00**	**2,019.00**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**
1. Detail by nature (in nominal terms)																				
1.1 Staff	1,186	1,349	1,566	1,445	1,496	1,521	1,542	1,567	1,594	1,621	1,286	1,338	1,333	1,355	*1,526*					
1.2 Other operating costs (1)	10,479	9,482	10,093	10,258	10,500	9,268	9,554	9,801	10,037	10,275	10,396	9,532	10,114	9,858	*9,569*					
1.3 Depreciation	0	0	0	0	0	-	-	-	-	-	0	0	0	0	*0*					
1.4 Cost of capital	0	0	0	0	0	-	-	-	-	-	0	0	0	0	*0*					
1.5 Exceptional items	0	0	0	0	0	-	-	-	-	-	0	0	0	0	*0*					
1.6 Total costs	11,665	10,831	11,659	11,703	11,996	10,789	11,096	11,368	11,631	11,896	11,682	10,870	11,447	11,213	11,095					
Total % n/n-1			8%	0%	3%	-10%	3%	2%	2%	2%		-7%	5%	0.0	-1.1%					
Staff % n/n-1			16%	-8%	4%	2%	1%	2%	2%	2%										
Other op. % n/n-1			6%	2%	2%	-12%	3%	3%	2%	2%		-8%	6%	0.0	-2.9%					
2. Detail by service (in nominal terms)																				
2.1 Air Traffic Management																				
2.2 Communication (2)																				
2.3 Navigation (2)																				
2.4 Surveillance (2)																				
2.5 Search and rescue																				
2.6 Aeronautical Information (2)																				
2.7 Meteorological services (2)																				
2.8 Supervision costs	1,646	1,858	2,042	2,002	2,059	1,462	1,482	1,506	1,532	1,558	1,623	1,699	1,636	1,454	*1,490*					
2.9 Other State costs (1)	10,019	8,973	9,617	9,701	9,937	9,327	9,614	9,862	10,099	10,338	10,059	9,171	9,811	9,759	*9,605*					
2.10 Total costs	11,665	10,831	11,659	11,703	11,996	10,789.00	11,096.30	11,368.00	11,630.60	11,895.70	11,682	10,870	11,447	11,213	11,095					
Total % n/n-1		-7.1%	7.6%	0.4%	2.5%	- 0.10	0.03	0.02	0.02	0.02		-7.0%	5.3%	-2.0%	-1.1%					
ATM % n/n-1																				
CNS % n/n-1																				
3. Complementary information (in nominal terms)																				
Average asset base																				
3.1 Net book val. fixed assets																				
3.2 Adjustments total assets																				
3.3 Net current assets																				
3.4 Total asset base	0	0	0	0	0	-	-	-	-	-	0	0	0	0	0					
Cost of capital %																				
3.5 Cost of capital pre tax rate																				
3.6 Return on equity																				
3.7 Average interest on debts																				
Cost of common projects																				
3.8 Total costs of common projects						-	-	-	-	-				0						
Costs exempted from cost sharing (Article 14(2)(b))																				
3.9 Total costs exempted from cost													52	-79	*0*					
4. Total costs after deduction of costs for services to exempted flights (in nominal terms)																				
4.1 Costs for exempted VFR flights	0	0	0	0	0	-	-	-	-	-	0	0	0	0	*0*					
4.2 Total determined/actual costs	11,665	10,831	11,659	11,703	11,996	10,789.00	11,096.30	11,368.00	11,630.60	11,895.70	11,682	10,870	11,447	11,213	11,095					
5. Cost-efficiency KPI - Determined/Actual Unit Cost (in real terms)																				
5.1 Inflation % (3)	-1.60%	1.30%	1.00%	1.40%	1.60%	0.01	0.01	0.01	0.02	0.02	-1.60%	1.20%	1.90%	0.50%	0.60%					
5.2 Price index (4)	98.4	99.7	100.7	102.1	103.7	102.22	103.44	104.89	106.67	108.49	98.4	99.6	101.5	102.0	102.6					
5.3 Total costs real terms (5)	**11,854**	**10,866**	**11,581**	**11,464**	**11,566**	**10,555.19**	**10,727.10**	**10,838.03**	**10,903.04**	**10,965.15**	**11,872**	**10,916**	**11,281**	**10,995**	**10,815**					
Total % n/n-1		-8.3%	6.6%	-1.0%	0.9%		0.02	0.01	0.01	0.01		-8.1%	3.3%	-2.5%	-1.6%					
5.4 Total Service Units	**3,464.0**	**3,631.0**	**3,826.0**	**3,906.0**	**4,004.0**	**3,982.60**	**4,049.62**	**4,113.29**	**4,184.88**	**4,262.14**	**3,615.0**	**3,771.5**	**3,806.0**	**3,812.9**	**3,885.9**					
Total % n/n-1		4.8%	5.4%	2.1%	2.5%	- 0.01	0.02	0.02	0.02	0.02		4.3%	0.9%	0.2%	1.9%					
5.5 Unit cost	**3.42**	**2.99**	**3.03**	**2.93**	**2.89**	**2.65**	**2.65**	**2.63**	**2.61**	**2.57**	**3.28**	**2.89**	**2.96**	**2.88**	**2.78**					
Total % n/n-1		-12.6%	1.1%	-3.0%	-1.6%		- 0.00	- 0.01	- 0.01	- 0.01		-11.9%	2.4%	-2.7%	-3.5%					

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 price indexes - For RP1 base 100 in 2009 - For RP2 base 100 in 2012 2014 price index base 100 in 2012: 101.10 *(based on actual price index in 2013 and estimated price index in 2014)*
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

Table 2 - Unit rate calculation

Ireland
All Entities

	Full cost		Reference Period 1			Reference Period 2				
Unit rate calculation	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**
1. Determined costs in nominal terms and inflation adjustment										
1.1 Determined costs in nominal terms - VFR excl. - Table 1	108,530	120,510	118,378	119,482	121,577	118,736	122,058	126,241	129,931	131,310
1.2 Actual inflation rate - Table 1	-1.6%	1.2%	1.9%	0.5%						
1.3 Forecast inflation rate - Table 1	-1.6%	1.3%	1.0%	1.4%	1.6%	1.1%	1.2%	1.4%	1.7%	1.7%
1.4 Inflation adjustment (1) : year n amount to be carried over			937	-123						
2. Forecast and actual total service units										
2.1 Forecast total service units (performance plan)	3,464.0	3,631.0	3,826.0	3,906.0	4,004.0	3,982.6	4,049.6	4,113.3	4,184.9	4,262.1
2.2 Actual total service units	3,615.0	3,771.5	3,806.0	3,812.9						
2.3 Actual / forecast total service units (in %)			99.5%	97.6%						
3. Costs subject to traffic risk sharing										
3.1 Determined costs in nominal terms - VFR excl. (reported from Table 1)	90,145	103,119	100,061	101,044.00	102,779	101,137	102,885	106,460	110,429	112,017
3.2 Inflation adjustment : amount carried over to year n			0	0	792	-104				
3.3 Traffic : amounts carried over to year n			0	0	-17	-223				
3.4 Traffic risk sharing : add. revenue carried over to year n			0	0	0	0				
3.5 Traffic risk sharing : revenues losses carried over to year n			0	0	0	271				
3.6 Costs exempt from cost sharing : amounts carried over to year n			0	0	0	0				
3.7 Bonus or penalty for performance			0	0	0	0				
3.8 Over(-) or under(+) recoveries (2) : amounts carried over to year n	-2,239	-651	-3,275	-9,344	0	0				
3.9 Total for the calculation of year n unit rate	87,906	102,468	96,786	91,700	103,554	101,081	102,885	106,460	110,429	112,017
3.10 Traffic risk sharing : add. rev. year n to be carried-over			0	0						
3.11 Traffic risk sharing : revenue loss year n to be carried-over			0	-271						
3.12 Over/under recoveries from traffic variations n to be carried-over			17	223						
Parameters for traffic risk sharing										
3.13 % additional revenue returned to users in year n+2			70%	70%	70%	70%	70%	70%	70%	70%
3.14 % loss of revenue borne by airspace users			70%	70%	70%	70%	70%	70%	70%	70%
4. Costs not subject to traffic risk sharing										
4.1 Determined costs in nominal terms - VFR excl. (Table 1)	18,385	17,391	18,317	18,438	18,798	17,599	19,173	19,781	19,502	19,294
4.2 Inflation adjustment : amount carried over to year n			0	0	145	-19				
4.3 Traffic : amounts carried over to year n			0	0	96	439				
4.4 Costs exempt from cost sharing : amounts carried over to year n			0	0	0	0	0			
4.5 Restructuring costs : amounts carried over to year n			0	0	0	0				
4.6 Over(-) or under(+) recoveries (2) : amounts carried over to year n			0	0	0	0				
4.7 Total for the calculation of year n unit rate	18,385	17,391	18,317	18,438	19,039	18,019	19,173	19,781	19,502	19,294
4.8 Over/under recoveries from traffic variations n to be carried-over			-96	-439						
5. Other revenues - applied unit rate (in national currency)										
5.1 Total other revenues	0	0	0	0	0	0				
5.2 Total revenues from Public Authorities	0	0	0	0	0	0				
5.3 of which Union assistance programmes	0	0	0	0	0	0				
5.4 of which National public funding	0	0	0	0	0	0				
5.5 Commercial activities	0	0	0	0	0	0				
5.6 Other other revenues	0	0	0	0	0	0				
5.7 Grand total for the calculation of year n unit rate	106,291	119,859	115,103	110,138	122,593	119,100	122,058	126,241	129,931	131,310
5.8 Year n unit rate (in national currency)	**30.68**	**33.01**	**30.08**	**28.20**	**30.62**	**29.91**	**30.14**	**30.69**	**31.05**	**30.81**
5.9 ANSP component of the unit rate	25.38	28.22	25.30	23.48	25.86	25.38	25.41	25.88	26.39	26.28
5.10 MET component of the unit rate	1.94	1.81	1.74	1.72	1.72	1.75	1.99	2.05	1.88	1.74
5.11 NSA-State component of the unit rate	3.37	2.98	3.05	3.00	3.03	2.78	2.74	2.76	2.78	2.79
5.12 Year n unit rate that would have applied without other revenues	30.68	33.01	30.08	28.20	30.62	29.91	30.14	30.69	31.05	30.81

Costs, revenues and other amounts in '000 Euro - Service units in '000
(1) 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

Ireland
IAA

Unit rate calculation	Full cost 2010	2011	Reference Period 1 2012	2013	2014	Reference Period 2 2015	2016	2017	2018	2019
1. Determined costs in nominal terms and inflation adjustment										
1.1 Determined costs in nominal terms - VFR excl. - Table 1	90,145	103,119	100,061	101,044	102,779	101,137	102,885	106,460	110,429	112,017
1.2 Actual inflation rate - Table 1	-1.6%	1.2%	1.9%	0.5%						
1.3 Forecast inflation rate - Table 1	-1.6%	1.3%	1.0%	1.4%	1.6%	1.1%	1.2%	1.4%	1.7%	1.7%
1.4 Inflation adjustment (1) : year n amount to be carried over			792	-104						
2. Forecast and actual total service units										
2.1 Forecast total service units (performance plan)	3,464.0	3,631.0	3,826.0	3,906.0	4,004.0	3,982.6	4,049.6	4,113.3	4,184.9	4,262.1
2.2 Actual total service units	3,615.0	3,771.5	3,806.0	3,812.9						
2.3 Actual / forecast total service units (in %)			99.5%	97.6%						
3. Costs subject to traffic risk sharing										
3.1 Determined costs in nominal terms - VFR excl. (reported from Table 1)	90,145	103,119	100,061	101,044	102,779	101,137	102,885	106,460	110,429	112,017
3.2 Inflation adjustment : amount carried over to year n			0	0	792	-104				
3.3 Traffic : amounts carried over to year n			0	0	- 17	- 223				
3.4 Traffic risk sharing : add. revenue carried over to year n			0	0	0	0				
3.5 Traffic risk sharing : revenues losses carried over to year n			0	0	0	271				
3.6 Costs exempt from cost sharing : amounts carried over to year n			0	0	0	0				
3.7 Bonus or penalty for performance			0	0	0	0				
3.8 Over(-) or under(+) recoveries (2) : amounts carried over to year n	-2,239	-651	-3,275	-9,344	0	0				
3.9 Total for the calculation of year n unit rate	87,906	102,468	96,786	91,700	103,554	101,081	102,885	106,460	110,429	112,017
3.10 Traffic risk sharing : add. rev. year n to be carried-over			0	0						
3.11 Traffic risk sharing : revenue loss year n to be carried-over			0	- 271						
3.12 Over/under recoveries from traffic variations n to be carried-over			17	223						
Parameters for traffic risk sharing										
3.13 % additional revenue returned to users in year n+2			70%	70%	70%	70%	70%	70%	70%	70%
3.14 % loss of revenue borne by airspace users			70%	70%	70%	70%	70%	70%	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	0	0	0	0	0	0				
5.2 Total revenues from Public Authorities	0	0	0	0	0	0				
5.3 of which Union assistance programmes	0	0	0	0	0	0				
5.4 of which National public funding	0	0	0	0	0	0				
5.5 Commercial activities	0	0	0	0	0	0				
5.6 Other other revenues	0	0	0	0	0	0				
5.7 Grand total for the calculation of year n unit rate	87,906	102,468	96,786	91,700	103,554	101,081	102,885	106,460	110,429	112,017
5.8 Year n unit rate (in national currency)										
5.9 ANSP component of the unit rate	25.38	28.22	25.30	23.48	25.86	25.38	25.41	25.88	26.39	26.28
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	25.38	28.22	25.30	23.48	25.86	25.38	25.41	25.88	26.39	26.28

Costs, revenues and other amounts in '000 Euro - Service units in '000
(1) 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

Ireland MET		Full cost		Reference Period 1			Reference Period 2				
Unit rate calculation		**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**
	1. Determined costs in nominal terms and inflation adjustment										
1.1	Determined costs in nominal terms - VFR excl. - Table 1	6,720	6,560	6,658	6,735	6,802	6,810	8,077	8,413	7,871	7,398
1.2	Actual inflation rate - Table 1	-1.6%	1.2%	1.9%	0.5%						
1.3	Forecast inflation rate - Table 1	-1.6%	1.3%	1.0%	1.4%	1.6%	1.1%	1.2%	1.4%	1.7%	1.7%
1.4	Inflation adjustment (1) : year n amount to be carried over			53	-7						
	2. Forecast and actual total service units										
2.1	Forecast total service units (performance plan)	3,464.0	3,631.0	3,826.0	3,906.0	4,004.0	3,982.6	4,049.6	4,113.3	4,184.9	4,262.1
2.2	Actual total service units	3,615.0	3,771.5	3,806.0	3,812.9						
2.3	Actual / forecast total service units (in %)			99.5%	97.6%						
	3. Costs subject to traffic risk sharing										
3.1	Determined costs in nominal terms - VFR excl. (reported from Table 1)										
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 over to year n										
3.5	Traffic risk sharing : revenues losses carried over to year n										
3.6	Costs exempt from cost sharing : amounts carried over to year n										
3.7	Bonus or penalty for performance										
3.8	Over(-) or under(+) recoveries (2) : amounts carried over to year n										
3.9	Total for the calculation of year n unit rate										
3.10	Traffic risk sharing : add. rev. year n to be carried-over										
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										
3.14	% loss of revenue borne by airspace users										
	4. Costs not subject to traffic risk sharing										
4.1	Determined costs in nominal terms - VFR excl. (Table 1)	6,720	6,560	6,658	6,735	6,802	6,810	8,077	8,413	7,871	7,398
4.2	Inflation adjustment : amount carried over to year n			0	0	53	-7				
4.3	Traffic : amounts carried over to year n			0	0	35	160				
4.4	Costs exempt from cost sharing : amounts carried over to year n			0	0	0	0				
4.5	Restructuring costs : amounts carried over to year n			0	0	0	0				
4.6	Over(-) or under(+) recoveries (2) : amounts carried over to year n	0	0	0	0	0	0				
4.7	Total for the calculation of year n unit rate	6,720	6,560	6,658	6,735	6,890	6,964	8,077	8,413	7,871	7,398
4.8	Over/under recoveries from traffic variations n to be carried-over			-35	-160						
	5. Other revenues - applied unit rate (in national currency)										
5.1	Total other revenues			0	0	0	0				
5.2	Total revenues from Public Authorities			0	0	0	0				
5.3	of which Union assistance programmes			0	0	0	0				
5.4	of which National public funding			0	0	0	0				
5.5	Commercial activities			0	0	0	0				
5.6	Other other revenues			0	0	0	0				
5.7	Grand total for the calculation of year n unit rate	6,720	6,560	6,658	6,735	6,890	6,964	8,077	8,413	7,871	7,398
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	1.94	1.81	1.74	1.72	1.72	1.75	1.99	2.05	1.88	1.74
5.11	NSA-State component of the unit rate										
5.12	Year n unit rate that would have applied without other revenues	1.94	1.81	1.74	1.72	1.72	1.75	1.99	2.05	1.88	1.74

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

(1) 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

Ireland
NSA

	Full cost		Reference Period 1			Reference Period 2				
Unit rate calculation	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**
1. Determined costs in nominal terms and inflation adjustment										
1.1 Determined costs in nominal terms - VFR excl. - Table 1	11,665	10,831	11,659	11,703	11,996	10,789	11,096	11,368	11,631	11,896
1.2 Actual inflation rate - Table 1	-1.6%	1.2%	1.9%	0.5%						
1.3 Forecast inflation rate - Table 1	-1.6%	1.3%	1.0%	1.4%	1.6%	1.1%	1.2%	1.4%	1.7%	1.7%
1.4 Inflation adjustment (1) : year n amount to be carried over			92	-12						
2. Forecast and actual total service units										
2.1 Forecast total service units (performance plan)	3,464.0	3,631.0	3,826.0	3,906.0	4,004.0	3,982.6	4,049.6	4,113.3	4,184.9	4,262.1
2.2 Actual total service units	3,615.0	3,771.5	3,806.0	3,812.9						
2.3 Actual / forecast total service units (in %)			99.5%	97.6%						
3. Costs subject to traffic risk sharing										
3.1 Determined costs in nominal terms - VFR excl. (reported from Table 1)										
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 over to year n										
3.5 Traffic risk sharing : revenues losses carried over to year n										
3.6 Costs exempt from cost sharing : amounts carried over to year n										
3.7 Bonus or penalty for performance										
3.8 Over(-) or under(+) recoveries (2) : amounts carried over to year n										
3.9 Total for the calculation of year n unit rate										
3.10 Traffic risk sharing : add. rev. year n to be carried-over										
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										
3.14 % loss of revenue borne by airspace users										
4. Costs not subject to traffic risk sharing										
4.1 Determined costs in nominal terms - VFR excl. (Table 1)	11,665	10,831	11,659	11,703	11,996	10,789	11,096	11,368	11,631	11,896
4.2 Inflation adjustment : amount carried over to year n			0	0	92	-12				
4.3 Traffic : amounts carried over to year n			0	0	61	279				
4.4 Costs exempt from cost sharing : amounts carried over to year n			0	0	0	0	0			
4.5 Restructuring costs : amounts carried over to year n			0	0	0	0				
4.6 Over(-) or under(+) recoveries (2) : amounts carried over to year n	0	0	0	0	0	0				
4.7 Total for the calculation of year n unit rate	11,665	10,831	11,659	11,703	12,149	11,056	11,096	11,368	11,631	11,896
4.8 Over/under recoveries from traffic variations n to be carried-over			-61	-279						
5. Other revenues - applied unit rate (in national currency)										
5.1 Total other revenues			0	0	0	0				
5.2 Total revenues from Public Authorities			0	0	0	0				
5.3 of which Union assistance programmes			0	0	0	0				
5.4 of which National public funding			0	0	0	0				
5.5 Commercial activities			0	0	0	0				
5.6 Other other revenues			0	0	0	0				
5.7 Grand total for the calculation of year n unit rate	11,665	10,831	11,659	11,703	12,149	11,056	11,096	11,368	11,631	11,896
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	3.37	2.98	3.05	3.00	3.03	2.78	2.74	2.76	2.78	2.79
5.12 Year n unit rate that would have applied without other revenues	3.37	2.98	3.05	3.00	3.03	2.78	2.74	2.76	2.78	2.79

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

(1) 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 3 - Complementary Information

Ireland
All Entities

PART A : Complementary Information on costs	2010F	2011F	2012	2013	2014	2015	2016	2017	2018	2019	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
	Forecast		Determined costs - RP1			Determined costs - RP2					Actual costs									
Eurocontrol costs																				
1.1 EUROCONTROL costs (Euro)			7,543	7,589	7,758	6,836.0	7,148.0	7,411.0	7,653.0	7,900.0	8,082	6,967	7,595	7,510	6,940					
1.2 Exchange rate (if applicable)																				
Cost of common projects																				
2.1 Total costs of common projects						0	0	0	0	0						0	0	0	0	0
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													0							
3.2 Other operating costs													52	-79						
3.3 Depreciation																				
3.4 Cost of capital																				
3.5 Exceptional items																				
3.6 Total costs exempted from cost sharing													52	-79	0	0	0	0	0	0
Breakdown by factor/item																				
3.7 Pension																				
3.8 Interest rates on loans																				
3.9 National taxation law																				
3.10 New cost item required by law																				
3.11 International agreements													52	-79						
3.12 Total costs exempted from cost sharing													52	-79	0					

	Planned costs (business case)										Actual costs (for information)									
Restructuring costs, if authorised in accordance with Article 7(4)																				
4.1 Total restructuring costs				0.0	0.0									0.0	0.0					

En route

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

		Historical data (actual 2009-2013, latest 2014 forecast)						RP2 Performance Plan					RP1 PP	Average pct variation p.a.			
	Ireland	**2009 A**	**2010 A**	**2011 A**	**2012 A**	**2013 A**	**2014 F**	**2015 D**	**2016 D**	**2017 D**	**2018 D**	**2019 D**	**2014 D**	**2009A-2019D**	**2014F-2019D**	**2011A-2019D**	**2014D-2019D**
Local currency (Nominal and 2012)	Total en route actual/forecast/determined costs in nominal terms (in national currency)	105,073,026	109,804,000	115,647,000	109,850,000	105,864,000	116,101,000	118,736,300	122,057,800	126,241,100	129,930,900	131,310,200	121,577,000	2.3%	2.5%	1.6%	1.6%
	Inflation %		-1.60%	1.20%	1.90%	0.50%	0.60%	1.10%	1.20%	1.40%	1.70%	1.70%					
	Inflation index (Base = 100 in 2012)	98.5	96.97	98.14	100.00	100.50	101.10	102.22	103.44	104.89	106.67	108.49	102.21	1.0%	1.4%	1.3%	1.2%
	Total en route actual/forecast/determined costs in real terms (in national currency at 2012 prices)	106,620,579	113,232,959	117,844,293	109,850,000	105,337,313	114,834,377	116,163,132	117,996,691	120,355,822	121,802,956	121,038,321	118,944,301	1.3%	1.1%	0.3%	0.3%
	Total en route Service Units (TSU)	3,560,633	3,615,036	3,771,478	3,805,985	3,812,940	3,885,900	3,982,600	4,049,624	4,113,288	4,184,878	4,262,135	4,004,000	1.8%	1.9%	1.5%	1.3%
	Real en route UCs/DUCs (in national currency at 2012 prices)	29.94	31.32	31.25	28.86	27.63	29.55	**29.17**	**29.14**	**29.26**	**29.11**	**28.40**	29.71	-0.5%	-0.8%	-1.2%	-0.9%
Local currency (2009 prices)	Inflation index (Base = 100 in 2009)	100.0	98.40	99.58	101.47	101.98	102.59	103.72	104.97	106.43	108.24	110.08	103.7	1.0%	1.4%	1.3%	1.2%
	Total en route actual/forecast/determined costs in real terms (in national currency at 2009 prices)	105,073,026	111,589,431	116,133,833	108,255,574	103,808,387	113,167,605	114,477,073	116,284,019	118,608,909	120,035,038	119,281,501	117,217,875	1.3%	1.1%	0.3%	0.3%
	Real en route UCs/DUCs (in national currency at 2009 prices)	**29.51**	**30.87**	**30.79**	**28.44**	**27.23**	**29.12**	**28.74**	**28.71**	**28.84**	**28.68**	**27.99**	**29.28**	-0.5%	-0.8%	-1.2%	-0.9%

Total en route actual costs RP1 in national currency (as per notification letter from the European Commission accepting Performance Plans for RP1)	105,200,000	121,704,000
Total en route actual costs for services to exempted VFR flights in national currency (as per November 2010 Reporting Tables)	126,974	127,000

En route Charging zone: Ireland
Reference Periods 1 (2012-2014) and 2 (2015-2019)

ADDITIONAL INFORMATION – 1 – Total costs and unit costs

a) Description of the methodology used for allocating costs of facilities or services between different air navigation services based on the list of facilities and services listed in ICAO Regional Air Navigation Plan, European Region (Doc. 7754), and a description of the methodology used for allocating those costs between different Charging Zones;

Costs of facilities and services are allocated directly to the activity they support. The IAA accounting system allocates costs by nature to en route, terminal and other activities by registering each resource/cost to its appropriate cost centre. Therefore costs incurred in providing en route service are 100% allocated to the en route cost centre.

For facilities and services that serve en route, terminal and other activities, the costs are allocated based on a number of allocation keys which vary with the nature of the cost e.g. staff numbers, square footage, time spent.

These allocation keys are kept under regular review by the IAA.

b) Description of the methodology and assumptions used to establish the costs of air navigation services provided to VFR flights, when exemptions are granted for VFR flights;

The cost of VFR flights is captured in an annual amount of €126,974, agreed in previous years.

c) Description and justification of any adjustment beyond the provisions of the International Accounting Standards;

The amounts included in the determined cost base for pension costs are the forecast cash costs in line with the latest available actuarial valuation as at 1st January 2012. The next actuarial valuation will take place as at 1 January 2015. The pension costs forecast reflect best estimates of cash contributions.

d) Description and explanation of the method adopted for the calculation of depreciation costs: historic costs or current costs. When current cost accounting is adopted, provision of comparable historic cost data;

Tangible fixed assets are stated at cost, less accumulated depreciation. Depreciation is calculated to write off the cost of each fixed asset, including equipment purchased as part of an installation, on a straight line basis over its expected useful life, at the following annual rates:

Buildings	5%
Completed installations and other works	$8^{1}/_{3}$%-12½%
Office equipment and non-operational administrative software	20% - $33^{1}/_{3}$%

Assets are depreciated from the date they are commissioned for use.

Assets under construction/installations in progress are carried at historical cost and are not depreciated until they are brought into use.

e) Justification for the cost of capital, including the components of the asset base, the possible adjustments to total assets and the return on equity;

2012-2014
An independent assessment of the IAA's cost of capital was carried out by Helios, covering the years 2012 to 2014.

The cost of capital has been calculated using the weighted average cost of capital (WACC) approach, consistent with previous years, and taking into account the risk sharing requirement of the amended charging regulation.

The cost of capital, in real terms, has been calculated using a risk free rate of 2.71% (based on Eurozone bond yields) plus an equity risk premium of 5%. Cost of debt is calculated at 3.6% while the gearing ratio of 36.13% has been calculated based on the relative weights of the IAA's capital structure. Taking all this into account, the cost of capital, consistent with the National Performance Plan is given as 6.9% in real terms and restated for the reporting tables in nominal terms as 7.9% in 2012, 8.3% in 2013 and 8.5% in 2014.

In 2013, the actual cost of capital applied was 8.3% in nominal terms which was lower than actual when a changed capital structure was taken into account.

Assumptions for determining the cost of capital and the return on equity

ANSP/Entity: Ireland	**RP1**		
Assumptions for the Cost of Capital (WACC) in nominal terms	**Determined**		
	2012 D	**2013 D**	**2014 D**
Capital structure (% debt)	36.1%	36.1%	36.1%
Corporate tax rate %	12.5%	12.5%	12.5%
Risk free rate % (nominal)	3.71%	4.11%	4.31%
Market (equity) risk premium % (after tax)	5.00%	5.00%	5.00%
Asset beta	0.65	0.65	0.65
Debt beta	0.00	0.00	0.00
Equity beta	0.97	0.97	0.97
Return on Equity % (after tax)	8.57%	8.97%	9.17%
Return on Equity % (pre tax) - T1 3.6	**9.79%**	**10.25%**	**10.48%**
Debt risk premium %	0.89%	0.89%	0.89%
Interest on debt % (pre tax) - T1 3.7	**4.60%**	**5.00%**	**5.20%**
WACC % (pre tax) - T1 3.5	**7.92%**	**8.35%**	**8.57%**

2015-2019
An independent assessment of the IAA's cost of capital was carried out by 'First Economics', covering the years 2015 to 2019. Based on their findings, a real weighted average cost of capital rate of 6.7% was calculated. The cost of capital has been calculated using the weighted average cost of capital (WACC) approach, consistent with previous years.

The key parameters on which this calculation was based are as follows:

En route Charging zone: Ireland
Reference Periods 1 (2012-2014) and 2 (2015-2019)

	Real	Nominal
Gearing	10.0%	10.0%
Cost of debt	3.5%	5.1%
Cost of equity (pre tax)	7.0%	8.9%
Cost of equity (post tax)	6.2%	7.8%
WACC	6.7%	8.5%

ANSP/Entity: Ireland	**RP2 PP**					
Assumptions for the Cost of Capital (WACC) in nominal terms	**Underlying assumptions for an "efficient" WACC**	**For the determined cost of capital**				
		2015 D	**2016 D**	**2017 D**	**2018 D**	**2019 D**
Capital structure (% debt)	*10%*	10.0%	10.0%	10.0%	10.0%	10.0%
Corporate tax rate %	*12.5%*	12.5%	12.5%	12.5%	12.5%	12.5%
Risk free rate % (nominal)	*4.25%*	4.25%	4.25%	4.25%	4.25%	4.25%
Market (equity) risk premium % (after tax)	*5.00%*	5.00%	5.00%	5.00%	5.00%	5.00%
Asset beta	*0.65*	0.65	0.65	0.65	0.65	0.65
Debt beta	*0.10*	0.10	0.10	0.10	0.10	0.10
Equity beta	*0.70*	0.70	0.70	0.70	0.70	0.70
Return on Equity % (after tax)	*7.77%*	7.77%	7.77%	7.77%	7.77%	7.77%
Return on Equity % (pre tax) - T1 3.6	***8.88%***	**8.88%**	**8.88%**	**8.88%**	**8.88%**	**8.88%**
Debt risk premium %	*0.90%*	0.90%	0.90%	0.90%	0.90%	0.90%
Interest on debt % (pre tax) - T1 3.7	***5.15%***	**5.15%**	**5.15%**	**5.15%**	**5.15%**	**5.15%**
WACC % (pre tax) - T1 3.5	***8.5%***	**8.5%**	**8.5%**	**8.5%**	**8.5%**	**8.5%**

ANSP/Entity: Ireland	**Notional "efficient" WACC in RP2**	**Determined cost of capital in RP2**
Capital structure (% debt)	Article 7 paragraph 3 of the charging regulation provides that the weight given to debt and equity in the cost of capital calculation 'shall be based on the portion of financing through either debt or equity' Based on a 3 year average 2010-2012, the ANSPs gearing has averaged just 6%. No borrowings are anticipated in RP2. However given that the future is uncertain, some level of gearing is appropriate. The figure chosen was 10%.	Article 7 paragraph 3 of the charging regulation provides that the weight given to debt and equity in the cost of capital calculation 'shall be based on the portion of financing through either debt or equity' Based on a 3 year average 2010-2012, the ANSPs gearing has averaged just 6%. No borrowings are anticipated in RP2. However given that the future is uncertain, some level of gearing is appropriate. The figure chosen was 10%.
Corporate tax rate %	As above 12.5%	
Risk free rate % (nominal)	The risk free rate has been given as 2.6% real and 4.25% nominal based on average inflation forecasts over RP2. Yields on government issued gilts were used to access the risk free rate. Ireland 10-year government gilt rates between 2001-2008 were consistently between 3.5%-5.0%. Following a collapse in the Irish economic	

	standing after 2008, yields increased dramatically. These abnormal market conditions have not been considered when assessing the risk free rate. In the 8 years to 2008, yields averaged 4.25% p.a. Taking out inflation of 1.6% gives a real risk free rate of 2.6%.	
Market / risk premium % (after tax)	After tax 5%. A review of the Dimson March Staunton 2008 and 2011 reports as well as the credit Suisse global investment returns year book 2013 and recent regulatory decisions in Ireland and the UK have concluded a narrow range for the equity risk premium of 4.75% to 5.75%. We have used a figure of 5% after tax in our calculations.	After tax 5%. A review of the Dimson March Staunton 2008 and 2011 reports as well as the credit Suisse global investment returns year book 2013 and recent regulatory decisions in Ireland and the UK have concluded a narrow range for the equity risk premium of 4.75% to 5.75%. We have used a figure of 5% after tax in our calculations.
Asset beta	The asset beta was estimated taking into consideration estimates made by regulatory authorities in both the UK and in Ireland and looking at NATS, airports and other utilites.	The asset beta was estimated taking into consideration estimates made by regulatory authorities in both the UK and in Ireland and looking at NATS, airports and other utilites.
Debt beta	A company's debt is not directly observable. A debt beta of 0.1 has been assumed. This is consistent with the value used by the UK competition in its recent inquiries.	A company's debt is not directly observable A debt beta of 0.1 has been assumed. This is consistent with the value used by the UK competition in its recent inquiries.
Debt risk premium %	0.9%; calculated by subtracting the risk free rate from the cost of debt.	

Asset base

Cost of capital calculations in RP1 and RP2 do not include any reference to pension-related assets and liabilities.

ANSP/Entity: Ireland	**RP1 PP**
Components of the asset base	
3.1 Net book val. fixed assets	Cost of capital is calculated by reference to 1) NBV of fixed assets at 1 January 2) cost of acquisitions where assets are required during the year and 3) cost of assets under construction.
3.2 Adjustments total assets	Not applicable
3.3 Net current assets	No calculation
3.4 Total asset base	Sum of 3.1 and 3.2

ANSP/Entity: Ireland	**RP2 PP**
Components of the asset base	
3.1 Net book val. fixed assets	Cost of capital is calculated by reference to 1) NBV of fixed assets at 1 January 2) cost of acquisitions where assets are required during the year and 3) cost of assets under construction.
3.2 Adjustments total assets	Not applicable
3.3 Net current assets	No calculation
3.4 Total asset base	Sum of 3.1 and 3.2

(f) total costs per airport for each airports with fewer than 70 000 IFR air transport movements per year, when these are provided in a consolidated way in the reporting table;

Not applicable to en-route Charging Zones

g) Definition of the criteria used to allocate costs between terminal and *en route* services for each airport within the scope of this Regulation;

Not applicable to en-route Charging Zones

h) Breakdown of the meteorological costs between direct costs and 'MET core costs' defined as the costs of supporting meteorological facilities and services that also serve meteorological requirements in general. These include general analysis and forecasting, surface and upper-air observation networks, meteorological communication systems, data processing centres and supporting core research, training and administration;

Met services are provided by the State-owned Met Éireann. Met Éireann has been certified and designated to provide meteorological services by the NSA.

The MET office estimates that the portion of total Met Éireann costs attributable to aviation will approximate to 30%, of which 80% is then allocated to en route activities and 20% to terminal activities. The allocation is in line with recommendations of the Commission for Aviation Regulation.

MET
Met Éireann's charge for the provision of meteorological services to international civil aviation is determined according to the methodology described in Appendix 4 of the Report of the Working Group on Met Éireann Aviation-Related Costs (2002).

The direct costs of providing meteorological services to civil aviation comprise the costs incurred in the immediate provision and delivery of these services. Met Éireann's Internal Accounts System (IAS) recognises 10 categories of such costs: METAR reports, Reports for ATS, Flight folders, Briefing & Consultation, TAFs, SIGMET, TREND, Aerodrome Warnings & Enquiries, SigWx charts & tabular winds and General expenses.

All direct services to end users, including services to aviation, depend on the use of Core products and services. Core costs include the costs of Surface Synoptic observations, Upper-Air observations, Radar, Satellite, Numerical Weather Prediction (NWP), Climatology, and Computer/Telecoms

i) Description of the methodology used for allocating total MET costs and MET core costs to civil aviation and between Charging Zones;

As described in Appendix 4 of the Report of the Working Group on Met Éireann Aviation-Related Costs (2002), costs incurred in the direct provision of aviation services are fully recovered in the charge for MET services.

A proportion of Core costs is also allocated to aviation charges. The proportion depends on the use made of Core products for aviation purposes as compared with their use for other purposes.

The methodology in the Report of the Working Group provides for the following allocations of Core costs:

Surface Synoptic observations, Upper-Air observations, Radar, Satellite and NWP: For these costs, the proportion charged to aviation equals the direct cost of aviation forecasting divided by the direct cost of all forecasting activity.

Climatology: The proportion of the cost of the climatological archive charged to aviation is 5%.

Computer/Telecoms: The proportion of the cost of Computer/Telecoms services charged to aviation equals the cost of direct services to aviation divided by the cost of all direct services.

A *credit* for Meteorological Reports by Aircraft (AIREPs) is also incorporated into the charge for Core costs. This credit amounts to 12.5% of the cost of the Upper-Air observations.

j) Nineteen months before the start of a reference period, description of the reported forecast costs and traffic;

Not applicable for this submission

k) Description of the reported actual costs and the difference from the determined costs, for each year of the reference period;

RP1 Monitoring – Year 2012	
ANSP: IAA	
1.1 Staff costs	Staff Costs reduced by 6.2%, from €58,749,000 to €55,107,000, due to exceptional manpower planning and payroll cost management. There were no pay awards in 2012.
1.2 Other operating costs	Operating costs were down 13.2%, from €23,471,000 to €20,364,000 due to savings across a range of ANSP technical and administration expenses. The IAA has strong procurement and budgeting procedures with competitive quotes being sought on significant transactions. Operating budgets are actively monitored throughout the year.
1.3 Depreciation	Depreciation costs reduced by 10.4%, from €11,158,000 to €9,995,000. The IAA has a ten year technology plan and a capital budget is approved annually. Scheduling differences will arise with the implementation of some projects.
1.4 Cost of capital	Cost of capital costs were down by 4.2% from €6,810,000 to €6,523,000.
1.5 Exceptional items	N/A

RP1 Monitoring – Year 2012	
MET	
1.1 Staff costs	Staff Costs were in line with NPP.
1.2 Other operating costs	Operating costs were in line with NPP.
1.3 Depreciation	N/A
1.4 Cost of capital	N/A
1.5 Exceptional items	N/A

RP1 Monitoring – Year 2012	
STATE/NSA: Ireland	
1.1 Staff costs	Staff Costs reduced by 14.9%, from €1,566,000 to €1,333,000, due to exceptional manpower planning and payroll cost management. There were no pay awards in 2012.
1.2 Other operating costs	Operating costs were marginally above forecast increasing from €10,093,000 to €10,114,000.
1.3 Depreciation	N/A
1.4 Cost of capital	N/A
1.5 Exceptional items	N/A

En route Charging zone: Ireland
Reference Periods 1 (2012-2014) and 2 (2015-2019)

RP1 Monitoring – Year 2013	
ANSP: IAA	
1.1 Staff costs	Staff Costs reduced by 10.2%, from €59,768,000 to €53,662,000, due to higher than expected departures and retirements partly due to the uncertainty around proposed changes to the taxation of pensions in Ireland. Two new student ATCO programmes have commenced in order to replace some retirees while recruitment in other operational areas is also underway. There were no pay awards in 2013.
1.2 Other operating costs	Operating costs were down 21%, from €23,894,000 to €18,872,000 due to savings across a range of ANSP technical and administration expenses. The IAA has strong procurement and budgeting procedures with competitive quotes being sought on significant transactions. Operating budgets are actively monitored throughout the year.
1.3 Depreciation	Depreciation costs reduced by 8.5%, from €10,535,000 to €9,636,000. The IAA has a ten year technology plan and a capital budget is approved annually. Scheduling differences will arise with the implementation of some projects.
1.4 Cost of capital	Cost of capital costs were down by 13% from €6,974,000 to €6,067,000.
1.5 Exceptional items	N/A

RP1 Monitoring – Year 2013	
MET	
1.1 Staff costs	Staff Costs were in line with NPP.
1.2 Other operating costs	Operating costs were in line with NPP.
1.3 Depreciation	N/A
1.4 Cost of capital	N/A
1.5 Exceptional items	N/A

RP1 Monitoring – Year 2013	
STATE/NSA: Ireland	
1.1 Staff costs	Staff Costs reduced by 6.2%, from €1,445,000 to €1,355,000, due to exceptional manpower planning and payroll cost management. There were no pay awards in 2013.
1.2 Other operating costs	Operating costs were down by 3.9% from €10,258,000 to €9,858,000.
1.3 Depreciation	N/A
1.4 Cost of capital	N/A
1.5 Exceptional items	N/A

RP1 Monitoring – Current forecasts for Year 2014	
ANSP: IAA	
1.1 Staff costs	Staff costs are forecast at €57,600,000 in 2014 which is a decrease of 6.0% from the determined costs but an increase of 7% from 2013 actual. During 2013 the IAA experienced exceptional levels of retirements. Some recruitment is planned for 2014 along with two new student programmes which commenced in early 2014. There are no pay awards forecasted in 2014.
1.2 Other operating costs	Operating costs are forecast to €23,433, 000 in 2014 which is broadly in line with the NPP for 2014 and a forecasted increase on 2013 actual. Training costs are forecastto increase significantly due to recruitment of additional staff arising from the high levels of retirements in 2013. .
1.3 Depreciation	Depreciation costs are forecast to be in line with the NPP.
1.4 Cost of capital	Cost of capital costs are forecast to be in line with the NPP.

1.5 Exceptional items	N/A

RP1 Monitoring – Current forecasts for Year 2014	
MET	
1.1 Staff costs	Staff Costs are forecast to be in line with the NPP.
1.2 Other operating costs	Operating costs are forecast to be in line with the NPP.
1.3 Depreciation	N/A
1.4 Cost of capital	N/A
1.5 Exceptional items	N/A

RP1 Monitoring – Current forecasts for Year 2014	
STATE/NSA: Ireland	
1.1 Staff costs	Staff Costs are forecast at €1,526,000 which is broadly in line with the NPP of €1,496,000.
1.2 Other operating costs	Operating costs are forecast to be €9,569, 000 in 2014 which is a reduction of 8.9% on the NPP for 2014.
1.3 Depreciation	N/A
1.4 Cost of capital	N/A
1.5 Exceptional items	N/A

l) Description of the reported actual service units and the differences both against the forecast and compared with the figures provided by EUROCONTROL, as appropriate, for each year of the reference period;

RP1	2012	2013	2014 (F)
NPP TSU	3,826	3,906	4,004
Actual TSU	3,806	3,812	3,886
Difference	(0.5%)	(2.4%)	(2.9%)

Total service units in '000

The IAA's reliance on North Atlantic traffic makes it particularly sensitive to changes in capacity as well as the normal ongoing uncertainty of weather patterns. This is bourne out by actual traffic being less than the benchmark NPP for RP1 (see above). Events such as an Icelandic volcanic ash crisis could have a significant impact on traffic levels.

RP2	2015	2016	2017	2018	2019
NPP TSU	3,983	4,050	4,113	4,185	4,262
%		1.7%	1.6%	1.7%	1.8%

Total service units in '000

Traffic forecasts for the years 2015 to 2019 are based on the latest STATFOR forecast issued in February 2014, using the mid point between the low and the base case forecast. This forecast provides for an average increase of 1.9% per annumn over forecast outturn 2014.

m) Every year of the reference period, the difference between the investments of the air navigation service providers recorded in the Performance Plans and the actual spending, as well as the difference between the planned date of entry into operation of these investments and the actual situation.

This information is provided in the monitoring reports for capital expenditure 2012 and 2013.

En route Charging zone: Ireland
Reference Periods 1 (2012-2014) and 2 (2015-2019)

ADDITIONAL INFORMATION – 2 – Unit rate calculation

a) Description and rationale for establishment of the different Charging Zones, in particular with regard to terminal Charging Zones and potential cross-subsidies between airports;

As in previous years, Ireland continues to specify one en route charging zone which is identical to its former charging area. The charging zone comprises, in addition to the Shannon FIR, those blocks of airspace known as the Northern Oceanic Transition Area (NOTA) and the Shannon Oceanic Transition Area (SOTA).

The charging system applied is the EUROCONTROL route charges system which provides for a single charge per flight.

b) Description of the policy on exemptions and description of the financing means to cover the related costs;

Ireland is in conformity with Article 9 in applying the following en route exemptions:

- Flights performed by aircraft of which the maximum take-off weight authorised is less than two metric tonnes;
- Mixed VFR/IFR flights in the charging zones where they are performed exclusively under VFR and where a charge is not levied for VFR flights;
- Flights performed exclusively for the transport, on official mission, of the reigning Monarch and his immediate family, Heads of State, Heads of Government and Government Ministers;
- Search and rescue flights authorised by the appropriate competent body;
- Military flights performed by military aircraft of any country;
- Training flights performed exclusively for the purpose of obtaining licence etc;
- Circular flights;
- VFR flights.

Funding is provided by the State.

c) Description of the other revenues, if any, broken down between the different categories;

None

d) Description and explanation of incentives applied to users of air navigation services;

None

e) Description and explanation of the modulation of air navigation charges applied.

None

En route Charging zone: Ireland
Reference Periods 1 (2012-2014) and 2 (2015-2019)

ADDITIONAL INFORMATION – 3 – Complementary Information

a) Breakdown of the costs of common projects per individual project;

None

b) Description of the amounts resulting from uncontrollable costs factors by nature and by factor, including the rationale and the changes in underlying assumptions;

The difference between actual and planned EUROCONTROL costs have been reported as uncontrollable costs under international agreements in operating expenses. The difference for 2012 and 2013 was an over recovery of €51,593 and under recovery of €78,530 respectively which will be carried over to RP2.

c) Description of the carry-overs of over- or under-recoveries incurred by Member States up to the year 2011 for en route charges and up to the year 2014 for terminal charges;

Over recoveries incurred up to 2011 under the cost recover regime have been fully accounted for under the new charging regulations. In 2012 €3.3 million was carried over from 2010 and 2013 €9.3 million was carried over from 2011.

d) Description of carry-overs resulting from the traffic risk-sharing mechanism;

Carry-overs in relation to traffic risk sharing are calculated in accordance with the charging regulation.

e) Description of carry-overs resulting from the cost sharing mechanism.

Carry-overs in relation to costs not subject to traffic risk sharing are calculated in accordance with the charging regulation.

En route Charging zone: Ireland
Reference Periods 1 (2012-2014) and 2 (2015-2019)

ADDITIONAL INFORMATION – 4 – Additional justifications for the RP2 Performance Plan

a) Contribution of the air navigation service providers to the achievement of the performance target

The FAB performance plan contains a comprehensive view of the ANSPs contribution to the performance targets.

ANSP:	Ireland	Designated for:	<ATS / MET>
Determined costs for RP2 (by nature)			
1.1 Staff costs			
Composition of the cost item:	Payroll & pension costs		
Explanations of the planning assumptions and annual variations in the cost item over RP2:	The ANSP has included annual pay increases to allow for pay increments, promotions, pay awards and the impact of inflation		
Description of cost-efficiency improvements planned in RP2:	The IAA will continue to operate to the highest standards of quality and safety whilst maintain an efficient rostering schedule. In overall terms, staff numbers will remain stable over RP2 with a small reduction in some of the operational areas.		
Main changes compared to RP1 (determined and actual costs):	Defined benefit pension scheme was closed to new members from 1st Jan 2012. Measures implemented to address the pension deficit issue are delivering real benefits in terms of returning the fund to solvency.		
1.2 Other operating costs			
Content of the cost item:	Training, maintenance contracts, telecommunications, utilities, subscriptions and administration costs.		
Explanations of the planning assumptions and annual variations in the cost item over RP2:	Annual variations in the cost items are predominantly a combination of the inflationary factors built in to the tables offset by continued other operating costs control mechanisms which are in existence. Other operating costs will decrease over RP2 by an average of 1.0% in nominal terms.		
Description of cost-efficiency improvements planned in RP2:	The ANSP has an excellent internal cost control mechanism. The IAA operates a rigid budgetary control process that is strictly adhered to and monitored on a periodical basis against appointed budgetary managers		
Main changes compared to RP1 (determined and actual costs):	A significant change for RP2 compared to RP1 will be the cost effective synergies in various areas of the business.		
1.3 Depreciation			
Composition of the cost item:	Depreciation is calculated on tangible assets on a straight line basis at the rates outlines in additional information, section 1 (d).		
Explanations of the planning assumptions and annual variations in the cost item over RP2:	Depreciation is a direct output of existing assets and recently commissioned assets that have come in to use within the ANSP. All investments are aimed to fulfil an obligation due to obsolescence, customer requirements, regulatory and legislative requirements and / or compliance with SESAR/ATM Master plan. The IAA does conduct R&D and where possible procures commercially available 'off the shelf' products and services.		
Description of cost-efficiency improvements planned in RP2:	All projects pertaining to our investment technology strategy have gone through rigorous internal review via the Air Traffic Management Planning Group (ATMPG) & the CAPEX committee. In addition, projects have been reviewed by the Finance Planning & Strategy committee and subsequently approved by the board of directors of the IAA.		
Main changes compared to RP1 (determined and actual costs):	Due to the investments that are foreseen for RP2, depreciation will increase due to the larger asset base.		
1.4 Cost of capital			
Composition of the cost item:	Cost of capital is charged at the rates outlined in additional information, section 1 (e).		
Explanations of the planning assumptions and annual variations in the cost item	The ANSP commissioned an independent study on its cost of capital by 'First Economics'. The finding of this report was a real weighted average cost of capital of 6.7%. The real cost of debt and equity were adjusted for an average inflation rate of 1.6% p.a., leading to a		

over RP2:	nominal pre-tax WACC of 8.5%.
Description of cost-efficiency improvements planned in RP2:	
Main changes compared to RP1 (determined and actual costs):	
1.5 Exceptional items	
Composition of the cost item:	N/A
Explanations of the planning assumptions and annual variations in the cost item over RP2:	N/A
Determined costs for RP2 (by service)	
Explanations of the annual variations in the cost items over RP2:	See above
Main changes compared to RP1 (determined and actual costs):	See above
Additional comments	

b) Assumptions underlying the calculation of pension costs comprised in the determined costs, including a description on the relevant national pension regulations and pension accounting regulations in place and on which the assumptions are based, as well as information whether changes of these regulations are anticipated.

Entity Ireland

The IAA provides pensions to its employees under four superannuation schemes. Three of these schemes are defined benefit schemes: "The Irish Aviation Authority Staff Superannuation Scheme 1996" – for staff whose employment commenced prior to 1 April 2008; "The Irish Aviation Authority Staff Superannuation Scheme 2008" – for staff whose employment commenced from 1 April 2008 to 31 December 2011; "The Irish Aviation Authority Hybrid Pension Plan 2012" – for staff whose employment commenced since 1 January 2012.

The IAA also operates a defined contribution pension scheme: "The Irish Aviation Authority Defined Contribution Pension Plan 2012" – for staff whose employment commenced since 1 January 2012.

Pension costs are based on the latest triennial actuarial valuation. In 2010 an agreement between management and staff was put in place. This agreement was put in place to address the serious deficit that exisited at the time and initiate suitable measures to return the fund to solvency and mitigate its threat to the organisation. The measures agreed included:

- Corrective measures to address the pension fund deficit to be born on a 50/50 basis by employer and staff
- Defined benefit scheme was closed to new menbers from 1 January 2012
- Member contributions to scheme were increased to 6%pa
- The IAA would continue its annual contribution of 30.5%of pensionable pay
- An andditional annual €5.4m is contributed by the IAA
- The hybrid scheme was established for staff joining the IAA after 1 January 2012, providing an element of defined benefit provision up to a salary cap with employees earning above the cap having the option to contribute to a defined contribution scheme

Pension assumptions for the "Defined benefits" and "Defined contributions" pension scheme					
ANSP/Entity: Ireland	2015 D	2016 D	2017 D	2018 D	2019 D
Total pension costs in respect of "Defined benefits" and "Defined contributions" scheme (in nominal terms in national currency)	15,046	15,547	16,248	16,559	17,151

Cost in '000 Euro

c) Interest rate assumptions for loans financing the provision of air navigation services, including relevant information on loans (amounts, duration, etc.) and explanation for the (weighted) average interest on debt used to calculate the cost of capital pre tax rate and the cost of capital comprised in the determined costs,

The cost of debt is included in the WACC calculation commissioned in an independent study on its cost of capital by 'First Economics'. Based on their findings the nominal cost of debt is 5.15%. When adjusted for inflation at an average rate of 1.6%, a real cost of debt rate of 3.5% is observed.

The cost of debt has been calculated using the revolving credit facility conditions that exist within the IAA. The key variable in the calculation of the cost of debt is the EURIBOR (Euro Interbank Offered Rate). Rates have historically been quite low and it would seem safe to assume that they will start to rise over the course of RP2. An assumption has been made that the rate will be 2%. EURIBOR rates are closely aligned to the ECB's key interest rate and the guidance from the ECB and other key central banks has been that rates will remain low for as long as there is spare capacity in the economy.

The ANSP has bank credit facilities in place until 2018. The RP2 forecasts assume these funds will not be drawn down, Interest costs included in the cost base are of a nominal nature.

d) If applicable, a description of any significant restructuring planned during the reference period including the level of restructuring costs and a justification for these costs in relation to the net benefits to the airspace users over time;

Not applicable

e) if applicable, restructuring costs approved from previous reference periods to be recovered

Not applicable.

f) The level/composition of costs incurred following Article 6(2)(a) and (b) of Implementing Regulation (EU) No 391/2013 and included in the determined costs;

These are broken down in the respective tables and referred to in this supporting documentation.

g) Description of how the amounts resulting from uncontrollable costs factors in RP1 have been taken into account in the planned determined costs for RP2.

Uncontrollable costs have been recorded in table 3 only for this submission.

En route Charging zone: Ireland
Reference Periods 1 (2012-2014) and 2 (2015-2019)

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:	
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	Difference between actual and forecasted EUROCONTROL costs are the only costs in this category.

Please select number of new airports - if required	0

Terminal Air Navigation Services Costs and Charges

Charging zone: **Ireland**

Airports in the Charging Zone are subject to Traffic Risk Sharing	N

ICAO Airport code	Airport Name	2015	2016	2017	2018	2019
	Total number of airports	3	3	3	3	3
EIDW	DUBLIN INTERNATIONAL	1	1	1	1	1
EICK	Cork	1	1	1	1	1
EINN	Shannon	1	1	1	1	1

Table 1 - Total Costs and Unit Costs

Ireland	
Euro	
All Entities	

Cost details	Determined costs - Performance Plan RP2					Actual costs				
	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
1. Detail by nature (in nominal terms)										
1.1 Staff	12,350	12,729	13,133	13,334	13,542					
1.2 Other operating costs	5,639	5,947	6,153	6,298	6,404					
1.3 Depreciation	4,185	4,818	5,060	5,359	5,502					
1.4 Cost of capital	2,430	2,634	2,537	2,676	2,801					
1.5 Exceptional items	0	0	0	0	0					
1.6 Total costs	24,604	26,128	26,883	27,666	28,248					
Total % n/n-1		6.2%	2.9%	2.9%	2.1%					
Staff % n/n-1		3.1%	3.2%	1.5%	1.6%					
Other op. % n/n-1		5.5%	3.5%	2.3%	1.7%					
2. Detail by service (in nominal terms)										
2.1 Air Traffic Management	20,128	21,201	21,791	22,595	23,217					
2.2 Communication (1)	659	698	718	745	767					
2.3 Navigation (1)	552	580	599	621	638					
2.4 Surveillance (1)	892	948	978	1,032	1,059					
2.5 Search and rescue	0	0	0	0	0					
2.6 Aeronautical Information (1)	0	0	0	0	0					
2.7 Meteorological services (1)	1,702	2,019	2,103	1,968	1,849					
2.8 Supervision costs	293	298	303	308	313					
2.9 Other State costs	378	384	391	398	404					
2.10 Total costs	24,604	26,128	26,883	27,666	28,248					
Total % n/n-1		6.2%	2.9%	2.9%	2.1%					
ATM % n/n-1		5.3%	2.8%	3.7%	2.8%					
CNS % n/n-1		5.9%	3.1%	4.5%	2.8%					
3. Complementary information (in nominal terms)										
Average asset base										
3.1 Net book val. fixed assets	28,588	30,988	29,847	31,482	32,953					
3.2 Adjustments total assets	0	0	0	0	0					
3.3 Net current assets	0	0	0	0	0					
3.4 Total asset base	28,588	30,988	29,847	31,482	32,953					
Cost of capital %										
3.5 Cost of capital pre tax rate	8.5%	8.5%	8.5%	8.5%	8.5%					
3.6 Return on equity	8.9%	8.9%	8.9%	8.9%	8.9%					
3.7 Average interest on debts	5.1%	5.1%	5.1%	5.1%	5.1%					
Cost of common projects										
3.8 Total costs common projects	0	0	0	0	0					
Costs exempted from cost sharing - Article 14(2)(b)										
3.9 Total costs ex. from cost sharing										
4. Total costs after deduction of costs for services to exempted flights (in nominal terms)										
4.1 Costs for exempted VFR flights	0	0	0	0	0					
4.2 Total determined/actual costs	**24,604**	**26,128**	**26,883**	**27,666**	**28,248**					
5. Cost-efficiency KPI - Determined /Actual Unit Cost (in real terms)										
5.1 Inflation % (2)	1.10%	1.20%	1.40%	1.70%	1.70%					
5.2 Price index (3)	102.2	103.4	104.9	106.7	108.5					
5.3 Total costs real terms (4)	**24,071**	**25,259**	**25,629**	**25,936**	**26,039**					
Total % n/n-1		4.9%	1.5%	1.2%	0.4%					
5.4 Total Service Units	141.2	144.4	148.2	152.9	156.9					
Total % n/n-1		2.3%	2.6%	3.2%	2.6%					
5.5 Unit cost	**170.47**	**174.92**	**172.94**	**169.62**	**165.96**					
Total % n/n-1		2.6%	-1.1%	-1.9%	-2.2%					

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

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

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

(3) Forecast price indexes - For RP2 base 100 in 2012 inflation 2013 : 0.50% inflation 2014 : 0.60%

Actual price index - base 100 in year 2012 inflation 2013 : inflation 2014 :

(4) Determined costs (performance plan) in real terms – actual/revised forecast costs at 2012 prices

Unit rate

Unit rate without revenue deduction

Table 1 - Total Costs and Unit Costs

Ireland	
Euro	
ANSP	

Cost details	Determined costs - Performance Plan RP2 2015	2016	2017	2018	2019	Actual costs 2015	2016	2017	2018	2019
1. Detail by nature (in nominal terms)										
1.1 Staff	10,937	11,254	11,598	11,949	12,249					
1.2 Other operating costs	4,678	4,846	5,019	5,138	5,261					
1.3 Depreciation	4,185	4,693	4,933	5,230	5,371					
1.4 Cost of capital	2,430	2,634	2,537	2,676	2,801					
1.5 Exceptional items	0	0	0	0	0					
1.6 Total costs	22,231	23,427	24,086	24,993	25,682					
Total % n/n-1		5.4%	2.8%	3.8%	2.8%					
Staff % n/n-1		2.9%	3.1%	3.0%	2.5%					
Other op. % n/n-1		3.6%	3.6%	2.4%	2.4%					
2. Detail by service (in nominal terms)										
2.1 Air Traffic Management	20,128	21,201	21,791	22,595	23,217					
2.2 Communication (1)	659	698	718	745	767					
2.3 Navigation (1)	552	580	599	621	638					
2.4 Surveillance (1)	892	948	978	1,032	1,059					
2.5 Search and rescue										
2.6 Aeronautical Information (1)										
2.7 Meteorological services (1)										
2.8 Supervision costs										
2.9 Other State costs										
2.10 Total costs	22,231	23,427	24,086	24,993	25,682					
Total % n/n-1		5.4%	2.8%	3.8%	2.8%					
ATM % n/n-1		5.3%	2.8%	3.7%	2.8%					
CNS % n/n-1		5.9%	3.1%	4.5%	2.8%					
3. Complementary information (in nominal terms)										
Average asset base										
3.1 Net book val. fixed assets	28,588	30,988	29,847	31,482	32,953					
3.2 Adjustments total assets										
3.3 Net current assets										
3.4 Total asset base	28,588	30,988	29,847	31,482	32,953					
Cost of capital %										
3.5 Cost of capital pre tax rate	8.5%	8.5%	8.5%	8.5%	8.5%					
3.6 Return on equity	8.9%	8.9%	8.9%	8.9%	8.9%					
3.7 Average interest on debts	5.1%	5.1%	5.1%	5.1%	5.1%					
Cost of common projects										
3.8 Total costs of common projects										
Costs exempted from cost sharing (Article 14(2)(b))										
3.9 Total costs ex. from cost sharing										
4. Total costs after deduction of costs for services to exempted flights (in nominal terms)										
4.1 Costs for exempted VFR flights	0	0	0	0	0					
4.2 Total determined/actual costs	**22,231**	**23,427**	**24,086**	**24,993**	**25,682**					
5. Cost-efficiency KPI - Determined /Actual Unit Cost (in real terms)										
5.1 Inflation % (2)	1.10%	1.20%	1.40%	1.70%	1.70%					
5.2 Price index (3)	102.2	103.4	104.9	106.7	108.5					
5.3 Total costs real terms (4)	**21,749**	**22,647**	**22,963**	**23,430**	**23,673**					
Total % n/n-1		4.1%	1.4%	2.0%	1.0%					
5.4 Total Service Units	**141.2**	**144.4**	**148.2**	**152.9**	**156.9**					
Total % n/n-1		2.3%	2.6%	3.2%	2.6%					
5.5 Unit cost	**154.03**	**156.84**	**154.95**	**153.24**	**150.88**					
Total % n/n-1		1.8%	-1.2%	-1.1%	-1.5%					

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

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

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

(3) Forecast price indexes - For RP2 base 100 in 2012 inflation 2013 : 0.50% inflation 2014 : 0.60%

Actual price index - base 100 in year 2012 inflation 2013 : 0.00% inflation 2014 : 0.00%

(4) Determined costs (performance plan) in real terms – actual/revised forecast costs at 2012 prices

Unit rate

Unit rate without revenue deduction

Table 1 - Total Costs and Unit Costs

Ireland	
Euro	
MET	

	Determined costs - Performance Plan RP2					Actual costs				
Cost details	**2015**	**2016**	**2017**	**2018**	**2019**	**2015**	**2016**	**2017**	**2018**	**2019**
1. Detail by nature (in nominal terms)										
1.1 Staff	1,138	1,196	1,251	1,096	998					
1.2 Other operating costs	565	699	725	743	720					
1.3 Depreciation	0	125	127	129	131					
1.4 Cost of capital										
1.5 Exceptional items										
1.6 Total costs	1,702	2,019	2,103	1,968	1,849					
Total % n/n-1		18.6%	4.2%	-6.4%	-6.0%					
Staff % n/n-1		5.1%	4.6%	-12.4%	-8.9%					
Other op. % n/n-1		23.7%	3.8%	2.5%	-3.1%					
2. Detail by service (in nominal terms)										
2.1 Air Traffic Management										
2.2 Communication (1)										
2.3 Navigation (1)										
2.4 Surveillance (1)										
2.5 Search and rescue										
2.6 Aeronautical Information (1)										
2.7 Meteorological services (1)	1,702	2,019	2,103	1,968	1,849					
2.8 Supervision costs										
2.9 Other State costs										
2.10 Total costs	1,702	2,019	2,103	1,968	1,849					
Total % n/n-1		18.6%	4.2%	-6.4%	-6.0%					
ATM % n/n-1										
CNS % n/n-1										
3. Complementary information (in nominal terms)										
Average asset base										
3.1 Net book val. fixed assets										
3.2 Adjustments total assets										
3.3 Net current assets										
3.4 Total asset base	0	0	0	0	0					
Cost of capital %										
3.5 Cost of capital pre tax rate	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!					
3.6 Return on equity										
3.7 Average interest on debts										
Cost of common projects										
3.8 Total costs of common projects										
Costs exempted from cost sharing (Article 14(2)(b))										
3.9 Total costs ex. from cost sharing										
4. Total costs after deduction of costs for services to exempted flights (in nominal terms)										
4.1 Costs for exempted VFR flights										
4.2 Total determined/actual costs	**1,702**	**2,019**	**2,103**	**1,968**	**1,849**					
5. Cost-efficiency KPI - Determined /Actual Unit Cost (in real terms)										
5.1 Inflation % (2)	1.10%	1.20%	1.40%	1.70%	1.70%					
5.2 Price index (3)	102.2	103.4	104.9	106.7	108.5					
5.3 Total costs real terms (4)	**1,666**	**1,952**	**2,005**	**1,845**	**1,705**					
Total % n/n-1		17.2%	2.7%	-8.0%	-7.6%					
5.4 Total Service Units	**141.2**	**144.4**	**148.2**	**152.9**	**156.9**					
Total % n/n-1		2.3%	2.6%	3.2%	2.6%					
5.5 Unit cost	**11.80**	**13.52**	**13.53**	**12.06**	**10.86**					
Total % n/n-1		14.6%	0.1%	-10.8%	-10.0%					

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

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

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

(3) Forecast price indexes - For RP2 base 100 in 2012 inflation 2013 : 0.50% inflation 2014 : 0.60%

Actual price index - base 100 in year 2012 inflation 2013 : 0.00% inflation 2014 : 0.00%

(4) Determined costs (performance plan) in real terms – actual/revised forecast costs at 2012 prices

Unit rate

Unit rate without revenue deduction

Table 1 - Total Costs and Unit Costs

Ireland
Euro
NSA

Cost details	Determined costs - Performance Plan RP2					Actual costs				
	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
1. Detail by nature (in nominal terms)										
1.1 Staff	275	280	284	289	294					
1.2 Other operating costs	396	402	409	416	423					
1.3 Depreciation										
1.4 Cost of capital										
1.5 Exceptional items										
1.6 Total costs	671	682	694	705	717					
Total % n/n-1		1.6%	1.7%	1.7%	1.7%					
Staff % n/n-1		1.6%	1.7%	1.7%	1.7%					
Other op. % n/n-1		1.6%	1.7%	1.7%	1.7%					
2. Detail by service (in nominal terms)										
2.1 Air Traffic Management										
2.2 Communication (1)										
2.3 Navigation (1)										
2.4 Surveillance (1)										
2.5 Search and rescue										
2.6 Aeronautical Information (1)										
2.7 Meteorological services (1)										
2.8 Supervision costs	293	298	303	308	313					
2.9 Other State costs	378	384	391	398	404					
2.10 Total costs	671	682	694	705	717					
Total % n/n-1		1.6%	1.7%	1.7%	1.7%					
ATM % n/n-1										
CNS % n/n-1										
3. Complementary information (in nominal terms)										
Average asset base										
3.1 Net book val. fixed assets										
3.2 Adjustments total assets										
3.3 Net current assets										
3.4 Total asset base	0	0	0	0	0					
Cost of capital %										
3.5 Cost of capital pre tax rate	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!					
3.6 Return on equity										
3.7 Average interest on debts										
Cost of common projects										
3.8 Total costs of common projects										
Costs exempted from cost sharing (Article 14(2)(b))										
3.9 Total costs ex. from cost sharing										
4. Total costs after deduction of costs for services to exempted flights (in nominal terms)										
4.1 Costs for exempted VFR flights										
4.2 Total determined/actual costs	**671**	**682**	**694**	**705**	**717**					
5. Cost-efficiency KPI - Determined /Actual Unit Cost (in real terms)										
5.1 Inflation % (2)	1.10%	1.20%	1.40%	1.70%	1.70%					
5.2 Price index (3)	102.2	103.4	104.9	106.7	108.5					
5.3 Total costs real terms (4)	**657**	**659**	**661**	**661**	**661**					
Total % n/n-1		0.4%	0.3%	0.0%	0.0%					
5.4 Total Service Units	**141.2**	**144.4**	**148.2**	**152.9**	**156.9**					
Total % n/n-1		2.3%	2.6%	3.2%	2.6%					
5.5 Unit cost	**4.65**	**4.57**	**4.46**	**4.32**	**4.21**					
Total % n/n-1		-1.8%	-2.3%	-3.1%	-2.5%					

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

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

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

(3) Forecast price indexes - For RP2 base 100 in 2012 inflation 2013 : 0.50% inflation 2014 : 0.60%

Actual price index - base 100 in year 2012 inflation 2013 : 0.00% inflation 2014 : 0.00%

(4) Determined costs (performance plan) in real terms – actual/revised forecast costs at 2012 prices

Unit rate

Unit rate without revenue deduction

Table 2 - Unit rate calculation

Check data

Print

Ireland
All Entities

Reference Period 2

Unit rate calculation	2015	2016	2017	2018	2019
1. Determined costs in nominal terms and inflation adjustment					
1.1 Determined costs in nominal terms - VFR excl. - Table 1	24,604	26,128	26,883	27,666	28,248
1.2 Actual inflation rate - Table 1					
1.3 Forecast inflation rate - Table 1	1.1%	1.2%	1.4%	1.7%	1.7%
1.4 Inflation adjustment (1) : year n amount to be carried over					
2. Forecast and actual total service units					
2.1 Forecast total service units (performance plan)	141.2	144.4	148.2	152.9	156.9
2.2 Actual total service units					
2.3 Actual / forecast total service units (in %)					
3. Costs subject to traffic risk sharing					
3.1 Determined costs in nominal terms - VFR excl. (reported from Table 1)	22,231	23,427	24,086	24,993	25,682
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 over to year n					
3.5 Traffic risk sharing : revenues losses carried over to year n					
3.6 Costs exempt from cost sharing : amounts carried over to year n					
3.7 Bonus or penalty for performance					
3.8 Over(-) or under(+) recoveries (2) : amounts carried over to year n	-415	0	0	0	0
3.9 Total for the calculation of year n unit rate	21,815	23,427	24,086	24,993	25,682
3.10 Traffic risk sharing : add. rev. year n to be carried-over					
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%	70%	70%
3.14 % loss of revenue borne by airspace users	70%	70%	70%	70%	70%
4. Costs not subject to traffic risk sharing					
4.1 Determined costs in nominal terms - VFR excl. (Table 1)	2,374	2,701	2,797	2,673	2,567
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	0	0	0	0	0
4.7 Total for the calculation of year n unit rate	2,374	2,701	2,797	2,673	2,567
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	0	0	0	0	0
5.2 Total revenues from Public Authorities	0	0	0	0	0
5.3 of which Union assistance programmes	0	0	0	0	0
5.4 of which National public funding	0	0	0	0	0
5.5 Commercial activities	0	0	0	0	0
5.6 Other other revenues	0	0	0	0	0
5.7 Grand total for the calculation of year n unit rate	24,189	26,128	26,883	27,666	28,248
5.8 Year n unit rate (in national currency)	**171.31**	**180.94**	**181.39**	**180.94**	**180.04**
5.9 ANSP component of the unit rate	154.50	162.24	162.52	163.46	163.68
5.10 MET component of the unit rate	12.06	13.98	14.19	12.87	11.79
5.11 NSA-State component of the unit rate	4.75	4.72	4.68	4.61	4.57
5.12 Year n unit rate that would have applied without other revenues	171.31	180.94	181.39	180.94	180.04

Costs, revenues and other amounts in '000 - Service units in '000
(1) 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

Check data

Print

Ireland
ANSP

Reference Period 2

Unit rate calculation	2015	2016	2017	2018	2019
1. Determined costs in nominal terms and inflation adjustment					
1.1 Determined costs in nominal terms - VFR excl. - Table 1	22,231	23,427	24,086	24,993	25,682
1.2 Actual inflation rate - Table 1					
1.3 Forecast inflation rate - Table 1	1.1%	1.2%	1.4%	1.7%	1.7%
1.4 Inflation adjustment (1) : year n amount to be carried over					
2. Forecast and actual total service units					
2.1 Forecast total service units (performance plan)	141.2	144.4	148.2	152.9	156.9
2.2 Actual total service units					
2.3 Actual / forecast total service units (in %)					
3. Costs subject to traffic risk sharing					
3.1 Determined costs in nominal terms - VFR excl. (reported from Table 1)	22,231	23,427	24,086	24,993	25,682
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 over to year n					
3.5 Traffic risk sharing : revenues losses carried over to year n					
3.6 Costs exempt from cost sharing : amounts carried over to year n					
3.7 Bonus or penalty for performance					
3.8 Over(-) or under(+) recoveries (2) : amounts carried over to year n	-415				
3.9 Total for the calculation of year n unit rate	21,815	23,427	24,086	24,993	25,682
3.10 Traffic risk sharing : add. rev. year n to be carried-over					
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%	70%	70%
3.14 % loss of revenue borne by airspace users	70%	70%	70%	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	0	0	0	0	0
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	0	0	0	0	0
5.2 Total revenues from Public Authorities	0	0	0	0	0
5.3 of which Union assistance programmes					
5.4 of which National public funding					
5.5 Commercial activities					
5.6 Other other revenues					
5.7 Grand total for the calculation of year n unit rate	21,815	23,427	24,086	24,993	25,682
5.8 Year n unit rate (in national currency)					
5.9 ANSP component of the unit rate	154.50	162.24	162.52	163.46	163.68
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	154.50	162.24	162.52	163.46	163.68

Costs, revenues and other amounts in '000 - Service units in '000
(1) 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

Check data

Print

Ireland
MET

Reference Period 2

Unit rate calculation	2015	2016	2017	2018	2019
1. Determined costs in nominal terms and inflation adjustment					
1.1 Determined costs in nominal terms - VFR excl. - Table 1	1,702	2,019	2,103	1,968	1,849
1.2 Actual inflation rate - Table 1					
1.3 Forecast inflation rate - Table 1	1.1%	1.2%	1.4%	1.7%	1.7%
1.4 Inflation adjustment (1) : year n amount to be carried over					
2. Forecast and actual total service units					
2.1 Forecast total service units (performance plan)	141.2	144.4	148.2	152.9	156.9
2.2 Actual total service units					
2.3 Actual / forecast total service units (in %)					
3. Costs subject to traffic risk sharing					
3.1 Determined costs in nominal terms - VFR excl. (reported from Table 1)					
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 over to year n					
3.5 Traffic risk sharing : revenues losses carried over to year n					
3.6 Costs exempt from cost sharing : amounts carried over to year n					
3.7 Bonus or penalty for performance					
3.8 Over(-) or under(+) recoveries (2) : amounts carried over to year n					
3.9 Total for the calculation of year n unit rate					
3.10 Traffic risk sharing : add. rev. year n to be carried-over					
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					
3.14 % loss of revenue borne by airspace users					
4. Costs not subject to traffic risk sharing					
4.1 Determined costs in nominal terms - VFR excl. (Table 1)	1,702	2,019	2,103	1,968	1,849
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	1,702	2,019	2,103	1,968	1,849
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	0	0	0	0	0
5.2 Total revenues from Public Authorities	0	0	0	0	0
5.3 of which Union assistance programmes					
5.4 of which National public funding					
5.5 Commercial activities					
5.6 Other other revenues					
5.7 Grand total for the calculation of year n unit rate	1,702	2,019	2,103	1,968	1,849
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	12.06	13.98	14.19	12.87	11.79
5.11 NSA-State component of the unit rate					
5.12 Year n unit rate that would have applied without other revenues	12.06	13.98	14.19	12.87	11.79

Costs, revenues and other amounts in '000 - Service units in '000
(1) 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

Check data

Print

Ireland
NSA

Reference Period 2

Unit rate calculation	2015	2016	2017	2018	2019
1. Determined costs in nominal terms and inflation adjustment					
1.1 Determined costs in nominal terms - VFR excl. - Table 1	671	682	694	705	717
1.2 Actual inflation rate - Table 1					
1.3 Forecast inflation rate - Table 1	1.1%	1.2%	1.4%	1.7%	1.7%
1.4 Inflation adjustment (1) : year n amount to be carried over					
2. Forecast and actual total service units					
2.1 Forecast total service units (performance plan)	141.2	144.4	148.2	152.9	156.9
2.2 Actual total service units					
2.3 Actual / forecast total service units (in %)					
3. Costs subject to traffic risk sharing					
3.1 Determined costs in nominal terms - VFR excl. (reported from Table 1)					
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 over to year n					
3.5 Traffic risk sharing : revenues losses carried over to year n					
3.6 Costs exempt from cost sharing : amounts carried over to year n					
3.7 Bonus or penalty for performance					
3.8 Over(-) or under(+) recoveries (2) : amounts carried over to year n					
3.9 Total for the calculation of year n unit rate					
3.10 Traffic risk sharing : add. rev. year n to be carried-over					
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					
3.14 % loss of revenue borne by airspace users					
4. Costs not subject to traffic risk sharing					
4.1 Determined costs in nominal terms - VFR excl. (Table 1)	671	682	694	705	717
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	671	682	694	705	717
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	0	0	0	0	0
5.2 Total revenues from Public Authorities	0	0	0	0	0
5.3 of which Union assistance programmes					
5.4 of which National public funding					
5.5 Commercial activities					
5.6 Other other revenues					
5.7 Grand total for the calculation of year n unit rate	671	682	694	705	717
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	4.75	4.72	4.68	4.61	4.57
5.12 Year n unit rate that would have applied without other revenues	4.75	4.72	4.68	4.61	4.57

Costs, revenues and other amounts in '000 - Service units in '000
(1) 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 3 - Complementary Information

Ireland
All Entities

PART A : Complementary Information on costs	2010F	2011F	2012	2013	2014	2015	2016	2017	2018	2019	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
	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						0	0	0	0	0						0	0	0	0	0
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																				
3.3 Depreciation																				
3.4 Cost of capital																				
3.5 Exceptional items																				
3.6 Total costs exempted from cost sharing																0	0	0	0	0
Breakdown by factor/item																				
3.7 Pension																				
3.8 Interest rates on loans																				
3.9 National taxation law																				
3.10 New cost item required by law																				
3.11 International agreements																				
3.12 Total costs exempted from cost sharing																0	0	0	0	0

	Planned costs (business case)										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 2015	0	0										0			0
Inflation adjustment Year 2016	0	0											0		0
Inflation adjustment Year 2017	0	0												0	0
Inflation adjustment Year 2018	0	0													0
Inflation adjustment Year 2019	0	0													0
Total Inflation Adjustment	0.0	0										0	0	0	0
Traffic balance Year 2015	0	0										0			0
Traffic balance Year 2016	0	0											0		0
Traffic balance Year 2017	0	0												0	0
Traffic balance Year 2018	0	0													0
Traffic balance Year 2019	0	0													0
Total Traffic Adjustment	0.0	0										0	0	0	0
Traffic risk sharing revenue Year 2015	0	0										0			0
Traffic risk sharing revenue Year 2016	0	0											0		0
Traffic risk sharing revenue Year 2017	0	0												0	0
Traffic risk sharing revenue Year 2018	0	0													0
Traffic risk sharing revenue Year 2019	0	0													0
Total Traffic Risk sharing revenue adjustment	0.0	0										0	0	0	0
Traffic risk sharing loss Year 2015	0	0										0			0
Traffic risk sharing loss Year 2016	0	0											0		0
Traffic risk sharing loss Year 2017	0	0												0	0
Traffic risk sharing loss Year 2018	0	0													0
Traffic risk sharing loss Year 2019	0	0													0
Total Traffic Risk sharing loss adjustment	0	0										0	0	0	0
Costs exempted from cost sharing Year 2015	0	0													0
Costs exempted from cost sharing Year 2016	0	0													0
Costs exempted from cost sharing Year 2017	0	0													0
Costs exempted from cost sharing Year 2018	0	0													0
Costs exempted from cost sharing Year 2019	0	0													0
Total costs exempted from cost sharing	0	0													0
O-u recoveries before determined costs Year 2010		0							0						0
O-u recoveries before determined costs Year 2011		0							0						0
O-u recoveries before determined costs Year 2012	698	698							698						698
O-u recoveries before determined costs Year 2013	415	415							415	415					0
O-u recoveries before determined costs Year 2014		0							0						0
Total carry-overs	1,113	1,113	0	0	0	0	0	0	1,113	415	0	0	0	0	698

Table 1 - Total Costs and Unit Costs

Ireland	
Euro	
Dublin	

	Determined costs - Performance Plan RP2					Actual costs				
Cost details	**2015**	**2016**	**2017**	**2018**	**2019**	**2015**	**2016**	**2017**	**2018**	**2019**
1. Detail by nature (in nominal terms)										
1.1 Staff										
1.2 Other operating costs										
1.3 Depreciation										
1.4 Cost of capital										
1.5 Exceptional items										
1.6 Total costs	0	0	0	0	0					
Total % n/n-1		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!					
Staff % n/n-1		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!					
Other op. % n/n-1		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!					
2. Detail by service (in nominal terms)										
2.1 Air Traffic Management										
2.2 Communication (1)										
2.3 Navigation (1)										
2.4 Surveillance (1)										
2.5 Search and rescue										
2.6 Aeronautical Information (1)										
2.7 Meteorological services (1)										
2.8 Supervision costs										
2.9 Other State costs										
2.10 Total costs	0	0	0	0	0					
Total % n/n-1		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!					
ATM % n/n-1		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!					
CNS % n/n-1		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!					
3. Complementary information (in nominal terms)										
Average asset base										
3.1 Net book val. fixed assets										
3.2 Adjustments total assets										
3.3 Net current assets										
3.4 Total asset base										
Cost of capital %										
3.5 Cost of capital pre tax rate										
3.6 Return on equity										
3.7 Average interest on debts										
Cost of common projects										
3.8 Total costs of common projects										
Costs exempted from cost sharing (Article 14(2)(b))										
3.9 Total costs ex. from cost sharing										
4. Total costs after deduction of costs for services to exempted flights (in nominal terms)										
4.1 Costs for exempted VFR flights										
4.2 Total determined/actual costs	**0**	**0**	**0**	**0**	**0**					
5. Cost-efficiency KPI - Determined /Actual Unit Cost (in real terms)										
5.1 Inflation % (2)	1.10%	1.20%	1.40%	1.70%	1.70%					
5.2 Price index (3)	102.2	103.4	104.9	106.7	108.5					
5.3 Total costs real terms (4)	**0**	**0**	**0**	**0**	**0**					
Total % n/n-1		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!					
5.4 Total Service Units	**141.2**	**144.4**	**148.2**	**152.9**	**156.9**					
Total % n/n-1		2.3%	2.6%	3.2%	2.6%					
5.5 Unit cost	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**					
Total % n/n-1		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!					

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

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

(2) Actual/forecast inflation used for establishing the determined costs in nominal terms – actual/revised forecast infla

(3) Forecast price indexes - For RP2 base 100 in 2012 inflation 2013 : 0.50% inflation 2014 : 0.60%

Actual price index - base 100 in year 2012 inflation 2013 : 0.00% inflation 2014 : 0.00%

(4) Determined costs (performance plan) in real terms – actual/revised forecast costs at 2012 prices

As the IAA operates one charging area, consolidated costs for the three airports have historically been reported and the current financial system has been set up in this way. The IAA are currently working on installing a new financial management system which will allow us to report our information for each airport from 2015.

Unit rate

Unit rate without revenue deduction

Table 1 - Total Costs and Unit Costs

Ireland	
Euro	
Other aerodromes	

	Determined costs - Performance Plan RP2					Actual costs				
Cost details	**2015**	**2016**	**2017**	**2018**	**2019**	**2015**	**2016**	**2017**	**2018**	**2019**
1. Detail by nature (in nominal terms)										
1.1 Staff										
1.2 Other operating costs										
1.3 Depreciation										
1.4 Cost of capital										
1.5 Exceptional items										
1.6 Total costs	0	0	0	0	0					
Total % n/n-1		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!					
Staff % n/n-1		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!					
Other op. % n/n-1		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!					
2. Detail by service (in nominal terms)										
2.1 Air Traffic Management										
2.2 Communication (1)										
2.3 Navigation (1)										
2.4 Surveillance (1)										
2.5 Search and rescue										
2.6 Aeronautical Information (1)										
2.7 Meteorological services (1)										
2.8 Supervision costs										
2.9 Other State costs										
2.10 Total costs	0	0	0	0	0					
Total % n/n-1		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!					
ATM % n/n-1		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!					
CNS % n/n-1		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!					
3. Complementary information (in nominal terms)										
Average asset base										
3.1 Net book val. fixed assets										
3.2 Adjustments total assets										
3.3 Net current assets										
3.4 Total asset base										
Cost of capital %										
3.5 Cost of capital pre tax rate										
3.6 Return on equity										
3.7 Average interest on debts										
Cost of common projects										
3.8 Total costs of common projects										
Costs exempted from cost sharing (Article 14(2)(b))										
3.9 Total costs ex. from cost sharing										
4. Total costs after deduction of costs for services to exempted flights (in nominal terms)										
4.1 Costs for exempted VFR flights										
4.2 Total determined/actual costs	**0**	**0**	**0**	**0**	**0**					
5. Cost-efficiency KPI - Determined /Actual Unit Cost (in real terms)										
5.1 Inflation % (2)	1.10%	1.20%	1.40%	1.70%	1.70%					
5.2 Price index (3)	102.2	103.4	104.9	106.7	108.5					
5.3 Total costs real terms (4)	**0**	**0**	**0**	**0**	**0**					
Total % n/n-1		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!					
5.4 Total Service Units	**141.2**	**144.4**	**148.2**	**152.9**	**156.9**					
Total % n/n-1		2.3%	2.6%	3.2%	2.6%					
5.5 Unit cost	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**					
Total % n/n-1		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!					

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

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

(2) Actual/forecast inflation used for establishing the determined costs in nominal terms – actual/revised forecast inflatio

(3) Forecast price indexes - For RP2 base 100 in 2012 inflation 2013 : 0.50% inflation 2014 : 0.60%

Actual price index - base 100 in year 2012 inflation 2013 : 0.00% inflation 2014 : 0.00%

(4) Determined costs (performance plan) in real terms – actual/revised forecast costs at 2012 prices

Unit rate

Unit rate without revenue deduction

Table 1 - Total C

Check actual data
Check determine
Print

Ireland
Euro
Other aerodromes

	Determined costs (performance plan)					Actual costs				
Total costs	**2015**	**2016**	**2017**	**2018**	**2019**	**2015**	**2016**	**2017**	**2018**	**2019**
Total	**0**	**0**	**0**	**0**	**0**					
Total % n/n-1		0.0%	0.0%	0.0%	0.0%					

Terminal

Cost efficiency KPI #2: Determined unit cost (DUC) for terminal ANS

TO BE COPIED (VALUE) TO THE FAB PP

	RP2 Performance Plan					Avg pct var p.a.
Ireland	**2015 D**	**2016 D**	**2017 D**	**2018 D**	**2019 D**	**2015D-2019D**
Total terminal determined costs in nominal terms (in national currency)	24,604,200	26,128,100	26,882,700	27,666,300	28,248,400	3.5%
Inflation %	1.10%	1.20%	1.40%	1.70%	1.70%	
Inflation index (Base = 100 in 2012)	102.22	103.44	104.89	106.67	108.49	1.5%
Total terminal determined costs in real terms (in national currency at 2012 prices)	24,070,995	25,258,765	25,629,446	25,935,610	26,038,639	2.0%
Total terminal Service Units (TSU) used for the determined unit cost	141,200	144,400	148,200	152,900	156,900	2.7%
Real terminal DUCs (in national currency at 2012 prices)	170.47	174.92	172.94	169.62	165.96	-0.7%

Terminal Charging zone: Ireland
Reference Periods 2 (2015-2019)

ADDITIONAL INFORMATION – 1 – Total costs and unit costs

a) Description of the methodology used for allocating costs of facilities or services between different air navigation services based on the list of facilities and services listed in ICAO Regional Air Navigation Plan, European Region (Doc. 7754), and a description of the methodology used for allocating those costs between different Charging Zones;

Costs of facilities and services are allocated directly to the activity they support. The IAA accounting system allocates costs by nature to en route, terminal and other activities by registering each resource/cost to its appropriate cost centre. Therefore costs incurred in providing terminal service are 100% allocated to the terminal cost centre.

For facilities and services that serve en route, terminal and other activities, the costs are allocated based on a number of allocation keys which vary with the nature of the cost e.g. staff numbers, square footage, time spent.

These allocation keys are kept under regular review by the IAA.

b) Description of the methodology and assumptions used to establish the costs of air navigation services provided to VFR flights, when exemptions are granted for VFR flights;

N/A

c) Description and justification of any adjustment beyond the provisions of the International Accounting Standards;

The amounts included in the determined cost base for pension costs are the forecast cash costs in line with the latest available actuarial valuation as at 1st January 2012. The next actuarial valuation will take place as at 1 January 2015. The pension costs forecast reflects best estimates of cash contributions.

d) Description and explanation of the method adopted for the calculation of depreciation costs: historic costs or current costs. When current cost accounting is adopted, provision of comparable historic cost data;

Tangible fixed assets are stated at cost, less accumulated depreciation. Depreciation is calculated to write off the cost of each fixed asset, including equipment purchased as part of an installation, on a straight line basis over its expected useful life, at the following annual rates:

Buildings	5%
Completed installations and other works	$8^1/_3$%-12½%
Office equipment and non-operational administrative software	20% - $33^1/_3$%

Assets are depreciated from the date they are commissioned for use.

Assets under construction/installations in progress are carried at historical cost and are not depreciated until they are brought into use.

e) Justification for the cost of capital, including the components of the asset base, the possible adjustments to total assets and the return on equity;

Terminal Charging zone: Ireland
Reference Periods 2 (2015-2019)

2015-2019
An independent assessment of the IAA's cost of capital was carried out by 'First Economics', covering the years 2015 to 2019. Based on their findings, a real weighted average cost of capital rate of 6.7% was calculated. The cost of capital has been calculated using the weighted average cost of capital (WACC) approach, consistent with previous years.

The key parameters on which this calculation was based are as follows:

	Real	Nominal
Gearing	10.0%	10.0%
Cost of debt	3.5%	5.1%
Cost of equity (pre tax)	7.0%	8.9%
Cost of equity (post tax)	6.2%	7.8%
WACC	6.7%	8.5%

ANSP/Entity: Ireland	**RP2 PP**					
Assumptions for the Cost of Capital (WACC) in nominal terms	**Underlying assumptions for an "efficient" WACC**	**For the determined cost of capital**				
		2015 D	**2016 D**	**2017 D**	**2018 D**	**2019 D**
Capital structure (% debt)	*10%*	10.0%	10.0%	10.0%	10.0%	10.0%
Corporate tax rate %	*12.5%*	12.5%	12.5%	12.5%	12.5%	12.5%
Risk free rate % (nominal)	*4.25%*	4.25%	4.25%	4.25%	4.25%	4.25%
Market (equity) risk premium % (after tax)	*5.00%*	5.00%	5.00%	5.00%	5.00%	5.00%
Asset beta	*0.65*	0.65	0.65	0.65	0.65	0.65
Debt beta	*0.10*	0.10	0.10	0.10	0.10	0.10
Equity beta	*0.70*	0.70	0.70	0.70	0.70	0.70
Return on Equity % (after tax)	*7.77%*	7.77%	7.77%	7.77%	7.77%	7.77%
Return on Equity % (pre tax) - T1 3.6	***8.88%***	**8.88%**	**8.88%**	**8.88%**	**8.88%**	**8.88%**
Debt risk premium %	*0.90%*	0.90%	0.90%	0.90%	0.90%	0.90%
Interest on debt % (pre tax) - T1 3.7	***5.15%***	**5.15%**	**5.15%**	**5.15%**	**5.15%**	**5.15%**
WACC % (pre tax) - T1 3.5	***8.5%***	**8.5%**	**8.5%**	**8.5%**	**8.5%**	**8.5%**

ANSP/Entity: Ireland	**Notional "efficient" WACC in RP2**	**Determined cost of capital in RP2**
Capital structure (% debt)	Article 7 paragraph 3 of the charging regulation provides that the weight given to debt and equity in the cost of capital calculation 'shall be based on the portion of financing through either debt or equity' Based on a 3 year average 2010-2012, the ANSPs gearing has averaged just 6%. No borrowings are anticipated in RP2. However given that	Article 7 paragraph 3 of the charging regulation provides that the weight given to debt and equity in the cost of capital calculation 'shall be based on the portion of financing through either debt or equity' Based on a 3 year average 2010-2012, the ANSPs gearing has averaged just 6%. No borrowings are anticipated in RP2. However given

	the future is uncertain, some level of gearing is appropriate. The figure chosen was 10%.	that the future is uncertain, some level of gearing is appropriate. The figure chosen was 10%.
Corporate tax rate %	As above 12.5%	
Risk free rate % (nominal)	The risk free rate has been given as 2.6% real and 4.25% nominal based on average inflation forecasts over RP2. Yields on government issued gilts were used to access the risk free rate. Ireland 10-year government gilt rates between 2001-2008 were consistently between 3.5%-5.0%. Following a collapse in the Irish economic standing after 2008, yields increased dramatically. These abnormal market conditions have not been considered when assessing the risk free rate. In the 8 years to 2008, yields averaged 4.25% p.a.Taking out inflation of 1.6% gives a real risk free rate of 2.6%.	
Market / risk premium % (after tax)	After tax 5%. A review of the Dimson March Staunton 2008 and 2011 reports as well as the credit Suisse global investment returns year book 2013 and recent regulatory decisions in Ireland and the UK have concluded a narrow range for the equity risk premium of 4.75% to 5.75%. We have used a figure of 5% after tax in our calculations.	After tax 5%. A review of the Dimson March Staunton 2008 and 2011 reports as well as the credit Suisse global investment returns year book 2013 and recent regulatory decisions in Ireland and the UK have concluded a narrow range for the equity risk premium of 4.75% to 5.75%. We have used a figure of 5% after tax in our calculations.
Asset beta	The asset beta was estimated taking into consideration estimates made by regulatory authorities in both the UK and in Ireland and looking at NATS, airports and other utilities.	The asset beta was estimated taking into consideration estimates made by regulatory authorities in both the UK and in Ireland and looking at NATS, airports and other utilities.
Debt beta	A company's debt beta is not directly observable A debt beta of 0.1 has been assumed. This is consistent with the value used by the UK competition commission in its recent inquiries.	A company's debt beta is not directly observable A debt beta of 0.1 has been assumed. This is consistent with the value used by the UK competition commission in its recent inquiries.
Debt risk premium %	0.9%; calculated by subtracting the risk free rate from the cost of debt.	

Asset base

Cost of capital calculations in RP1 and RP2 do not include any reference to pension-related assets and liabilities.

ANSP/Entity: Ireland	**RP1 PP**
Components of the asset base	
3.1 Net book val. fixed assets	Cost of capital is calculated by reference to 1) NBV of fixed assets at 1 January 2) cost of acquisitions where assets are acquired during the year and 3) cost of assets under construction.
3.2 Adjustments total assets	Not applicable
3.3 Net current assets	No calculation
3.4 Total asset base	Sum of 3.1 and 3.2

ANSP/Entity: Ireland	**RP2 PP**
Components of the asset base	
3.1 Net book val. fixed assets	Cost of capital is calculated by reference to 1) NBV of fixed assets at 1 January 2) cost of acquisitions where assets are acquired during the year and 3) cost of assets under construction.
3.2 Adjustments total assets	Not applicable
3.3 Net current assets	No calculation
3.4 Total asset base	Sum of 3.1 and 3.2

(f) total costs per airport for each airports with fewer than 70 000 IFR air transport movements per year, when these are provided in a consolidated way in the reporting table;

Ireland operates one terminal charging area covering three state airports, Dublin, Cork and Shannon. A single cost base and a single terminal charging rate applies in this area. Consolidated costs for the three airports have historically been reported and the current financial system has been set up in this way. The IAA are currently working on installing a new financial management system which will allow us to report our information for each airport from 2015.

g) Definition of the criteria used to allocate costs between terminal and *en route* services for each airport within the scope of this Regulation;

Costs of facilities and services are allocated directly to the activity they support. The IAA accounting system allocates costs by nature to en route, terminal and other activities by registering each resource/cost to its appropriate cost centre. Therefore costs incurred in providing en route service are 100% allocated to the en route cost centre.

For facilities and services that serve en route, terminal and other activities, the costs are allocated based on a number of allocation keys which vary with the nature of the cost e.g. staff numbers, square footage and time spent.

These allocation keys are kept under regular review by the IAA.

h) Breakdown of the meteorological costs between direct costs and 'MET core costs' defined as the costs of supporting meteorological facilities and services that also serve meteorological requirements in general. These include general analysis and forecasting, surface and upper-air observation networks, meteorological communication systems, data processing centres and supporting core research, training and administration;

Met services are provided by the State-owned Met Éireann. Met Éireann has been certified and designated to provide meteorological services by the NSA.

The MET office estimates that the portion of total Met Éireann costs attributable to aviation will approximate to 30%, of which 80% is then allocated to en route activities and 20% to terminal activities. The allocation is in line with recommendations of the Commission for Aviation Regulation.

MET
Met Éireann's charge for the provision of meteorological services to international civil aviation is determined according to the methodology described in Appendix 4 of the Report of the Working Group on Met Éireann Aviation-Related Costs (2002).

The direct costs of providing meteorological services to civil aviation comprise the costs incurred in the immediate provision and delivery of these services. Met Éireann's Internal Accounts System (IAS) recognises 10 categories of such costs: METAR reports, Reports for ATS, Flight folders, Briefing & Consultation, TAFs, SIGMET, TREND, Aerodrome Warnings & Enquiries, SigWx charts & tabular winds and General expenses.

All direct services to end users, including services to aviation, depend on the use of Core products and services. Core costs include the costs of Surface Synoptic observations, Upper-Air observations, Radar, Satellite, Numerical Weather Prediction (NWP), Climatology, and Computer/Telecoms

i) Description of the methodology used for allocating total MET costs and MET core costs to

civil aviation and between Charging Zones;

As described in Appendix 4 of the Report of the Working Group on Met Éireann Aviation-Related Costs (2002), costs incurred in the direct provision of aviation services are fully recovered in the charge for MET services.

A proportion of Core costs is also allocated to aviation charges. The proportion depends on the use made of Core products for aviation purposes as compared with their use for other purposes.

The methodology in the Report of the Working Group provides for the following allocations of Core costs:

Surface Synoptic observations, Upper-Air observations, Radar, Satellite and NWP: For these costs, the proportion charged to aviation equals the direct cost of aviation forecasting divided by the direct cost of all forecasting activity.

Climatology: The proportion of the cost of the climatological archive charged to aviation is 5%.

Computer/Telecoms: The proportion of the cost of Computer/Telecoms services charged to aviation equals the cost of direct services to aviation divided by the cost of all direct services.

A *credit* for Meteorological Reports by Aircraft (AIREPs) is also incorporated into the charge for Core costs. This credit amounts to 12.5% of the cost of the Upper-Air observations.

j) Nineteen months before the start of a reference period, description of the reported forecast costs and traffic;

Not applicable for this submission

k) Description of the reported actual costs and the difference from the determined costs, for each year of the reference period;

Not applicable for this submission

l) Description of the reported actual service units and the differences both against the forecast and compared with the figures provided by EUROCONTROL, as appropriate, for each year of the reference period;

Not applicable for this submission.

m) Every year of the reference period, the difference between the investments of the air navigation service providers recorded in the Performance Plans and the actual spending, as well as the difference between the planned date of entry into operation of these investments and the actual situation.

Not applicable for this submission.

Terminal Charging zone: Ireland
Reference Periods 2 (2015-2019)

ADDITIONAL INFORMATION – 2 – Unit rate calculation

a) Description and rationale for establishment of the different Charging Zones, in particular with regard to terminal Charging Zones and potential cross-subsidies between airports;

Ireland operates one terminal charging area covering three state airports, Dublin, Cork and Shannon. A single cost base and a single terminal charging rate applies in this area.

b) Description of the policy on exemptions and description of the financing means to cover the related costs;

Ireland is in conformity with Article 9 in applying the following terminal exemptions:

- Flights performed by aircraft of which the maximum takeoff weight authorised is less than two metric tonnes;
- Search and rescue flights authorised by the appropriate competent body;
- Training flights performed exclusively for the purpose of obtaining a licence etc.;
- Circular flights;
- Flights performed exclusively for the purpose of checking or testing equipment used or intended to be used as ground aids to air navigation, excluding positioning flights by the aircraft concerned;

Funding is provided by the State.

c) Description of the other revenues, if any, broken down between the different categories;

None.

d) Description and explanation of incentives applied to users of air navigation services;

None.

e) Description and explanation of the modulation of air navigation charges applied.

None.

Terminal ANS Charging zone: Ireland
Reference Period 2 (2015-2019)

ADDITIONAL INFORMATION – 3 – Complementary Information

a) Breakdown of the costs of common projects per individual project;

None.

b) Description of the amounts resulting from uncontrollable costs factors by nature and by factor, including the rationale and the changes in underlying assumptions;

Not applicable before 2015.

c) Description of the carry-overs of over- or under-recoveries incurred by Member States up to the year 2011 for en route charges and up to the year 2014 for terminal charges;

The under recoveries of €698,000 in 2012 and €415,000 in 2013 adjust the unit rate for 2014 and 2015 respectively. The under recoveries arose due to lower traffic than forecasted and this cost is shared between the ANSP and the users 50:50.

d) Description of carry-overs resulting from the traffic risk-sharing mechanism;

Carry-overs in relation to traffic risk sharing will be calculated in accordance with the charging regulation.

e) Description of carry-overs resulting from the cost sharing mechanism.

Carry-overs in relation to costs not subject to traffic risk sharing will be calculated in accordance with the charging regulation.

Terminal ANS Charging zone: Ireland
Reference Period 2 (2015-2019)

ADDITIONAL INFORMATION – 4 – Additional justifications for the RP2 Performance Plan

a) Contribution of the air navigation service providers to the achievement of the performance target

The FAB performance plan contains a comprehensive view of the terminal operations.

b) Assumptions underlying the calculation of pension costs comprised in the determined costs, including a description on the relevant national pension regulations and pension accounting regulations in place and on which the assumptions are based, as well as information whether changes of these regulations are anticipated.

Entity Ireland

The IAA provides pensions to its employees under four superannuation schemes. Three of these schemes are defined benefit schemes: "The Irish Aviation Authority Staff Superannuation Scheme 1996" – for staff whose employment commenced prior to 1 April 2008; "The Irish Aviation Authority Staff Superannuation Scheme 2008" – for staff whose employment commenced from 1 April 2008 to 31 December 2011; "The Irish Aviation Authority Hybrid Pension Plan 2012" – for staff whose employment commenced since 1 January 2012.

The IAA also operates a defined contribution pension scheme: "The Irish Aviation Authority Defined Contribution Pension Plan 2012" – for staff whose employment commenced since 1 January 2012.

Pension costs are based on the latest triennial actuarial valuation. In 2010 an agreement between management and staff was put in place. This agreement was put in place to address the serious deficit that existed at the time and initiate suitable measures to return the fund to solvency and mitigate its threat to the organisation. The measures agreed included:

- Corrective measures to address the pension fund deficit to be born on a 50/50 basis by employer and staff
- Defined benefit scheme was closed to new members from 1 January 2012
- Member contributions to scheme were increased to 6%pa
- The IAA would continue its annual contribution of 30.5%of pensionable pay
- An additional annual €5.4m is contributed by the IAA
- The hybrid scheme was established for staff joining the IAA after 1 January 2012, providing an element of defined benefit provision up to a salary cap with employees earning above the cap having the option to contribute to a defined contribution scheme

Description of the Defined benefit and defined contribution pension schemes

Pension assumptions for the "Defined benefits" and "Defined Contribution" pension schemes					
ANSP/Entity: Ireland	**2015 D**	**2016 D**	**2017 D**	**2018 D**	**2019 D**
Total pension costs in respect of "Defined benefits" and "Defined contribution" schemes (in nominal terms in national currency)	2,708	2,813	2,922	3,021	3,108

Costs items in '000

c) Interest rate assumptions for loans financing the provision of air navigation services, including relevant information on loans (amounts, duration, etc.) and explanation for the (weighted) average interest on debt used to calculate the cost of capital pre tax rate and the cost of capital comprised in the determined costs,

The cost of debt is included in the WACC calculation commissioned in an independent study on its cost of capital by 'First Economics'. Based on their findings the nominal cost of debt is 5.15%. When adjusted for inflation at an average rate of 1.6%, a real cost of debt rate of 3.5% is observed.

The cost of debt has been calculated using the revolving credit facility conditions that exist within the IAA. The key variable in the calculation of the cost of debt is the EURIBOR (Euro Interbank Offered Rate). Rates have historically been quite low and it would seem safe to assume that they will start to rise over the course of RP2. An assumption has been made that the rate will be 2%. EURIBOR rates are closely aligned to the ECB's key interest rate and the guidance from the ECB and other key central banks has been that rates will remain low for as long as there is spare capacity in the economy.

The ANSP has bank credit facilities in place until 2018. The RP2 forecasts assume these funds will not be drawn down; Interest costs included in the cost base are of a nominal nature.

d) If applicable, a description of any significant restructuring planned during the reference period including the level of restructuring costs and a justification for these costs in relation to the net benefits to the airspace users over time;

Not applicable.

e) if applicable, restructuring costs approved from previous reference periods to be recovered

Not applicable.

f) The level/composition of costs incurred following Article 6(2)(a) and (b) of Implementing Regulation (EU) No 391/2013 and included in the determined costs;

These are broken down in the respective tables and referred to in this supporting documentation

g) Description of how the amounts resulting from uncontrollable costs factors in RP1 have been taken into account in the planned determined costs for RP2.

Not applicable for this submission.

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:	
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	See AI-4 c)

Terminal ANS Charging zone: Ireland
Reference Period 2 (2015-2019)

services	
(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	None foreseen

Table 1 - Total Costs and Unit Costs

United Kingdom
Currency : GBP £
All Entities

Cost details	Forecast 2010F	Forecast 2011F	Determined costs - Perf. Plan RP1 2012	2013	2014	Determined costs - Performance Plan RP2 2015	2016	2017	2018	2019
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
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
1.3 Depreciation	84,537	120,033	131,609	156,228	162,904	168,997	171,905	169,212	160,435	155,194
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
1.5 Exceptional items	12,783	17,556	17,925	17,110	16,892	23,584	20,498	20,625	20,878	20,726
1.6 Total costs	584,825	653,246	683,623	720,240	728,678	686,096	686,857	689,732	682,288	672,799
Total % n/n-1		11.7%	4.7%	5.4%	1.2%	-5.8%	0.1%	0.4%	-1.1%	-1.4%
Staff % n/n-1		8.8%	2.6%	2.3%	-0.6%	-5.3%	0.4%	2.1%	0.8%	-0.5%
Other op. % n/n-1		0.1%	5.8%	2.5%	1.7%	-14.0%	1.9%	1.6%	0.9%	0.2%
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
2.2 Communication (2)	36,266	39,736	41,486	43,698	46,112	45,552	45,453	45,548	44,855	44,023
2.3 Navigation (2)	5,033	5,688	6,014	6,396	6,729	16,983	16,977	16,869	16,413	16,127
2.4 Surveillance (2)	26,257	32,965	35,497	39,172	40,756	30,364	30,299	30,362	29,900	29,345
2.5 Search and rescue	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
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
2.8 Supervision costs	7,768	7,247	7,309	7,441	8,358	7,421	7,373	7,329	7,404	6,862
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
2.10 Total costs	584,825	653,246	683,623	720,240	728,678	686,096	686,857	689,732	682,288	672,799
Total % n/n-1		11.7%	4.7%	5.4%	1.2%	-5.8%	0.1%	0.4%	-1.1%	-1.4%
ATM % n/n-1		13.8%	4.2%	6.0%	0.4%	-6.6%	-0.2%	0.2%	-1.4%	-1.8%
CNS % n/n-1		16.0%	5.9%	7.6%	4.9%	-0.7%	-0.2%	0.1%	-1.7%	-1.8%
3. Complementary information (in nominal 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
3.2 Adjustments total assets	0	70,800	58,700	48,700	45,500	64,106	50,357	36,083	31,520	26,588
3.3 Net current assets	0	-6,000	4,300	6,100	7,000	-9,617	-45,336	-50,924	-64,537	-72,650
3.4 Total asset base	0	988,464	1,002,362	1,025,560	1,028,158	976,946	916,877	864,711	819,354	766,216
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%
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%
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%
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										
4. Total costs after deduction of costs for services to exempted flights (in nominal terms)										
4.1 Costs for exempted VFR flights	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
5. Cost-efficiency KPI - Determined/Actual Unit Cost (in real terms)										
5.1 Inflation % (3)	3.34%	2.53%	1.70%	1.76%	1.89%	1.90%	1.90%	2.00%	2.00%	2.00%
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
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**
Total % n/n-1		8.9%	2.9%	3.5%	-0.7%		-1.8%	-1.6%	-3.0%	-3.3%
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**
Total % n/n-1		-2.8%	3.5%	3.3%	3.4%		1.9%	1.4%	1.7%	1.7%
5.5 Unit cost	**55.15**	**61.83**	**61.44**	**61.57**	**59.10**	**62.89**	**60.66**	**58.88**	**56.18**	**53.41**
Total % n/n-1		12.1%	-0.6%	0.2%	-4.0%		-3.6%	-2.9%	-4.6%	-4.9%

Cost details	Actual costs 2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
1. Detail by nature (in nominal terms)										
1.1 Staff	264,635	278,369	273,294	266,644	*278,786*					
1.2 Other operating costs (1)	171,388	158,581	166,812	176,206	*170,236*					
1.3 Depreciation	107,413	122,026	133,259	157,111	*163,366*					
1.4 Cost of capital	65,016	68,828	68,586	68,484	*67,397*					
1.5 Exceptional items	27,367	13,975	16,789	56,387	*23,964*					
1.6 Total costs	635,819	641,779	658,741	724,833	703,749					
Total % n/n-1		1%	3%	10%	-3%					
Staff % n/n-1		5%	-2%	-2%	5%					
Other op. % n/n-1		-7%	5%	6%	-3%					
2. Detail by service (in nominal terms)										
2.1 Air Traffic Management	457,847	460,948	475,867	529,274	*513,116*					
2.2 Communication (2)	39,544	43,752	44,566	48,322	*46,808*					
2.3 Navigation (2)	5,396	14,302	14,799	17,654	*17,387*					
2.4 Surveillance (2)	29,622	29,559	30,109	32,211	*31,202*					
2.5 Search and rescue	0	0	0	0	*0*					
2.6 Aeronautical Information (2)	3,475	3,904	3,995	4,046	*4,315*					
2.7 Meteorological services (2)	30,440	29,100	29,130	28,718	*28,552*					
2.8 Supervision costs	7,472	7,463	6,866	7,259	*7,615*					
2.9 Other State costs (1)	62,023	52,750	53,409	57,347	*54,754*					
2.10 Total costs	635,819	641,779	658,741	724,833	*703,749*					
Total % n/n-1		0.9%	2.6%	10.0%	-2.9%					
ATM % n/n-1		0.7%	3.2%	11.2%	-3.1%					
CNS % n/n-1		17.5%	2.1%	9.7%	-2.8%					
3. Complementary information (in nominal terms)										
Average asset base										
3.1 Net book val. fixed assets	999,059	937,267	939,762	927,485	*893,388*					
3.2 Adjustments total assets	0	72,030	41,682	50,556	52,524					
3.3 Net current assets	0	12,155	33,018	37,497	52,666					
3.4 Total asset base	999,059	1,021,453	1,014,462	1,015,539	*998,578*					
Cost of capital %										
3.5 Cost of capital pre tax rate	6.5%	6.7%	6.8%	6.7%	*6.7%*					
3.6 Return on equity	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%*					
Cost of common projects										
3.8 Total costs of common projects										
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 nominal terms)										
4.1 Costs for exempted VFR flights	0	0	0	0	*0*					
4.2 Total determined/actual costs	635,819	641,779	658,741	724,833	*703,749*					
5. Cost-efficiency KPI - Determined/Actual Unit Cost (in real terms)										
5.1 Inflation % (3)	3.34%	4.50%	2.80%	2.60%	*1.86%*					
5.2 Price index (4)	103.3	108.0	111.0	113.9	116.0					
5.3 Total costs real terms (5)	**615,273**	**594,297**	**593,389**	**636,378**	***606,613***					
Total % n/n-1		-3.4%	-0.2%	7.2%	-4.7%					
5.4 Total Service Units	**9,480.3**	**9,860.8**	**9,607.9**	**9,754.9**	***9,607.9***					
Total % n/n-1		4.0%	-2.6%	1.5%	-1.5%					
5.5 Unit cost	**64.90**	**60.27**	**61.76**	**65.24**	***63.14***					
Total % n/n-1		-7.1%	2.5%	5.6%	-3.2%					

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 price indexes - 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 in 2013 and estimated price index in 2014)*
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

Table 1 - Total Costs and Unit Costs

United Kingdom
Currency : GBP £
NERL

Cost details	Forecast 2010F	Forecast 2011F	Determined costs - Perf. Plan RP1 2012	2013	2014	Determined costs - Performance Plan RP2 2015	2016	2017	2018	2019	Actual costs 2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
1. 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*					
1.2 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	562,791	572,693	635,978	*615,196*					
Total % n/n-1		16%	3%	6%	1%		-0.2%	0.2%	-1.5%	-1.8%		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 nominal terms)																				
Average asset base																				
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	993,200	1,017,700	1,021,600	932,185	873,418	822,554	778,499	726,361	987,293	1,010,953	1,005,300	1,007,679	*992,020*					
Cost of capital %																				
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																				
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													-3,016	2,173	*10,061*					
4. Total costs after deduction of costs for services to exempted flights (in nominal terms)																				
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/Actual Unit Cost (in real terms)																				
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)	**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**	**9,607.9**					
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%	-1.5%					
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**	**55.19**					
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%	-3.6%					

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 price indexes - 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 in 2013 and estimated price index in 2014)*
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

Table 1 - Total Costs and Unit Costs

United Kingdom	
Currency : GBP £	
Met Office	

	Forecast		Determined costs - Perf. Plan RP1			Determined costs - Performance Plan 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**
1. 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	*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%	-2%	-2%	-1%		-1.5%	-1.3%	-1.4%	-1.2%		-3.5%	0%	-1%	*-0.5%*					
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)	0	0	0	0	0						0	0	0	0	*0*					
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		7.0%	-1.1%	-2.0%	-0.7%		-0.7%	-0.6%	-0.7%	-0.5%		-4.4%	0.1%	-1.4%	-0.6%					
ATM % n/n-1																				
CNS % n/n-1																				
3. Complementary information (in nominal terms)																				
Average asset base																				
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						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 %																				
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 nominal terms)																				
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/Actual Unit Cost (in real terms)																				
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**	**9,607.9**					
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%	-1.5%					
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**	**2.56**					
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%	-0.9%					

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 price indexes - 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 in 2013 and estimated price index in 2014)*
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

Table 1 - Total Costs and Unit Costs

United Kingdom
Currency : GBP £
UK CAA + DfT Eurocontrol

Cost details	Forecast 2010F	Forecast 2011F	Determined costs - Perf. Plan RP1 2012	2013	2014	Determined costs - Performance Plan RP2 2015	2016	2017	2018	2019	Actual costs 2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
1. Detail by nature (in nominal terms)																				
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	0	0	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																				
3. Complementary information (in nominal 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						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 %																				
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%	4.7%	4.6%	*4.6%*					
3.6 Return on equity		4.8%	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%	4.8%	*4.8%*					
3.7 Average interest on debts		4.3%	4.3%	4.3%	4.3%	4.3%	4.3%	4.3%	4.3%	4.3%	4.3%	4.3%	4.3%	4.3%	*4.3%*					
Cost of common projects																				
3.8 Total costs of common projects																				
Costs exempted from cost sharing (Article 14(2)(b))																				
3.9 Total costs exempted from cost													-3,697	-321	*-1,644*					
4. Total costs after deduction of costs for services to exempted flights (in nominal terms)																				
4.1 Costs for exempted VFR flights						0	0	0	0	0			0	0	*0*					
4.2 Total determined/actual 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					
5. Cost-efficiency KPI - Determined/Actual Unit Cost (in real terms)																				
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		-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**	**9,607.9**					
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%	-1.5%					
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**	**5.38**					
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%	-0.5%					

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 price indexes - 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 in 2013 and estimated price index in 2014)*
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

Table 2 - Unit rate calculation

United Kingdom
All Entities

	Full cost		Reference Period 1			Reference Period 2				
Unit rate calculation	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**
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	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 n amount to be carried over			19,638	27,520	24,364.7					
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	0	0	13,283	16,916	1,414	24,032	24,365	0	0	0
3.3 Traffic : amounts carried over to year n	0	34,215	0	0	0	0	0	0	0	0
3.4 Traffic risk sharing : add. revenue carried over to year n	0	0	0	0	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	0	0
3.6 Costs exempt from cost sharing : amounts carried over to year n	0	0	0	0	0	0	2,204	1,229	1,230	1,218
3.7 Bonus or penalty for performance	0	10,181	3,212	8,945	1,081	-986	0	0	0	0
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	0	0	0
3.9 Total for the calculation of year n unit rate	493,927	574,596	625,915	685,391	677,754	651,369	659,339	599,871	590,815	580,225
3.10 Traffic risk sharing : add. rev. year n to be carried-over	0	0	0	0	0	0	0	0	0	0
3.11 Traffic risk sharing : revenue loss year n to be carried-over	0	0	-20,183	-30,734	0	0	0	0	0	0
3.12 Over/under recoveries from traffic variations n to be carried-over	0	0	-2,258	-4,730	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%
3.14 % loss of revenue borne by airspace users			70%	70%	70%	70%	70%	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	0	0	0	0	2,722	3,488	0	0	0	0
4.3 Traffic : amounts carried over to year n	0	0	0	0	6,281	7,759	0	0	0	0
4.4 Costs exempt from cost sharing : amounts carried over to year n	0	0	0	0	0	0	-5,662	0	0	0
4.5 Restructuring costs : amounts carried over to year n	0	0	0	0	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	0	0	0	0	0	0
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	0	0	-6,281	-7,759						
5. Other revenues - applied unit rate (in national currency)										
5.1 Total other revenues	0	0	411	5,083	424	1,235	0	0	0	0
5.2 Total revenues from Public Authorities	0	0	0	0	0	0	0	0	0	0
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	0	0	0	0	0	0
5.5 Commercial activities	0	0	0	0	0	0	0	0	0	0
5.6 Other other revenues	0	0	411	5,083	424	1,235	0	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	743,019	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**	**71.20**	**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	63.19	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	71.20	65.29	63.54	61.61

Costs, revenues and other amounts in '000 GBP - Service units in '000
(1) 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				
Unit rate calculation	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**
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%	2.3%	3.1%	3.8%						
1.3 Forecast inflation rate - Table 1	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 n amount to be carried over		13,282.7	16,916	24,032	24,365					
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	24,365	0	0	0
3.3 Traffic : amounts carried over to year n		34,215								
3.4 Traffic risk sharing : add. revenue carried over to year n			0	0	0					
3.5 Traffic risk sharing : revenues losses carried over to year n			0	20,183	1,980	28,754	31,977	0	0	0
3.6 Costs exempt from cost sharing : amounts carried over to year n						0	2,204	1,229	1,230	1,218
3.7 Bonus or penalty for performance		10,181	3,212	8,945	1,081	-986	0	0	0	0
3.8 Over(-) or under(+) recoveries (2) : amounts carried over to year n		-44,397	16,021	9,260	35,806	767	3,278	0	0	0
3.9 Total for the calculation of year n unit rate	493,927	574,596	625,915	685,391	677,754	651,369	659,339	599,871	590,815	580,225
3.10 Traffic risk sharing : add. rev. year n to be carried-over			0	0						
3.11 Traffic risk sharing : revenue loss year n to be carried-over			-20,183	-30,734						
3.12 Over/under recoveries from traffic variations n to be carried-over			-2,258	-4,730						
Parameters for traffic risk sharing										
3.13 % additional revenue returned to users in year n+2			70%	70%	70%	70%	70%	70%	70%	70%
3.14 % loss of revenue borne by airspace users			70%	70%	70%	70%	70%	70%	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	0	0	411	5,083	0	689	0	0	0	0
5.2 Total revenues from Public Authorities	0	0	0	0	0	0	0	0	0	0
5.3 of which Union assistance programmes	0	0	0	0	0	0				
5.4 of which National public funding	0	0	0	0	0	0				
5.5 Commercial activities	0	0	0	0	0	0				
5.6 Other other revenues	0	0	411	5,083	0	689	0	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	659,339	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	63.19	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	63.19	56.68	54.92	53.04

Costs, revenues and other amounts in '000 GBP - Service units in '000
(1) 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

	Full cost		Reference Period 1			Reference Period 2				
Unit rate calculation	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**
1. Determined costs in nominal terms and inflation adjustment										
1.1 Determined costs in nominal terms - VFR excl. - Table 1	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	3.3%	4.5%	2.8%	2.6%						
1.3 Forecast inflation rate - Table 1	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 n amount to be carried over			877	1,103						
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)										
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 over to year n										
3.5 Traffic risk sharing : revenues losses carried over to year n										
3.6 Costs exempt from cost sharing : amounts carried over to year n										
3.7 Bonus or penalty for performance										
3.8 Over(-) or under(+) recoveries (2) : amounts carried over to year n										
3.9 Total for the calculation of year n unit rate										
3.10 Traffic risk sharing : add. rev. year n to be carried-over										
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										
3.14 % loss of revenue borne by airspace users										
4. Costs not subject to traffic risk sharing										
4.1 Determined costs in nominal terms - VFR excl. (Table 1)	27,453	29,386	29,073	28,500	28,300	28,061	27,852	27,673	27,492	27,341
4.2 Inflation adjustment : amount carried over to year n					877	1,103	0	0	0	0
4.3 Traffic : amounts carried over to year n			0	0	2,262	2,412	0	0	0	0
4.4 Costs exempt from cost sharing : amounts carried over to year n						0	0	0	0	0
4.5 Restructuring costs : amounts carried over to year n			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 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 traffic variations n to be carried-over			-2,262	-2,412						
5. Other revenues - applied unit rate (in national currency)										
5.1 Total other revenues						0	0	0	0	0
5.2 Total revenues from Public Authorities						0	0	0	0	0
5.3 of which Union assistance programmes						0	0	0	0	0
5.4 of which National public funding						0	0	0	0	0
5.5 Commercial activities						0	0	0	0	0
5.6 Other other revenues						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 currency)										
5.9 ANSP component of the unit rate										
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										
5.12 Year n unit rate that would have 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) 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
UK CAA + DfT Eurocontrol

	Full cost		Reference Period 1			Reference Period 2				
Unit rate calculation	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**
1. Determined costs in nominal terms and inflation adjustment										
1.1 Determined costs in nominal terms - VFR excl. - 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%						
1.3 Forecast inflation rate - Table 1	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 n amount to be carried over			1,845	2,385						
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)										
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 over to year n										
3.5 Traffic risk sharing : revenues losses carried over to year n										
3.6 Costs exempt from cost sharing : amounts carried over to year n										
3.7 Bonus or penalty for performance										
3.8 Over(-) or under(+) recoveries (2) : amounts carried over to year n										
3.9 Total for the calculation of year n unit rate										
3.10 Traffic risk sharing : add. rev. year n to be carried-over										
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										
3.14 % loss of revenue borne by airspace users										
4. Costs not subject to traffic risk sharing										
4.1 Determined costs in nominal terms - VFR excl. (Table 1)	63,445	49,264	61,150	61,653	62,905	59,234	61,490	63,417	65,211	66,451
4.2 Inflation adjustment : amount carried over to year n					1,845	2,385	0	0	0	0
4.3 Traffic : amounts carried over to year n					4,019	5,347	0	0	0	0
4.4 Costs exempt from cost sharing : amounts carried over to year n						0	-5,662	0	0	0
4.5 Restructuring costs : amounts carried over to year n			0	0	0	0	0	0	0	0
4.6 Over(-) or under(+) recoveries (2) : amounts carried over to year n	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 variations n to be carried-over			-4,019	-5,347						
5. Other revenues - applied unit rate (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 programmes						0	0	0	0	0
5.4 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 unit 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 without other revenues	6.80	5.49	5.60	5.86	6.23	6.54	5.35	5.99	6.06	6.07

Costs, revenues and other amounts in '000 GBP - Service units in '000
(1) 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 3 - Complementary Information

United Kingdom
All Entities

PART A : Complementary Information on costs	2010F	2011F	2012	2013	2014	2015	2016	2017	2018	2019	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
	Forecast		Determined costs - RP1			Determined costs - RP2					Actual costs									
Eurocontrol costs																				
1.1 EUROCONTROL costs (Euro)	61,700	49,405	53,319	53,643	54,837	55,883	58,438	60,584	62,563	64,584	59,651	49,246	53,481	55,412	56,738					
1.2 Exchange rate (if applicable)	0.8928	0.8403	0.8830	0.8830	0.8830	0.82443	0.82443	0.82443	0.82443	0.82443	0.8581	0.8676	0.8112	0.8490	0.8244					
Cost of common projects																				
2.1 Total costs of common projects						0	0	0	0	0						0	0	0	0	0
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													-3,016	2,173	10,061					
3.2 Other operating costs													-3,696.6	-320.8	-1,644					
3.3 Depreciation																				
3.4 Cost of capital																				
3.5 Exceptional items																				
3.6 Total costs exempted from cost sharing													-6,713	1,852	8,417	0	0	0	0	0
Breakdown by factor/item																				
3.7 Pension													-3,016	2,173	10,061					
3.8 Interest rates on loans																				
3.9 National taxation law																				
3.10 New cost item required by law																				
3.11 International agreements													-3,697	-321	-1,644					
3.12 Total costs exempted from cost sharing													-6,713	1,852	8,417					
	Planned costs (business case)										Actual costs (for information)									
Restructuring costs, if authorised in accordance with Article 7(4)																				
4.1 Total restructuring costs				0.0	0.0									0.0	0.0					

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	24,365	24,365							24,365		24,365				0
Inflation adjustment Year 2015	0	0							0			0			0
Inflation adjustment Year 2016	0	0							0				0		0
Inflation adjustment Year 2017	0	0							0					0	0
Inflation adjustment Year 2018	0	0							0						0
Inflation adjustment Year 2019	0	0							0						0
Total Inflation Adjustment	65,313.0	65,313						16,916	48,397	24,032	24,365	0	0	0	0
Traffic balance Year 2012	6,281	6,281						6,281	0						0
Traffic balance Year 2013	7,759	7,759							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	0	0							0						0
Total Traffic Adjustment	14,039.6	14,040						6,281	7,759	7,759	0	0	0	0	0
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	0	0							0					0	0
Traffic risk sharing revenue Year 2018	0	0							0						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						0
Traffic risk sharing loss Year 2013	-28,754	28,754							28,754	28,754					0
Traffic risk sharing loss Year 2014	0	0							0		0				0
Traffic risk sharing loss Year 2015	0	0							0			0			0
Traffic risk sharing loss Year 2016	0	0							0				0		0
Traffic risk sharing loss Year 2017	0	0							0					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	0							0						0
Total costs exempted from cost sharing CAA	3,556	3,556							3,556	0	3,556	0	0	0	0
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		6,957					0						0
O-u recoveries before determined costs Year 2009	-4,601	4,601		-500	5,101				0						0
O-u recoveries before determined costs Year 2010	-144	144			-69	213			0						0
O-u recoveries before determined costs Year 2011	-571	571					571		0						0
O-u recoveries before determined costs Year 2012 (TNC only)															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 2013	2,173	2,173							2,173						2,173
Costs exempted from cost sharing Year 2014	10,061	10,061							10,061						10,061
Costs exempted from cost sharing Year 2015									0						0
Costs exempted from cost sharing Year 2016									0						0
Costs exempted from cost sharing Year 2017									0						0
Costs exempted from cost sharing Year 2018									0						0
Costs exempted from cost sharing Year 2019									0						0
Total costs exempted from cost sharing NERL	9,218	9,218							9,218	0	2,204	1,229	1,230	1,218	3,337

En route

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

		Historical data (actual 2009-2013, latest 2014 forecast)						RP2 Performance Plan					RP1 PP	Average pct variation 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**	**2009A-2019D**	**2014F-2019D**	**2011A-2019D**	**2014D-2019D**
Local currency (Nominal and 2012 prices)	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%
	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	9,607,878	10,244,000	10,435,000	10,583,000	10,758,000	10,940,000	11,034,647	1.0%	2.6%	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	70.09	**62.89**	**60.66**	**58.88**	**56.18**	**53.41**	65.61	-2.5%	-5.3%	-2.8%	-4.0%
Local currency (2009 prices)	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%
	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%
	Real en route UCs/DUCs (in national currency at 2009 prices)	**62.03**	**64.90**	**60.27**	**61.76**	**65.24**	**63.14**	**56.65**	**54.64**	**53.04**	**50.60**	**48.11**	**59.10**	-2.5%	-5.3%	-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	728,678,295
Total en route actual costs for services to exempted VFR flights in national currency (as per November 2010 Reporting Tables)	0	0

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

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

En route Charging zone: UK En route
Reference Periods 1 (2012-2014) and 2 (2015-2019)

ADDITIONAL INFORMATION – 1 – Total costs and unit costs

a) Description of the methodology used for allocating costs of facilities or services between different air navigation services based on the list of facilities and services listed in ICAO Regional Air Navigation Plan, European Region (Doc. 7754), and a description of the methodology used for allocating those costs between different Charging Zones;

The UK cost base is prepared under 4 separate organisations:

1. The Department for Transport (**DfT**) is the responsible Government department. The Department incurs the Eurocontrol Member States costs as well as its own related administrative costs.

2. The Civil Aviation Authority (**CAA**, the UK National Supervisory Authority) supervises the economic regulation of NERL the en-route ANSP and the Meteorological Office's Civil Aviation-related services. Its cost base includes the costs of the Directorate of Airspace Policy, now part of the Safety and Airspace Regulation Group and legal and financial support to the route charges system. Within the CRCO tables, one set of figures is submitted for the combined costs of DfT and CAA.

3. The Meteorological Office (**MET**) allocates a percentage of its core costs to Civil Aviation and is governed by a fixed pricing algorithm which guarantees year on year efficiencies.

4. NATS En Route plc (**NERL**), under its licence, has a revenue capping mechanism, (not cost recovery), which is set after extensive consultation with the aviation community by the Regulator covering control periods. This follows the principles of determined cost. The last control period (CP2) expired in December 2010 and a new control period has been set for the period January 2011 to December 2014, based on the amended charging regulations (with the period January 2012 to December 2014 consistent with RP1).

NERL has two en route charging arrangements; the UK FIR and the Shanwick Oceanic area. Costs are allocated to each using an activity management process. This includes separate reporting of the asset bases. NERL produces an annual audited set of accounts for the Regulator which identifies performance for each, together with a reconciliation of each Regulatory Asset Base, as well as Statutory accounts prepared under IFRS. Both are based on a March year end. NATS Services Limited, a sister company, is responsible for ATC terminal operations, and reports separately.

As part of the Licence arrangement, the revenue from other services is offset against the en-route cost base to reduce the overall en-route charges. This is applied against staff, other operating and depreciation costs.

b) Description of the methodology and assumptions used to establish the costs of air navigation services provided to VFR flights, when exemptions are granted for VFR flights;

Not applicable

c) Description and justification of any adjustment beyond the provisions of the International Accounting Standards;

NSA\MET:
No adjustments

NERL:
NERL has prepared its annual accounts on the basis of International Accountancy Standards (IAS) since 2005/6. The determined costs for NERL have however been prepared on a regulatory building-block basis. The consistency of the calculation of determined costs with IAS is considered below.

General comments

The CAA makes the following overarching observations:

a. The CAA takes an economic approach to its regulation of NERL. While the economic and accounting valuation and treatment of items is often the same or very similar, there are situations in which differences arise because of the different conceptual viewpoints of economics and accountancy.
b. Accounting standards primarily relate to the reporting of historical financial performance. In contrast, determined costs for RP2 are projected financial performance. In this respect the CAA sees no conflict between the way it has estimated the projected figures (such as operating costs or a working capital allowance in the RAB) and IAS, and has focussed only on areas of potential inconsistency with IAS;
c. The CAA has taken the same approach to RP2 as it did to RP1; with the exception of RIM, discussed below, and
d. The Charging Regulation explicitly allows for deviation from IAS in certain situations (for example pension costs).

Revenue discounting: IFRS requires discounting of long term receivables. These are adjusted in statutory accounts for the impact of n+2 recoveries (e.g. traffic risk sharing, inflation, incentive schemes). The determined costs exclude this adjustment.

Lease reinstatement provisions: Provisions are assessed annually for the lease reinstatement obligations on property leases. These are excluded from determined costs.

Unless otherwise stated below the CAA considers that its calculation of determined costs is consistent with IAS.

Pension Costs

NERL operates two pension schemes: a legacy defined benefit scheme which has been closed to new members since 2009 and a defined contribution scheme open to new members since 2009.

The amounts included in determined costs in respect of the defined benefit pension scheme are the forecast cash costs as set out in the latest independent actuarial triennial valuation of the defined benefit scheme (as at 31 December 2012). These forecast cash costs are consistent with the schedule of contributions agreed with Trustees of the pension scheme in accordance with the governance of the scheme and national law. From 2017, the cash contributions reflect the CAA's best estimate investment performance, which will produce lower contributions that year compared to the Trustees assumption (which includes a margin for prudence). The CAA has included the forecast cash costs in determined costs rather than the forecast accounting charge, calculated under IAS, included in NERL's forecast profit and loss account.

Cost of Defined Benefit Pension Scheme (£m)

Outturn	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20
Cash Contributions*	74.7	75.4	75.6	76.6	69.0	67.1
Charge to Income Statement**	66.7	62.8	61.8	59.9	57.0	55.3
* 2014/15 is the allowance, ** 2014/15 is the forecast charge						

In the short to medium term the cash costs may be different to the profit and loss account charge (IAS19), although in the long-run it is expected that they would converge on the same actual cost because in the long-run there is only one actual pensions cost. This difference reflects the margin for prudence required for funding purposes as compared with best estimate assumptions required by IAS

in establishing the profit and loss account charge. The CAA considers that taking a cash approach is consistent with the requirements for prudence required by Article 6(2) of the amended Charging Regulation and is in the interests of users as it ensures that NERL is financially robust with a more efficient financing structure than might otherwise be the case. This is also consistent with the approach which the CAA has adopted to regulating NERL's finance through imposing limits on its gearing to ensure that users receive the degree of financial resilience that they pay for through the price control and which dis-incentivises NERL from increasing its gearing above the target level.

The Regulatory Asset Base

The regulatory asset base (RAB) is a measure of the amount invested in NERL that has yet to be returned through revenue allowances, and therefore represents capital employed. The RAB is indexed to inflation and is, therefore, presented on a current cost accounting basis. The RAB includes:

a. fixed assets;
b. working capital (not cash balances);
c. RIM asset; and
d. pensions pass through asset.

Components of the RAB on UKATS basis are set out below.

Year-End Outturn Prices (£ millions)	**2014/15**	**2015/16**	**2016/17**	**2017/18**	**2018/19**	**2019/20**
Opening RAB	1,136.8	1,142.2	1,077.8	1,012.8	964.0	911.0
Inflation of opening RAB	33.0	34.3	39.9	37.5	34.7	39.2
CP3 RAB adjustments for Spectrum costs and Tax clawback	0.0	-0.7	0.0	0.0	0.0	0.0
CP3 RIM adjustment	0.0	29.0	0.0	0.0	0.0	0.0
Total actual net capex	128.1	140.7	134.6	113.8	108.8	100.3
Pension Contribution Variance	12.0	0.0	0.0	0.0	0.0	0.0
Capitalised financing costs (can be negative or positive)	-5.9	0.0	0.0	0.0	0.0	0.0
Actual movements in working capital	23.5	-71.8	-41.5	-7.1	-15.8	-10.5
Allowed Depreciation	-185.2	-195.9	-198.0	-193.1	-180.7	-179.8
Closing RAB	1,142.2	1,077.8	1,012.8	964.0	911.0	860.1
Average RAB	1,139.5	1,124.2	1,045.3	988.4	937.5	885.5

Fixed assets

Fixed assets comprise approximately 95 per cent of the RAB,. IAS allows fixed assets to be valued at current costs.

Working capital

The RAB includes small working capital asset necessary for the operation of the business. No cash balances are included. Working capital is stated on a current cost basis. This represents an immaterial departure from strict IAS current cost accounting but is consistent with the approach adopted by regulators who apply similar economic regulatory models.

Rolling Incentive Mechanism

The RIM included in the projected RP2 RAB represents the remuneration that NERL earned for out-performing its operating cost efficiency targets in the later years of RP1 when it would otherwise have

only enjoyed the benefits for a relatively short period. The CAA considers that this is part of the RP1 regulatory contract with NERL and to not honour this would be to renege on the RP1 regulatory contract and may be inconsistent with the CAA's statutory duties. In order to carry-over the outstanding amount between RP1 and RP2, the RIM is included in, and then depreciated from the RAB. This puts into effect the CAA's RP1 policy of incentivising NERL to make operating costs efficiencies throughout the control period. The CAA introduced this mechanism in 2005 because it thought that it was in users' interest to incentivise NERL to improve its operating cost efficiency by allowing NERL to retain its fair share of the efficiency (for a period of five years) after which users benefit from the full amount of the efficiency.

The RIM provides NERL with £31.3 million (or 1.1 per cent) additional revenue over RP2.

While there is still an argument for a mechanism to continue to encourage efforts to make operating cost improvements towards the end of a reference period, this now seems less relevant to a process which is more heavily based on top-down targets. The CAA is therefore proposing not to accrue any further RIM incentives during RP2 although it will honour the value already built up in the RAB and depreciate this in line with its existing policy.

The CAA notes that the Charging Regulation permits incentive schemes (Art 12.2).

Pensions Pass-Through

The pension pass-through mechanism relates to determined costs that can be exempted from the cost sharing mechanism, as defined in the Charging Regulation (391/2013 Article 14), arising in RP1 and earlier. Similar to the RIM, the CAA has put this into effect by including in, and depreciating from, the RAB a pensions asset. This mechanism would equally allow for a reduction in the RAB, if actual pension costs were lower than forecast.

The pensions asset is being depreciated over 12 or 15 years depending on when the asset was accrued . The CAA considered other, shorter periods but concluded that it was in users interest to minimise the impact by spreading it over a substantial period.

The depreciation charge on the pensions pass through asset from RP1 is not included in the DUC, but is included in the en route unit rate via the ' the carry-overs from the previous reference period resulting from the implementation of the cost sharing mechanism referred to in Article 14;"(391/2013 Annex IV, paragraph 2.2 (v).

Capitalised Finance Costs

Capitalised finance costs arise for two reasons. First, when the forecast capital expenditure is updated for actual capital expenditure any differences (including timing differences) give rise to additional finance costs (or benefits). This adjustment keeps NERL whole and ensures that NERL does not benefit from delaying capital expenditure. Second and similarly, the pensions pass-through mechanism also gives rise to timing differences and therefore finance costs (or benefits). Capitalised finance costs on the pension pass through makes sure that NERL does not gain or lose due to the timing difference.

This concept could be considered consistent with IAS which allow the value of assets and liabilities that crystallise in the future to reflect the time value of money.

Netting Off of Non-Regulated Revenues Against Costs

NERL's licence allows it, within specified limits, to provide an ANS service in addition to the en-route business. NERL is only able to provide these services because it has the en-route business and, therefore, the CAA considers that it is appropriate and in the interest of users that income from these services should be used to reduce determined costs and the unit rate. Netting of revenues and costs is not consistent with International Accounting Standards but necessary to reflect this single-till approach. The valuation of these revenues is consistent with International Accounting Standards.

Goodwill

IAS requires goodwill to be included in the balance sheet and any impairment to be expensed to the profit and loss account. Determined costs do not include allowances for the impairment of goodwill. NERL's goodwill arose from privatisation in 2001. To include goodwill impairment charges in determined costs would, therefore, be of benefit to shareholders and to the detriment of airline customers. For this reason the CAA does not allow these charges in setting the unit rate.

Borrowing Costs Incurred on Borrowings to Fund Capital Expenditure

With the introduction of IAS23: Borrowing Costs, the option to expense borrowing costs which are attributable to the acquisition, construction or production of fixed assets was removed. As a result, under international accounting standards, borrowing costs relating to the development of fixed assets are capitalised as part of the cost of the asset and subsequently depreciated. The CAA does not permit the capitalisation of these borrowing costs as to do so would be to remunerate NERL twice, once through the cost of capital applied to the RAB (to calculated the allowed returns) and again through the inclusion of interest costs on assets in the course of construction in the RAB (which would be recovered through regulatory depreciation). To ensure that this is not remunerated twice, borrowing costs are excluded from fixed assets for regulatory purposes.

NERL notes that it assesses annually for the lease reinstatement obligations on property leases and makes provisions if appropriate. These are excluded for determined costs.

The adjustments made by the CAA which are not covered by IAS are essential to establishing a proposal which balances the requirement for NERL to be appropriately resourced and incentivised to provide an efficient service to customers at manageable risk.

d) Description and explanation of the method adopted for the calculation of depreciation costs: historic costs or current costs. When current cost accounting is adopted, provision of comparable historic cost data;

NSA:
Depreciation costs included in the CAA cost base relate to a major refurbishment project completed in 2005 in the One Kemble Street building, formerly the headquarters of NATS. The cost of the refurbishment (£19.5m) is depreciated over the remaining term of the lease (2005 to 2019) using the straight-line method applied to historic costs

MET:
Freehold land is not depreciated. Depreciation on buildings is calculated to write-off the cost, or value, by equal instalments over the asset's estimated useful life (not exceeding 50 years). Plant and equipment and information technology assets are depreciated by the straight-line method at a rate calculated to write-off the cost, or value, over the asset's estimated useful life. Current policy is to write-off plant and equipment over three to 30 years and information technology equipment over three to five years. Satellite assets are depreciated using the straight-line method over their estimated useful life. This method reflects the principle that the economic benefit of satellite data remains constant between individual satellites. Fixtures and fittings include improvements to leasehold buildings and are depreciated over five to 25 years. Assets in the course of construction are not depreciated. Where there is evidence of impairment, fixed assets are written down to recoverable amount.

NERL:
NERL's Regulatory asset base (RAB) is a measure of the amount invested in the business that has yet to be returned through revenue allowances, and therefore represents capital employed. The RAB is indexed to inflation and is therefore, presented on a current cost accounting basis. The RAB includes a small working capital adjustment also stated on a current cost basis. This approach is consistent with the approach adopted by regulators in other markets. Also included in the RAB are pension pass through adjustments (which can be positive or negative), rolling incentive mechanisms and capitalised finance costs.

Together, IAS and the Charging Regulation require fixed assets to be depreciated over their useful economic lives on a straight-line basis from the date they come into operation. Furthermore, assets should be classed according to their nature and useful economic lives. In contrast, the CAA has applied an average economic life to all assets and depreciated from date of acquisition. In addition, the CAA's depreciation charge reflects the current cost adjustment to fixed assets, which contrasts with NERL's statutory reporting basis which reflects historical cost.

The economic and accounting view of depreciation differ. The accounting perspective sees depreciation as a wearing out of assets and a matching of costs with revenues. The economic perspective sees depreciation as a way of passing back to the company its investment in capacity and capability. Because a return is also provided on the RAB (i.e. the amount invested which has not yet been returned to investors) the value of the business (the present value of future cashflows) is independent of the choice of depreciation life.[1]

From an economic viewpoint, depreciation is important as it provides the company with cash flows to fund further capital expenditure and, therefore, from a financing perspective economic lives should broadly match the useful lives of the assets which are being financed. For these reasons, the CAA provides depreciation from the date of acquisition (in order to facilitate financing) rather than from the date of operation (which is used in accountancy terms to match the costs with the revenues). This also reflects the CAA's statutory duty to secure that NERL will not find it unduly difficult to finance its licensed activities.

The CAA has applied an average useful economic life to all fixed assets that reflects the economic lives of the mix of assets in use. For RP1 and RP2 capital expenditure, the CAA has used a 15-year life which it considers appropriate for regulatory purposes and notes that this is consistent with the mix of assets and their useful economic lives. The CAA therefore concludes that, although the way in which the calculation is performed is not consistent with IAS, the outcome of the calculation is broadly consistent with that which would result from using individual asset lives.

On privatisation in 2001, all the existing assets were to be depreciated over 20 years with additions depreciated over 12 years. As a result of the RP1 review the CAA extended the useful economic lives of future additions to 15 years. Although this led to a range of lives depending on when the assets were acquired, the CAA considered it would be inappropriate to retrospectively change assets lives because to do so would have created uncertainty with respect to future capital expenditure.

Current and Historical Cost Accounting Values Comparison for Depreciation Charge (£m)						
Outturn	**2014/15**	**2015/16**	**2016/17**	**2017/18**	**2018/19**	**2019/20**
Depreciation charge on the basis of						
Current cost accounting	185.2	195.9	198.0	193.1	180.7	179.8

[1] In addition, the accounting charge reflected in NERL's statutory accounts may include the accelerated write down of assets due to impairment and gains or losses on asset sales, neither of which is allowed under economic regulation. It is the proceeds of asset disposals that are deducted from the RAB and are therefore reflected in depreciation.

(regulatory depreciation lives)						
Historical cost accounting (statutory accounts depreciation lives)	99.5	111.6	131.2	138.1	140.9	153.0

e) Justification for the cost of capital, including the components of the asset base, the possible adjustments to total assets and the return on equity;

NSA:

Assumptions for determining the cost of capital and the return on equity

The cost of the One Kemble Street refurbishment project was funded partly through a National Loans Fund (NLF) loan, and partly through equity. The depreciation and cost of capital profile for RP1 is shown in the table below.

£000s	2010	2011	2012	2013	2014
Opening NBV	12,417	11,115	9,813	8,511	7,209
Depreciation	1,302	1,302	1,302	1,302	1,302
Closing NBV	11,115	9,813	8,511	7,209	5,907
Average Capital	11,766	10,464	9,162	7,860	6,558
Cost of Capital	549	488	427	365	304

Initial Weighted Average Cost of Capital

	Loan	**Equity**	**Total**
Source of Funding	4,000	15,530	19,530
Percentage of Total	20.5	79.5	100.0
Interest Rate	4.30%	4.80%	
Weighted Average Cost of Capital	0.88%	3.82%	4.70%

The weighted average cost of capital is recalculated on an annual basis, and reduces gradually over time. The weighted average cost of capital for the current planning period is as follows:

2010 4.67%
2011 4.66%
2012 4.66%
2013 4.64%
2014 4.64%

For RP2: (see also section 4)

£000s	2015	2016	2017	2018	2019
Opening NBV	5,907	4,605	3,303	2,001	699
Depreciation	1,302	1,302	1,302	1,302	699
Closing NBV	4,605	3,303	2,001	699	0
Average Capital	5,256	3,954	2,652	1,350	350
Cost of Capital	244	183	123	63	16

MET:
Over the period 2015 – 2019 (RP2) there will be significant investment in the next generation of Meteorological satellites – Meteosat 3rd Generation and Polar 2nd Generation. This will drive an

increase in the asset base employed in delivering Aviation services and an increase in the cost of capital compared to RP1. The return on equity will remain constant over the period.

Assumptions for determining the cost of capital and the return on equity

ANSP/Entity Met Office	RP1		
Assumptions for the Cost of Capital (WACC) in nominal terms	Determined		
	2012 D	2013 D	2014 D
Capital structure (% debt)	0.0%	0.0%	0.0%
Corporate tax rate %	0.0%	0.0%	0.0%
Risk free rate % (nominal)	3.50%	3.50%	3.50%
Market (equity) risk premium % (after tax)	2.20%	2.20%	2.20%
Asset beta	0.00	0.00	0.00
Debt beta	0.00	0.00	0.00
Equity beta	N/A	N/A	N/A
Return on Equity % (after tax)	5.70%	5.70%	5.70%
Return on Equity % (pre tax) - T1 3.6	**5.70%**	**5.70%**	**5.70%**
Debt risk premium %	-1.00%	-1.00%	-1.00%
Interest on debt % (pre tax) - T1 3.7	**0.00%**	**0.00%**	**0.00%**
WACC % (pre tax) - T1 3.5	**5.70%**	**5.70%**	**5.70%**

ANSP/Entity: Met Office	RP2 PP					
Assumptions for the Cost of Capital (WACC) in nominal terms	Underlying assumptions for an "efficient" WACC	For the determined cost of capital				
		2015 D	2016 D	2017 D	2018 D	2019 D
Capital structure (% debt)	*0%*	0.0%	0.0%	0.0%	0.0%	0.0%
Corporate tax rate %	*0.0%*	0.0%	0.0%	0.0%	0.0%	0.0%
Risk free rate % (nominal)	*3.50%*	3.50%	3.50%	3.50%	3.50%	3.50%
Market (equity) risk premium % (after tax)	*1.80%*	1.80%	1.80%	1.80%	1.80%	1.80%
Asset beta	*0.00*	0.00	0.00	0.00	0.00	0.00
Debt beta	*0.00*	0.00	0.00	0.00	0.00	0.00
Equity beta	*1.00*	N/A	N/A	N/A	N/A	N/A
Return on Equity % (after tax)	*5.30%*	5.30%	5.30%	5.30%	5.30%	5.30%
Return on Equity % (pre tax) - T1 3.6	***5.30%***	**5.30%**	**5.30%**	**5.30%**	**5.30%**	**5.30%**
Debt risk premium %	*0.00%*	-3.50%	-3.50%	-3.50%	-3.50%	-3.50%
Interest on debt % (pre tax) - T1 3.7	***0.00%***	**0.00%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**
WACC % (pre tax) - T1 3.5	***5.30%***	**5.30%**	**5.30%**	**5.30%**	**5.30%**	**5.30%**

Asset base

ANSP/Entity: MET	RP1 PP
Components of the asset base	
3.1 Net book val. fixed assets	£32,705k

3.2 Adjustments total assets	0
3.3 Net current assets	0
3.4 Total asset base	£32,705k

ANSP/Entity: MET	**RP2 PP**
Components of the asset base	
3.1 Net book val. fixed assets	£39,505k
3.2 Adjustments total assets	0
3.3 Net current assets	0
3.4 Total asset base	£39,505k

NERL:
The approach taken to NERL's cost of capital, including the cost of equity, 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 CAA commissioned study by PricewaterhouseCoopers (PwC)[2]. The return on equity has been estimated to reflect UK's financial and economic conditions and the risk faced by equity investors in NERL. Using a Capital Asset Pricing Model (CAPM) framework, the CAA has assessed the total market returns (the return on the market portfolio) and its component parts: risk-free rate (the rate required by investors to hold a risk-free asset) and the equity risk premium (the additional premium required by investors for holding the market portfolio of equity). For a NERL specific cost of equity the CAA has assessed the risk of investing in NERL compared to the market (in the CAPM framework this is known as the beta). This approach means that NERL's cost of equity reflects NERL's exposure to systematic risks and takes no account of company-specific issues. This assessment of NERL's exposure to systematic risk considers the relationship between general economic conditions and NERL's revenues and profits (in light of the volume risk sharing mechanisms), and how this is leveraged through financial gearing.

In order to be consistent with current cost accounting for assets, in which asset values are uplifted annually by inflation[3] to avoid the erosion of value, the CAA has used a real cost of equity. The cost of equity has been uplifted for corporate tax to provide NERL with an allowance to meet its forecast tax payments for RP2 (pre-tax cost of equity). The CAA considers that this is consistent with the charging regulation.

The underlying assumptions on which the cost of capital including the return on equity values are based are set out in the table below. The value of the **pre-tax real cost of capital** is estimated to be 5.86% and this is applied to the average RAB.
The table below reflects NERL's real cost of capital.

[2] http://www.caa.co.uk/docs/5/PwC%20(for%20CAA)%20Cost%20of%20Capital%20of%20NERL.pdf.
[3] In the UK financial markets retail prices index (RPI) inflation is the measure of inflation used by investors. In estimating the real cost of capital the CAA has deducted RPI inflation from the nominal cost of capital. In order that investors are kept whole in respect of inflation it is appropriate to uplift the asset base by RPI inflation.

En route Charging zone: UK En route
Reference Periods 1 (2012-2014) and 2 (2015-2019)

ANSP/Entity: NERL	RP1		
Assumptions for the Cost of Capital (WACC) in nominal terms	Determined		
	2012 D	2013 D	2014 D
Capital structure (% debt)	60.0%	60.0%	60.0%
Corporate tax rate %	27.0%	27.0%	27.0%
Risk free rate % (nominal)	1.75%	1.75%	1.75%
Market (equity) risk premium % (after tax)	5.25%	5.25%	5.25%
Asset beta	0.60	0.60	0.60
Debt beta	0.10	0.10	0.10
Equity beta	1.35	1.35	1.35
Return on Equity % (after tax)	8.84%	8.84%	8.84%
Return on Equity % (pre tax) - T1 3.6	**12.11%**	**12.11%**	**12.11%**
Debt risk premium %	1.85%	1.85%	1.85%
Interest on debt % (pre tax) - T1 3.7	**3.60%**	**3.60%**	**3.60%**
WACC % (pre tax) - T1 3.5	**7.00%**	**7.00%**	**7.00%**

ANSP/Entity: NERL	RP2 PP					
Assumptions for the Cost of Capital (WACC) in nominal terms	Underlying assumptions for an "efficient" WACC	For the determined cost of capital				
		2015 D	2016 D	2017 D	2018 D	2019 D
Capital structure (% debt)	60.0%	60.0%	60.0%	60.0%	60.0%	60.0%
Corporate tax rate %	37.0%	37.0%	37.0%	37.0%	37.0%	37.0%
Risk free rate % (nominal)	0.75%	0.75%	0.75%	0.75%	0.75%	0.75%
Market (equity) risk premium % (after tax)	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%
Asset beta	0.51	0.51	0.51	0.51	0.51	0.51
Debt beta	0.10	0.10	0.10	0.10	0.10	0.10
Equity beta	1.11	1.11	1.11	1.11	1.11	1.11
Return on Equity % (after tax)	6.87%	6.87%	6.87%	6.87%	6.87%	6.87%
Return on Equity % (pre tax) - T1 3.6	**10.90%**	**10.90%**	**10.90%**	**10.90%**	**10.90%**	**10.90%**
Debt risk premium %	1.75%	1.75%	1.75%	1.75%	1.75%	1.75%
Interest on debt % (pre tax) - T1 3.7	**2.50%**	**2.50%**	**2.50%**	**2.50%**	**2.50%**	**2.50%**
WACC % (pre tax) - T1 3.5	**5.86%**	**5.86%**	**5.86%**	**5.86%**	**5.86%**	**5.86%**

The Executive Summary of PwC's report is set out in the section below and explains PwC's recommendations to the CAA. In addition the CAA notes that:

a. PwC set out a range for the pre-tax real WACC of 5.6% to 6.2%. The CAA has selected the point estimate of 5.86%. To select this point estimate, the CAA has chosen the mid-point of each of PwC's ranges for individual components other than the total markets return assumption in which the CAA has selected a value at the bottom of the range to be consistent with the CAA's recent Airports Q6 review[4].

b. The accounting rate of return (ARR) is a concept that recognises that within a year returns can be reinvested, and therefore to earn the WACC by the end of the year, a lower cost of capital, the ARR, should be applied to the RAB. The ARR was used in RP1 and earlier price controls and is used in other, but not all, regulated sectors in the UK. The WACC is

[4] CAP1155 Estimating the cost of capital: technical appendix for the economic regulation of Heathrow and Gatwick from April 2014: Notices granting the licences

ultimately a judgement within a plausible range of outcomes, formulaically applying the ARR adjustment might result in spurious accuracy. However, the CAA considers that there is an argument for the use of the concept of the ARR because returns that are earned throughout the year can be reinvested. The CAA has taken into account the ARR in judging where in the range to adopt its proposals for the WACC.

c. Consistent with the CAA's approach to RP1 and earlier control periods, the CAA has used a pre-tax cost of capital. The cost of capital therefore includes an allowance for corporate tax. The corporate tax uplift is calculated based on forecast expected tax payments arising from RP2 profits. The effective tax uplift calculated is 37% and is above the headline statutory tax rate of 21% (soon to be reduced to 20%). The reason that this difference occurs is because in RP2 regulatory deprecation is expected to be significantly greater than capital allowances (capital allowances are the tax equivalence of depreciation)[5].

Summary of PwC report

The following text is a reproduction of the Executive Summary of PwC's report for the CAA. The full report is available at http://www.caa.co.uk/default.aspx?catid=5&pagetype=90&pageid=585

Summary of the reduction compared to RP1

Cost of Capital comparison to RP1

Percent	Vanilla WACC	Pre-tax WACC
RP1 Headline Rate	5.70	7.00
RP1 Effective Rate (ARR)	5.52	6.76
Reduction in total market returns	(0.23)	(0.32)
Reduction in beta	(0.41)	(0.57)
Reduction in cost of debt	(0.62)	(0.62)
Increase in tax	n/a	0.61
RP2 proposals	4.25	5.86

In summary, the reduction in the pre-tax WACC compared to RP1 is the result of:

a. a reduction in the cost of debt, which is the result of a reduction in market rates and the higher credit rating assumption; and
b. a reduction in the cost of equity, which is a result of a reduction in the beta and a reduction in the total market returns assumption; partially offset by
c. an increase in the effective tax rate.

Components of the asset base are set out in response to (d) above.

(f) total costs per airport for each airports with fewer than 70 000 IFR air transport movements per year, when these are provided in a consolidated way in the reporting table;

Not applicable to en-route Charging Zones

g) Definition of the criteria used to allocate costs between terminal and *en route* services for each airport within the scope of this Regulation;

Not applicable to en-route Charging Zones

[5] In the first 10 or so years after PPP, capital allowances were in excess of regulatory depreciation and the effective tax rate used in the WACC was well below the statutory rate. In RP1 capital allowances and regulatory deprecation was broadly equal. In RP2 capital allowances are expected to be less than regulatory depreciation. This means in RP2 profits chargeable to corporation tax is more than the allowed returns (before tax).

h) Breakdown of the meteorological costs between direct costs and 'MET core costs' defined as the costs of supporting meteorological facilities and services that also serve meteorological requirements in general. These include general analysis and forecasting, surface and upper-air observation networks, meteorological communication systems, data processing centres and supporting core research, training and administration;

MET:
In 2015 direct costs are forecast to be £9400k and Core costs £18,661k at nominal prices. By 2019, these costs are expected to fall to £9159k for Direct and £18,182k for Core at nominal prices. In real terms the total costs decrease from £26,351k in 2015 to £23,743k in 2019.

i) Description of the methodology used for allocating total MET costs and MET core costs to civil aviation and between Charging Zones;

MET:
The Met Office has been Designated for RP2 to provide a number of Met forecast and warnings services as part of the UK's obligations under ICAO Annex 3, Meteorological Service for International Air Navigation. The arrangements for Met comprise a number of elements including: Core, Direct, R&D and Volcanic Ash.

Core costs, are the en-route share of the underpinning infrastructure costs of providing a weather forecasting service (e.g. supercomputer, numerical weather prediction model etc.) and calculated in accordance with the guidance contained within ICAO Document 9161, Manual of Air Navigation Service Economics.

Direct costs are the costs associated with providing the specific products and services required as part of the UK's obligations under ICAO Annex 3. This includes human resources (e.g. aeronautical meteorologists, IT specialists etc.), IT systems (e.g. post-processing systems to turn raw numerical weather prediction data into specific aeronautical data) and managerial support.

A small element of R&D work is undertaken, some of it in support of SESAR. This primarily relates to Work Package 11, where the Met Office is part of the EUMETNET consortium bid. .

There are also a number of ongoing initiatives being undertaken relating to volcanic ash. Provision has been made for the continuation of a Civil Contingencies Aircraft for the detection and measurement of volcanic ash, which began operating in January 2012. Work continues on the development of satellite observational products and enhanced forecasting of volcanic ash in support of the ICAO EUR/NAT Volcanic Ash Contingency plan. It should be noted that the UK National Unit Rate includes an element for World Area Forecasting Services as well as the Volcanic Ash Advisory Centre.

j) Nineteen months before the start of a reference period, description of the reported forecast costs and traffic;

Not applicable for this submission

k) Description of the reported actual costs and the difference from the determined costs, for each year of the reference period;

RP1 Monitoring – Year 2012	
STATE/NSA: CAA	
1.1 Staff costs	Actual costs £3,920k were £309k lower than Determined Costs (DC) due to a pay freeze in 2012 and recruitment restrictions in the Directorate of Airspace Policy
1.2 Other operating costs	Actual costs of £1,866k were £219k lower than DC due to a range of cost-containment measures initiated in response to the economic downturn
1.3 Depreciation	Actual costs of £1,319k were in line with the DC included in the National

	Performance Plan
1.4 Cost of capital	Actual costs of £427k were the same as DC
1.5 Exceptional items	Actual costs of £6,000k (additional cash payments to pensions scheme) were the same as DC

RP1 Monitoring – Year 2012	
ANSP: Met Office	
1.1 Staff costs	Actual staff costs are higher due to additional services provided at the request of CAA for Volcanic Ash new products and operational resilience
1.2 Other operating costs	No significant variation in other operating costs
1.3 Depreciation	No significant variations in Depreciation
1.4 Cost of capital	No significant variations in the cost of capital
1.5 Exceptional items	N/A

RP1 Monitoring – Year 2012	
ANSP: NERL	
1.1 Staff costs	Staff costs reduced by £1.1m resulting from lower headcount in engineering, corporate areas and less trainees being taken on. (full time equivalent employees reduced by 2% from Dec 2011. This was partly offset by higher inflation.
1.2 Other operating costs	Costs reduced by £21.1m reflecting savings programmes including negotiation of third party supply contracts (mainly asset management) and greatrer efficiencies through facilities consolidations (following the move of the training college to the Corporatte and Technical Centre) and savings on energy costs.
1.3 Depreciation	£1.6m higher reflecting timings on the Long Term investment programme.
1.4 Cost of capital	£1.0m higher reflecting a higher asset base
1.5 Exceptional items	Exceptional costs were £1.1m lower due to less redundancy, relocation costs than planned

RP1 Monitoring – Year 2013	
STATE/NSA: CAA	
1.1 Staff costs	Actual costs of £3,459k were £976k lower than DC due to the introduction of a new pay and grading structure, efficiencies flowing from the merger of the Airspace Policy and Safety Regulation Groups, and a number of unfilled posts
1.2 Other operating costs	Actual costs £1,950k were £208k lower than DC due to the continuation of various cost-containment measures affecting spend on IT and building infrastructure projects
1.3 Depreciation	Actual costs of £1,317k were in line with DC
1.4 Cost of capital	Actual costs of £365k were the same as DC
1.5 Exceptional items	Actual costs of £6,000k were the same as DC

RP1 Monitoring – Year 2013	
ANSP: MET	
1.1 Staff costs	Actual staff costs are higher due to additional services provided at the request of CAA for Volcanic Ash new products and operational resilience and to continue to provide a reduced Aerodromes warning service from July 2013
1.2 Other operating costs	No significant variation in other operating costs

1.3 Depreciation	No significant variations in Depreciation
1.4 Cost of capital	No significant variations in the cost of capital
1.5 Exceptional items	N/A

RP1 Monitoring – Year 2013	
ANSP: NERL	
1.1 Staff costs	Staff costs were down by £13.7m as a result of pay restraints and lower headcount, partly offset by higher inflation than originally anticipated. Full time equivalents reduced by 2.5% in the period.
1.2 Other operating costs	Actual costs were lower by £19.9m, resulting from continued supply chain savings, reduction in training costs and lower non-capitalisable expenditure on investment projects.
1.3 Depreciation	£0.9m higher due to timing differences
1.4 Cost of capital	£0.7m lower resulting from slightly lower asset base.
1.5 Exceptional items	£39.3m higher cost resulting from NERL's voluntary redundancy programme in 2013 for over 240 personnel from all parts of the business .

RP1 Monitoring – Current forecasts for Year 2014	
ANSP: NERL	
1.1 Staff costs	Costs in line with determined cost, mainly due to higher inflation.
1.2 Other operating costs	Continued lower cost base through efficiency plans (£28m lower)
1.3 Depreciation	No major change anticipated (£0.5m higher)
1.4 Cost of capital	Slightly lower driven by lower capital expendiure than planned
1.5 Exceptional items	Increase in exceptionals of £7m , mainly relating to the Voluntary redundancy programme.

RP1 Monitoring – Current forecasts for Year 2014	
STATE/NSA: CAA	
1.1 Staff costs	Latest forecast of £3,600k is around £1,000k lower than DC as a result of measures adopted in 2012 and 2013 (new pay and grading structure and efficiencies flowing from the merger of Directorate of Airspace Policy and Safety Regualtion Group)
1.2 Other operating costs	Latest forecast of £2,000k is £225k lower than DC due to reduced spend on IT and building projects
1.3 Depreciation	Forecast of £1,320k is in line with DC
1.4 Cost of capital	Forecast of £304k same as DC
1.5 Exceptional items	Forecast of £6,000k same as DC

RP1 Monitoring – Current forecasts for Year 2014	
ANSP: MET	
1.1 Staff costs	Actual staff costs are higher due to additional services provided at the request of CAA for Volcanic Ash new products and operational resilience and to continue to provide a reduced Aerodromes warning service.
1.2 Other operating costs	No significant variation in other operating costs
1.3 Depreciation	No significant variations in Depreciation

1.4 Cost of capital	No significant variations in the cost of capital
1.5 Exceptional items	N/A

l) Description of the reported actual service units and the differences both against the forecast and compared with the figures provided by EUROCONTROL, as appropriate, for each year of the reference period;

The forecast TSUs and CSUs have been developed by NERL's traffic forecasting department and have been subject to scrutiny by the Regulator as part of the CP3 consultation. NERL models the forecast chargeable service units based on the forecast growth in chargeable flights, average weight coefficient and average chargeable distance for individual market segments. The growth factors are then applied to historic data to calculate the forecast chargeable service units.

2012 TSUs:

NPP	10,324,932
Actual	9,607,879

Actual TS's were lower by 717,053 (6.9%) largely due to general economic conditions and more southerly oceanic tracks than usual, resulting in lower flights in UK airspace (down 8%).

2013 TSUs:

NPP	10,667,227
Actual	9,754,933

Actual TSUs were lower by 912,294 (8.6%) largely due to continuing general economic conditions Flights were lower by 8.1% with improvement in oceanic tracks compared to the prior year.

m) Every year of the reference period, the difference between the investments of the air navigation service providers recorded in the Performance Plans and the actual spending, as well as the difference between the planned date of entry into operation of these investments and the actual situation.

NERL:

The table below highlights the change in planned investments from the original national performance plan.

The table below represents the change (on a financial year basis) of the Service and Investment Programme (SIP). The SIP is consulted on annually with customers and details of investment spend and timings are reported in detail and available on the NATS customer website. However for the asset base in Table 1 the amounts are calendarised.
NERL is currently forecasting to underspend its investment programme by £60m.

En route Charging zone: UK En route
Reference Periods 1 (2012-2014) and 2 (2015-2019)

Programme Area	BP10	BP14	Delta	Comment
Airspace Developments	12	26	(14)	Change in strategy to accelerate customer benefits
iTEC FDP & New Common Workstation	154	109	45	Reduced spend in RP1 in line with revised development strategy
Safety Nets and Airspace Efficiency	44	12	32	Downward adjustment reflects reduction on Surveillance Thread forecast in RP1 and removal of Interim Multi Sector Planner project
Centre System Software Development	66	117	(51)	As a result of the change to iTEC/NCW strategy, underlying systems require additional investment. Upward adjustment also reflects additional customer requirements (e.g. TBS) added to the RP1 portfolio.
Oceanic SAATS Development	5	10	(5)	Bringing forward COAST into RP1 partly offset by removal of Oceanic Convergence project
Radar Replacement (RSS)	11	8	4	Programme Completed
CNS Infrastructure	55	65	(10)	Additional costs on DaVinci and a number of IS projects as well as additional scope taken on including Windfarm Safeguarding
Facilities Management	18	16	2	
CO2 Action Plan and Fuel Saving Initiatives	14	2	12	Funding moved from here into the relevant projects delivering CO2 savings, this now reflects the remaining 4% plan
Contingency	48	1	47	Contingency removed from plan following a change of strategy and returned to customers as part of SIP13 consultation
TOTAL - LTIP	**427**	**367**	**60**	

The investment expenditure against the NPP 2012 and 2013 are set out below (extract from RP1 2013 monitoring report).

NATS (National Air Traffic Services, UK)

Investments for year 2012

Name of investment	Reference to European ATM MP (ESSIP objectives/ OI Steps/ Enablers)*	Description/ explanation of the changes	Amount of Capital expenditures (in M€2009)			Deviation 2012 A-P	Lifecycle (Amortisation period in years)	Alloc. En-route/ terminal ANS (%)	Date of entry into operation	
			TOTAL planned CAPEX for the project (RP1)	2012 Planned CAPEX in the PP	2012 Actual CAPEX				Planned in the PP	Actual
iTEC FDP	numerous	Strategy changes before starting Prestwick Upper Airspace	278.0	29.2	27.9	-1.3	n/a	n/a	2018	2016-23
Centre Systems Software Development	AUO-0301, CM-0301	Additional spend on legacy systems	105.8	29.2	37.1	7.9	n/a	n/a	2018	2016-23
CNS Infrastructure	n/a		94.2	26.1	26.8	0.8	n/a	n/a	Continuous	
New Common Workstation	IS-0102	Strategy changes before starting Prestwick Upper Airspace	73.4	24.0	3.1	-20.9	n/a	n/a	2018	2016-23
Safety Nets and Airspace Efficiency	n/a	Revised New Common Workstation spend profile	31.0	8.3	3.1	-5.2	n/a	n/a	2014	2015/16
Subtotal main capex (M€2009, real terms) (1)			**582.4**	**116.8**	**98.0**	**-18.8**				
Other CAPEX (2)		Change in airspace strategy for LAMP	**123.0**	30.2	23.7	**-6.5**				
TOTAL CAPEX (1)+(2)(M€2009, real terms)			**705.4**	**147.0**	**121.7**	**-25.3**				

NATS (National Air Traffic Services, UK)

Investments for year 2013

Name of investment	Reference to European ATM MP (ESSIP objectives/ OI Steps/ Enablers)*	Description/ explanation of the changes/ Other comments	Amount of Capital expenditures (in MGBP)			Deviation 2013 A-P	Lifecycle (Amortisation period in years)	Alloc. En-route/ terminal ANS (%)	Date of entry into operation	
			TOTAL planned CAPEX for the project (RP1)	2013 Planned CAPEX (in the PP)	2013 Actual CAPEX				Planned in the PP/LSSIP	Actual
Investments postponed/delayed from previous years (2012 PRB Monitoring report)										
						0.0				
Sub-total main capex (1) (in MGBP)				**0.0**	**0.0**	**0.0**				
Investments planned for 2013 (Revised PP for RP1)										
iTEC FDP	numerous	Revised spend in RP1 in line with revised deployment strategy	152.0	34.0	**31.3**	-2.7			2016-23	
Centre Systems Software Development	AUO-0301, CM-0301	Additional spend on legacy systems and reflects additional customer requirements	102.0	30.0	**40.6**	10.6			2016-23	
CNS Infrastructure	n/a		91.0	24.0	**18.2**	-5.8			Continuous	
New Common Workstation	IS-0102	Revised deployment strategy has led to NCW being delivered as part of iTEC FDP	71.0	17.0		-17.0			2016-23	
Safety Nets and Airspace Efficiency	n/a		30.0	4.0	**3.7**	-0.3			2015/16	
Sub-total main capex (2) (in MGBP)			**446.0**	**109.0**	**93.8**	**-15.2**				
New main projects in 2013 (not included in the revised PP, if applicable)										
<capex 1>						0.0				
<rows to be added if needed>						0.0				
Sub-total main capex (3) (in MGBP)			**0.0**		**-**	**0.0**				
Total main CAPEX EN-ROUTE (1)+(2)+(3)			**446.0**	**109.0**	**93.8**	**-15.2**				
Other CAPEX (planned in the PP for 2013) **(4)** (in MGBP)			119.0	29.0	**15.3**	-13.7				
Total capex (1)+(2)+(3)+(4) (in MGBP)			**565.0**	**138.0**	**109.1**	**-28.9**				

En route Charging zone: UK En route
Reference Periods 1 (2012-2014) and 2 (2015-2019)

The Figures above are presented on a financial year basis as NERL's Service and Investment Plans (SIP), are consulted on with customers on this basis.
The nature of most of these investments means that there will be progressive implementation for the major programmes (from 2016-2023). Further details are contained in the SIP.

Note: Under NERL's Licence arrangement the RAB is adjusted in the following Reference Period for under-spends against the RP plan, in order that users only bear the actual incurred expenditure.

En route Charging zone: UK En route
Reference Periods 1 (2012-2014) and 2 (2015-2019)

ADDITIONAL INFORMATION – 2 – Unit rate calculation

a) Description and rationale for establishment of the different Charging Zones, in particular with regard to terminal Charging Zones and potential cross-subsidies between airports;

Not applicable

b) Description of the policy on exemptions and description of the financing means to cover the related costs;

In addition to the mandatory exemptions, the UK exempts the following flights from en-route charges in RP1:

- Flights by military aircraft;
- Flights made exclusively for the purpose of the instruction or testing of flight crew;
- VFR flights of which the total weight authorised is 5.7 metric tonnes or less;
- Flights terminating at the aerodrome from which the aircraft has taken off ("circular flights");
- Flights made exclusively for the checking or testing of equipment used or intended to be used as aids to air navigation;
- Authorised humanitarian flights.

The UK keeps its compliance with State obligations under review to ensure that the costs of services provided to exempted flights is not passed on to other airspace users through its unit rate.

c) Description of the other revenues, if any, broken down between the different categories;

NERL:
NERL reports on a single till basis agreed with the company's Regulator. As a consequence revenue has been offset against costs to reflect the net position. This approach has been discussed with CRCO and is consistent with the Principles. The income that is netted off from other sources includes income from the provision of services to North Sea Helicopters, Ministry of Defence en-route air traffic (where NERL provides the infrastructure but not the controllers), services to other group companies, miscellaneous commercial income, London Approach fees and revenue associated with the SESAR Joint Undertaking and other European programmes.

The London Approach charge is currently levied on aircraft receiving a combined area and approach service provided from a unified operation at the Swanwick centre to London-Gatwick, London-Heathrow, London-Stansted, Luton and London City airports. As a service that is distinct from services for many other European terminals, the charge is based on landed tonnage and for 2013 is set at the following levels: £0.23 for each metric tonne and for each fraction of a metric tonne up to 100 metric tonnes up to 31 August, £0.24 from 1 September; £0.10 for each additional metric tonne and for each fraction of a metric tonne over 100 metric tonnes up to 31 August, £0.11 from 1 September. The charge has legal basis, because it is annually promulgated by the CAA.
From 1 January 2015 this charge will be reflected as a terminal charge (Zone C) in line with the CAA proposals set out in CAP 1158.

Condition 21a of the NERL Licence requires that the London Approach charge should be set at levels which will recover no more than the maximum permitted revenue on a best endeavours basis.

Other Income reported relates to a small adjustment in 2012 (to correct an over-billing in 2011) and a one-off discount of £5.1m (TSU basis) in 2013 as a result of a Board decision responding to a user consultation. (these were previously reported as an offset to the incentive bonus) and a further £1.8m relating to London Approach charges.

d) Description and explanation of incentives applied to users of air navigation services;

NERL (from 2011):

En route Charging zone: UK En route
Reference Periods 1 (2012-2014) and 2 (2015-2019)

1. Capacity (delay). NERL is subject to an incentive/penalty regime in respect of 3 capacity KPI's which reflect i) annual flight delay (secs) ii) impact score, reflecting greater weight on long delays and peak times and iii) Daily excess delay , based on weighted delays exceeding pre-determined thresholds. The ratio of penalty to incentive is approximately 2:1.
2. Traffic risk sharing: NERL is subject to the risk sharing mechanism in the amended Charging Regulation from 2011.
3. Environmental targets: NERL has developed a 3Di metric which incentivises NERL to route traffic in a fuel efficient manner.
4. The Regulator has included an underlying operating cost reduction, in setting the CP3 price controls and has also included other revenue estimates to set against cost on which NERL takes risk.

Rolling Incentive Mechanism: The Regulator incentivises NERL to outperform its operating cost efficiency targets by allowing an incentive, which is added to the RAB in future price control periods. This allows NERL to retain an initial benefit, after which users retain the full amount of the benefit.

Details of the incetive schemes for RP2 are discussed in the Performance Plan template and the Supporting Document.

The table below reflects the capacity incentive (service quality) which NERL has earned due to exceptional performance in mitigating delays, including the period for the Olympic Games. The precise calculations are contained within the NERL Licence.

NERL Incentive Payment - period earned £000's	**2011**	**2012**	**2013**	**2014**	**2015**
Initial estimate:	3,157	1,547	(974)		
True-up of prior period's estimate		2,252	5,288		
Recovery for traffic volume:			(4,224)		
Net Value based on SU's	3,157	3,799	90	0	0
Allocated to Charging period: (see Note)		3,157	3,799	1,064	(974)
Adjusted for TSU's		3,212	3,862	1,081	(986)

Notes:
2011 & 2012 plus associated adjustments arising are recovered on an N+1 basis. From 2013 any amounts due/payable are recovered on an N+2 basis.

2013 true-ups relating to prior periods are recovered as part of 2014 unit rates, with 2013 penalty being credited to the 2015 unit rate.

The table below describes the basis on which the incentives are based. Further information can be obtained from the NERL Licence Condition 21(6):

NERL Incentive basis 2013 Actual		**Target**	**Actual**
T1	Average delay per flight	8.8	5.2
T2	Delay Impact (score)	24.6	3.8
T3	Delay Variability	1,411.0	3,784.4
T4	3Di Environmental metric (score)	24.0	23.7

As a result of delays incurred as a result of a single event on December 7th, impacting on the T3 incentive, NERL incurred a penalty of £974k calculated on an SU basis. Up to that point NERL was reporting record low delay metrics and continued to perform well on the other metrics/incentives.

e) Description and explanation of the modulation of air navigation charges applied.

No modulations applied

En route Charging zone: UK En route
Reference Periods 1 (2012-2014) and 2 (2015-2019)

ADDITIONAL INFORMATION – 3 – Complementary Information

a) Breakdown of the costs of common projects per individual project;

NERL:

	2012	2013
SESAR JU: various	£ 5,679k	£5,598k
UK/Irish FAB (including High level sectors project):	£ 326k	£ 250k

b) Description of the amounts resulting from uncontrollable costs factors by nature and by factor, including the rationale and the changes in underlying assumptions;

DfT:
Costs stemming from international agreements, including Eurocontrol, are treated as uncontrollable due to the unpredictability of the sharing keys used to apportion the Eurocontrol costs across Member States, and the exchange rate.

A balance of £4.0m (credit) will be carried forward to RP2 in respect of 2012 and 2013 Eurocontrol costs. The underlying assumptions giving rise to this figure are as shown below:

2012	NPP	Actual	Diff (%)
Total Eurocontrol Cost Base (€m)	503.3	501.0	-0.5%
UK percentage share	10.59	10.67	+0.8%
UK share of Eurocontrol cost-base (€m)	53.319	53.481	+0.3%
Average exchange rate (€1 =)	.8830	.8112	-8.1%
UK share of cost-base in local currency (£m)	47.083	43.383	-7.9%
(Under)/over recovery carried forward to RP2 (£m)		3.700	

2013	NPP	Actual	Diff (%)
Total Eurocontrol Cost Base (€m)	506.5	501.0	-1.1%
UK percentage share	10.59	11.06	+4.4%
UK share of Eurocontrol cost-base (€m)	53.644	55.412	+3.3%
Average exchange rate (€1 =)	.8830	.8490	-3.9%
UK share of cost-base in local currency (£m)	47.368	47.046	-0.7%
(Under)/over recovery carried forward to RP2 (£m)		322	

NERL:

Defined Benefit scheme pension costs are considered uncontrollable as the actuarial valuation of the scheme is driven by unforeseen market conditions (e.g. low bond yields used to value the scheme liabilities, influenced by government quantative easing programmes and volatile stock markets used to value the equity component of scheme assets).

NERL accumulates the difference between the actual DB pension cost and the assumptions in the Licence to be carried forward into RP2 as part of the adjustment .
As a result of having to continue deficit repair funding beyond the period originally contemplated in RP1 it is anticipated that a carry-over of c £12-14m will arise.

In addition NERL is also assessing the unforeseen cost of Spectrum charges applied by the Government (due to the unforeseen impact required by law) against a baseline assumption in the NPP.

2013: Currently NERL is reflecting a credit of circa £0.2m to be carried forward.

Note: RP1 costs exempt from cost-sharing for both 2015 and 2016 will be recovered in 2016.

For further details see the 2012 and 2013 NSA report on uncontrollable costs/costs exempt from cost-sharing.

c) Description of the carry-overs of over- or under-recoveries incurred by Member States up to the year 2011 for en route charges and up to the year 2014 for terminal charges;

The following amounts (for traffic and bonus) have been carried forward in respect of NERL's under-recoveries relating up to the year 2011 and have been profiled to be recovered by users as follows :

NERL Licence Traffic Risk and bonus Carry-over from 2010

Source : NERL Licence Condition 21(5)

Service Unit Basis (£000s)	**2011**	**2012**	**2013**	**2014**
Carry-over profiled :	0	12,019	7,716	35,247
Traffic and other adjustment	0	3,728	1,393	(7)
	0	15,747	9,109	35,240
Converted to TSU basis for CRCO report:	**0**	**16,020**	**9,260**	**35,806**

d) Description of carry-overs resulting from the traffic risk-sharing mechanism;

NERL:

As mentioned in section 1 (l) during the period traffic was down by 8.6% against the RP1 performance plan. This has led to a carry-over of £28.7m, with NERL incurring traffic risk cost of £24.8m.

e) Description of carry-overs resulting from the cost sharing mechanism.

NERL:
Amounts relating to estimated pension cost recoveries for the RP1 period are shown in 2015 to 2019 in row 3.6 of Table 2.

Spectrum charges will be reflected as an adjustment to NERL's RAB and be reflected through regulatory depreciation (amounts are small in RP1).

For further details see the 2012 and 2013 NSA report on uncontrollable costs/costs exempt from cost-sharing.

ADDITIONAL INFORMATION – 4 – Additional justifications for the RP2 Performance Plan

a) Contribution of the air navigation service providers to the achievement of the performance target

ANSP:	NERL	Designated for:	ATS
Determined costs for RP2 (by nature)			
1.1 Staff costs			
Composition of the cost item:	Pay costs, allowances, Employers national insurance and pension contributions		
Explanations of the planning assumptions and annual variations in the cost item over RP2:	Please refer to UK Ireland Performance plan		
Description of cost-efficiency improvements planned in RP2:	No real increases in pay, planned headcount reductions (100)		
Main changes compared to RP1 (determined and actual costs):	Pay allowance capped at CPI, restrictions in pension pass through, share plan		
1.2 Other operating costs			
Content of the cost item:	Non-staff related costs, including 3rd Party programmes cost (not capitalised), facilities, asset management and engineering support		
Explanations of the planning assumptions and annual variations in the cost item over RP2:	Please refer to UK Ireland Performance plan		
Description of cost-efficiency improvements planned in RP2:	Real reduction in annual spend, supply chain strategy to achieve savings		
Main changes compared to RP1 (determined and actual costs):			
1.3 Depreciation			
Composition of the cost item:	Depreciation based on the RAB value : assets depreciated over 15 years		
Explanations of the planning assumptions and annual variations in the cost item over RP2:	Please refer to UK Ireland Performance plan		
Description of cost-efficiency improvements planned in RP2:	Reduces in line with capital expenditure profiles		
Main changes compared to RP1 (determined and actual costs):	Based on NERL requirements , will be influenced by customers and SES requirements		
1.4 Cost of capital			
Composition of the cost	Refer to section 1(e) above		

item:	
Explanations of the planning assumptions and annual variations in the cost item over RP2:	Please refer to UK Ireland Performance plan
Description of cost-efficiency improvements planned in RP2:	Cost of capital reduces in line with average asset base
Main changes compared to RP1 (determined and actual costs):	Reduction in rate from 6.76% to 5.86% (pre tax, real)
1.5 Exceptional items	
Composition of the cost item:	Include the adjustment for military TSU's, restructuring costs and specific programmes contingency
Explanations of the planning assumptions and annual variations in the cost item over RP2:	Please refer to UK Ireland Performance plan
Determined costs for RP2 (by service)	
Explanations of the annual variations in the cost items over RP2:	Relate to traffic variations (TSU adj) and timing of restructuring costs
Main changes compared to RP1 (determined and actual costs):	
Additional comments	

ANSP:	Met Office	**Designated for:**	MET
Determined costs for RP2 (by nature)			
1.6 Staff costs			
Composition of the cost item:	Pay costs, allowances, travel and subsistence, Employers national insurance and pension contributions.		
Explanations of the planning assumptions and annual variations in the cost item over RP2:	Reductions in staff costs as efficiencies agreed with the regulator are implemented.		
Description of cost-efficiency improvements planned in RP2:	Cost efficiency improvements mainly impact the core programme of work and include reductions in forecasting research and development, reductions in supercomputer and IT infrastructure posts and the de-scoping of Observation Instrument development and changes to observing programmes.		
Main changes compared to RP1 (determined and actual costs):	Staff costs decrease from £13.3m in 2014 to £12.2m in 2019 in nominal terms.		
1.7 Other operating costs			
Content of the cost item:	Accommodation, IT costs, HR, Finance & Administration.		
Explanations of the planning assumptions and annual variations in the cost item over RP2:	Expected to decrease slightly in association with the reduction in staff costs.		
Description of cost-efficiency	Support and overhead costs decrease in line with the reduction in staff costs as most overheads are levied in proportion to headcount. IT costs are		

improvements planned in RP2:	assumed to be broadly constant.
Main changes compared to RP1 (determined and actual costs):	In RP1 'other operating costs' included cost of capital. This is now separated in RP2.
1.8 Depreciation	
Composition of the cost item:	Depreciation charges applied to a proportion of Buildings, fixtures and fittings, plant and equipment, IT Hardware an d software, supercomputer and satellite assets.
Explanations of the planning assumptions and annual variations in the cost item over RP2:	Depreciation has been kept constant over RP2 at £4m per annum. Depreciation costs are calculated for the Met Office as a whole and a proportion of the cost is attributable to Aviation in line with its direct costs and contribution to core.
Description of cost-efficiency improvements planned in RP2:	Depreciation charges have been kept constant over RP2.
Main changes compared to RP1 (determined and actual costs):	No significant change from RP1.
1.9 Cost of capital	
Composition of the cost item:	See calculations in the Additional Information Tab.
Explanations of the planning assumptions and annual variations in the cost item over RP2:	Cost of capital is calculated as a rate of 5.3% based on the calculations in the Additional Information tab. The asset base of the Met Office attributable to Aviation has increased from an average value of £32.7m in RP1 to £39.5m in RP2 as new assets such as satellites are commissioned.
Description of cost-efficiency improvements planned in RP2:	
Main changes compared to RP1 (determined and actual costs):	The equivalent rate of cost of capital in RP1 was 5.7%.
1.10 Exceptional items	
Composition of the cost item:	
Explanations of the planning assumptions and annual variations in the cost item over RP2:	
Determined costs for RP2 (by service)	
Explanations of the annual variations in the cost items over RP2:	
Main changes compared to RP1 (determined and actual costs):	
Additional comments	

b) Assumptions underlying the calculation of pension costs comprised in the determined

costs, including a description on the relevant national pension regulations and pension accounting regulations in place and on which the assumptions are based, as well as information whether changes of these regulations are anticipated.

There are no “pay as go” pension schemes

Description of the Defined benefits pension scheme

MET:
Met Office staff are covered by the provisions of the Principal Civil Service Pension Scheme (PCSPS). The PCSPS is an unfunded multi-employer defined benefit scheme. However, since the Met Office is unable to identify its share of the underlying assets and liabilities it is accounted for as a defined contribution scheme. Contributions are paid at rates determined from time to time by the scheme’s Actuary. The Scheme Actuary (Aon Hewitt Limited) conducted a full actuarial valuation as at 31 March 2007. Details can be found in the resource accounts of the Cabinet Office: Civil Superannuation (www.civilservice.gov.uk). Full provision for early retirements is normally made in the year of retirement.

Pursuant to the Superannuation Act 1972, employer's contributions were payable to the PCSPS at one of four rates in the range 16.7% to 24.3% of pensionable pay, based on salary bands. The Scheme Actuary reviews employer contributions every four years following a full scheme valuation. The contribution rates are set to meet the cost of the benefits accruing during a period to be paid when the member retires and not the benefits paid during this period to existing pensioners.

NERL:

RP1 and RP2 pension assumptions are as follows:

Pension assumptions for the "Defined contributions" pension scheme				
ANSP/Entity: NERL (UKATS)	**2011 A**	**2012 A**	**2013 A**	**2014 D**
Total pension costs in respect of "Defined contribution" scheme (in national currency) (£000s)	1,393	2,279	3,270	4,307
% Contribution rate of the ANSP to Pension scheme	12.9%	13.4%	13.9%	14.4%
Number of pensionable staff	165	248	330	404
Pensionable salary (in national currency) (£000s)	10,342	16,302	22,636	28,968

Pension assumptions for the "Defined benefits" pension scheme				
ANSP/Entity: NERL (UKATS) (£000s)	**2011 A**	**2012 A**	**2013 A**	**2014 D**
Total pension costs in respect of "Defined benefits" scheme (in nominal terms in national currency)	86,932	90,475	87,576	77,088
- in respect of regular cash payments	73,307	73,618	73,891	73,924
- in respect of non-recurring gap-bridging cash payment	13,625	16,858	13,685	3,165
% Discount rate applied / predicted				
Duration of the pension obligation at end of year				
% Asset value growth assumed				
Value of pension assets (in nominal terms in national currency)				

En route Charging zone: UK En route
Reference Periods 1 (2012-2014) and 2 (2015-2019)

Value of pension liabilities (in nominal terms in national currency)				
Net funding surplus / gap (in nominal terms in national currency)				
Number of pensionable staff	3,110	2,945	2,824	2,706
Pensionable salary (in nominal terms in national currency)	195,405	193,547	193,160	193,865

Pension assumptions for the "Defined contributions" pension scheme					
ANSP/Entity: NERL (UKATS) £000's where applicable	**2015 D**	**2016 D**	**2017 D**	**2018 D**	**2019 D**
Total pension costs in respect of "Defined contribution" scheme (in national currency)	4,825	5,433	6,259	7,204	8,122
% Contribution rate of the ANSP to Pension scheme	15.0%	15.0%	15.0%	15.0%	15.0%
Number of pensionable staff	603	655	737	807	888
Pensionable salary (in national currency)	31,161	35,108	40,439	46,701	52,735

Pension assumptions for the "Defined benefits" pension scheme					
ANSP/Entity: NERL (UKATS) £000's where applicable	**2015 D**	**2016 D**	**2017 D**	**2018 D**	**2019 D**
Total pension costs in respect of "Defined benefits" scheme (in nominal terms in national currency)	76,968	76,566	78,184	72,366	70,746
- in respect of regular cash payments	56,589	55,846	56,965	50,650	48,509
- in respect of non-recurring gap-bridging cash payment	20,379	20,720	21,218	21,716	22,238
% Discount rate applied / predicted	Pre-retirement: 5.99% p.a. Post-retirement: 3.24% p.a.				
Duration of the pension obligation at end of year	c.25 years				
% Asset value growth assumed	0.3% p.a. in excess of the liability discount rate				
Value of pension assets (in nominal terms in national currency)	3,104,266	3,286,598	3,477,508	3,677,673	3,884,758
Value of pension liabilities (in nominal terms in national currency)	3,304,572	3,454,233	3,611,627	3,775,413	3,947,044
Net funding surplus / gap (in nominal terms in national currency)	-200,306	-167,635	-134,119	-97,739	-62,286
Number of pensionable staff	2,490	2,392	2,303	2,238	2,149
Pensionable salary (in nominal terms in national currency)	190,181	187,748	186,493	185,223	183,185

The pension scheme information is presented on a pro-rata best estimate basis, as both the defined benefit and defined contribution pension schemes cover the NATS group.

c) Interest rate assumptions for loans financing the provision of air navigation services, including relevant information on loans (amounts, duration, etc.) and explanation for the (weighted) average interest on debt used to calculate the cost of capital pre tax rate and the cost of capital comprised in the determined costs,

NERL:

The cost of debt is included in the WACC estimate. The real cost of debt is estimated to be 2.5%. This is within the range estimated by PwC (consultants appointed by the NSA).

Real cost of debt %	weighting	Low	High
Existing debt	80%	2.5	2.5
New debt required over RP2	20%	1.5	2.0
Fees		0.1	0.1
UK percentage share		2.4	2.5

The cost of NERL's existing debt is estimated with reference to the yield to maturity (YTM) of 5.4% (nominal) at issuance on NERL bond maturity in March 2026 with a £600m face value at issuance. This cost is consistent with the evidence across other issuances at the time. 5.4% nominal translates to a real yield of 2.5%.

The cost of new debt has been estimated with respect to market evidence. Further details of the estimation are included in PwC's report which can be found at http://www.caa.co.uk/default.aspx?catid=5&pagetype=90&pageid=585.

d) If applicable, a description of any significant restructuring planned during the reference period including the level of restructuring costs and a justification for these costs in relation to the net benefits to the airspace users over time;

Not applicable

e) if applicable, restructuring costs approved from previous reference periods to be recovered

Not applicable

f) The level/composition of costs incurred following Article 6(2)(a) and (b) of Implementing Regulation (EU) No 391/2013 and included in the determined costs;

<table>
<tr><td>STATE/ NSA</td><td colspan="10">UK</td></tr>
<tr><td colspan="11">Determined costs for RP2 (by nature)</td></tr>
<tr><td colspan="11">1.1 Staff costs</td></tr>
<tr><td>Content of the cost item:</td><td colspan="10"><table><tr><td>Year</td><td>2012P</td><td>2013P</td><td>2014P</td><td>2015</td><td>2016</td><td>2017</td><td>2018</td><td>2019</td><td>2012A</td><td>2013A</td></tr><tr><td>Costs £m</td><td>4.229</td><td>4.435</td><td>4.625</td><td>3.685</td><td>3.847</td><td>4.015</td><td>4.188</td><td>4.367</td><td>3.920</td><td>3.459</td></tr></table></td></tr>
<tr><td>Explanations of the planning assumptions and annual variations in the cost item over RP2:</td><td colspan="10">Staff costs in respect of the CAA's airspace regulation functions are forecast to increase at above the rate of inflation during RP2 due to pay progression and additional employer's contributions to the CAA's pensions scheme. Following several years of pay restrictions, the implementation of a new pay and grading structure, and efficiencies resulting from restructuring, it is recognised that salary costs may need to increase slightly in order to recruit and retain suitably qualified staff to carry out the CAA's statutory regulatory functions.</td></tr>
<tr><td>Description of cost-efficiency improvements planned in RP2:</td><td colspan="10"></td></tr>
<tr><td>Main changes compared to RP1 (determined and actual costs):</td><td colspan="10">Costs are significantly lower than the determined costs in RP1, primarily as a result of the efficiencies flowing from the merger of the Directorate of Airspace Policy (DAP) and the Safety Regulation Group (SRG). Determined costs in the final year of RP1 were £4.6m, reducing to £3.7m in the first year of RP2. Forecast actual for the final year of RP1 is £3.6m</td></tr>
<tr><td colspan="11">1.2 Other operating costs</td></tr>
</table>

En route Charging zone: UK En route
Reference Periods 1 (2012-2014) and 2 (2015-2019)

Content of the cost item:	

Year	2012P	2013P	2014P	2015	2016	2017	2018	2019	2012A	2013A
Costs £m	2.085	2.158	2.225	1.915	1.963	2.012	2.062	2.113	1.866	1.950

Explanations of the planning assumptions and annual variations in the cost item over RP2:	Costs of IT systems, consultancy services and travel and related expenses associated with the CAA's airspace regulation activities. Costs during RP2 are expected to be relatively constant in real terms.
Description of cost-efficiency improvements planned in RP2:	
Main changes compared to RP1 (determined and actual costs):	Forecast costs for RP2 are in line with, or slightly below, the actual costs for RP1, and significantly lower than the RP1 determined costs.

1.3 Depreciation

Content of the cost item:	

Year	2012P	2013P	2014P	2015	2016	2017	2018	2019	2012A	2013A
Costs £m	1.326	1.327	1.328	1.319	1.319	1.320	1.320	710	1.319	1.317

Explanations of the planning assumptions and annual variations in the cost item over RP2:	Depreciation costs in respect of the building refurbishment project on the One Kemble Street premises, formerly the headquarters of NATS. The costs are depreciated over the remaining term of the lease (ending in 2019) using the straight-line method applied to historic costs.
Description of cost-efficiency improvements planned in RP2:	Not applicable.
Main changes compared to RP1 (determined and actual costs):	Not applicable.

1.4 Cost of capital

Content of the cost item:

£000s	2015	2016	2017	2018	2019
Opening NBV	5,907	4,605	3,303	2,001	699
Depreciation	1,302	1,302	1,302	1,302	699
Closing NBV	4,605	3,303	2,001	699	0
Average Capital	5,256	3,954	2,652	1,350	350
Cost of Capital	244	183	123	63	16

Explanations of the planning assumptions and annual variations in the cost item over RP2:	Cost of capital in connection with the One Kemble Street building refurbishment project. Costs were partly funded through a National Loans Fund loan, and partly through equity. Costs will be fully depreciated by the end of 2019.
Description of cost-efficiency improvements planned in RP2:	Not applicable.
Main changes compared to RP1	Cost of capital has steadily declined based on net book value of asset. Costs in the first year of RP1 were £427k, reducing to £304k in the final year of RP1.

(determined and actual costs):	
1.5 Exceptional items	
Content of the cost item:	

Year	2012 P	2013 P	2014 P	2015	2016	2017	2018	2019	2012 A	2013 A
Costs £m	6.000	6.000	6.000	6.000	6.000	6.000	6.000	6.000	6.000	6.000

Explanations of the planning assumptions and annual variations in the cost item over RP2:	Additional annual cash payments to the CAA's pensions scheme to fund the Pensions Benefit Obligation (PBO) of NATS pensioners and deferred pensioners up to the point of the separation of NATS from the CAA in 2001. The most recent actuarial valuation indicated that annual payments of £6m will be required throughout RP2.
Determined costs for RP2 (by service)	
Explanations of the annual variations in the cost items over RP2:	The CAA's determined costs increase by 1.2% per year in nominal terms (a reduction in real terms) until the final year of RP2 when costs reduce by 3% in nominal terms due to the fact that depreciation charges and costs of capital in respect of the One Kemble Street refurbishment project end during 2019. Determined costs in 2019 of £13.2m are the same in nominal terms as in the first year of RP2.
Main changes compared to RP1 (determined and actual costs):	Determined costs reduce significantly compared with RP1 (£14.5m in 2014 reducing to £13.2m in 2015). The DC in the first year of RP2 represent a 3.4% reduction in real terms compared with the 2013 actual costs.
Additional comments	

g) Description of how the amounts resulting from uncontrollable costs factors in RP1 have been taken into account in the planned determined costs for RP2.

NERL:
The uncontrollable costs from RP1 have been amortised over 15 years.
Pension costs have been reflected in line 3.6 of Table 2

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:	DfT/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	
(iv) unforeseen changes in national taxation law	

<table>
<tr>
<td>(v) unforeseen changes in costs or revenues stemming from international agreements</td>
<td>Although the total Eurocontrol cost-base is within the control of Member States, the share of the total cost-base to be borne by individual States and included in the national cost-base (in national currency) is not under the control of States. The sharing keys used to apportion the cost-base across Member States, and the exchange rate used to convert costs from EURO to GBP are deemed uncontrollable elements. The impact of these uncontrollable ekements will be calculated for each year of RP2, with the aggregated adjustment for the reference period carried forward to RP3.
The assumptions used in compiling the determined costs for RP2 are shown below.
<table>
<tr><td></td><td>2015</td><td>2016</td><td>2017</td><td>2018</td><td>2019</td></tr>
<tr><td>Eurocontrol cost-base</td><td>499,861</td><td>522,712</td><td>541,906</td><td>559,604</td><td>577,682</td></tr>
<tr><td>UK % share</td><td>11.18%</td><td>11.18%</td><td>11.18%</td><td>11.18%</td><td>11.18%</td></tr>
<tr><td>UK cost-base (EURO)</td><td>55,883</td><td>58,438</td><td>60,584</td><td>62,563</td><td>64,584</td></tr>
<tr><td>Exch rate (April Average)</td><td>0.824432</td><td>0.824432</td><td>0.824432</td><td>0.824432</td><td>0.824432</td></tr>
<tr><td>Determined Costs (GBP)</td><td>46,072</td><td>48,178</td><td>49,947</td><td>51,579</td><td>53,245</td></tr>
</table>
</td>
</tr>
</table>

The CAA states that the UK intends to use this mechanism in respect of:

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 subject to:

- the CAA being satisfied that the pension scheme has been well governed throughout the previous Control Period;
- passing through 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; and
- passing through 100% of the difference when the actual contributions are less than the assumed contributions.

b. variance in spectrum costs compared to what has been assumed in the RP2 cost projections in this National Performance Plan where such costs are required by law;
c. any variance in MET costs which meet the criteria in Article 11 a (2c);
d. any variance in the Pensions Benefit Obligation of NATS pensioners and deferred pensioners up to the point of separation of NATS from the CAA.

The UK intends that other variances in NERL's costs which meet the criteria in Article 11 a (2c) 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 the its service obligations under its licence. This would particularly apply to very large additional costs of a nature which cannot be anticipated in advance.

Table 1 - Total Costs and Unit Costs

Check actual data | Check determined data | Print

United Kingdom - Zone B
GBP
All Entities

Cost details	Determined costs - Performance Plan RP2 2015	2016	2017	2018	2019	Actual costs 2015	2016	2017	2018	2019
1. Detail by nature (in nominal terms)										
1.1 Staff	69,460	70,853	72,824	74,626	76,529					
1.2 Other operating costs	48,242	49,905	50,920	51,800	52,457					
1.3 Depreciation	2,308	2,086	1,871	1,802	1,792					
1.4 Cost of capital	21,672	21,191	21,615	21,495	21,340					
1.5 Exceptional items	1,567	1,599	1,588	1,606	1,634					
1.6 Total costs	143,249	145,635	148,819	151,329	153,752					
Total % n/n-1		1.7%	2.2%	1.7%	1.6%					
Staff % n/n-1		2.0%	2.8%	2.5%	2.5%					
Other op. % n/n-1		3.4%	2.0%	1.7%	1.3%					
2. Detail by service (in nominal terms)										
2.1 Air Traffic Management	0	0	0	0	0					
2.2 Communication (1)	0	0	0	0	0					
2.3 Navigation (1)	0	0	0	0	0					
2.4 Surveillance (1)	0	0	0	0	0					
2.5 Search and rescue	0	0	0	0	0					
2.6 Aeronautical Information (1)	0	0	0	0	0					
2.7 Meteorological services (1)	0	0	0	0	0					
2.8 Supervision costs	0	0	0	0	0					
2.9 Other State costs	0	0	0	0	0					
2.10 Total costs	143,249	145,635	148,819	151,329	153,752					
Total % n/n-1		1.7%	2.2%	1.7%	1.6%					
ATM % n/n-1		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!					
CNS % n/n-1		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!					
3. Complementary information (in nominal terms)										
Average asset base										
3.1 Net book val. fixed assets	0	0	0	0	0					
3.2 Adjustments total assets	0	0	0	0	0					
3.3 Net current assets	0	0	0	0	0					
3.4 Total asset base	0	0	0	0	0					
Cost of capital %										
3.5 Cost of capital pre tax rate	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!					
3.6 Return on equity										
3.7 Average interest on debts										
Cost of common projects										
3.8 Total costs common projects	0	0	0	0	0					
Costs exempted from cost sharing - Article 14(2)(b)										
3.9 Total costs ex. from cost sharing										
4. Total costs after deduction of costs for services to exempted flights (in nominal terms)										
4.1 Costs for exempted VFR flights	0	0	0	0	0					
4.2 Total determined/actual costs	**143,249**	**145,635**	**148,819**	**151,329**	**153,752**					
5. Cost-efficiency KPI - Determined /Actual Unit Cost (in real terms)										
5.1 Inflation % (2)	1.90%	1.90%	2.00%	2.00%	2.00%					
5.2 Price index (3)	106.5	108.6	110.7	112.9	115.2					
5.3 Total costs real terms (4)	**134,461**	**134,152**	**134,396**	**133,983**	**133,459**					
Total % n/n-1		-0.2%	0.2%	-0.3%	-0.4%					
5.4 Total Service Units	1153.1	1182.0	1205.0	1230.4	1256.5					
Total % n/n-1		2.5%	1.9%	2.1%	2.1%					
5.5 Unit cost	**116.61**	**113.50**	**111.53**	**108.89**	**106.22**					
Total % n/n-1		-2.7%	-1.7%	-2.4%	-2.5%					

Costs and asset base items in '000 - Service units in '000
(1) To be left empty when such services are provided under the provisions of Article 3
(2) Actual/forecast inflation used for establishing the determined costs in nominal terms – actual/revised forecast inflation
(3) Forecast price indexes - For RP2 base 100 in 2012 inflation 2013 : 2.60% inflation 2014 : 1.90%
Actual price index - base 100 in year 2012 inflation 2013 : inflation 2014 :
(4) Determined costs (performance plan) in real terms – actual/revised forecast costs at 2012 prices

Unit rate

Unit rate without revenue deduction

Please select number of new airports - if required	0

Terminal Air Navigation Services Costs and Charges

Charging zone: **United Kingdom - Zone B**

Airports in the Charging Zone are subject to Traffic Risk Sharing	N

ICAO Airport code	Airport Name	2015	2016	2017	2018	2019
	Total number of airports	9	9	9	9	9
EGBB	BIRMINGHAM	1	1	1	1	1
EGCC	MANCHESTER	1	1	1	1	1
EGGW	LONDON LUTON	1	1	1	1	1
EGLC	LONDON/CITY	1	1	1	1	1
EGPF	GLASGOW	1	1	1	1	1
EGPH	EDINBURGH	1	1	1	1	1
EGSS	LONDON STANSTED	1	1	1	1	1
EGKK	LONDON GATWICK	1	1	1	1	1
EGLL	LONDON HEATHROW	1	1	1	1	1

Table 1 - Total Costs and Unit Costs

Check actual data

Check determined data

Print

United Kingdom - Zone B
GBP
ANSP

Cost details	Determined costs - Performance Plan RP2 2015	2016	2017	2018	2019	Actual costs 2015	2016	2017	2018	2019
1. Detail by nature (in nominal terms)										
1.1 Staff	69,460	70,853	72,824	74,626	76,529					
1.2 Other operating costs	48,242	49,905	50,920	51,800	52,457					
1.3 Depreciation	2,308	2,086	1,871	1,802	1,792					
1.4 Cost of capital	21,672	21,191	21,615	21,495	21,340					
1.5 Exceptional items	1,567	1,599	1,588	1,606	1,634					
1.6 Total costs	143,249	145,635	148,819	151,329	153,752					
Total % n/n-1		1.7%	2.2%	1.7%	1.6%					
Staff % n/n-1		2.0%	2.8%	2.5%	2.5%					
Other op. % n/n-1		3.4%	2.0%	1.7%	1.3%					
2. Detail by service (in nominal terms)										
2.1 Air Traffic Management										
2.2 Communication (1)										
2.3 Navigation (1)										
2.4 Surveillance (1)										
2.5 Search and rescue										
2.6 Aeronautical Information (1)										
2.7 Meteorological services (1)										
2.8 Supervision costs										
2.9 Other State costs										
2.10 Total costs	143,249	145,635	148,819	151,329	153,752					
Total % n/n-1		1.7%	2.2%	1.7%	1.6%					
ATM % n/n-1		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!					
CNS % n/n-1		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!					
3. Complementary information (in nominal terms)										
Average asset base										
3.1 Net book val. fixed assets										
3.2 Adjustments total assets										
3.3 Net current assets										
3.4 Total asset base	0	0	0	0	0					
Cost of capital %										
3.5 Cost of capital pre tax rate	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!					
3.6 Return on equity										
3.7 Average interest on debts										
Cost of common projects										
3.8 Total costs of common projects										
Costs exempted from cost sharing (Article 14(2)(b))										
3.9 Total costs ex. from cost sharing										
4. Total costs after deduction of costs for services to exempted flights (in nominal terms)										
4.1 Costs for exempted VFR flights	0	0	0	0	0					
4.2 Total determined/actual costs	**143,249**	**145,635**	**148,819**	**151,329**	**153,752**					
5. Cost-efficiency KPI - Determined /Actual Unit Cost (in real terms)										
5.1 Inflation % (2)	1.90%	1.90%	2.00%	2.00%	2.00%					
5.2 Price index (3)	106.5	108.6	110.7	112.9	115.2					
5.3 Total costs real terms (4)	**134,461**	**134,152**	**134,396**	**133,983**	**133,459**					
Total % n/n-1		-0.2%	0.2%	-0.3%	-0.4%					
5.4 Total Service Units	**1,153.1**	**1,182.0**	**1,205.0**	**1,230.4**	**1,256.5**					
Total % n/n-1		2.5%	1.9%	2.1%	2.1%					
5.5 Unit cost	**116.61**	**113.50**	**111.53**	**108.89**	**106.22**					
Total % n/n-1		-2.7%	-1.7%	-2.4%	-2.5%					

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

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

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

(3) Forecast price indexes - For RP2 base 100 in 2012 inflation 2013 : 2.60% inflation 2014 : 1.90%

Actual price index - base 100 in year 2012 inflation 2013 : 0.00% inflation 2014 : 0.00%

(4) Determined costs (performance plan) in real terms – actual/revised forecast costs at 2012 prices

Unit rate

Unit rate without revenue deduction

Table 1 - Total Costs and Unit Costs

Check actual data

Check determined data

Print

United Kingdom - Zone B
GBP
MET

Cost details	Determined costs - Performance Plan RP2 2015	2016	2017	2018	2019	Actual costs 2015	2016	2017	2018	2019
1. Detail by nature (in nominal terms)										
1.1 Staff										
1.2 Other operating costs										
1.3 Depreciation										
1.4 Cost of capital										
1.5 Exceptional items										
1.6 Total costs	0	0	0	0	0					
Total % n/n-1		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!					
Staff % n/n-1		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!					
Other op. % n/n-1		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!					
2. Detail by service (in nominal terms)										
2.1 Air Traffic Management										
2.2 Communication (1)										
2.3 Navigation (1)										
2.4 Surveillance (1)										
2.5 Search and rescue										
2.6 Aeronautical Information (1)										
2.7 Meteorological services (1)										
2.8 Supervision costs										
2.9 Other State costs										
2.10 Total costs	0	0	0	0	0					
Total % n/n-1		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!					
ATM % n/n-1										
CNS % n/n-1										
3. Complementary information (in nominal terms)										
Average asset base										
3.1 Net book val. fixed assets										
3.2 Adjustments total assets										
3.3 Net current assets										
3.4 Total asset base	0	0	0	0	0					
Cost of capital %										
3.5 Cost of capital pre tax rate	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!					
3.6 Return on equity										
3.7 Average interest on debts										
Cost of common projects										
3.8 Total costs of common projects										
Costs exempted from cost sharing (Article 14(2)(b))										
3.9 Total costs ex. from cost sharing										
4. Total costs after deduction of costs for services to exempted flights (in nominal terms)										
4.1 Costs for exempted VFR flights										
4.2 Total determined/actual costs	**0**	**0**	**0**	**0**	**0**					
5. Cost-efficiency KPI - Determined /Actual Unit Cost (in real terms)										
5.1 Inflation % (2)	1.90%	1.90%	2.00%	2.00%	2.00%					
5.2 Price index (3)	106.5	108.6	110.7	112.9	115.2					
5.3 Total costs real terms (4)	**0**	**0**	**0**	**0**	**0**					
Total % n/n-1		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!					
5.4 Total Service Units	**1,153.1**	**1,182.0**	**1,205.0**	**1,230.4**	**1,256.5**					
Total % n/n-1		2.5%	1.9%	2.1%	2.1%					
5.5 Unit cost	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**					
Total % n/n-1		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!					

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

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

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

(3) Forecast price indexes - For RP2 base 100 in 2012 inflation 2013 : 2.60% inflation 2014 : 1.90%

Actual price index - base 100 in year 2012 inflation 2013 : 0.00% inflation 2014 : 0.00%

(4) Determined costs (performance plan) in real terms – actual/revised forecast costs at 2012 prices

Unit rate

Unit rate without revenue deduction

Table 1 - Total Costs and Unit Costs

Check actual data

Check determined data

Print

United Kingdom - Zone B
GBP
NSA

Cost details	Determined costs - Performance Plan RP2 2015	2016	2017	2018	2019	Actual costs 2015	2016	2017	2018	2019
1. Detail by nature (in nominal terms)										
1.1 Staff										
1.2 Other operating costs										
1.3 Depreciation										
1.4 Cost of capital										
1.5 Exceptional items										
1.6 Total costs	0	0	0	0	0					
Total % n/n-1		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!					
Staff % n/n-1		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!					
Other op. % n/n-1		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!					
2. Detail by service (in nominal terms)										
2.1 Air Traffic Management										
2.2 Communication (1)										
2.3 Navigation (1)										
2.4 Surveillance (1)										
2.5 Search and rescue										
2.6 Aeronautical Information (1)										
2.7 Meteorological services (1)										
2.8 Supervision costs										
2.9 Other State costs										
2.10 Total costs	0	0	0	0	0					
Total % n/n-1		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!					
ATM % n/n-1										
CNS % n/n-1										
3. Complementary information (in nominal terms)										
Average asset base										
3.1 Net book val. fixed assets										
3.2 Adjustments total assets										
3.3 Net current assets										
3.4 Total asset base	0	0	0	0	0					
Cost of capital %										
3.5 Cost of capital pre tax rate	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!					
3.6 Return on equity										
3.7 Average interest on debts										
Cost of common projects										
3.8 Total costs of common projects										
Costs exempted from cost sharing (Article 14(2)(b))										
3.9 Total costs ex. from cost sharing										
4. Total costs after deduction of costs for services to exempted flights (in nominal terms)										
4.1 Costs for exempted VFR flights										
4.2 Total determined/actual costs	**0**	**0**	**0**	**0**	**0**					
5. Cost-efficiency KPI - Determined /Actual Unit Cost (in real terms)										
5.1 Inflation % (2)	1.90%	1.90%	2.00%	2.00%	2.00%					
5.2 Price index (3)	106.5	108.6	110.7	112.9	115.2					
5.3 Total costs real terms (4)	**0**	**0**	**0**	**0**	**0**					
Total % n/n-1		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!					
5.4 Total Service Units	**1,153.1**	**1,182.0**	**1,205.0**	**1,230.4**	**1,256.5**					
Total % n/n-1		2.5%	1.9%	2.1%	2.1%					
5.5 Unit cost	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**					
Total % n/n-1		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!					

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

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

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

(3) Forecast price indexes - For RP2 base 100 in 2012 inflation 2013 : 2.60% inflation 2014 : 1.90%

Actual price index - base 100 in year 2012 inflation 2013 : 0.00% inflation 2014 : 0.00%

(4) Determined costs (performance plan) in real terms – actual/revised forecast costs at 2012 prices

Unit rate

Unit rate without revenue deduction

Check data

Print

Table 2 - Unit rate calculation

United Kingdom - Zone B
All Entities

Unit rate calculation	Reference Period 2				
	2015	2016	2017	2018	2019
1. Determined costs in nominal terms and inflation adjustment					
1.1 Determined costs in nominal terms - VFR excl. - Table 1	143,249	145,635	148,819	151,329	153,752
1.2 Actual inflation rate - Table 1					
1.3 Forecast inflation rate - Table 1	1.9%	1.9%	2.0%	2.0%	2.0%
1.4 Inflation adjustment (1) : year n amount to be carried over					
2. Forecast and actual total service units					
2.1 Forecast total service units (performance plan)	1,153.1	1,182.0	1,205.0	1,230.4	1,256.5
2.2 Actual total service units					
2.3 Actual / forecast total service units (in %)					
3. Costs subject to traffic risk sharing					
3.1 Determined costs in nominal terms - VFR excl. (reported from Table 1)	0	0	0	0	0
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 over to year n					
3.5 Traffic risk sharing : revenues losses carried over to year n					
3.6 Costs exempt from cost sharing : amounts carried over to year n					
3.7 Bonus or penalty for performance					
3.8 Over(-) or under(+) recoveries (2) : amounts carried over to year n	0	0	0	0	0
3.9 Total for the calculation of year n unit rate	0	0	0	0	0
3.10 Traffic risk sharing : add. rev. year n to be carried-over					
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%	70%	70%
3.14 % loss of revenue borne by airspace users	70%	70%	70%	70%	70%
4. Costs not subject to traffic risk sharing					
4.1 Determined costs in nominal terms - VFR excl. (Table 1)	0	0	0	0	0
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	0	0	0	0	0
4.7 Total for the calculation of year n unit rate	0	0	0	0	0
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	0	0	0	0	0
5.2 Total revenues from Public Authorities	0	0	0	0	0
5.3 of which Union assistance programmes	0	0	0	0	0
5.4 of which National public funding	0	0	0	0	0
5.5 Commercial activities	0	0	0	0	0
5.6 Other other revenues	0	0	0	0	0
5.7 Grand total for the calculation of year n unit rate	0	0	0	0	0
5.8 Year n unit rate (in national currency)	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
5.9 ANSP component of the unit rate	0.00	0.00	0.00	0.00	0.00
5.10 MET component of the unit rate	0.00	0.00	0.00	0.00	0.00
5.11 NSA-State component of the unit rate	0.00	0.00	0.00	0.00	0.00
5.12 Year n unit rate that would have applied without other revenues	0.00	0.00	0.00	0.00	0.00

Costs, revenues and other amounts in '000 - Service units in '000
(1) 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

Check data

Print

Table 2 - Unit rate calculation

United Kingdom - Zone B
ANSP

Unit rate calculation	Reference Period 2				
	2015	2016	2017	2018	2019
1. Determined costs in nominal terms and inflation adjustment					
1.1 Determined costs in nominal terms - VFR excl. - Table 1	143,249	145,635	148,819	151,329	153,752
1.2 Actual inflation rate - Table 1					
1.3 Forecast inflation rate - Table 1	1.9%	1.9%	2.0%	2.0%	2.0%
1.4 Inflation adjustment (1) : year n amount to be carried over					
2. Forecast and actual total service units					
2.1 Forecast total service units (performance plan)	1,153.1	1,182.0	1,205.0	1,230.4	1,256.5
2.2 Actual total service units					
2.3 Actual / forecast total service units (in %)					
3. Costs subject to traffic risk sharing					
3.1 Determined costs in nominal terms - VFR excl. (reported from Table 1)					
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 over to year n					
3.5 Traffic risk sharing : revenues losses carried over to year n					
3.6 Costs exempt from cost sharing : amounts carried over to year n					
3.7 Bonus or penalty for performance					
3.8 Over(-) or under(+) recoveries (2) : amounts carried over to year n					
3.9 Total for the calculation of year n unit rate	0	0	0	0	0
3.10 Traffic risk sharing : add. rev. year n to be carried-over					
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%	70%	70%
3.14 % loss of revenue borne by airspace users	70%	70%	70%	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	0	0	0	0	0
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	0	0	0	0	0
5.2 Total revenues from Public Authorities	0	0	0	0	0
5.3 of which Union assistance programmes					
5.4 of which National public funding					
5.5 Commercial activities					
5.6 Other other revenues					
5.7 Grand total for the calculation of year n unit rate	0	0	0	0	0
5.8 Year n unit rate (in national currency)					
5.9 ANSP component of the unit rate	0.00	0.00	0.00	0.00	0.00
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	0.00	0.00	0.00	0.00	0.00

Costs, revenues and other amounts in '000 - Service units in '000
(1) 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

Check data

Print

Table 2 - Unit rate calculation

United Kingdom - Zone B
MET

Unit rate calculation	Reference Period 2				
	2015	2016	2017	2018	2019
1. Determined costs in nominal terms and inflation adjustment					
1.1 Determined costs in nominal terms - VFR excl. - Table 1	0	0	0	0	0
1.2 Actual inflation rate - Table 1					
1.3 Forecast inflation rate - Table 1	1.9%	1.9%	2.0%	2.0%	2.0%
1.4 Inflation adjustment (1) : year n amount to be carried over					
2. Forecast and actual total service units					
2.1 Forecast total service units (performance plan)	1,153.1	1,182.0	1,205.0	1,230.4	1,256.5
2.2 Actual total service units					
2.3 Actual / forecast total service units (in %)					
3. Costs subject to traffic risk sharing					
3.1 Determined costs in nominal terms - VFR excl. (reported from Table 1)					
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 over to year n					
3.5 Traffic risk sharing : revenues losses carried over to year n					
3.6 Costs exempt from cost sharing : amounts carried over to year n					
3.7 Bonus or penalty for performance					
3.8 Over(-) or under(+) recoveries (2) : amounts carried over to year n					
3.9 Total for the calculation of year n unit rate					
3.10 Traffic risk sharing : add. rev. year n to be carried-over					
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					
3.14 % loss of revenue borne by airspace users					
4. Costs not subject to traffic risk sharing					
4.1 Determined costs in nominal terms - VFR excl. (Table 1)	0	0	0	0	0
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	0	0	0	0	0
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	0	0	0	0	0
5.2 Total revenues from Public Authorities	0	0	0	0	0
5.3 of which Union assistance programmes					
5.4 of which National public funding					
5.5 Commercial activities					
5.6 Other other revenues					
5.7 Grand total for the calculation of year n unit rate	0	0	0	0	0
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	0.00	0.00	0.00	0.00	0.00
5.11 NSA-State component of the unit rate					
5.12 Year n unit rate that would have applied without other revenues	0.00	0.00	0.00	0.00	0.00

Costs, revenues and other amounts in '000 - Service units in '000
(1) 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

Check data

Print

Table 2 - Unit rate calculation

United Kingdom - Zone B
NSA

Unit rate calculation	Reference Period 2				
	2015	**2016**	**2017**	**2018**	**2019**
1. Determined costs in nominal terms and inflation adjustment					
1.1 Determined costs in nominal terms - VFR excl. - Table 1	0	0	0	0	0
1.2 Actual inflation rate - Table 1					
1.3 Forecast inflation rate - Table 1	1.9%	1.9%	2.0%	2.0%	2.0%
1.4 Inflation adjustment (1) : year n amount to be carried over					
2. Forecast and actual total service units					
2.1 Forecast total service units (performance plan)	1,153.1	1,182.0	1,205.0	1,230.4	1,256.5
2.2 Actual total service units					
2.3 Actual / forecast total service units (in %)					
3. Costs subject to traffic risk sharing					
3.1 Determined costs in nominal terms - VFR excl. (reported from Table 1)					
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 over to year n					
3.5 Traffic risk sharing : revenues losses carried over to year n					
3.6 Costs exempt from cost sharing : amounts carried over to year n					
3.7 Bonus or penalty for performance					
3.8 Over(-) or under(+) recoveries (2) : amounts carried over to year n					
3.9 Total for the calculation of year n unit rate					
3.10 Traffic risk sharing : add. rev. year n to be carried-over					
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					
3.14 % loss of revenue borne by airspace users					
4. Costs not subject to traffic risk sharing					
4.1 Determined costs in nominal terms - VFR excl. (Table 1)	0	0	0	0	0
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	0	0	0	0	0
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	0	0	0	0	0
5.2 Total revenues from Public Authorities	0	0	0	0	0
5.3 of which Union assistance programmes					
5.4 of which National public funding					
5.5 Commercial activities					
5.6 Other other revenues					
5.7 Grand total for the calculation of year n unit rate	0	0	0	0	0
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	0.00	0.00	0.00	0.00	0.00
5.12 Year n unit rate that would have applied without other revenues	0.00	0.00	0.00	0.00	0.00

Costs, revenues and other amounts in '000 - Service units in '000
(1) 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 3 - Complementary Information

Check actual data

Check determined data

Print

United Kingdom - Zone B
All Entities

PART A : Complementary Information on costs	2010F	2011F	2012	2013	2014	2015	2016	2017	2018	2019	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
	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						0	0	0	0	0						0	0	0	0	0
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																				
3.3 Depreciation																				
3.4 Cost of capital																				
3.5 Exceptional items																				
3.6 Total costs exempted from cost sharing																0	0	0	0	0
Breakdown by factor/item																				
3.7 Pension																				
3.8 Interest rates on loans																				
3.9 National taxation law																				
3.10 New cost item required by law																				
3.11 International agreements																				
3.12 Total costs exempted from cost sharing																0	0	0	0	0
	Planned costs (business case)										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 2015	0	0										0			0
Inflation adjustment Year 2016	0	0											0		0
Inflation adjustment Year 2017	0	0												0	0
Inflation adjustment Year 2018	0	0													0
Inflation adjustment Year 2019	0	0													0
Total Inflation Adjustment	0.0	0										0	0	0	0
Traffic balance Year 2015	0	0										0			0
Traffic balance Year 2016	0	0											0		0
Traffic balance Year 2017	0	0												0	0
Traffic balance Year 2018	0	0													0
Traffic balance Year 2019	0	0													0
Total Traffic Adjustment	0.0	0										0	0	0	0
Traffic risk sharing revenue Year 2015	0	0										0			0
Traffic risk sharing revenue Year 2016	0	0											0		0
Traffic risk sharing revenue Year 2017	0	0												0	0
Traffic risk sharing revenue Year 2018	0	0													0
Traffic risk sharing revenue Year 2019	0	0													0
Total Traffic Risk sharing revenue adjustment	0.0	0										0	0	0	0
Traffic risk sharing loss Year 2015	0	0										0			0
Traffic risk sharing loss Year 2016	0	0											0		0
Traffic risk sharing loss Year 2017	0	0												0	0
Traffic risk sharing loss Year 2018	0	0													0
Traffic risk sharing loss Year 2019	0	0													0
Total Traffic Risk sharing loss adjustment	0	0										0	0	0	0
Costs exempted from cost sharing Year 2015	0	0													0
Costs exempted from cost sharing Year 2016	0	0													0
Costs exempted from cost sharing Year 2017	0	0													0
Costs exempted from cost sharing Year 2018	0	0													0
Costs exempted from cost sharing Year 2019	0	0													0
Total costs exempted from cost sharing	0	0													0
O-u recoveries before determined costs Year 2010		0							0						0
O-u recoveries before determined costs Year 2011		0							0						0
O-u recoveries before determined costs Year 2012		0							0						0
O-u recoveries before determined costs Year 2013		0							0						0
O-u recoveries before determined costs Year 2014		0							0						0
Total carry-overs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Terminal

Cost efficiency KPI #2: Determined unit cost (DUC) for terminal ANS

TO BE CODED (VALUE) TO THE EAR DD

	RP2 Performance Plan					Avg pct var p.a.
United Kingdom - Zone B	**2015 D**	**2016 D**	**2017 D**	**2018 D**	**2019 D**	**2015D-2019D**
Total terminal determined costs in nominal terms (in national currency)	143,249,315	145,634,970	148,818,538	151,328,527	153,751,622	1.8%
Inflation %	1.90%	1.90%	2.00%	2.00%	2.00%	
Inflation index (Base = 100 in 2012)	106.54	108.56	110.73	112.95	115.20	2.0%
Total terminal determined costs in real terms (in national currency at 2012 prices)	134,461,151	134,151,569	134,396,188	133,983,263	133,459,434	-0.2%
Total terminal Service Units (TSU) used for the determined unit cost	1,153,063	1,181,964	1,204,982	1,230,444	1,256,452	2.2%
Real terminal DUCs (in national currency at 2012 prices)	116.61	113.50	111.53	108.89	106.22	-2.3%

En route Charging zone: TERMINAL CHARGING ZONE B
Reference Periods 1 (2012-2014) and 2 (2015-2019)

ADDITIONAL INFORMATION – 1 – Total costs and unit costs

Airports in Charging Zone B:
London Heathrow Airport – operated by NATS Services Ltd (NSL)
London Gatwick Airport – operated by NSL
Manchester Airport – operated by NSL
London Stansted Airport – operated by NSL
Glasgow Airport – operated by NSL
Edinburgh Airport – operated by NSL
Luton Airport – operated by NSL
London City Airport – operated by NSL
Birmingham -– operated by Birmingham Air Traffic Ltd (BAATL)

a) Description of the methodology used for allocating costs of facilities or services between different air navigation services based on the list of facilities and services listed in ICAO Regional Air Navigation Plan, European Region (Doc. 7754), and a description of the methodology used for allocating those costs between different charging zones;

NSL and BAATL are distinct companies from NERL the provider on the en route service in the UK. NSL is a wholly owned subsidiary of NATS Holdings PLC. BAATL is a wholly owned subsidiary of Birmingham Airport Limited.

BAATL is not currently the designated provider for the BHX tower but will be from 1 April 2015. Its costing are based on its forward projections.

NSL's approach is based on activity based costing principles. Under this, allocations are carried in a two stage process:

- Costs (including depreciation) are booked or attributed to the activities or tasks performed.
- The costs of these activities are then either attributed or allocated to the services provided to customers.
  The contracts governing services at Gatwick, Manchester and Luton are due to terminate in 2015. The CAA is aware that Gatwick Airport Ltd will announce the operator of its tower going forward this summer. The CAA is not currently aware of plans to tender service at either Manchester or Luton.

b) Description of the methodology and assumptions used to establish the costs of air navigation services provided to VFR flights, when exemptions are granted for VFR flights;

N/A

c) Description and justification of any adjustment beyond the provisions of the International Accounting Standards;

The information included within the return is consistent with the application of International Accounting Standards (IAS).

However in the case of NSL pension costs the following has been reflected:

NSL operates two pension schemes: a legacy defined benefit scheme which has been closed to new members since 2009 and a defined benefit contribution scheme open to new members since 2009. The treatment and valuation of the costs of the defined contribution pension scheme are consistent with IAS.

The defined benefit scheme that was in place when it was transferred from full state ownership is subject to legally enforceable provisions which limit NSL's ability to make changes to pension

arrangements for existing members. Nevertheless the defined benefit pension scheme was closed to new members in 2009.

The amounts included in determined staff costs in respect of the defined benefit pension scheme are the forecast cash costs rather than the forecast accounting charge, calculated under IAS, included in the NSL's forecast profit and loss account. For the period to 1st July 2016 these forecast cash costs are based on the likely employer's cash contributions to the scheme. For the period beyond 1st July 2016 the amounts included are based on the latest forecast of employers cash contributions,

Since NSL does not have pass through protection for pension costs under the terms of its contracts with airport operators an appropriate allowance for risk associated with the defined benefit pension scheme has been reflected in the Other operating cost line.

d) Description and explanation of the method adopted for the calculation of depreciation costs: historic costs or current costs. When current cost accounting is adopted, provision of comparable historic cost data;

For NSL depreciation is calculated on an historic cost basis and is provided on a straight line basis to write off the cost of an asset, less estimated residual value, over the asset's useful life.

For BAATL Depreciation is calculated on an historic cost basis and is provided on a straight line basis to write off the cost of an asset, less estimated residual value (if applicable), over the asset's useful life.

e) Justification for the cost of capital, including the components of the asset base, the possible adjustments to total assets and the return on equity;

TANS provision in the UK is more of a service based operation than a capital focused business model. Although not consistent across all UK airports the TANS assets at airports that outsource service provision are often owned by the airport or by third party leasing companies. In some cases these assets and properties are leased to the TANS provider which includes these lease costs in the charges it makes to the airport.

The CAA considers that airport or third party ownership of operational assets is as an important enabler to the development of contestability, as it removes the need to transfer assets from the incumbent to the any incoming provider.

The CAA has a number of concerns with applying the approach set out in article 7. These include:

- There is a potential risk of double counting of assets and rewarding both the airport and the ANSP for infrastructure provision. Where an airport owns the assets the return on this asset will likely already be factored into its airport charges either in its general approach to pricing or if regulated through a regulatory settlement. Developing and agreeing a suitable asset and cost allocation method would take time and add significant complexity and burden on industry for little to no gain in clarity over the cost of service provision.
- Calculating a WACC for NSL (as the majority provider) would result in a lower WACC than may be commensurate with the risk of individual tower operations, as for NSL risk can be hedged across a portfolio of airports, including those not covered by the regulation. The need to calculate a separate WACC for each tower would introduce additional cost, complexity and burden on industry. The use of a lower NSL WACC would further embed the status quo, and be detrimental to the development of contestability.
- Setting a WACC across the airports with cost-reflective pricing may necessitate significant changes in price (both increases and falls) at differing airports in the short term which would either cut across the current contracts or require significant changes in price when contract are renegotiated.

- As noted above applying a WACC may incentivise ANSPs to own TANS assets, where to promote competition the CAA is encouraging the market to move to airport asset ownership.
- Given airport ownership of assets rental charges associated with their use by ANSPs may be included within the contract as an operational cost.

In its initial data submission for RP2 in June 2013 NSL, in agreement with the CAA and DfT, did not present a WACC but, for reporting purposes, presented the profit it earns as a pre-tax return on sales on its contracts.

The CAA maintains that this is an appropriate approach given the stage of market development and the ambition of the CAA to motivate a more competitive market place. Targeting cost reduction on the total cost charged by the ANSP to the airport will incentivise the reduction of margin and physical cost base as appropriate. However the CAA will need to review this approach in the lead up to RP3 to ensure that it is still appropriate.

Specifically for NSL the cost of capital line does not represent the calculated return on capital employed for those airport contracts contained within Charging Zone B. As NSL's prices are agreed through negotiation with its airport customers, the cost of capital line included in the reporting table represents the difference between the costs of delivering the contracts and the anticipated revenues receivable from the airport customers. The CAA has had to make some adjustments to the cost of capital line to ensure sufficient head room for potential alternative providers at Luton.

With regards to BAATL, Its return on capital includes recovery of interest and a return on investment for the cost of the ATC assets.

(f) total costs per airport for each airports with fewer than 70 000 IFR air transport movements per year, when these are provided in a consolidated way in the reporting table;

N/A

g) Definition of the criteria used to allocate costs between terminal and *en route* services for each airport within the scope of this Regulation;

N/A

h) Breakdown of the meteorological costs between direct costs and 'MET core costs' defined as the costs of supporting meteorological facilities and services that also serve meteorological requirements in general. These include general analysis and forecasting, surface and upper-air observation networks, meteorological communication systems, data processing centres and supporting core research, training and administration;

N/A

i) Description of the methodology used for allocating total MET costs and MET core costs to civil aviation and between charging zones;

N/A

j) Nineteen months before the start of a reference period, description of the reported forecast costs and traffic;

NSL Costs

The reported forecast determined costs for the period 1st January 2015 to 31st March 2015 have been extracted from NSLs latest published Business Plan. As no formal, approved plan exists for the period beyond this date, the figures for this period have been based on best estimates.

As explained under note e) the reported forecast total determined costs for Charging Zone B represent the anticipated revenues receivable under the relevant airport contracts for the period 2015 to 2019.

Following the decision of Birmingham airport not to award the contract for terminal services to NATS on the expiry of the existing ANS contract (31st March 2015), the determined costs have been excluded from the NSL submission.

Total determined costs, in real terms, have increased by an average of 0.2% per annum over the period 2015 to 2019 whilst remaining constant over the period from 2014 to 2019.

Staff costs are expected to grow generally in line with indexation however a targeted efficiency in the number of ATCO staff employed has been included in the determined costs with effect from 2016. A number of efficiencies on operational staffing are also expected to be made in RP1 which are embedded in the determined costs for RP2. Pension costs are also forecast to reduce over the latter years of the plan, partially offsetting forecast pay increases.

The growth in Other operating costs mainly represents the additional pass through costs expected to be incurred on property and assets. In addition an allowance for risk on pension costs and other cost risks on the airport contracts has been included in this line.

Depreciation costs are forecast to reduce over the period as assets reach the end of their economic life and are replaced by assets placed on operating lease (the cost of which is reflected in Other operating cost).

As explained under note e), the Cost of capital line in the reporting table reflects the difference between the determined costs for Charging Zone B and the anticipated revenues receivable under the terms of its contracts negotiated with airport customers.

Exceptional items reflect the costs associated with restructuring including forecast voluntary redundancy costs.

<u>BAATL Costs</u>

BAATL is not currently designated provider for the BHX tower but will be from 1 April 2015. Its costing are based on its forward projections. More detail will be provided as final figures are caluclated

k) Description of the reported actual costs and the difference from the determined costs, for each year of the reference period;

N/A

l) Description of the reported actual service units and the differences both against the forecast and compared with the figures provided by EUROCONTROL, as appropriate, for each year of the reference period;

N/A

m) Every year of the reference period, the difference between the investments of the air navigation service providers recorded in the performance plans and the actual spending, as well as the difference between the planned date of entry into operation of these investments and the actual situation.

N/A

En route Charging zone: TERMINAL CHARGING ZONE B
Reference Periods 1 (2012-2014) and 2 (2015-2019)

ADDITIONAL INFORMATION – 2 – Unit rate calculation

a) Description and rationale for establishment of the different charging zones, in particular with regard to terminal charging zones and potential cross-subsidies between airports;

N/A

b) Description of the policy on exemptions and description of the financing means to cover the related costs;

N/A

c) Description of the other revenues, if any, broken down between the different categories;

N/A

d) Description and explanation of incentives applied to users of air navigation services;

N/A

e) Description and explanation of the modulation of air navigation charges applied.

N/A

En route Charging zone: TERMINAL CHARGING ZONE B
Reference Periods 1 (2012-2014) and 2 (2015-2019)

ADDITIONAL INFORMATION – 3 – Complementary Information

a) Breakdown of the costs of common projects per individual project;

N/A

b) Description of the amounts resulting from uncontrollable costs factors by nature and by factor, including the rationale and the changes in underlying assumptions;

N/A

c) Description of the carry-overs of over- or under-recoveries incurred by Member States up to the year 2011 for en route charges and up to the year 2014 for terminal charges;

N/A

d) Description of carry-overs resulting from the traffic risk-sharing mechanism;

N/A

e) Description of carry-overs resulting from the cost sharing mechanism.

N/A

En route Charging zone: TERMINAL CHARGING ZONE B
Reference Periods 1 (2012-2014) and 2 (2015-2019)

ADDITIONAL INFORMATION – 4 – Additional justifications for the RP2 Performance Plan

a) Contribution of the air navigation service providers to the achievement of the performance target

All contributions are proportional to the service provided although the CAA recognises that no one tower is the same and that the potential cost reductions vary by airport. It is not necessarily expected therefore that each tower makes an equal reduction in costs. This is especially the case for NSL where some towers may be able to drive greater effecicencies than others.

b) Assumptions underlying the calculation of pension costs comprised in the determined costs, including a description on the relevant national pension regulations and pension accounting regulations in place and on which the assumptions are based, as well as information whether changes of these regulations are anticipated.

See En Route and section 1c)

c) Interest rate assumptions for loans financing the provision of air navigation services, including relevant information on loans (amounts, duration, etc.) and explanation for the (weighted) average interest on debt used to calculate the cost of capital pre tax rate and the cost of capital comprised in the determined costs,

N/A

d) If applicable, a description of any significant restructuring planned during the reference period including the level of restructuring costs and a justification for these costs in relation to the net benefits to the airspace users over time;

N/A

e) if applicable, restructuring costs approved from previous reference periods to be recovered

N/A

f) The level/composition of costs incurred following Article 6(2)(a) and (b) of Implementing Regulation (EU) No 391/2013 and included in the determined costs;

N/A

g) Description of how the amounts resulting from uncontrollable costs factors in RP1 have been taken into account in the planned determined costs for RP2.

N/A

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.

N/A

Terminal - UK Zone C (London Approach)

Cost efficiency KPI #2: Determined unit cost (DUC) for terminal ANS

		RP2 Performance Plan				
	UK Terminal Zone C	**2015 D**	**2016 D**	**2017 D**	**2018 D**	**2019 D**
Local currency (Nominal and 2012	Total en route actual/forecast/determined costs in nominal terms (in national currency)	12,011,867	12,371,198	12,749,490	13,092,087	13,398,855
	Inflation %	1.90%	1.90%	2.00%	2.00%	2.00%
	Inflation index (Base = 100 in 2012)	106.5	108.5	110.7	112.9	115.2
	Total en route actual/forecast/determined costs in real terms (in national currency at 2012 prices)	11,279,902	11,400,723	11,518,959	11,596,559	11,635,573
	Total en route Service Units (TSU)	884,691	905,513	921,933	940,093	958,830
	Real en route UCs/DUCs (in national currency at 2012 prices)	**12.75**	**12.59**	**12.49**	**12.34**	**12.14**

Table 1 - Total Costs and Unit Costs

UK London Approach
Currency : GBP £
All Entities

	Forecast		Determined costs - Perf. Plan RP1			Determined costs - Performance Plan 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**
1. Detail by nature (in nominal terms)																				
1.1 Staff						5,016	5,174	5,452	5,741	5,951										
1.2 Other operating costs (1)						2,323	2,411	2,505	2,614	2,692										
1.3 Depreciation						3,320	3,470	3,517	3,476	3,514										
1.4 Cost of capital						1,353	1,316	1,276	1,261	1,241										
1.5 Exceptional items						0	0	0	0	0										
1.6 Total costs						12,012	12,371	12,749	13,092	13,399										
Total % n/n-1						#DIV/0!	3.0%	3.1%	2.7%	2.3%										
Staff % n/n-1						#DIV/0!	3.1%	5.4%	5.3%	3.7%										
Other op. % n/n-1						#DIV/0!	3.8%	3.9%	4.4%	3.0%										
2. Detail by service (in nominal terms)																				
2.1 Air Traffic Management						11,981	12,340	12,717	13,059	13,366										
2.2 Communication (2)						0	0	0	0	0										
2.3 Navigation (2)						0	0	0	0	0										
2.4 Surveillance (2)						0	0	0	0	0										
2.5 Search and rescue						0	0	0	0	0										
2.6 Aeronautical Information (2)						0	0	0	0	0										
2.7 Meteorological services (2)						0	0	0	0	0										
2.8 Supervision costs						31	31	32	33	33										
2.9 Other State costs (1)						0	0	0	0	0										
2.10 Total costs						12,012	12,371	12,749	13,092	13,399										
Total % n/n-1						#DIV/0!	3.0%	3.1%	2.7%	2.3%										
ATM % n/n-1																				
CNS % n/n-1																				
3. Complementary information (in nominal terms)																				
Average asset base																				
3.1 Net book val. fixed assets						21,054	20,492	19,860	19,626	19,318										
3.2 Adjustments total assets						1,157	1,127	1,092	1,079	1,062										
3.3 Net current assets						858	836	810	800	788										
3.4 Total asset base						23,070	22,454	21,761	21,505	21,168										
Cost of capital %																				
3.5 Cost of capital pre tax rate						5.9%	5.9%	5.9%	5.9%	5.9%										
3.6 Return on equity						4.0%	4.0%	4.0%	4.0%	4.0%										
3.7 Average interest on debts						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																				
4. Total costs after deduction of costs for services to exempted flights (in nominal terms)																				
4.1 Costs for exempted VFR flights						0	0	0	0	0										
4.2 Total determined/actual costs						12,012	12,371	12,749	13,092	13,399										
5. Cost-efficiency KPI - Determined/Actual Unit Cost (in real terms)																				
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%	2.56%	*1.90%*					
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	113.8	116.0					
5.3 Total costs real terms (5)						**11,280**	**11,401**	**11,519**	**11,597**	**11,636**										
Total % n/n-1							1.1%	1.0%	0.7%	0.3%										
5.4 Total Service Units						**884.7**	**905.5**	**921.9**	**940.1**	**958.8**										
Total % n/n-1							2.4%	1.8%	2.0%	2.0%										
5.5 Unit cost						**12.75**	**12.59**	**12.49**	**12.34**	**12.14**										
Total % n/n-1							-1.3%	-0.8%	-1.3%	-1.6%										

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 price indexes - 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 in 2013 and estimated price index in 2014)*
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

Table 1 - Total Costs and Unit Costs

UK London Approach
Currency : GBP £
NERL

Cost details	Forecast 2010F	Forecast 2011F	Determined costs - Perf. Plan RP1 2012	2013	2014	Determined costs - Performance Plan RP2 2015	2016	2017	2018	2019	Actual costs 2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
1. Detail by nature (in nominal terms)																				
1.1 Staff						5,016	5,174	5,452	5,741	5,951										
1.2 Other operating costs (1)						2,323	2,411	2,505	2,614	2,692										
1.3 Depreciation						3,320	3,470	3,517	3,476	3,514										
1.4 Cost of capital						1,353	1,316	1,276	1,261	1,241										
1.5 Exceptional items																				
1.6 Total costs						12,012	12,371	12,749	13,092	13,399										
Total % n/n-1							3.0%	3.1%	2.7%	2.3%										
Staff % n/n-1							3.1%	5.4%	5.3%	3.7%										
Other op. % n/n-1							3.8%	3.9%	4.4%	3.0%										
2. Detail by service (in nominal terms)																				
2.1 Air Traffic Management						11,981	12,340	12,717	13,059	13,366										
2.2 Communication (2)																				
2.3 Navigation (2)																				
2.4 Surveillance (2)																				
2.5 Search and rescue																				
2.6 Aeronautical Information (2)																				
2.7 Meteorological services (2)																				
2.8 Supervision costs						31	31	32	33	33										
2.9 Other State costs (1)																				
2.10 Total costs						12,012	12,371	12,749	13,092	13,399										
Total % n/n-1							3.0%	3.1%	2.7%	2.3%										
ATM % n/n-1							3.0%	3.1%	2.7%	2.3%										
CNS % n/n-1							#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!										
3. Complementary information (in nominal terms)																				
Average asset base																				
3.1 Net book val. fixed assets						21,054	20,492	19,860	19,626	19,318										
3.2 Adjustments total assets						1,157	1,127	1,092	1,079	1,062										
3.3 Net current assets						858	836	810	800	788										
3.4 Total asset base						23,070	22,454	21,761	21,505	21,168										
Cost of capital %																				
3.5 Cost of capital pre tax rate						5.9%	5.9%	5.9%	5.9%	5.9%										
3.6 Return on equity						10.9%	10.9%	10.9%	10.9%	10.9%										
3.7 Average interest on debts						2.5%	2.5%	2.5%	2.5%	2.5%										
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																				
4. Total costs after deduction of costs for services to exempted flights (in nominal terms)																				
4.1 Costs for exempted VFR flights																				
4.2 Total determined/actual costs						12,012	12,371	12,749	13,092	13,399										
5. Cost-efficiency KPI - Determined/Actual Unit Cost (in real terms)																				
5.1 Inflation % (3)						1.90%	1.90%	2.00%	2.00%	2.00%										
5.2 Price index (4)						106.5	108.5	110.7	112.9	115.2										
5.3 Total costs real terms (5)						**11,280**	**11,401**	**11,519**	**11,597**	**11,636**										
Total % n/n-1							1.1%	1.0%	0.7%	0.3%										
5.4 Total Service Units						**884.7**	**905.5**	**921.9**	**940.1**	**958.8**										
Total % n/n-1							2.4%	1.8%	2.0%	2.0%										
5.5 Unit cost						**12.75**	**12.59**	**12.49**	**12.34**	**12.14**										
Total % n/n-1							-1.3%	-0.8%	-1.3%	-1.6%										

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 price indexes - For RP1 base 100 in 2009 - For RP2 base 100 in 2012 2014 price index base 100 in 2012: 100.00 *(based on actual price index in 2013 and estimated price index in 2014)*
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

Table 1 - Total Costs and Unit Costs

UK London Approach
Currency : GBP £
Met Office

	Forecast		Determined costs - Perf. Plan RP1			Determined costs - Performance Plan 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**
1. Detail by nature (in nominal terms)																				
1.1 Staff																				
1.2 Other operating costs (1)																				
1.3 Depreciation																				
1.4 Cost of capital																				
1.5 Exceptional items																				
1.6 Total costs																				
Total % n/n-1																				
Staff % n/n-1																				
Other op. % n/n-1																				
2. Detail by service (in nominal terms)																				
2.1 Air Traffic Management																				
2.2 Communication (2)																				
2.3 Navigation (2)																				
2.4 Surveillance (2)																				
2.5 Search and rescue																				
2.6 Aeronautical Information (2)																				
2.7 Meteorological services (2)																				
2.8 Supervision costs																				
2.9 Other State costs (1)																				
2.10 Total costs																				
Total % n/n-1																				
ATM % n/n-1																				
CNS % n/n-1																				
3. Complementary information (in nominal terms)																				
Average asset base																				
3.1 Net book val. fixed assets																				
3.2 Adjustments total assets																				
3.3 Net current assets																				
3.4 Total asset base																				
Cost of capital %																				
3.5 Cost of capital pre tax rate																				
3.6 Return on equity																				
3.7 Average interest on debts																				
Cost of common projects																				
3.8 Total costs of common projects																				
Costs exempted from cost sharing (Article 14(2)(b))																				
3.9 Total costs exempted from cost																				
4. Total costs after deduction of costs for services to exempted flights (in nominal terms)																				
4.1 Costs for exempted VFR flights																				
4.2 Total determined/actual costs																				
5. Cost-efficiency KPI - Determined/Actual Unit Cost (in real terms)																				
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%	2.56%	1.90%					
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	113.8	116.0					
5.3 Total costs real terms (5)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**					
Total % n/n-1		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!					
5.4 Total Service Units	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**884.7**	**905.5**	**921.9**	**940.1**	**958.8**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**					
Total % n/n-1		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	2.4%	1.8%	2.0%	2.0%		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!					
5.5 Unit cost	**#DIV/0!**	**#DIV/0!**	**#DIV/0!**	**#DIV/0!**	**#DIV/0!**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**#DIV/0!**	**#DIV/0!**	**#DIV/0!**	**#DIV/0!**	**#DIV/0!**					
Total % n/n-1		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/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 price indexes - 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 in 2013 and estimated price index in 2014)*
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

Table 1 - Total Costs and Unit Costs

UK London Approach
Currency : GBP £
UK CAA + DfT Eurocontrol

	Forecast		Determined costs - Perf. Plan RP1			Determined costs - Performance Plan 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**
1. Detail by nature (in nominal terms)																				
1.1 Staff																				
1.2 Other operating costs (1)																				
1.3 Depreciation																				
1.4 Cost of capital																				
1.5 Exceptional items																				
1.6 Total costs																				
Total % n/n-1																				
Staff % n/n-1																				
Other op. % n/n-1																				
2. Detail by service (in nominal terms)																				
2.1 Air Traffic Management																				
2.2 Communication (2)																				
2.3 Navigation (2)																				
2.4 Surveillance (2)																				
2.5 Search and rescue																				
2.6 Aeronautical Information (2)																				
2.7 Meteorological services (2)																				
2.8 Supervision costs																				
2.9 Other State costs (1)																				
2.10 Total costs																				
Total % n/n-1																				
ATM % n/n-1																				
CNS % n/n-1																				
3. Complementary information (in nominal terms)																				
Average asset base																				
3.1 Net book val. fixed assets																				
3.2 Adjustments total assets																				
3.3 Net current assets																				
3.4 Total asset base																				
Cost of capital %																				
3.5 Cost of capital pre tax rate																				
3.6 Return on equity																				
3.7 Average interest on debts																				
Cost of common projects																				
3.8 Total costs of common projects																				
Costs exempted from cost sharing (Article 14(2)(b))																				
3.9 Total costs exempted from cost																				
4. Total costs after deduction of costs for services to exempted flights (in nominal terms)																				
4.1 Costs for exempted VFR flights																				
4.2 Total determined/actual costs																				
5. Cost-efficiency KPI - Determined/Actual Unit Cost (in real terms)																				
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%	2.56%	1.90%					
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	113.8	116.0					
5.3 Total costs real terms (5)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**					
Total % n/n-1		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!					
5.4 Total Service Units	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**884.7**	**905.5**	**921.9**	**940.1**	**958.8**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**					
Total % n/n-1		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	2.4%	1.8%	2.0%	2.0%		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!					
5.5 Unit cost	**#DIV/0!**	**#DIV/0!**	**#DIV/0!**	**#DIV/0!**	**#DIV/0!**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**#DIV/0!**	**#DIV/0!**	**#DIV/0!**	**#DIV/0!**	**#DIV/0!**					
Total % n/n-1		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/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 price indexes - 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 in 2013 and estimated price index in 2014)*
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

Table 2 - Unit rate calculation

UK London Approach
All Entities

	Full cost		Reference Period 1			Reference Period 2				
Unit rate calculation	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**
1. Determined costs in nominal terms and inflation adjustment										
1.1 Determined costs in nominal terms - VFR excl. - Table 1	0	0	0	0	0	12,012	12,371	12,749	13,092	13,399
1.2 Actual inflation rate - Table 1	3.3%	4.5%	2.8%	2.6%						
1.3 Forecast inflation rate - Table 1	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 n amount to be carried over			0	0	0.0					
2. Forecast and actual total service units										
2.1 Forecast total service units (performance plan)	0.0	0.0	0.0	0.0	0.0	884.7	905.5	921.9	940.1	958.8
2.2 Actual total service units	0.0	0.0	0.0	0.0						
2.3 Actual / forecast total service units (in %)			#DIV/0!	#DIV/0!						
3. Costs subject to traffic risk sharing										
3.1 Determined costs in nominal terms - VFR excl. (reported from Table 1)	0	0	0	0	0	12,012	12,371	12,749	13,092	13,399
3.2 Inflation adjustment : amount carried over to year n	0	0	0	0	0	0				
3.3 Traffic : amounts carried over to year n	0	0	0	0	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	0	0	0				
3.6 Costs exempt from cost sharing : amounts carried over to year n	0	0	0	0	0	0				
3.7 Bonus or penalty for performance	0	0	0	0	0	0				
3.8 Over(-) or under(+) recoveries (2) : amounts carried over to year n	0	0	0	0	0	0				
3.9 Total for the calculation of year n unit rate	0	0	0	0	0	12,012	12,371	12,749	13,092	13,399
3.10 Traffic risk sharing : add. rev. year n to be carried-over	0	0	0	0						
3.11 Traffic risk sharing : revenue loss year n to be carried-over	0	0	0	0						
3.12 Over/under recoveries from traffic variations n to be carried-over	0	0	0	0						
Parameters for traffic risk sharing										
3.13 % additional revenue returned to users in year n+2			0%	0%	0%	70%	70%	70%	70%	70%
3.14 % loss of revenue borne by airspace users			0%	0%	0%	70%	70%	70%	70%	70%
4. Costs not subject to traffic risk sharing										
4.1 Determined costs in nominal terms - VFR excl. (Table 1)	0	0	0	0	0	0	0	0	0	0
4.2 Inflation adjustment : amount carried over to year n	0	0	0	0	0	0				
4.3 Traffic : amounts carried over to year n	0	0	0	0	0	0				
4.4 Costs exempt from cost sharing : amounts carried over to year n	0	0	0	0	0	0				
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	0	0	0	0	0	0				
4.7 Total for the calculation of year n unit rate	0	0	0	0	0	0	0	0	0	0
4.8 Over/under recoveries from traffic variations n to be carried-over	0	0	0	0						
5. Other revenues - applied unit rate (in national currency)										
5.1 Total other revenues	0	0	0	0	0	0				
5.2 Total revenues from Public Authorities	0	0	0	0	0	0				
5.3 of which Union assistance programmes	0	0	0	0	0	0				
5.4 of which National public funding	0	0	0	0	0	0				
5.5 Commercial activities	0	0	0	0	0	0				
5.6 Other other revenues	0	0	0	0	0	0				
5.7 Grand total for the calculation of year n unit rate	0	0	0	0	0	12,012	12,371	12,749	13,092	13,399
5.8 Year n unit rate (in national currency)	**#DIV/0!**	**#DIV/0!**	**#DIV/0!**	**#DIV/0!**	**#DIV/0!**	**13.58**	**13.66**	**13.83**	**13.93**	**13.97**
5.9 ANSP component of the unit rate	0.00	0.00	0.00	0.00	0.00	13.58	13.66	13.83	13.93	13.97
5.10 MET component of the unit rate	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5.11 NSA-State component of the unit rate	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5.12 Year n unit rate that would have applied without other revenues	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	13.58	13.66	13.83	13.93	13.97

Costs, revenues and other amounts in '000 GBP - Service units in '000
(1) 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

UK London Approach NERL	Full cost		Reference Period 1			Reference Period 2				
Unit rate calculation	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**
1. Determined costs in nominal terms and inflation adjustment										
1.1 Determined costs in nominal terms - VFR excl. - Table 1						12,012	12,371	12,749	13,092	13,399
1.2 Actual inflation rate - Table 1										
1.3 Forecast inflation rate - Table 1						1.9%	1.9%	2.0%	2.0%	2.0%
1.4 Inflation adjustment (1) : year n amount to be carried over										
2. Forecast and actual total service units										
2.1 Forecast total service units (performance plan)						884.7	905.5	921.9	940.1	958.8
2.2 Actual total service units										
2.3 Actual / forecast total service units (in %)										
3. Costs subject to traffic risk sharing										
3.1 Determined costs in nominal terms - VFR excl. (reported from Table 1)						12,012	12,371	12,749	13,092	13,399
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 over to year n										
3.5 Traffic risk sharing : revenues losses carried over to year n										
3.6 Costs exempt from cost sharing : amounts carried over to year n										
3.7 Bonus or penalty for performance										
3.8 Over(-) or under(+) recoveries (2) : amounts carried over to year n										
3.9 Total for the calculation of year n unit rate						12,012	12,371	12,749	13,092	13,399
3.10 Traffic risk sharing : add. rev. year n to be carried-over										
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%	70%	70%
3.14 % loss of revenue borne by airspace users						70%	70%	70%	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										
5.2 Total revenues from Public Authorities						0				
5.3 of which Union assistance programmes						0				
5.4 of which National public funding						0				
5.5 Commercial activities						0				
5.6 Other other revenues						0				
5.7 Grand total for the calculation of year n unit rate						12,012	12,371	12,749	13,092	13,399
5.8 Year n unit rate (in national currency)										
5.9 ANSP component of the unit rate						13.58	13.66	13.83	13.93	13.97
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						13.58	13.66	13.83	13.93	13.97

Costs, revenues and other amounts in '000 GBP - Service units in '000
(1) 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

UK London Approach
Met Office

	Full cost		Reference Period 1			Reference Period 2				
Unit rate calculation	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**
1. Determined costs in nominal terms and inflation adjustment										
1.1 Determined costs in nominal terms - VFR excl. - Table 1						0	0	0	0	0
1.2 Actual inflation rate - Table 1										
1.3 Forecast inflation rate - Table 1						1.9%	1.9%	2.0%	2.0%	2.0%
1.4 Inflation adjustment (1) : year n amount to be carried over										
2. Forecast and actual total service units										
2.1 Forecast total service units (performance plan)						884.7	905.5	921.9	940.1	958.8
2.2 Actual total service units										
2.3 Actual / forecast total service units (in %)										
3. Costs subject to traffic risk sharing										
3.1 Determined costs in nominal terms - VFR excl. (reported from Table 1)										
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 over to year n										
3.5 Traffic risk sharing : revenues losses carried over to year n										
3.6 Costs exempt from cost sharing : amounts carried over to year n										
3.7 Bonus or penalty for performance										
3.8 Over(-) or under(+) recoveries (2) : amounts carried over to year n										
3.9 Total for the calculation of year n unit rate										
3.10 Traffic risk sharing : add. rev. year n to be carried-over										
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										
3.14 % loss of revenue borne by airspace users										
4. Costs not subject to traffic risk sharing										
4.1 Determined costs in nominal terms - VFR excl. (Table 1)						0	0	0	0	0
4.2 Inflation adjustment : amount carried over to year n						0				
4.3 Traffic : amounts carried over to year n						0				
4.4 Costs exempt from cost sharing : amounts carried over to year n						0				
4.5 Restructuring costs : amounts carried over to year n						0				
4.6 Over(-) or under(+) recoveries (2) : amounts carried over to year n						0				
4.7 Total for the calculation of year n unit rate						0	0	0	0	0
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						0				
5.2 Total revenues from Public Authorities						0				
5.3 of which Union assistance programmes						0				
5.4 of which National public funding						0				
5.5 Commercial activities						0				
5.6 Other other revenues						0				
5.7 Grand total for the calculation of year n unit rate						0	0	0	0	0
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						0.00	0.00	0.00	0.00	0.00
5.11 NSA-State component of the unit rate										
5.12 Year n unit rate that would have applied without other revenues						0.00	0.00	0.00	0.00	0.00

Costs, revenues and other amounts in '000 GBP - Service units in '000
(1) 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

UK London Approach
UK CAA + DfT Eurocontrol

	Full cost	Reference Period 1			Reference Period 2				
Unit rate calculation	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**
1. Determined costs in nominal terms and inflation adjustment										
1.1 Determined costs in nominal terms - VFR excl. - Table 1						0	0	0	0	0
1.2 Actual inflation rate - Table 1										
1.3 Forecast inflation rate - Table 1						1.9%	1.9%	2.0%	2.0%	2.0%
1.4 Inflation adjustment (1) : year n amount to be carried over										
2. Forecast and actual total service units										
2.1 Forecast total service units (performance plan)						884.7	905.5	921.9	940.1	958.8
2.2 Actual total service units										
2.3 Actual / forecast total service units (in %)										
3. Costs subject to traffic risk sharing										
3.1 Determined costs in nominal terms - VFR excl. (reported from Table 1)										
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 over to year n										
3.5 Traffic risk sharing : revenues losses carried over to year n										
3.6 Costs exempt from cost sharing : amounts carried over to year n										
3.7 Bonus or penalty for performance										
3.8 Over(-) or under(+) recoveries (2) : amounts carried over to year n										
3.9 Total for the calculation of year n unit rate										
3.10 Traffic risk sharing : add. rev. year n to be carried-over										
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										
3.14 % loss of revenue borne by airspace users										
4. Costs not subject to traffic risk sharing										
4.1 Determined costs in nominal terms - VFR excl. (Table 1)						0	0	0	0	0
4.2 Inflation adjustment : amount carried over to year n						0				
4.3 Traffic : amounts carried over to year n						0				
4.4 Costs exempt from cost sharing : amounts carried over to year n						0				
4.5 Restructuring costs : amounts carried over to year n						0				
4.6 Over(-) or under(+) recoveries (2) : amounts carried over to year n						0				
4.7 Total for the calculation of year n unit rate						0	0	0	0	0
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						0				
5.2 Total revenues from Public Authorities						0				
5.3 of which Union assistance programmes						0				
5.4 of which National public funding						0				
5.5 Commercial activities						0				
5.6 Other other revenues						0				
5.7 Grand total for the calculation of year n unit rate						0	0	0	0	0
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						0.00	0.00	0.00	0.00	0.00
5.12 Year n unit rate that would have applied without other revenues						0.00	0.00	0.00	0.00	0.00

Costs, revenues and other amounts in '000 GBP - Service units in '000
(1) 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 3 - Complementary Information

UK London Approach
All Entities

PART A : Complementary Information on costs	2010F	2011F	2012	2013	2014	2015	2016	2017	2018	2019	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
	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						0	0	0	0	0						0	0	0	0	0
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																				
3.3 Depreciation																				
3.4 Cost of capital																				
3.5 Exceptional items																				
3.6 Total costs exempted from cost sharing													0	0	0	0	0	0	0	0
Breakdown by factor/item																				
3.7 Pension																				
3.8 Interest rates on loans																				
3.9 National taxation law																				
3.10 New cost item required by law																				
3.11 International agreements																				
3.12 Total costs exempted from cost sharing													0	0	0					
	Planned costs (business case)										Actual costs (for information)									
Restructuring costs, if authorised in accordance with Article 7(4)																				
4.1 Total restructuring costs				0.0	0.0									0.0	0.0					

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	0	0						0	0						0
Inflation adjustment Year 2013	0	0							0	0					0
Inflation adjustment Year 2014	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	0	0							0					0	0
Inflation adjustment Year 2018	0	0							0						0
Inflation adjustment Year 2019	0	0							0						0
Total Inflation Adjustment	0.0	0						0	0	0	0	0	0	0	0
Traffic balance Year 2012	0	0						0	0						0
Traffic balance Year 2013	0	0							0	0					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	0	0							0						0
Total Traffic Adjustment	0.0	0						0	0	0	0	0	0	0	0
Traffic risk sharing revenue Year 2012	0	0						0	0						0
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	0	0							0					0	0
Traffic risk sharing revenue Year 2018	0	0							0						0
Traffic risk sharing revenue Year 2019	0	0							0						0
Total Traffic Risk sharing revenue adjustment	0.0	0						0	0	0	0	0	0	0	0
Traffic risk sharing loss Year 2012	0	0							0						0
Traffic risk sharing loss Year 2013	0	0							0	0					0
Traffic risk sharing loss Year 2014	0	0							0		0				0
Traffic risk sharing loss Year 2015	0	0							0			0			0
Traffic risk sharing loss Year 2016	0	0							0				0		0
Traffic risk sharing loss Year 2017	0	0							0					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 *	0	0							0	0	0	0	0	0	0
Costs exempted from cost sharing Year 2012		0							0						0
Costs exempted from cost sharing Year 2013	0	0							0	0					0
Costs exempted from cost sharing Year 2014	0	0							0		0				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	0							0						0
Total costs exempted from cost sharing	0	0							0	0	0	0	0	0	0
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									0						0
O-u recoveries before determined costs Year 2009									0						0
O-u recoveries before determined costs Year 2010									0						0
O-u recoveries before determined costs Year 2011									0						0
O-u recoveries before determined costs Year 2012 (TNC only)															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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Charging zone: UK Terminal Zone C – London approach
(FAB Performance Plan)
Reference Period 2 (2015-2019)
ADDITIONAL INFORMATION - 1

a) Description of the methodology used for allocating costs of facilities or services between different air navigation services based on the list of facilities and services listed in ICAO Regional Air Navigation Plan, European Region (Doc. 7754), and a description of the methodology used for allocating those costs between different charging zones;

NERL: London Approach is being reported as a separate charging zone for the first time in 2015. This follows a consultation by the CAA in their document CAP 1098, issued October 2013.The London Approach function covers 5 airports (Heathrow, Gatwick, Stansted, Luton and London City). This replaces the previous charge which was levied on a landed tonnage basis, financial year basis, which formed part of NATS En-route single till. (i.e. the revenue received from London Approach was used to offset the appropriate costs).

NERL applies a cost allocation process using activity costs held within NAT SAP system as the core. Each activity at a certain level of detail is assigned a cost driver which allocates costs to key services (Eurocontrol en-route, Ministry of Defence, London Approach, Oceanic, External contracts, Inter-Company, North Sea Helicopters). A number of cost drivers are applied to particular costs including operational workstations, which are the primary basis for the London Approach accounting cost allocations.
A further estimate is then made of the % allocation to be applied to the final approach costs as a proxy for the amount airports would bear if they were providing this service. This is currently estimated at circa 40% of the overall costs. The remainder are recovered through the en–route charge.

The component parts of these charges have been reported in the CRCO return as follows:

- Cost of capital charge has been attributed to London Approach based on the proportion that the London Approach revenue bears to the total UKATS Determined Cost base.
- The remaining London Approach determined costs have been derived by subtracting the apportioned London Approach cost of capital allocation from London Approach revenues.
- These costs have then been notionally allocated to Staff costs (including cash pensions), Other Operating Costs, Regulatory Depreciation on the same proportions as these items in the UKATS Total Service line.

b) Description of the methodology and assumptions used to establish the costs of air navigation services provided to VFR flights, when exemptions are granted for VFR flights;

N/A

c) Description and justification of any adjustment beyond the provisions of the International Accounting Standards;

The presentation of costs is an allocation of en route costs. See en route costs.

d) Description and explanation of the method adopted for the calculation of depreciation costs: historic costs or current costs. When current cost accounting is adopted, provision of comparable historic cost data;

The presentation of costs is an allocation of en route costs. See en route costs.

e) Justification for the cost of capital, including the components of the asset base, the possible adjustments to total assets and the return on equity;

The presentation of costs is an allocation of en route costs. See en route costs.

Charging zone: UK Terminal Zone C – London approach (FAB Performance Plan) Reference Period 2 (2015-2019)

(f) total costs per airport for each airports with fewer than 70 000 IFR air transport movements per year, when these are provided in a consolidated way in the reporting table;

Not applicable

g) Definition of the criteria used to allocate costs between terminal and *en route* services for each airport within the scope of this Regulation;

Not applicable . See (a) above and CAP 1098 for the explanation of the allocation process.

h) Breakdown of the meteorological costs between direct costs and 'MET core costs' defined as the costs of supporting meteorological facilities and services that also serve meteorological requirements in general. These include general analysis and forecasting, surface and upper-air observation networks, meteorological communication systems, data processing centres and supporting core research, training and administration;

N/A

i) Description of the methodology used for allocating total MET costs and MET core costs to civil aviation and between charging zones;

N/A

j) Nineteen months before the start of a reference period, description of the reported forecast costs and traffic;

Costs are allocated from NERL costs.

Traffic is based on the service units for the five airports served in aggregate.

k) Description of the reported actual costs and the difference from the determined costs, for each year of the reference period;

<N/A – covered by the Additional Information for RP1>

l) Description of the reported actual service units and the differences both against the forecast and compared with the figures provided by EUROCONTROL, as appropriate, for each year of the reference period;

<N/A – covered by the Additional Information for RP1>

m) Every year of the reference period, the difference between the investments of the air navigation service providers recorded in the performance plans and the actual spending, as well as the difference between the planned date of entry into operation of these investments and the actual situation.

<N/A – covered by the Additional Information for RP1>

Charging zone: UK Terminal Zone C – London approach
(FAB Performance Plan)
Reference Period 2 (2015-2019)
ADDITIONAL INFORMATION - 2

a) Description and rationale for establishment of the different charging zones, in particular with regard to terminal charging zones and potential cross-subsidies between airports;

The London Appraoch service is different in kind from the services provided at the individual towers.

The London approach charge relates to 5 airports. There are capacity and safety benefits to collocating this function in what is a particularly complex area of airspace. The service is part of the licensed monopoly operated under the NATS En Route licence whereas the five individual airport towers are operated under commercial contracts which could be operated by ANSPs other than NATS and could in the future be considered as contestable (or fall bellow the 70000 movement threshold) and thus not subject to the full provisions of the performance regime.

Bracketing the tower service for the 5 airports and London approach together could act as an impediment to the development of a competive market for towers in the future.

b) Description of the policy on exemptions and description of the financing means to cover the related costs;

Exempt flights are recovered directly to the DfT and this income is offset against determined costs.

c) Description of the other revenues, if any, broken down between the different categories;

N/A

d) Description and explanation of incentives applied to users of air navigation services;

N/A

e) Description and explanation of the modulation of air navigation charges applied.

N/A

Charging zone: UK Terminal Zone C – London approach
(FAB Performance Plan)
Reference Period 2 (2015-2019)
ADDITIONAL INFORMATION - 3

a) Breakdown of the costs of common projects per individual project;

N/A

b) Description of the amounts resulting from uncontrollable costs factors by nature and by factor, including the rationale and the changes in underlying assumptions;

No amounts are assumed for London Approach. (all uncontrollable costs are recovered though NERL's en-route charge)

c) Description of the carry-overs of over- or under-recoveries incurred by Member States up to the year 2011 for en route charges and up to the year 2014 for terminal charges;

N/A (assumes any actual carry-overs from RP1 will be included within en-route, as London Approach was not established in RP1)

d) Description of carry-overs resulting from the traffic risk-sharing mechanism;

N/A

e) Description of carry-overs resulting from the cost sharing mechanism.

N/A

Charging zone: UK Terminal Zone C – London approach
(FAB Performance Plan)
Reference Period 2 (2015-2019)

ADDITIONAL INFORMATION – 4 Justifications for the RP2 Performance Plan

a) Contribution of the air navigation service providers to the achievement of the performance target

N/A – Only one ANSP.

b) Assumptions underlying the calculation of pension costs comprised in the determined costs, including a description on the relevant national pension regulations and pension accounting regulations in place and on which the assumptions are based, as well as information whether changes of these regulations are anticipated.

See En Route.

c) Interest rate assumptions for loans financing the provision of air navigation services, including relevant information on loans (amounts, duration, etc.) and explanation for the (weighted) average interest on debt used to calculate the cost of capital pre tax rate and the cost of capital comprised in the determined costs,

See En Route.

d) If applicable, a description of any significant restructuring planned during the reference period including the level of restructuring costs and a justification for these costs in relation to the net benefits to the airspace users over time;

N/A

e) if applicable, restructuring costs approved from previous reference periods to be recovered

N/A

f) The level/composition of costs incurred following Article 6(2)(a) and (b) of Implementing Regulation (EU) No 391/2013 and included in the determined costs;

See RP2 Tables

g) Description of how the amounts resulting from uncontrollable costs factors in RP1 have been taken into account in the planned determined costs for RP2.

N/A

Name of Investment	Total CAPEX for the projects	Planned Amount of Capital Expenditures (in national currency) £m					Total CAPEX for the RP	Lifecycle (Amortisation	Allocation en-route / terminal	Planned date of entry into
		2015	2016	2017	2018	2019				
Airspace Development	53.3	8.1	8.3	6.8	6.1	7.5	36.9	9 years	78 / 6	Phased Delivery over RP2
LAMP	60.5	5.4	6.4	6.7	4.5	0.9	23.9	9 years	78 / 6	Phased from 2015 with full (LAMP) delivery by 2020
Centre Systems Software Dev't	191.4	50.8	45.6	30.4	27.3	25.1	179.2	6-12 years	78 / 6	Phased delivery over RP2
CNS Infrastructure	119.7	17.7	18.0	22.4	21.0	13.5	92.7	7-20 years	78 / 6	Phased delivery over RP2
CO2 and Fuel Saving	5.0	1.8	1.0	1.0	1.0	1.0	5.8	9 years	78 / 6	Phased delivery over RP2
iTEC FDP/NCW	204.8	31.5	34.5	29.8	27.6	27.8	151.2	20 years	78 / 6	Phased to 2022
Sub-total CAPEX	**634.7**	**115.3**	**113.8**	**97.2**	**87.5**	**75.9**	**489.6**			
Sub-total others CAPEX (2)	67.4	12.9	10.5	9.5	9.4	12.4	54.7	6-20 years	78 / 6	Phased delivery over RP2
Total investments	**702.1**	**128.2**	**124.3**	**106.7**	**96.9**	**88.2**	**544.3**			

Airspace Development

Airspace Development	Description, justification and synergies	Accountable entity	Airspace	Significant cost impact	✓		
		Differentiation	Existing (redesign of existing airspace)	Common investment	✓		
				If so, joint partners	Airport operators affected by the revised airspace designs.		
		Projects that revise airspace and route network structures, including those investments that are required to deliver airspace concepts supporting the NATS/IAA FAB, the Future Airspace Strategy, FABEC and the FAB4/Borealis alliances. These projects are focused on improving safety and capacity of the network together with providing fuel savings through improved routing and network structures. Where appropriate (e.g. raising the Transition Altitude) synergies and agreements are secured with neighbouring ANSPs to provide effective transition and inter-centre coordination.					
	KPA impact	Safety	✓	Environment	✓	Capacity	✓	Cost efficiency	✓
	Expected benefits	7 point reduction in weighted SSE index		220kT CO2 reduction		13 additional fpbh		£0.5m Opex saving	
	Date of expected benefits	Phased delivery over RP2		Phased delivery over RP2		Phased delivery over RP2		Phased delivery over RP2	
	Link with European ATM Master Plan	ESSIP Objectives: NAV03 - Implementation of P-RNAV OI Steps: AOM-0501 - Free Routing for Flights both in cruise and vertically evolving within low to medium complexity environments (to be reviewed) AOM-0603 - Enhanced Terminal Airspace for RNP-based Operations							
	Link with SES Interoperability IRs, Network Strategy Plan and common projects	IRs: (EU) No 176/2011 - Functional Airspace Blocks (FABs) Pilot Common Project: AF1 - PBN in high density TMAs AF3 - Initial free routing (DCT) in some airspace							
	Decision-making process underpinning the investment	Consultation with NATS customers over July to September 2013 as part of consultation on NATS Business Plan for RP2. Approval in accordance with NATS investment governance processes. Progress reported to customers and UK CAA via NATS annual Service & Investment Plan process. The implementation of airspace change is subject to agreement of the CAA following public consultation, which may result in changes to the airspace design initially proposed to secure the necessary approvals. Effective airspace interfaces are required with the arrival and departures routes to and from airports (i.e. SIDs and STARs) which are owned by (and the responsibility of) the airport operator below 4,000ft.							

LAMP

LAMP	Description, justification and synergies	Accountable entity	Airspace	Significant cost impact	✓		
		Differentiation	Existing (redesign of existing airspace)	Common investment	✓		
				If so, joint partners	Airport operators affected by the revised airspace designs.		
		Projects that revise airspace and route network structures to deliver LAMP. This will include the development and deployment of revised arrival and departure routes to and from the five London Airports (Heathrow, Gatwick, Stansted, Luton and City) using Performance Based Navigation (PBN) concepts. Point Merge and Tromboning will be used to develop more efficient arrival profiles. The investment will be deployed in two phases: phase 1 will use the existing Transition Altitude of 6,000ft; phase 2 will deliver within a raised TA of 18,000ft.					
	KPA impact	Safety	✓	Environment	✓	Capacity	×	Cost efficiency	×
	Expected benefits	20 point reduction in weighted SSE index		639kT CO2 reduction					
	Date of expected benefits	Phased from 2015 with full delivery by 2020		Phased from 2015 with full delivery by 2020		N/A		N/A	
	Link with European ATM Master Plan	ESSIP Objectives: NAV03 - Implementation of P-RNAV OI Steps: AOM-0603 - Enhanced Terminal Airspace for RNP-based Operations					
	Link with SES Interoperability IRs, Network Strategy Plan and common projects	IRs: Pilot Common Project: AF1 - PBN in high density TMAs					
	Decision-making process underpinning the investment	Consultation with NATS customers over July to September 2013 as part of consultation on NATS Business Plan for RP2. Approval in accordance with NATS investment governance processes. Progress reported to customers and UK CAA via NATS annual Service & Investment Plan process. The implementation of airspace change is subject to agreement of the CAA following public consultation, which may result in changes to the airspace design initially proposed to secure the necessary approvals. Effective airspace interfaces are required with the arrival and departures routes to and from airports (i.e. SIDs and STARs) which are owned by (and the responsibility of) the airport operator below 4,000ft.					

Centre Systems Software Devt

Centre Systems Software Devt	Description, justification and synergies	Accountable entity	Centre Systems	Significant cost impact	✓
		Differentiation	Existing	Common investment	×
				If so, joint partners	N/A
		Investments that will sustain or enhance existing systems at the Swanwick and Prestwick Centres and the Corporate & Technical Centre, including iFACTS, Electronic Flight Data, Air/Ground Datalink and similar software-based applications. These reduce the underlying risks of system failure / interuption through appropriate sustainment / enhancement strategies as well as enhancing Traffic and Airspace Management systems to ensure the improved network efficiency from Airspace Developments.			
	KPA impact	Safety ✓	Environment ✓	Capacity ✓	Cost efficiency ✓
	Expected benefits	1 point reduction in weighted SSE index	125kT CO2 reduction	5 additional fpbh	£2.0m Opex saving
	Date of expected benefits	Delivered in 2016	Phased delivery from 2017	Phased delivery over RP2	Phased delivery from 2017
	Link with European ATM Master Plan	ESSIP Objectives: AOM19 - Implement Advanced Airspace Management ATC15 - Implement, in En-Route operations, information exchange mechanisms, tools and procedures in support of Basic AMAN operations COM11 - Implementation of Voice over Internet Protocol (VoIP) in ATM ITY-ADQ - Ensure quality of aeronautical data and aeronautical information ITY-AGDL - Initial ATC air-ground data link services above FL-285 ITY-COTR - Implementation of ground-ground automated co-ordination processes OI Steps: AO-0303 - Time Based Separation for Final Approach - full concept AOM-0206-A - Flexible Military Airspace Structures in Step 1 TS-0303 - Arrival Management into Multiple Airports TS-0305 - Arrival Management Extended to En Route Airspace			
	Link with SES Interoperability IRs, Network Strategy Plan and common projects	IRs: (EU) No 1207/2011 - Surveillance Performance and Interoperability (SPI) (EC) No 29/2009 - Data Link Services (DLS) (EC) No 30/2009 - Amends (EC) No 1032/2006 re supporting data link services (EC) No 1032/2006 - Co-ordination and Transfer (COTR) (EU) No 1035/2011 - Common Requirements, replaces (EC) 2096/2004, amends (EC) 482/2008, (EU) 691/2010 (EU) No 73/2010 - Aeronautical Data Integrity (ADQ) Pilot Common Project: AF1 - Extended AMAN AF2 - Time Based Separation AF3 - Flexible Airspace Management			
	Decision-making process underpinning the investment	Consultation with NATS customers over July to September 2013 as part of consultation on NATS Business Plan for RP2. Approval in accordance with NATS investment governance processes. Progress reported via NATS annual Service & Investment Plan process.			

CNS Infrastructure

CNS Infrastructure	Description, justification and synergies	Accountable entity	CNS Systems		Significant cost impact		✓
		Differentiation	Existing		Common investment		×
					If so, joint partners		N/A
		Investments that will sustain and enhance the remote infrastructure facilities and allied ground data distribution networks. This programme will enhance ground based communications networks to provide System Wide Information Management (SWIM) compliant infrastructure, reduce the use of ground-based navigation aids and introduce new technologies as they become available. These projects underpin the resiliance of our key communication and navigation infrastructure. Mandates and Implementing Rules for sustained ground infrastructure will be complied with (e.g. types and levels of surveillance and navigation coverage) and new concepts deployed/enhanced where required (e.g. air/ground datalink).					
	KPA impact	Safety	×	Environment	×	Capacity	×	Cost efficiency	✓
	Expected benefits							£1.4m Opex saving	
	Date of expected benefits	N/A		N/A		N/A		Phased delivery over RP2	
	Link with European ATM Master Plan	ESSIP Objectives: COM10 - Migrate from AFTN to AMHS COM11 - Implementation of Voice over Internet Protocol (VoIP) in ATM ITY-AGDL - Initial ATC air-ground data link services above FL-285 NAV03 - Implementation of P-RNAV NAV10 - Implement APV procedures OI Steps: n/a							
	Link with SES Interoperability IRs, Network Strategy Plan and common projects	IRs: (EC) 1265/2007 - 8.33 kHz Channel Spacing (EU) No 1207/2011 - Surveillance Performance and Interoperability (SPI) (EC) No 633/2007 - Flight Message Transfer Protocol (FMTP) (EC) No 29/2009 - Data Link Services (DLS) (EC) No 30/2009 - Amends (EC) No 1032/2006 re supporting data link services (EU) No 1079/2012 - 8.33kHz Channel Spacing above & below FL195 Pilot Common Project: AF5 - SWIM server							
	Decision-making process underpinning the investment	Consultation with NATS customers over July to September 2013 as part of consultation on NATS Business Plan for RP2. Approval in accordance with NATS investment governance processes. Progress reported via NATS annual Service & Investment Plan process.							

CO2 and Fuel Saving

CO2 and Fuel Saving	Description, justification and synergies	Accountable entity	Airspace		Significant cost impact	✓	
		Differentiation	Existing (redesign of existing airspace)		Common investment	×	
					If so, joint partners	N/A	
		Investments that will provide aircraft with more efficient flight trajectories thereby reducing operator fuel costs.					
	KPA impact	Safety	×	Environment	✓	Capacity	×	Cost efficiency	×
	Expected benefits			27kT CO2 reduction					
	Date of expected benefits	N/A		Phased delivery over RP2		N/A		N/A	
	Link with European ATM Master Plan	ESSIP Objectives: n/a OI Steps: n/a							
	Link with SES Interoperability IRs, Network Strategy Plan and common projects	IRs: n/a Pilot Common Project: n/a							
	Decision-making process underpinning the investment	Consultation with NATS customers over July to September 2013 as part of consultation on NATS Business Plan for RP2. Approval in accordance with NATS investment governance processes. Progress reported via NATS annual Service & Investment Plan process.							

iTEC FDP

iTEC FDP/NCW	Description, justification and synergies	Accountable entity	Centre Systems		Significant cost impact	✓	
		Differentiation	Replacement		Common investment	✓	
					If so, joint partners	AENA, LVNL, DFS	
		Investments that will deliver advanced systems and tools to provide the platform for SESAR-based operations, notably ITEC-FDP, ITEC-CWP and allied controller safety & productivity tools. This investment is being progressed in collaboration with the Spanish ANSP (AENA), the Dutch ANSP (LVNL) and the German ANSP (DFS) to deliver a system with a common core to share costs and risk and provide a common platform across several key European ANSPs. Bespoke/additional functionality is only being developed where needed to support specific operational concepts. Work is ongoing to ensure that ITEC-FDP platform is fully interoperatble with the other main FDP system being developed in Europe (CoFlight).				
		KPA impact	Safety	✓	Environment	×	Capacity	✓	Cost efficiency	×
		Expected benefits	15 point reduction in weighted SSE index				5 additional fpbh			
		Date of expected benefits	Phased to 2022		N/A		Phased to 2022		N/A	
	Link with European ATM Master Plan	ESSIP Objectives: ATC12 - Implement automated support for conflict detection and conformance monitoring ATC17 - Electronic Dialogue as Automated Assistance to Controller during Coordination and Transfer OI Steps: AOM-0501 - Free Routing for Flights both in cruise and vertically evolving within low to medium complexity environments (to be reviewed) CM-0205 - Conflict Detection and Resolution in En Route using trajectory data in Predefined and User Preferred Routes environments								
	Link with SES Interoperability IRs, Network Strategy Plan and common projects	IRs: (EU) No 1206/2011 - Aircraft Identification (ACID) (EC) No 633/2007 - Flight Message Transfer Protocol (FMTP) (EC) No 29/2009 - Data Link Services (DLS) (EC) No 30/2009 - Amends (EC) No 1032/2006 re supporting data link services (EC) No 1033/2006 - Flight Plans in the pre-flight phase (EC) No 1032/2006 - Co-ordination and Transfer (COTR) (EU) No 1079/2012 - 8.33kHz Channel Spacing above & below FL195 (EU) No 73/2010 - Aeronautical Data Integrity (ADQ) Pilot Common Project: AF3 - Route free in Prestwick upper								
	Decision-making process underpinning the investment	Consultation with NATS customers over July to September 2013 as part of consultation on NATS Business Plan for RP2. Approval in accordance with NATS investment governance processes. Progress reported via NATS annual Service & Investment Plan process.								

NERL RP2 PP Supplementary Information

Project Name	Interoperability Through European Collaboration (ITEC) Flight Data Processing system (FDP) and New Common Workstation (NCW).
Context	The provision, use and dissemination of accurate and up-to-date flight planning information underpins the entire en-route operation. The current Flight Data Processing (FDP) systems - NAS, EDDUS and allied input/output interface and peripheral systems – together form the back-bone of today's operation. ITEC-FDP will replace these existing legacy systems with modern hardware and software systems, underpinned by open architecture concepts and data transfer protocols, providing a platform capable of hosting controller productivity & safety applications to deliver the advanced future operational concepts envisaged by SESAR. It will be fully interoperable with other FDP systems used within Europe (most notably the CoFlight FDP system being developed by Thales) to facilitate cross-border exchange of trajectory-based flight data with other ANSPs. Strategically, ITEC-FDP and allied future workstation (the ITEC-NCW) are the core components necessary to support NERL journey to deploy 4D trajectory-based operations across the UK. These capabilities will be supplemented by enhanced air/ground integration and improved interoperability to deliver seamless operations based around the airline Required Business Trajectory. Together these will drive major change in UK (and wider European operations) enabling significant improvements to capacity, safety and environmental performance as well as to reduce costs in service of European targets. The concepts and tools required to deliver these capabilities are being defined through the SESAR programme and will be deployed over the next decade and beyond using ITEC-FDP and ITEC-NCW as the framework for delivery.
Project Objectives & Description	This investment will replace the existing FDP and centre workstation systems with common platforms across the en-route operation, systems which between them form the very core of the of the current en-route operation Their replacement by systems using modern day hardware and software applications using current data communication protocols within a safety-related environment will be a complex activity. Many of the existing systems are up to 40 years old in origin, use obsolete software languages and hardware components, are difficult to modify to provide more advanced functionality and are expensive to maintain. Furthermore, they were developed to support operations based upon the sectorisation of airspace, which now presents a major limitation to their efficient enhancement to support trajectory-based operations spanning multiple downstream sectors. This investment will deliver systems that use modern hardware systems and software language that are cheaper and more readily supportable.

NERL is on a journey towards 4D trajectory-based operations as a means to deliver significant enhancements to capacity, safety and environmental performance, and in a manner to enable reductions in operating and development costs, enabling such reductions to be shared with customers via a lower user charges. The concepts and tools required to deliver these capabilities are being defined through the SESAR programme and will be deployed over the next decade and beyond.

For NERL, the core infrastructure required to support these new concepts will be provided by a Flight Data Processing (FDP) capability that supported trajectory-based operations, supported by a New Common Working (NCW) providing a common HMI and core tool-set across the en-route operation.

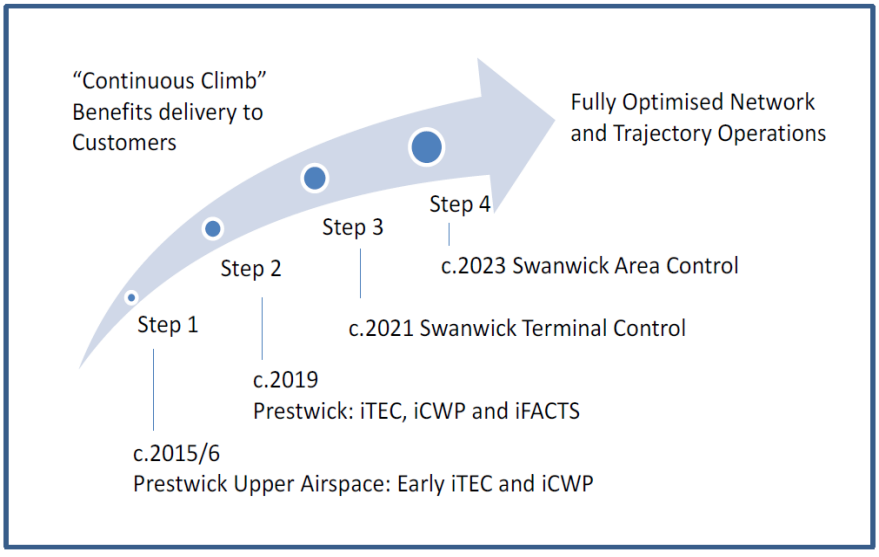
The FDP system is being developed collaboratively through the "Interoperability Through European Collaboration" (ITEC) programme; it is intended that the NCW will be developed and procured in a similar collaborative manner. The ITEC-FDP and ITEC-NCW investments will be rolled out progressively across the en-route operation, delivering initial benefits where it is deployed and ultimately delivering enhanced benefits as the SESAR concepts are fully deployed.

Project Timetable

A major strategic review in 2011 concluded that whilst the strategic aims remained sound, the investment would provide greater benefits by delivering the workstation aspects ahead of the FDP system. More recently (July 2013), plans have been formalised to deploy this investment in steps, each set up as a discrete project within the overall programme to provide a specific focus of development, deployment and delivery of benefits.

Although still at an early stage of development, the current plan sees the first instance ('step 1') of ITEC-FDP and ITEC-NCW providing a revised platform for the Upper Airspace sectors at the Prestwick Centre, scheduled for in winter 2015/16. This will be followed by a progressive roll-out supporting all of Prestwick and before deploying at Swanwick to support the London Terminal Control and London Area Control operations

The current deployment schedule below sets out NERL's current thoughts, but which may be subject to change as the project develops and potentially more beneficial deployment paths are identified.



A key aim of the programme is to ensure that the initial deployment provides a fully operational ITEC/NCW solution and in terms of functionality delivers the majority of the capability that will be required to support all of

	UK airspace. The systems will require some enhancement – both operationally to support Terminal operations and technically to support iFACTS in en route operations – but all built on the same core system. This approach will help to reduce the cost and risk associated with subsequent roll-out, once the initial deployment is complete.
Options Analysis	A detailed review of the development & deployment options was undertaken during the formative phases of this investment. The analysis concluded that 'doing nothing' was not an option given the age of the systems; their internal data processing architectures; the need to continue to meet European mandates; the requirement to deliver new capabilities; and, the need to meet tougher service delivery performance targets. Only the replacement of the legacy FDP system (NAS) and allied peripheral systems, and the allied controller working positions across numerous en-route operations, would provide an efficient way to deliver the future capabilities and performance outcomes required. Subsequent reviews in light of recent (and continued) tough economic conditions have reaffirmed that whilst the strategic intent remains sound, more appropriate development and deployment opportunities exist. The current investment now sees the collaborative development of the NCW with other ANSPs supported by a revised deployment path whereby the first instance of ITEC-FDP and ITEC-NCW will be deployed at Prestwick in the winter of 2015/16.
Implementation & Risks	This investment is a major change management programme that will deliver a technologically advanced trajectory-based FDP and new controller ways of working across the entire en-route UK operation. It should be recognised that such major change, coupled with the nature of SESAR that will continue to shape the context into which it is delivering, will demand an evolving, collaborative programme and effective risk mitigation in order to be fully successful. NERL is controlling the risks that accompany such a complex and challenging investment by: • Developing both ITEC-FDP and ITEC-NCW in a collaborative manner with other ANSPs, thereby sharing costs and development risk. The extent of core aspects common to all users is being maximised, with difference developed only where operationally necessary. • The establishment of 'core teams' with strong operational capability to ensure that the needs of users are considered and reflected where necessary, whilst challenging the extent to which current Method of Operation (MOPS) can be revised to fit the capabilities (including HMI) of the core systems, and with a view to converging MOPs across the various en-route operations wherever possible.
Costs	The capital deployment costs for ITEC/NCW to Step 2 are expected to be £226m of which c£170m will be incurred in RP2. The costs and benefits for Steps 3 and 4 will be developed and presented as part of a future business case. Spend will be approved for each phase of the iTEC/NCW deployment programme beginning with Prestwick Upper Airspace, and moving on to Prestwick Lower, TC and AC. The costs for each phase will include the iTEC integration and transition costs, together with the costs of workstation deployment, installation, transition and training costs. Step 1 of the programme - Prestwick Upper Airspace Sectors - is currently in Project Definition during which detailed costs will be determined leading to presentation (in Autumn 2013) of a business case for implementation

based on a deployment date of 2016.

The cost of the development of the common ITEC-FDP product is shared equally between the 3 system groups (NATS, DFS and AENA). Each party pays their own costs for integration and deployment as well as local testing and training. A similar arrangement is envisaged for the NCW with up to 4 parties involved (the ITEC-FDP partners and LVNL).

Benefits

A key driver for NATS investment in ITEC-FDP is to replace the existing legacy FDP and centre systems with modern platforms common across NATS. Many of the existing systems are up to 40 years old in origin, use obsolete software and hardware, and are difficult and expensive to maintain. Furthermore, their architectures are not amenable to addition of new capabilities, notably to support trajectory based operations.

The replacement platforms will be of modern design using industry standard (not ATM specific) technologies supporting open architecture and will be common with other ANSPs. The new platforms will also be easier to maintain and enhance and the commonality will drive out future engineering and support costs through common development testing and training for all NATS operations. Furthermore, the new capabilities supported will enable improved resilience and flexibility of operations to customers as well as delivering direct customer benefits. While benefits realised during RP2 were included in the RP2 plan NATS has not yet carried out full analysis of the benefits that will be delivered during RP3.

However, NATS does expect iTEC to deliver additional safety, service, value and environment benefits for AC and TC, as well as those reported for PC during RP2. Based on early analysis the potential safety and capacity benefits are:

	Safety	Service
PC	15 point reduction in weighted SSE index	5 additional flights per busy hour
TC	8 point reduction in weighted SSE index	8 additional flights per busy hour
AC	4 point reduction in weighted SSE index	9 additional flights per busy hour

Furthermore, NATS forecasts a reduction in support costs for iTEC compared to the existing FDP solution of c.£4m pa, with further cost reductions enabled when the transition to the new platforms is complete. NATS also expects to deliver significant environmental efficiency / fuel savings as a result of the introduction of trajectory based operations, but we do have not yet an estimate of these for the deployment of iTEC. Fully quantified benefits for each stage of the programme will be determined as the programme develops and used to support the business case for the implementation phase of each deployment.

NERL RP2 PP Supplementary Information

Project Name	London Airspace Management Programme (LAMP)
Context	The London Terminal Manoeuvring Area (TMA) covers airspace in the south-easterly part of England up to 24,500ft. The existing airspace design and route network structures have evolved over 40 years to support the growth of all five London airports and it now presents one of the most complex and busy operational environments in the world. During busy periods, controller workload is intense, mitigated through a highly structured and systemised operation to deliver the level of traffic throughput required whilst maintaining high safety levels. The piecemeal nature in which the airspace has evolved had resulted in a route structure that has some significant operational limitations and inefficiencies. LAMP has been established to provide a complete redesign of the London TMA to provide more efficient operations to all the airports in a manner that reflects progressive advances in aircraft capabilities (both avionics and performance) and addresses forecast future demand. LAMP will re-design and implement the new airspace infrastructure in a manner that underpins, and in part delivers, the CAA's Future Airspace Strategy (FAS) to modernise the UK's airspace system. NATS, the CAA, Airline Operators and other stakeholders are working closely to develop and deliver the concepts set out in the FAS in a coordinated and collaborative manner. It is a key building block for implementing the advanced concepts being validated by SESAR for operations within Terminal airspace. This investment forms part of the Airspace Development programme and is being progressed in a coordinated manner with the other major airspace development activities in that programme, notably the redesign of the Northern Terminal Control Area (LTMA) and the expected Harmonised European Transition Altitude (HETA). A key dependency to realise the benefits is the ability of aircraft to support the level of navigation accuracy required to support the revised route network structure, including the ability to better adhere to tighter vertical and lateral confines. NERL is helping the industry to understand the benefits of such capabilities, as well as supporting the regulatory process to mandate certain minimum level of navigation capability.
Project Objectives & Description	This investment will re-design the airspace and allied route network structure within the London TMA to increase capacity and service delivery efficiency, whilst improving safety and reducing environmental inefficiencies. Arrival and departure routes supporting all five London airports will be developed, supported by changes to abutting airspace in the en-route operation delivered by London Area Control and supporting changes to the airspace providing the Farnborough and Solent operations. Due to the relationship with the Transition Altitude (TA) and the significant impact that raising this from its current level has on the ultimate airspace design, LAMP is being progress in two phases: • Phase 1 will deliver peripheral airspace changes and enablers which are compatible with Phase 2 based upon the existing TA of 6,000ft, specifically delivering Point Merge approach to Gatwick and London City

	Airports; a new departure route south of Gatwick; other changes to the rest of the London TMA delivering benefits to other airports and, revisions to abutting en-route airspace to support these changes. • Phase 2 will deliver the core airspace change supporting a raised TA (18,000ft) providing a 'trombone' design to improve arrivals and new departure routes for Heathrow; new Gatwick departure routes; Point Merge arrivals at Luton and Stansted; new arrival routes for Luton, Stansted and London City; and enabling resectorisations of neighbouring en-route airspace to ensure efficient traffic flows. The revised airspace structure will deliver a significant part of the CAA's Future Airspace Strategy (FAS) to modernise UK airspace system, and in a manner that will use some of the key building block for implementing the SESAR concept of operation in terminal airspace.
Project Timetable	This investment will deploy in two key phases, with a number of deliveries in each phase: • Phase 1, delivering peripheral airspace changes using the current TA and enablers which are compatible with Phase 2, will deliver in stages from mid-2015 until early 2017. • Phase 2 will deliver the core changes to the London TMA supporting a raised TA in from early 2018 until late 2019.
Options Analysis	As part of its Feasibility & Options phase, a review was undertaken of possible options to deliver the type and level of performance outcomes required. The Do Nothing option was discarded as continuing with the existing airspace structure would continue to deliver sub-optimal service performance outcomes to customers (in terms of fuel inefficiencies) and to NERL (in terms of avoided operating cost savings and contribution to the RP2 performance regime). Due to the proximity of the five London airports and the interactions between arrival and departure routes, a piecemeal approach whereby the airspace supporting individual airports was considered would not deliver the scale of benefit than a holistic approach would provide. Furthermore it would require multiple public consultations. The analysis concluded that only a complete review and redesign of the London TMA (with allied changes to abutting en-route airspace to maximise network capacity) would deliver the type and scale of service delivery improvements required and in a manner that reflected the advanced concepts envisaged by SESAR for TMA operations.
Implementation & Risks	The type and nature of the advanced concepts that will be utilised as part of this project results in some key risks. These will be tracked and managed during the project through mitigating action plans. Some of the more significant risks are not within NERL's direct control and thus will require close working with external parties to minimise their likelihood and impact if they occur. Financial provision has been made to manage these risks; project contingency (c.15%) has also been provisioned. • The CAA, European Regulators and European ANSPs being unable to agree upon a common TA strategy by spring 2014, thereby delaying the implementation of the raised TA and thus curtailing the benefits of LAMP Phase 2. This is being actively managed with NERL supporting

	the CAA in its activities to raise the TA to 18,000ft across Europe. • This investment will require extensive public consultation, with most of the south-east of England being affected by the revised airspace structure, and predominantly at levels where noise contours are more noticeable. With some 28.9m people within the area of interest, this investment requires a far greater level of engagement than is usually the case with airspace developments, with a greater risk of adverse public and political reaction. Previous experience of large scale consultations has resulted in the project working closely with the CAA to develop a new approach to such a potentially contentious development. • The RP2 settlement agreed by the CAA will potentially have an impact on the timescales as the two plans currently subject to customer consultation deliver a different level of capital spend in RP2. LAMP is progressing on the assumption that the greater of the two capex plans will be approved, otherwise the project will be constrained to a lower level, thereby delaying the delivery of the benefits. • The airspace changes include modifications to existing airport Standard Instrument Departures (SIDs) and Standard Terminal Arrival Routes (STARs), both of which are owned by airport operator. • The regulatory process used to mandate improved avionics to support the level of navigation accuracy required being unsuccessful in the timeframe required, resulting in some aircraft not being able to fly within the confines of the revised route structures.
Costs	**Capital Cost** RP1: £20m RP2/RP3: £48m **Total: £68m**
Benefits	The revised airspace design will improve safety, enable significant fuel savings and provide additional airspace capacity. The phased delivery of this investment will result in benefits being delivered from the early aspects of Phase 1 (i.e. mid-2015 onwards), with subsequent Phase 1 changes delivering further incremental benefits. The majority of the benefits will be delivered by Phase 2. The quantity and economic value of the benefits that will be delivered can only be fully determined once the ultimate airspace design (i.e. as delivered by phase 2) and Method of Operation (MOPs) are finalised; such analysis will occur during Project Definition. However, an early assessment of the expected type and level of beneficial outcomes sees: • **Fuel saving**: A targeted 12.6% reduction in CO_2 emissions (with a stretch target of 20%). This is equivalent to 780kT CO_2 pa (245kT of aviation fuel pa) in 2025 through improved climb and descent profiles delivered by more fuel efficient SIDs and STARs and the significant reduction of airborne stack holding under normal operations with any airborne delay accommodated through liner holding and Point Merge concepts. The amount of fuel savings predicted to be delivered by this

	investment will continue to be assessed through Project Definition. • **Safety**: a targeted 20% reduction in the London Terminal Control weighted SSE index delivered through the systemisation of the airspace and the reduction in human error (both aircrew and controller). • **Delay Reduction**: LAMP will increase overall airspace capacity to accommodate airfields in the London TMA, enabling an operation which satisfies projected traffic demand out to 2025 thus helping to avoid significant delay costs to customers.

Annex D.2: IAA Investment Plan summary

1 Introduction

The IAA is committed to delivering value to its customers through the deployment of technology which will deliver customer benefits. The investment programme is evaluated through discussions with customers and through detailed review by the IAA Investment Planning Committee (IPC) and Board. The IAA also committed to delivering on Single European Sky requirements through the deployment of SESAR in order to realise the target benefits set out in SESAR.

The IAA technology strategy is driven by the following factors:

- Replacement of obsolete equipment
- Increasing capacity in line with forecasted customer demand
- Improving the quality of the service in line with customer expectations
- Reducing operational costs
- Satisfying safety regulatory and legal requirements
- Implementing new technologies as required to ensure SESAR compliance

The IAA's technology strategy does not include "nice to have" projects. All activities aim to fulfil an obligation due to obsolescence, customer requirements, regulatory and legislative requirements and/or compliance with SESAR and the ATM Master Plan. The IAA wherever possible, procures commercially available, off the shelf products and services. Customisation is kept to the absolute minimum necessary to allow provision of a safe, cost efficient and expeditious service to airline customers.

The main focus of the IAA's investment program is to increase efficiency and value for money while maintaining and improving safety. Expectations are that the investment program will be increasingly influenced by decisions at a European level. The EU, through its Single Sky Plan, is driving the harmonization of systems development in Europe, the main pillar of the program is the SESAR ATM Master Plan. The other key influence is the FAB initiatives.

As a commercial semi-State company, each investment by the IAA is subject to the normal tendering procedure and business case appraisal process including adherence to the requirements of the Department of Finance's guidelines for the appraisal and management of capital expenditure proposals in the State sector and also that Department's value for money frameworks. The technology strategy will be updated on an annual basis and the financial figures will be refined as projects mature. All projects pertaining to the strategy have gone through rigorous internal review via the Air Traffic Management Planning Group (ATMPG) & the CAPEX committee. In addition, projects have been reviewed by the Finance Planning & Strategy committee and subsequently approved by the board of directors of the IAA. The most significant driver for the IAA's technology strategy over the next five years will be alignment with the SESAR ATM Master Plan, and other SES mandates and interoperability requirements.

During the period 2015 - 2019, the IAA technology requirements for Capital Expenditure (CAPEX) are in the region of € 106.7 Million

Project Subset	€Million
Flight Data Processing	40.5
Communications	18.9
Surveillance & Navigation	27.7
Information Technology / Other	6.6
En-Route Contingency Centre	13.0
Total	**106.7**

2 Key Technology Projects

Over the last number of years, the IAA has invested heavily in a number of capital projects that have significantly increased the capacity of the existing operational systems.

The following overview provides the status of the existing Operational and Technology programs as well as longer term plans:

2.1 FDP

Planned expenditure	€40.5 million	
Comments	Expenditure includes COOPANS upgrades, which is part of an ongoing cooperation programme in FDP development. Savings in the development due to cooperation have been independently estimated at 30%. Majority of the investment is related to overhaul of the existing FDP. Part of the investment is to support the introduction of new systems and concepts, e.g. EFPS, common transition altitude.	
Core objectives	SESAR compliance Primary FDPS procurement Long term interoperability	
Links to international developments	Improved flight management Improved controller tools Improved MTCD Air space management tools Increased arrival/ departure manager integration Improved airport integration	
Main expected benefits	Safety	FDP upgrade will provide critical safety benefits EFPS will enhance TWR safety
	Environment	FDP upgrade will improve sequencing airborne and reduce holding EFPS will help improve taxi sequencing and reduce taxi times Common transition altitude will enable cross border CDAs
	Capacity	FDP upgrade will have implicit capacity benefits
	Cost efficiency	Cooperative approach to FDP development provides cost savings

COOPANS (Cooperation for Procurement of ANSP Systems) was established in 2006. The objective was to establish a single FDP system that would be deployed by IAA, LFV and NAVIAIR. Build 1 was deployed into operation in 2011. Austro Control (ACG) joined COOPANS in 2010 and Croatia Control (CCL) joined in 2011.

The overarching aim of the COOPANS cooperation is to achieve financial savings and reduced investment risks for every ANSP by harmonising, standardising and consolidating the activities of the participating ANSPs. The development costs to date of € 125M are shared between the partners. The cooperation reduces system development costs by approximately 30 per cent when compared with the costs each partner would incur if it had to develop the technology independently. This figure has been determined by Helios, an independent consulting company that specialises in ATC services.

One example of COOPANS development is an upgrade which will allow the automated reporting of incidents. This will be introduced in Build 3 and will be available by the end of 2016. It will facilitate achievement of the safety targets set under the RP2 performance scheme.

The mantra for the COOPANS' business model is full harmonisation – technical and operational – with resultant savings. This means, among other things, that the COOPANS cooperation is open to adoption by new members, and that national functionality requests must be minimised and harmonised and can only be approved if they are or may become part of the agreed COOPANS roadmap.

2.2 Communications Systems

Planned expenditure	€18.9 million	
Comments	Majority of the investment is related to replacement of obsolete systems. Part of the investment is to support the introduction of new systems and concepts, e.g. VoIP, SWIM.	
Core objectives	Replacement due to obsolescence Improved contingency	
Links to international developments	New systems aim to meet SESAR requirements	
Main expected benefits	Safety	Business continuity due to replacement of obsolete equipment
	Environment	-
	Capacity	Enables increased capacity at peak times
	Cost efficiency	Reduced operational and life cycle costs

The majority of capital investment in this area is associated with one major upgrade project: the replacement of the current Voice Communication System (VCS), which will run until 2016 and involves the installation of systems at IAA ATC facilities.

2.3 Surveillance & Navigation Systems

Planned expenditure	€27.7 million	
Comments	Majority of the investment is split between two main areas: replacement of obsolete systems (ILS, radar) and introduction of new systems and concepts, in particular ADS-B/WAM.	
Core objectives	Replacement due to obsolescence Introduce ADS-B/WAM	
Links to international developments	-	
Main expected benefits	Safety	Business continuity due to replacement of obsolete equipment Better contingency due to additional surveillance layer Better low level coverage due to new surveillance technology
	Environment	-
	Capacity	-
	Cost efficiency	Lower opex

All of the radars scheduled for replacement as part of the surveillance replacement program are completed. The only outstanding radar not replaced is Dublin Radar 2. Rather than replace Radar Head 2 it is planned to use ADS-B/WAM as an alternative surveillance technology.

If coverage is not sufficient Radar 2 will be replaced. The existing Surface Movement Radar (SMR) has reached its end of life, and will be replaced in 2013. The output from the SMR will be integrated into the current ASMGCS (Advanced Surface Movement and Guidance Control System) at Dublin Airport.

The Surveillance Domain plans to commence trials with Automatic Dependent Surveillance-Broadcast (ADS-B) Wide Area Multi Lateration (WAM) with a view to deploying an ADS-B network by 2015.

Initially ADS-B will complement secondary surveillance radar and provide cover in areas of poor radar coverage. It will also provide a contingency in the event of loss of radar from a single site as a result of interference. Although the Aviation Spectrum is protected, interference is a growing problem.

2.4 Information Technology

Planned expenditure	€6.6 million	
Comments	Investment required for IAA business continuity rather than operations.	
Core objectives	Information Management Replace Key Systems\New Systems Infrastructure Enhancement ICT Disaster Recovery Information Security	
Links to international developments	-	
Main expected benefits	Safety	-
	Environment	-
	Capacity	-
	Cost efficiency	-

Information and Communications Technologies (ICT) are used by all parts of the business to deliver IAA services. They are a key enabler for the Authority to deliver on its business strategy. The figures above relate to the IT systems necessary to support the ANSP.

2.4.1 Nexus of Forces

The ICT Industry is undergoing huge change. The explosion in mobility, information (Big Data), cloud computing and social media is altering fundamentally the manner in which businesses interact with Information and Communications Technology. The Irish Aviation Authority is conscious of these developments and will exploit them to maximize the business benefits. This will be reflected in the Information and Communications Technology Strategy which will be updated.

2.4.2 Information Management – the Digital Revolution

Improving the quality and timeliness of information available to key decision makers is a major challenge. Recent years have witnessed an enormous growth in digital information. It is estimated that the volume of data being generated every ten minutes is equal to that created from the beginning of recorded time until 2003!

Managing this enormous volume of data (Big Data) and harnessing its potential is a challenge for all enterprises. The Authority will address the management of both structured (data held in databases) and unstructured (data held in documents etc.) information. Information Management will be an on-going challenge up to 2019. The feasibility of importing data from operational Air Traffic Management Systems will be investigated. It is envisaged that business analytics software will be used then to interrogate the data and present results in a business friendly manner. In relation to Safety Management Systems, the emphasis in will be on the introduction of eBusiness initiatives.

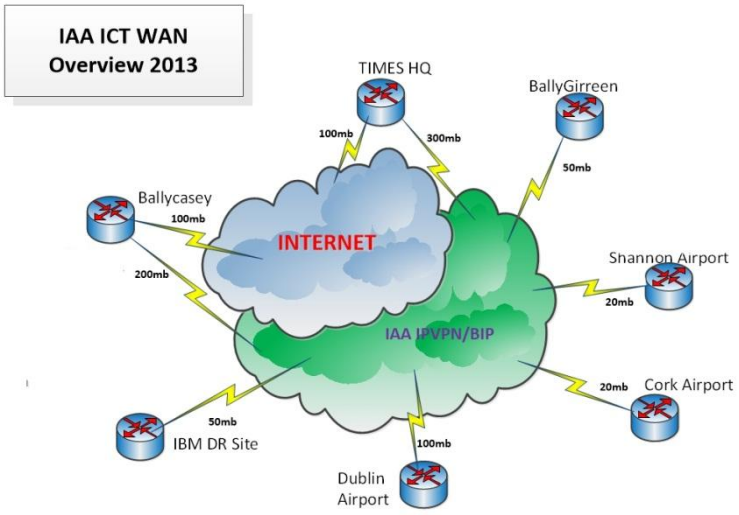
2.4.3 Replace Key Systems/New Systems

Key ICT Systems will be replaced in the 2015-2019 timeframe. The replacement of the Financial Management and Human Resource Management Systems will commence in 2015. Associated modules such as the Payroll, Purchasing and Travel & Subsistence Systems will be replaced also. The replacement of application and operating system software will continue throughout the life of this plan. By the end of 2014, the default server platform will be

Microsoft Server 2008 running in a virtualised VMWare environment. Work will take place on the introduction of a Resource Planning/Rostering System.

2.4.4 Infrastructure Enhancement

There have been significant enhancements to the ICT Infrastructure in recent years. The Wide Area Network (WAN) has been migrated completely to Next Generation Network Technology with a considerable increase in bandwidth – see below.



The upgrading of the network infrastructure will continue with the addition of backup links. PCs and laptops will be replaced on a planned basis.

2.4.5 ICT Disaster Recovery

There will be a major exercise addressing the recovery of ICT Services in the event of a disaster. The intention is to recover ICT Services according to business expectations. The recovery plan, with specified recovery time objectives, has been agreed with senior Authority staff.

2.4.6 Information Security

Protecting information assets will continue to be a focus for ICT activity up to the end of 2019.

2.5 En-route Contingency

Planned expenditure	€13.0 million	
Comments	Investment covers both building and equipping a new contingency centre	
Core objectives	Provision of enhanced, replacement contingency facility for Shannon ACC	
Links to international developments	-	
Main expected benefits	Safety	Better contingency
	Environment	-
	Capacity	-
	Cost efficiency	-

Business continuity is important to the IAA and also to its customers. The en-route environment is critical to the IAA with as much as 75% of revenue being generated by this business unit. It is also critical to many of the Authority's largest customers who rely on the IAA's Shannon ACC to facilitate movement between the North Atlantic and European airspace. It is therefore important that effective contingency arrangements are in place for Shannon ACC.

Currently, contingency for Shannon ACC is provided for at the co-located Training Centre at Ballycasey, Co. Clare and should access to that facility be denied by fire, chemical spillage or other similar incidents, an off-site contingency facility is available at the IAA's Dublin ACC test and training rig. This latter solution can provide up to a maximum of 70% of capacity (after approximately 120 hours) due to size constraints at Dublin. It may also be costly and difficult to maintain Shannon operations from the Dublin Centre for anything beyond the short term due to the distance between the two facilities.

Taking this into account and to provide a robust, sustainable contingency capability for the Shannon ACC, the IAA intends to build a new facility at Ballygirreen, Co. Clare. This will have the potential to provide almost full Shannon capacity and is close enough to Shannon to avoid any of the distance related staffing issues associated with Dublin.

Annex E

Application of Flexible Use of Airspace legislation in the UK and Ireland

UNITED KINGDOM

RP2 Civil-Military Dimension of the Plan

Introduction

The civil-military dimension of the plan, in particular, includes the contribution of the application of the Flexible Use of Airspace (FUA) to the achievement of the capacity and environment targets related to ATM performance.

Application of the Flexible Use of Airspace

In line with the Airspace Regulation[1] the UK has been active in the development and the consistent application of the FUA concept the basis of which is that airspace should not be designated as either military or civil airspace but should be considered as a single continuum. Where possible any necessary UK airspace segregation is temporary in nature and optimisation of network performance will always be of primary consideration. The application of the FUA concept aims to ensure that, through the daily allocation of flexible airspace structures, any necessary segregation of airspace is based on real usage within a specific time period and airspace volume.

Organisation

FUA is enabled by the Joint and Integrated (J&I) concept which is the generic title for the collaborative approach by the UK Civil Aviation Authority (CAA), NATS En Route Limited (NERL) and Ministry of Defence (MOD) to the separate functions of airspace policy and planning, and ATS provision. In order to be an effective enabler it is essential that the J&I concept is firmly embedded at all levels from governance through airspace policy and planning to service delivery. In practical terms this means the involvement of the military and the Air Navigation Services Provider (ANSP), NERL, together with the CAA as the National Supervisory Authority (NSA) throughout the airspace management (ASM) governance structure.

Regulation and policy making is exercised through the CAA's Safety and Airspace Regulation Group (SARG) which includes seconded members of staff from the MOD and NERL. In discharging its regulatory responsibilities SARG consults all interested aviation stakeholders through a number of mechanisms (but in particular the National Air Traffic Management Advisory Committee) which captures representation from the entire spectrum of the UK aviation community.

At the strategic ASM Level 1 SARG is the UK's High-Level Airspace Policy Body (HLAPB) and in accordance with the general requirements of the FUA regulation, acts as the joint civil/military body performing a joint function. SARG formulates the national ASM policy and carries out the necessary strategic planning work, taking into account national and international airspace users and Air Traffic Service (ATS) providers' requirements.

[1] Regulation (EC) No 551/2004 on the organisation and use of the airspace in the Single European Sky.

In order to ensure efficient airspace planning, allocation and use, SARG has established a structure of governance and oversight to continually assess the national airspace and route structure. SARG has working structures and entities responsible for ASM Levels 2 (pre-tactical) and 3 (tactical); and, through the CAP 740 UK *Airspace Management Policy* lays down the priorities and procedures to be followed at these pre-tactical and tactical levels.

ATS provision cooperation underpins J&I at the working level through the collocation of the military area control unit at Swanwick where military controllers provide ATS utilising NERL data and facilities. This includes the joint civil/military Airspace Management Cell (AMC UK) which is responsible for the administration of the flexible airspace structures and Conditional Routes (CDR) in UK/Ireland airspace.

In consultation with industry and other aviation stakeholders the CAA has created a Future Airspace Strategy (FAS) to provide a vision for the modernisation of the UK airspace system, including the en-route airspace managed collectively by the UK and Ireland as a Functional Airspace Block (FAB). The FAS acts as the interface for UK/Ireland FAB airspace developments with the Single European Sky (SES) initiative.

The FAS Deployment Plan articulates the first phase of FAS implementation out to 2020. The plan has been developed in a truly collaborative way, with aircraft operators, airports, Air Navigation Service Providers (ANSP), the military and regulators all represented on the FAS Industry Implementation Group (FASIIG). The FAS Deployment Plan contributes to the implementation of SES objectives, in particular, by coordinating local deployment of solutions developed in SESAR.

The FAS Deployment Plan is a compilation of confirmed and proposed investments drawn from the programme plans and strategic ambitions of the key organisations involved and thus is entirely dependent upon industry to drive implementation. Common lines of development are being progressed by cross-stakeholder groups and the CAA in order to achieve the desired outcomes. Although the benefits of modernisation are largely concentrated on commercial air transport the need to ensure access to sufficiently sized and sited airspace for other users, in particular the military and general aviation community, is also an important factor.

Driving FUA Development and Evolution

During RP1 efforts to increase the momentum of UK operational developments and processes have continued within the FAS framework. The Local and sub-Regional Airspace Management Tool (LARA) was deployed into the AMC UK, and the FUA Restriction tool and level sensitive functionality of the Collaboration Interface for Airspace Managers (CIAM) as well as the application of Procedure 3 (P3) have been introduced in order to continue to optimise FUA performance.

The Airspace Management Function (AMF) - collocated with the Military Airspace Booking Coordination Cell (MABCC) - has been created under a unified management structure comprising the AMC UK and the UK Network Management Strategic and Pre-Tactical functions. The AMF engages on behalf of all FAB actors and is capable of reacting to all ASM/ATFCM data and inputs taking a proactive role in achieving effective airspace solutions, across the network.

NERL continues to develop its Intelligent ATFCM Design Solutions (iADS) which aims to automate network solutions, assessing civil and military airspace requests, NAT positioning, traffic demand, weather conditions, sector configurations and other network constraints, evaluating alternative scenarios and offering ASM and ATFCM solutions.

The MOD and CAA have, through proactive engagement, sought to improve access for general aviation users outside the en-route network. The MOD has permanently rescinded its requirement for 3 danger areas: EGD 602, 609 and 807 which released 1100 nm^3 of airspace. Following extensive work between stakeholders modification of EGD 011 (Dartmoor) through novel partitioning arrangements and increasingly flexible activation had enhanced airspace sharing arrangements. The EGD 011 ASM measures now in place exemplify the benefits of FUA through significant increases in airspace access in the area to general aviation users whilst continuing to meet MOD operational requirements. Further plans for the permanent release and/or modification of danger area airspace continue to be cultivated.

The development and continuing evolution of advanced ASM tools in concert with enhanced processes and procedures will be the primary enablers in delivering FUA performance improvements during RP2. The AMC UK will adapt its processes and manipulate its resource allocation in order to better mirror military planning cycles and so exploit the benefits of increased clarity and transparency of military planning. As resources and circumstances allow the AMC UK process will continue to expand in order to incorporate additional SUA constructs.

Drawing from evolution of FUA during RP1 the ASM deployment plan during RP2 will focus upon the evolution of ASM tools and information sharing; civil uptake of improved flight planning opportunities; and military airspace exploitation. These planned developments are expected to generate increases in capacity, impacting average delays per flight, and enable more direct routes, enhancing horizontal – and possibly vertical – flight efficiency.

The information sharing line of development of the ASM development plan focuses on the exploitation of LARA. Although LARA has already been deployed into the AMC UK the tool evolution will continue with the development and expansion of its use through the deployment of LARA 2.2 into the AMC UK and potentially remote access for other users. Work will continue to develop a better understanding of the contribution a more widespread employment of LARA could make to enhance UK FUA arrangements.

Uptake of CDRs will be improved through access to better information regarding route availability and steps to improve flight planning processes and proactive reservations. Through improved flight planning airlines will uplift less fuel and provide ATC with more accurate time estimates helping to reduce holding and providing network capacity benefits.

Improvements to the utilisation of the airspace by the military will be delivered through the increasing exploitation of LARA 2.2 and P3 for the tactical booking of airspace. The current process for reserving airspace requires operators to book airspace by 1100 local at D-1 which often leads to overbooking as operators attempt to cater for uncertainties such as weather. In order to address the issues with procedures 1 and 2, which support this D-1 approach, an initial modified P3 will be put in place which will allow airspace to be reserved later on D-1 (1800 local) and on the day of operation and in consequence will enable more accurate airspace bookings. The military uptake strand of the plan will concentrate on the phased introduction of P3.

The UK will seek to improve airspace design and management of the EGD 701 (Hebrides) complex developing a dynamic and flexible airspace solution fully integrated into the AMC UK systems and processes better enabling harmonised and dynamic planning of the route network. The airspace solution has been designed to fully support military trials and operations but minimise disruption to routes introducing smaller SUA sub-areas which will enable improved access to OEPs which has not been possible with the current airspace design. In addition protocols will be agreed which will govern the process for activation of the EGD 701 complex to further minimise the impact on civil aviation.

Aiming to capitalise on the environmental benefits to be gained through the implementation of Free Route Operations Airspace (FRA) the UK will explore the challenges and benefits of FRA through the phased introduction of a number of FRA high level sectors within the Scottish FIR. This proposal will be supported by a fundamental review of the impact of Special Use Airspace (SUA) on traffic flows, with the potential to be explored for the introduction of advanced FUA concepts such as Variable Profile Areas (VPAs) in order to mitigate the impact of SUA on the network.

Additional KPIs

The UK Airspace Management Steering Group (AMSG) is responsible for the identification and definition of additional KPA/KPIs to monitor the effectiveness of airspace utilisation. The mandatory reporting requirements detailed by the Commission as well as those additional measures agreed by AMSG form an integral part of the UK's approach to oversight of the effective use of FUA structures. The AMSG produces an annual report for presentation to the Joint Air Navigation Services Council (JANSC) which includes a narrative report and assessment of ASM development during the reporting period (1 January – 31 December) as well as relevant FUA data. In addition to the mandated FUA data reported for the Environmental KPI, measuring the effective use of civil military airspace structures, the AMSG also collects:

- data based on the permanent hand-back of SUA ie removal from the UK Aeronautical Information Publication (AIP) over the reporting period;
- information regarding the number of danger areas being integrated into the AMC UK process;
- and, CDR usage.

In order to further motivate development and change the FAS Policy and Regulatory Programme Board (FAS PRPB) will oversee the development and agreement of UK/Ireland FAB FUA targets at the earliest opportunity.

IRELAND

FUA has been fully implemented in Irish airspace since 2010. The concept of FUA in Ireland is governed by the following principles:

(a) Coordination between Civil and Military authorities is organised at strategic, pre-tactical and tactical levels of airspace management through established agreements (Irish Civil/Military Letter of Agreement [LoA]) and procedures to increase safety, airspace capacity and to improve the efficiency and flexibility of aircraft operations

(b) Consistency between airspace management, air traffic flow management (ATFM) and air traffic services is established and maintained at the 3 levels of airspace management listed in point (a) above, in order to ensure efficiency in airspace planning, allocation and use, for the benefit of all airspace users.

(c) An airspace reservation for exclusive or specific use by categories of users is of a temporary nature and is applied only for limited periods of time which are based on actual use and which are released as soon as the activity that caused its establishment ceases (Irish Danger Areas LoA). The LoA provides for the earlier

than planned release of this airspace on occasions when the military activity ends earlier than planned.

(d) Ireland cooperates as is appropriate for the efficient and consistent application of the concept of FUA across National borders and/or the boundaries of Flight Information Regions (FIRs) and in particular, addresses cross border activities. This cooperation covers all relevant legal, operational and technical issues

(e) Air Traffic Service units and airspace users collaborate to make the best use of available airspace.

Ireland is not a member of any international military alliance and has limited military activities which have the potential to effect civil aviation operations. In the free route upper airspace, waypoints have been established in the vicinity of Danger Areas to facilitate the filing of routes by airspace users to avoid these areas, while at the same time, providing close to optimum routings. Tactically, radar vectoring is used to provide even more optimum routes.

Civil and Military Air Traffic Control share a common ATM system (COOPANS) and Military Air Traffic Controllers operate from positions at the Dublin ACC, as often as is practicable. This cooperation allows for close Civil/Military coordination of day to day operations.

Annex F

Safety and Interdependencies Assessment or the RP2

UK: NATS business plan

1. Introduction

NERL's RP2 business plan target for safety is to meet the SES KPA targets for safety in addition to delivering a 13% reduction in accident risk per flight during RP2. This is regardless of any other changes resulting from the Cost Efficiency, Capacity and Environmental KPAs.

Our fundamental principle is that change must not degrade safety performance and should, wherever possible, improve it. Safety improvement is driven by our safety strategy and safety plans by a series of:

a. Tactical Safety Improvements;
b. Strategic Safety Improvements;
c. Safety Management Improvements;
d. Working with others to tackle key risk areas.

ANSPs maintain the facility for flow restrictions as their ultimate means of preserving safety.

2. Interdependency Assessment

The arguments to demonstrate that NERL's operation is and will continue to be safe during RP2 are as follows:

a. The operation is currently safe

There are a number of extant measures and mechanisms used by NERL by which safety is assessed and formally reported as a formal part of RP1 and SARG Regulatory oversight of NERL. These are:

- The internal governance processes of the NATS Safety Steering Group and Safety Review Committee are effective in providing a strong focus on safety at the most senior levels within the company.
- The NATS Annual Safety Report which demonstrates that NATS has robust plans in place to ensure the priority of safety in the organization and that our safety record shows an improving trend.
- Compliance with the SES Performance IR Effectiveness of Safety Management (EOSM), Application of the Risk Analysis Tool (RAT) and presence and level of Just Culture (JC) KPIs which show that NATS Safety Management Maturity and application of safety processes continue to be robust.

b. The potential safety impact of Cost Efficiency savings through VR is known and mitigated

An assessment at the individual, group and collective level of the potential safety impact, has been made and the decisions documented and signed off by accountable managers.

- The impact upon phasing of business activities has been assessed and reflects available resource and achievable targets for delivery.
- Shortfalls in capability (defined as training needs) are mitigated through a number of methods including training, phasing of change, prioritization, recruitment etc.
- The impact of staff reductions (VR) on the remaining individuals (e.g. those remaining individuals working for longer at higher workload levels) has been identified and mitigated.

- The necessary skills to manage under different staffing regimes have been identified and training developed and delivered. Managers and supervisors are equipped with skills to manage the change.

c. The Impact of Cost Efficiency savings through staff savings will be managed

The current safety management processes including the flow of safety accountabilities held by managers provides the architecture by which NERL encompasses a safe operation:

- An effective governance structure is in place ensuring safety remains a top priority.
- Any organisational change as a result of staff savings or VR will be the subject of a SP100.
- Each Operational Business Area has an independent Head of Safety independent of service delivery to ensure that the appropriate focus on safety is maintained.

d. The operation is managed safely after staff savings and the appropriate safety governance is in place

- The NATS Safety Steering Group and Safety Review Committee governance structure in place within NERL Operations maintains an appropriate focus on safety in particular after the conclusion of the VR programme.
- NERL has a comprehensive record of its safety performance and safety activities which objectively demonstrates its safety performance record.
- The independent steady State Assurance processes (e.g. SP201 and SARG audits) are in place and report safety concerns through the accountability chain and governance processes.
- Operations supervisor, Group and Local Area supervisor training is effective and a consistent standard is demonstrated.
- Workload remains within acceptable parameters, we effectively implement Traffic management to maintain the safety of the operation.
- Stress, workload and fatigue levels are within acceptable measured parameters

e. 5. NERL manages the safety aspects of change effectively

All change is subject to safety assessment before it is implemented to demonstrate that hazards have been identified, safety requirements derived and mitigation implemented to ensure that any associated residual operational risks are tolerable. This includes changes from environmental, capacity and cost drivers as they impact the operation. The procedures are:

1. SP100, Safety assessment of organisational change. SP100 requires that any organisational change is assessed to ensure that the safety accountabilities within the revised organisational structure remain effective.
2. SP401, ATM Risk Assessment and Mitigation. SP401 requires that all new systems and changes to existing operational systems are assessed for their impact on safety.
3. SP406, ATC Providers Safety Analysis. SP406 assesses the safety significance of new or modified ATC procedures and ensures any residual risks are tolerable.

The procedures are embedded in NATS project governance and ATC procedure development processes and robustly applied throughout the business, overseen by Operations Directors and the NATS Safety Steering Group.

IRELAND: IAA (ANSP) business plan

The KPAs covered by IAA's business plan should not be considered as stand-alone. It should be recognised that performance in one area will affect performance in other areas.

In recognition of the costs associated with meeting the significant challenges of the safety targets, a balance must be achieved with the cost efficiency targets. Safety provision has a cost which must be paid by the airspace users, the ANSP's sole source of revenue. The ANSP must generate enough revenue to employ sufficient, appropriately trained staff to carry out safety processes and to provide the number of Air Traffic Controllers necessary to provide the service.

It should also be acknowledged that provision of capacity has a cost and that there are costs associated with driving improvements in horizontal flight efficiency. Too stringent a cost efficiency target will not provide sufficient revenue to pay for the application of manpower to the relevant projects with our FAB partners.

The IAA ANSP has, in the initial stages of planning for the En-route, Terminal & Technology strategies, taken into account, albeit initially at a high level, the safety implications of any new equipment and/or procedures. Unless they offer at a very minimum, no erosion in safety levels and/or unless appropriate risk mitigation procedures can be developed, a project will not be permitted commence. Examples of this process are shown in the table below.

In advance of implementation, all new and/or improved processes, procedures and technology contemplated in this plan will have be subject to the rigorous application of the IAA's Safety Management System (SMS) and will benefit from the oversight of the Safety Regulation Division. This approach has served the IAA and our staff and customers very well and will continue to do so throughout RP2 and beyond.

Performance Area / Reason for Change	Functional system affected / Change Description	Potential Changes to the Elements of Functional System and Possible Mitigation Measures		Remarks
Cost Efficiency / Environmental	The Dynamic Sectorisation Operational Trial (DSOT) Trial will prove the concepts of Dynamic Sectorisation & FAB Free Route Airspace. DSOT will involve the temporary delegation of service provision to the IAA in a portion of the UK's Ratlin Sector. ATCOs from the Shannon ACC will provide ATS for a portion of the Rathlin sector for a period between 9th Jan 2014 and	Human Resources	There are no planned changes to staffing numbers as a result of DSOT. IAA ANSP has for some time, sectorised dynamically within Irish Airspace. The sectors opened are those through which the traffic will operate (largely based on the North Atlantic on a given day). The ANSP rosters sufficient ATCOs to control the expected volume of traffic	During this phase of the trial, the Shannon ENSURE or free route model will be introduced into the selected portion of the Rathlin sector. The portions of the routes within the airspace delegated for the provision of ATS will be NOTAMed off for the duration of the trial. Dynamic sectorisation will also be implemented with three volumetric sectors being added in Shannon airspace which can be combined with other volumes in order to shape the airspace to suit the traffic flow. The remaining portion of the Rathlin West sector will retain the capability to be combined with Rathlin East and/or Central sectors at Prestwick as appropriate. As part of the trial the effect on the remaining portion of the Rathlin West sector will also be assessed. The information gathered will be used to help

	September 2014		each day	inform the future dynamic sectorisation.
		Procedures	ATC procedures have been developed to ensure that Aircraft Operators enjoy a safe, efficient and seamless experience between Irish & Rathlin airspace without generating additional ATCO workload	There will be no change to the separation standard in the airspace. Communications will be provided by Shannon using three frequencies which have been approved for operation in the airspace. Alerting service will be provided by Shannon with Search and Rescue services continuing to be provided by the UK. As a result of the trial there will be new interfaces between Shannon and the UK military. This will involve changes to the current procedures with the UK military and also enhancements to the current Ground - Ground communications required. In order to facilitate the trial the Night Time Fuel Saving Routes will continue to be time checked at the current 10W positions for changes to conventional routes. This will avoid major changes to these routes for the duration of the trial.
		Systems	The NATS' & IAA systems have been modified to allow the delegation of service provision take place. These changes were applied to the test rigs to ensure that the changes were operationally feasible and to allow ATCO training take place.	The CAA (SARG) as the UK's Competent Authority and the IAA SRD (ASD) as Ireland's Competent Authority, have reviewed the NATS and IAA ANSP submitted safety assurance documentation for DSOT and have concluded that the safely arguments associated with the proposed change are acceptable.
		Environment	DSOT will not result in any negative environmental impacts. In fact, the potential for flight-plannable	DSOT offers savings in track miles for numerous routings e.g. a) OSMEG direct to SUNOT saves 10.5nm over route via NIBOG b) BAGSO direct to SUNOT saves 13.3nm over route

			direct routings will reduce fuel burn with consequential reduction in CO_2 emissions.	via REVNU c) AGORI direct to LIFFY saves 20.8nm over route via REVNU

Performance Area / Reason for Change	Functional system affected / Change Description	Potential Changes to the Elements of Functional System and Possible Mitigation Measures		Remarks
Environmental / Capacity	Point Merge arrivals procedures for RWY10 at Dublin Airport. Point Merge was implemented for RWY28 at Dublin in Dec 2012.	Human Resources	There are no implications for staffing levels associated with this project. The team at Dublin currently operates Point Merge for RWY28 and will do the same for RWY10 with the same number of ATCOs. Some training will be required but this will be included in the 2016 training plan.	Point Merge was successfully implemented for RWY28 at Dublin in Dec 2012. Lessons learned from the planning, training and implementation will ensure that the RWY10 project is less time consuming and less resource hungry than was the case with RWY28. This project has been included in the 1st version of the 2016 work programme.
		Procedures	ATC procedures have been successfully developed for operations on RWY28 and using experience gained during this process, initial draft procedures for RWY10 have been prepared.	Procedures for RWY10 will be subject to the same level of HAZID Safety Management System and safety case assessment as were the RWY28 procedures. All procedures will be submitted to the Irish NSA for acceptance in sufficient time to allow a full review process be completed prior to the implementation date. The procedures will not come into operation without receipt of Regulatory acceptance
		Systems	The IAA systems modifications required will be limited to a dataset change on our COOPANS FDP system.	The IAA has already successfully introduced changes to the COOPANS dataset to facilitate the implementation of the procedures for RWY28 and it is not expected that there will be any problems in doing the same for RWY10. All changes will be fully tested on the test & training rig prior to implementation on the live system
		Environment	Point Merge was introduced for RWY28 in Dec 2012 and has since been independently assessed as delivering savings in fuel burn and track miles for arrivals	The IAA introduced the Point Merge arrivals procedure for RWY28 at Dublin Airport in December 2012 and engaged the NATS Environmental Team to conduct a study into the environmental impact of the new procedures using their 3Di airspace environmental efficiency measurement tool. This study sought to provide an

			to that RWY. It is expected that similar savings will be generated by the introduction of these procedures to RWY10	independent assessment of how the IAA's Point Merge project has delivered tangible benefits to airlines at Dublin. Using the 3Di tool, NATS compared data from before and after implementation of Point Merge and the results of the study were made available at the end of July 2013. Over 18,000 flights (pre-Point Merge) and nearly 20,000 flights (post-Point Merge) formed the basis of the study with flights being analysed for fuel burn as well as the average track distances flown within Dublin airspace. The study noted a 17% reduction in average track miles and a 19% reduction in average fuel burn for arrivals to Dublin. Similar savings are expected to be delivered for RWY10 when it is implemented in Q4 2016

Annex G

Comparison of RP1 and RP2 targets

Table 1. General target comparison between RP1 and RP2		
	RP1	RP2
UK		
Capacity	ATFM delay 0.263 mins/flt + incentives	Average ENR ATFM delay 0.5 mins/flt through RP2; UK-IE target: 0.26 mins/flt through RP2 UK allocation of FAB target: 0.23 mins/flt +FAB incentive and UK incentives
Cost efficiency	DUCs reduction of -1.4% pa	DUCs reduction of -4.7% pa
Safety	n/a	EoSM: NSA Level C by 2019 / ANSP Level D by 2019 RAT: States 80% of A-C SMI & RI by 2017 States 100% of AA-C ATM-S by 2019 ANSPs 80% of A-C SMI & RI by 2017, 100% by 2019 ANSPs 80% of AA-C ATM-S by 2017, 100% 2019 +Just culture
Environment	incentive on 3Di performance	(KEA) Average horizontal en route flight efficiency of the actual trajectory: 2.6% in 2019 UK-IE reference value and target: 2.99% in 2019 + FAB incentive + UK incentives for 3Di and TA
Ireland		
Capacity	ATFM delay 0.14 mins/flt	Average ENR ATFM delay 0.5 mins/flt through RP2; UK-IE target: 0.26 mins/flt through RP2 IE allocation of FAB target: 0.13 in 2016-16 and 0.14 in 2017-19 + FAB incentives
Cost efficiency	DUCs reduction of 4.2% pa over RP1 in real terms	DUCs reduction of 1% pa over RP2 in real terms
Safety	n/a	EoSM: NSA Level C by 2019 / ANSP Level D by 2019 RAT: States 80% of A-C SMI & RI by 2017 States 100% of AA-C ATM-S by 2019 ANSPs 80% of A-C SMI & RI by 2017, 100% by 2019 ANSPs 80% of AA-C ATM-S by 2017, 100% 2019 +Just culture
Environment	n/a	(KEA) Average horizontal en route flight efficiency of the actual trajectory: 2.6% in 2019 UK-IE reference value and target: 2.99% in 2019 +FAB incentive