Draft for consultation

FAB Performance Plan

UK-Ireland FAB

Second Reference Period (2015-2019)

Signatories

Performance plan details	
FAB Name	UK-Ireland FAB
Version number	1 (draft for consultation)
Date of issue	19/02/2014
Date of adoption	-

Member State	Name, title and signature of representative
Ireland	IE DGCA
United Kingdom	UK DGCA

Additional comments	This document is the draft UK-Ireland RP2 Performance Plan. It has been prepared jointly by the UK and Irish NSAs for stakeholder consultation. It should be read in conjunction with the 'Draft UK Ireland RP2 Performance Plan – Consultation Document'. Stakeholders should submit comments on both the draft Plan and condoc to UK-IrelandPerformancePlan@caa.co.uk by 4 April 2014. A stakeholder consultation meeting to support the consultation process will be held in London at CAA House on 14 March 2014. Matt Claydon Head European ATM UK Civil Aviation Authority 19 February 2014 Terry O'Neill Assistant Director IAA Safety Regulation Division

Table of Content

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	Level 2 FAB PP - Annex C		FAB PP 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) **See note below**			
(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	RT 1 (5.3)		
(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:	3.1.(d).1.B	RT 1 (5.1-5.2)		

— 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).2.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,			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	All	All	
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.	5.1 5.2			
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				

IMPORTANT NOTE FOR SECTION 3.1.(d):

The data and justifications for the cost-efficiency targets at local level in the FAB Performance Plan comprise, for each charging zone:

• A '**Level 1**', consisting of the data and justifications provided in the body of the performance plan document;

• A '**Level 2**', comprising:

- The data and justifications in the **Reporting Tables and Additional Information**, as per Annexes II, III, VI and VII of Implementing Regulation (EU) No 391/2013 (Charging Regulation);

- The data and justifications relating to cost-efficiency required for the purpose of the Performance Plans, as per Article 11 (3) and Annexes II and IV of Implementing Regulation (EU) No 390/2013 (Performance Regulation), which are neither covered by the Level 1 section, nor the Reporting Tables and Additional Information, as per Annexes II, III, VI and VII of Implementing Regulation (EU) No 391/2013. In order to ease reporting and avoid duplication, these additional data and justifications for the RP2 Performance Plan are included and presented in a supplementary section of the Additional Information document for each Charging Zone called '**Additional Information - 4 - Additional justifications for the RP2 Performance Plan**'.

The 'Level 2' forms an integral part of the performance plan and will be used by the EC assisted by the PRB to carry out the assessment of the Performance Plan. The 'Level 2' is presented at Annex C to this FAB performance Plan.

The mapping above shows the correspondence between the two 'Levels' and Annex II of EU Regulation 290/2013.

SECTION 1: INTRODUCTION

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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 UK Meteorogical Office (MET) Ireland: Department of Transport, Tourism and Sport Irish Aviation Authority (ANSP) Irish Aviation Authority Safety Regulation Division (NSA) Commission for Aviation Regulation 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 the August 2013 update of the Oxford Economics Ltd forecasts (OEF). Inflation assumptions are consistent with the IMF September 2013 forecast (published in mid October 2013). Traffic forecasts are those published by STATFOR in September 2013.

Ireland: GDP assumptions are based on forecasts from the Department of Finance, Ireland. Inflation assumptions are consistent with the IMF September 2013 forecast (published in mid October 2013). Traffic forecasts are the mid-point between STATFOR September 2013 base case and low case forecasts adjusted for

1.3 - Stakeholder consultation

Number of Meetings	1

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
Main issues	to be completed after consultation
Actions agreed upon	to be completed after consultation
Points of disagreement and reasons	to be completed after consultation
Additional comments	to be completed after consultation

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				
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

Additional comments

SECTION 2: INVESTMENTS

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(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

Number of capex	6

Name of capex 1	**FDP - COOPANS**
Description	The objective of COOPANS (Cooperation for Procurement of ANSP Systems) is to establish a single FDP system that would be deployed by the COOPANS partners (currently IAA, LFV, NAVIAIR, CCL and Austro Control). Build 1 was deployed into operation 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
Accountable entity	IAA ANSP

Justification of the cost, nature and contribution		
Differentiation	*Select*	
Common project or NSP	YES / NO	
Significant cost impact	YES	COOPANS is an ongoing cooperation programme in FDP development. IAA's investment over the RP2 period will be €40.5M. Savings in the development due to cooperation have been independently estimated at 30%.
Joint investment	YES	
Ref. to European ATM MP		
Synergies achieved at FAB level or other MS	YES	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.
Consultation with stakeholders	NO	
Decision-making process	NO	Part of a previously agreed ongoing development programme.

KPA	Impact	Expected benefits per KPA	Date of expected benefits	Area <En-route/ Terminal/ Airport/ Phases
Safety	NO			
Environment	NO			
Capacity	NO			
Cost efficiency	YES	The cooperation reduces system development costs by approximately 30 per cent when compared with the costs each partner would incur if it had		

Name of capex 2	Communications
Description	The majority of capital investment in the communications area is associated with one major upgrade project, the replacement of the current Voice Communication System (VCS), which will run until 2016. The upgrade involves the installation of new systems at IAA ATC facilities.
Accountable entity	IAA ANSP

Justification of the cost, nature and contribution		
Differentiation	*Replacement*	
Common project or NSP	YES / NO	
Significant cost impact	YES	Total capex in comms in RP2 will be €18.9M
Joint investment	NO	
Ref. to European ATM MP		
Synergies achieved at FAB level or other MS	NO	
Consultation with stakeholders	YES / NO	
Decision-making process	YES / NO	Replacement of the VCS is required due to end-of-life of the current system.

KPA	Impact	Expected benefits per KPA	Date of expected benefits	Area <En-route/ Terminal/ Airport/ Phases
Safety	YES / NO			
Environment	YES / NO			
Capacity	YES / NO			
Cost efficiency	YES / NO			

Name of capex 3	Surveillance & Navigation
Description	Use of ADS-B/WAM is planned for implementation as an alternative surveillance technology to radar. If coverage by new technologies is not sufficient, Dublin Radar 2 may still be replaced. The IAA plans to commence trials with ADS-B/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 layer in the event of loss of radar from a single site as a result of interference.
Accountable entity	IAA ANSP

Justification of the cost, nature and contribution		
Differentiation	*Replacement*	
Common project or NSP	YES / NO	
Significant cost impact	YES	Total capex in this area in RP2 will be €27.7M
Joint investment	NO	
Ref. to European ATM MP		
Synergies achieved at FAB level or other MS	NO	
Consultation with stakeholders	YES / NO	
Decision-making process	YES / NO	Radar replacement has been performed due to end-of-life of existing radars; programme has been completed with the exception of Dublin Radar 2. ADS-B/WAM provides an alternative surveillance layer as well as a contingency; in both cases this will benefit safety.

KPA	Impact	Expected benefits per KPA	Date of expected benefits	Area <En-route/ Terminal/ Airport/ Phases
Safety	YES	Additional layer of surveillance; contingency; potentially better coverage at lower levels.	2015	En route, terminal
Environment	YES / NO			
Capacity	YES / NO			
Cost efficiency	YES	ADS-B/WAM provide potentially better coverage at lower levels, with lower opex.	2015	En route, terminal

Name of capex 4	**IT / Other**
Description	Investments in IT cover a number of areas, including replacement of key systems, enhancement of the IT infrastructure and improvements to security and disaster recovery
Accountable entity	IAA ANSP

Justification of the cost, nature and contribution		
Differentiation	*Replacement*	
Common project or NSP	YES / NO	
Significant cost impact	YES	Total capex in RP2 will be €6.6M
Joint investment	NO	
Ref. to European ATM MP		
Synergies achieved at FAB level or other MS	NO	
Consultation with stakeholders	YES / NO	
Decision-making process	YES / NO	Necessary replacements in combination with enhancements to improve security and disaster recovery

KPA	Impact	Expected benefits per KPA	Date of expected benefits	Area <En-route/ Terminal/ Airport/ Phases
Safety	YES	Improved security and disaster recovery	Continuous	All
Environment	YES / NO			
Capacity	YES / NO			
Cost efficiency	YES / NO			

Name of capex 5	Contingency
Description	The IAA intends to build a new contingency facility which 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
Accountable entity	IAA ANSP

Justification of the cost, nature and contribution		
Differentiation	*New*	
Common project or NSP	YES / NO	
Significant cost impact	YES	Total capex in RP2 will be €13.0M
Joint investment	NO	
Ref. to European ATM MP		
Synergies achieved at FAB level or other MS	NO	
Consultation with stakeholders	YES / NO	
Decision-making process	YES / NO	Current contingency for Shannon ACC is provided for at the co-located Training Centre. 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

KPA	Impact	Expected benefits per KPA	Date of expected benefits	Area <En-route/ Terminal/ Airport/ Phases
Safety	YES	Better contingency		
Environment	YES / NO			
Capacity	YES	Better contingency		
Cost efficiency	YES / NO			

Name of capex 6	Aviation Modernisation and Automation Project (AMAP)
Description	AMAP aims to modernise the aviation observing infrastructure to meet the requirement of a new EC Regulation currently being drafted by EASA and to enable Met Éireann to meet a standard in Annex 3 to the Convention on International Civil Aviation relating to equipment deployed near runways. The project will then proceed to automate the aviation observations and reports to enable significant reductions in staff serving aviation and financial savings to the airlines, following developments and planned developments in this regard in European METSPs.
Accountable entity	Met Eireann

Justification of the cost, nature and contribution		
Differentiation	*Overhaul*	
Common project or NSP	YES / NO	
Significant cost impact	YES	Total capex of AMAP will be €5M. This will be a significant investment for Met Eireann in RP2; cost will be balanced over time by significant reductions is staff costs.
Joint investment	NO	
Ref. to European ATM MP		
Synergies achieved at FAB level or other MS	NO	
Consultation with stakeholders	YES / NO	
Decision-making process	YES / NO	Initial phase of AMAP is a response to regulatory requirements.

KPA	Impact	Expected benefits per KPA	Date of expected benefits	Area <En-route/ Terminal/ Airport/ Phases
Safety	YES	Enhancing safety by increasing the temporal resolution of weather observations to ATC and other users	Modernisation by 2017, automation	All
Environment	YES / NO			
Capacity	YES / NO			
Cost efficiency	YES	Reduction in staff costs once automation phase comes online	2018	All

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			
FDP - COOPANS	40,517	5,900	9,817	12,200	4,100	8,500			
Communications	18,850	3,800	1,550	8,000	4,000	1,500			
Surveillance & Navigation	27,729	710	6,319	5,200	10,500	5,000			
IT / Other	6,588	1,258	757	883	1,980	1,710			
Contingency	13,000			13,000					
Aviation Modernisation and Automation Project (AMAP)	3,697	1,860	841	688	308	0			
Sub-total of **main capex** above (1)	110,381	13,528	19,284	39,971	20,888	16,710			
Sub-total other Capex (2)									
Total capex (1) + (2)	110,381	13,528	19,284	39,971	20,888	16,710			

Additional comments

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*	Redesign of existing airspace
Common project or NSP	YES	SES Interoperability 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
Significant cost impact	YES	Total capex for project: £60m; total capex for RP2: £42m
Joint investment	YES	Airport operators affected by the revised airspace design
Ref. to European ATM MP		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
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	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*	Redesign of existing airspace
Common project or NSP	YES	Pilot Common Project: AF1 - PBN in high density TMAs
Significant cost impact	YES	Total capex for project: £68m; total capex for RP2: £25m
Joint investment	YES	Airport operators affected by the revised airspace design
Ref. to European ATM MP		ESSIP Objectives: NAV03 - Implementation of P-RNAV OI Steps: AOM-0603 - Enhanced Terminal Airspace for RNP-based Operations
Synergies achieved at FAB level or other MS	NO	
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 (Risk Index)	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*	
Common project or NSP	YES	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) Pilot Common Project: AF1 - Extended AMAN; AF2 - Time Based Separation; AF3 - Flexible Airspace Management
Significant cost impact	YES	Total capex for project: £213m; total capex for RP2: £195m
Joint investment	NO	n/a
Ref. to European ATM MP		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
Synergies achieved at FAB level or other MS	NO	
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*	
Common project or NSP	YES	SES Interoperability 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
Significant cost impact	YES	Total capex for project: £133m; total capex for RP2: £103m
Joint investment	NO	n/a
Ref. to European ATM MP		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
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*	Redesign of existing airspace
Common project or NSP	NO	n/a
Significant cost impact	YES	Total capex for project: £6m; total capex for RP2: £6m
Joint investment	NO	n/a
Ref. to European ATM MP		n/a
Synergies achieved at FAB level or other MS	NO	
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	*Replacement*	
Common project or NSP	YES	SES Interoperability 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
Significant cost impact	YES	Total capex for project: £226m; total capex for RP2: £170m
Joint investment	YES	AENA, LVNL, DFS
Ref. to European ATM MP		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
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	60.0	9.9	8.9	7.2	6.9	9.3	9	78/6	Phased delivery over RP2
LAMP	67.9	5.6	7.5	7.5	4.3	0.0	9	78/6	Phased from 2015 will full LAMP delivery by 2020
Centre Systems Software Development	212.6	57.2	47.7	29.5	31.8	28.3	6-12	78/6	Phased delivery over RP2
CNS Infrastructure	133.1	19.6	19.8	26.9	23.0	13.4	7-20	78/6	Phased delivery over RP2
CO2 and Fuel Saving	5.6	1.1	1.1	1.1	1.1	1.2	9	78/6	Phased delivery over RP2
iTEC FDP/NCW	226.0	35.2	38.8	31.5	31.5	32.7	20	78/6	Phased to 2022
Sub-total of **main capex** above (1)	705.1	128.6	123.8	103.8	98.6	84.9			
Sub-total other Capex (2)	112.0	17.4	16.0	14.6	15.3	20.8	6-20	78/6	Phased delivery over RP2
Total capex (1) + (2)	817.1	146.0	139.8	118.4	113.9	105.7			

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, will be assessed against project plans for specific programmes. NERL will submit periodic reports to the CAA for assessment by an Independent Reporter. The CAA considers this approach will provide a significant reputational incentive on NERL, by providing a clear focus on delivery of planned and funded investments by NERL.

SECTION 3: PERFORMANCE TARGETS

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.	
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	All	All	
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 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.	
(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%
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 ANSP***	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 NSA's 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 Policy and Targets are discussed in Chapter 3 of the Consultation Document.
	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. Just Culture Policy are discussed in Chapter 3 of the Consultation Document.

Number of States	2

National level	***Ireland***	What actions have you undertaken to optimise Just Culture?
		The NSAs adopted a Policy Statement on JC and agreed on joint targets for this KPI at the FAB level. The NSAs will ensure that just culture training is cascaded from the leadership level throughout the FAB organisation. Training will be focused on appropriate senior management staff and ATM/ANS oversight staff, with particular focus on those personnel required to undertake safety occurrence oversight or regulatory investigations. The training will incorporate appropriate personnel from the top level to the newest recruit and will be tailored accordingly, whilst simultaneously recognising the training objective will be achieved by open engagement across a mix of seniority, specialism and nationality. The NSAs will ensure that this training is maintained on an on-going basis by including the requirement for JC training within their documented staff training and induction programmes.
	United Kingdom	What actions have you undertaken to optimise Just Culture?
		The NSAs adopted a Policy Statement on JC and agreed on joint targets for this KPI at the FAB level. The NSAs will ensure that just culture training is cascaded from the leadership level throughout the FAB organisation. Training will be focused on appropriate senior management staff and ATM/ANS oversight staff, with particular focus on those personnel required to undertake safety occurrence oversight or regulatory investigations. The training will incorporate appropriate personnel from the top level to the newest recruit and will be tailored accordingly, whilst simultaneously recognising the training objective will be achieved by open engagement across a mix of seniority, specialism and nationality. The NSAs will ensure that this training is maintained on an on-going basis by including the requirement for JC training within their documented staff training and induction programmes.

	Number of ANSPs	2

National level	***IAA ANSP***	What actions have you undertaken to optimise Just Culture? The FAB ANSPs will ensure that just culture training is cascaded from the leadership level throughout the ANSP organisation. Particular focus will be placed on the training of appropriate senior management staff and those personnel required to undertake safety occurrence investigations. The training will incorporate appropriate personnel from the top level to the newest recruit and will be tailored accordingly, whilst simultaneously recognising that the JC training objective will be achieved through open engagement across a mix of seniority, specialism and nationality. The ANSPs will ensure that this training is maintained on an on-going basis by including the requirement for JC training within their documented staff training and induction programmes.
	NATS NERL	What actions have you undertaken to optimise Just Culture? The FAB ANSPs will ensure that just culture training is cascaded from the leadership level throughout the ANSP organisation. Particular focus will be placed on the training of appropriate senior management staff and those personnel required to undertake safety occurrence investigations. The training will incorporate appropriate personnel from the top level to the newest recruit and will be tailored accordingly, whilst simultaneously recognising that the JC training objective will be achieved through open engagement across a mix of seniority, specialism and nationality. The ANSPs will ensure that this training is maintained on an on-going basis by including the requirement for JC training within their documented staff training and induction programmes.

Additional comments
The CAA has established one day training courses on Just Culture. These are ongoing. Just Culture Policy and Targets are discussed in Chapter 3 of the Consultation Document.

SECTION 3.1.(b): ENVIRONMENT 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.	
(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					

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.

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	0,28	0,29	0,29	0,29	0,28
FAB level	0.28	0.28	0.28	0.28	0.28
Description of the consistency between FAB targets and FAB reference values	The FAB target for the years 2016-2018 is slightly more challenging than the Union-wide target.				
Detailed justification in case of inconsistency	FAB performance to date suggests that a more challenging 0.28 target throughout the whole reference period will be attainable.				

Select Number of ANSPs >>		2
National level	***IAA***	
	ANSP contribution to FAB targets	Proportion for each year 2015-2019: 0.150
	NATS (Continental)	
	ANSP contribution to FAB targets	Proportion for each year 2015-2019: 0.254

Additional comments

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						
Contribution to the improvement of the European ATM network performance						
Number of airports		1				
Airport level	***EIDW (DUBLIN INTERNATIONAL)***					
	Airport contribution to national targets					

Additional comments

United Kingdom

		2015 Value	2016 Value	2017 Value	2018 Value	2019 Target
National level		1.11	1.11	1.11	1.11	1.11
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)	0.33	0.33	0.33	0.33	0.33
	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)	0.59	0.59	0.59	0.59	0.59
	Airport contribution to national targets	This is an average amount per year over RP2.				
	EGLC (LONDON/CITY)	2.41	2.41	2.41	2.41	2.41
	Airport contribution to national targets	This is an average amount per year over RP2.				
	EGLL (LONDON HEATHROW)	2.66	2.66	2.66	2.66	2.66
	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.

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 as they are already available within EUROCONTROL. They remain nevertheless an integral part of the FAB performance plans.

SECTION 3.1.(d): COST-EFFICIENCY 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.	
(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	RT 1 (5.3)		
(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)	

IMPORTANT NOTE FOR SECTION 3.1.(d):

The data and justifications for the cost-efficiency targets at local level in the FAB Performance Plan comprise,

for each charging zone:

• A '**Level 1**', consisting of the data and justifications provided in the body of the performance plan document;

• A '**Level 2**', comprising:

- The data and justifications in the **Reporting Tables and Additional Information**, as per Annexes II, III, VI and VII of Implementing Regulation (EU) No 391/2013 (Charging Regulation);
- The data and justifications relating to cost-efficiency required for the purpose of the Performance Plans, as per Article 11 (3) and Annexes II and IV of Implementing Regulation (EU) No 390/2013 (Performance Regulation), which are neither covered by the Level 1 section, nor the Reporting Tables and Additional Information, as per Annexes II, III, VI and VII of Implementing Regulation (EU) No 391/2013. In order to ease reporting and avoid duplication, these additional data and justifications for the RP2 Performance Plan are included and presented in a supplementary section of the Additional Information document for each

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 (London Approach)***

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

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

in EUR

	Ireland	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)	105,073,000						119,009,400.0	122,178,400.0	126,269,500.0	129,890,400.0	131,201,700.0	121,577,000	2.2%	0.0%	0.0%	1.5%
	Inflation %		-1.60%	1.20%	1.90%	1.00%	1.20%	1.40%	1.60%	1.70%	1.70%	1.70%					
	Inflation index (Base = 100 in 2012)	98.5	96.9	98.1	100.0	101.0	102.2	103.6	105.2	106.9	108.6	110.3	103.7	1.1%	1.5%	1.5%	1.2%
	Total en route actual/forecast/determined costs in real terms (in national currency at 2012 prices)	106,673,096						114,873,938.2	116,139,163.5	118,119,270.3	119,604,419.9	118,949,864.0	117,362,000	1.1%	0.0%	0.0%	0.3%
	Total en route Service Units (TSU)	3,561,000			3,806,000	3,813,000	3,899,000	3,990,000.0	4,090,000.0	4,180,000.0	4,276,000.0	4,370,000.0	4,004,000	2.1%	2.3%	0.0%	1.8%
	Real en route UCs/DUCs (in national currency at 2012 prices)	29.96						28.79	28.40	28.26	27.97	27.22	29.31	-1.0%	0.0%	0.0%	-1.5%
€2012 prices	2012 average exchange rate (1EUR=)	1	1	1	1	1	1	1	1	1	1	1	1				
€2012 prices	Total **en route** costs in real terms (in €$_{2012}$ prices)	106,673,096	0	0	0	0	0	114,873,938	116,139,163	118,119,270	119,604,420	118,949,864	117,362,000	1.1%	0.0%	0.0%	0.3%
€2012 prices	Trend in total **en route** costs in real terms %n/n-1								1.1%	1.7%	1.3%	-0.5%					
€2012 prices	Real **en route** UCs/DUCs (in €$_{2012}$ prices)	29.96			0.00			28.79	28.40	28.26	27.97	27.22	29.31	-1.0%	0.0%	0.0%	-1.5%
€2012 prices	Trend in real **en route** UCs/DUCs (in €$_{2012}$ prices) %n/n-1								-1.4%	-0.5%	-1.0%	-2.7%					
€2009 prices	Inflation index (Base = 100 in 2009)	100.00	98.40	99.60	101.50	102.50	103.70	105.10	106.70	108.40	110.10	111.80	105.28				
€2009 prices	2009 average exchange rate (1EUR=)	1	1	1	1	1	1	1	1	1	1	1	1				
€2009 prices	Total **en route** costs in real terms (in €$_{2009}$ prices)	105,073,000	0	0	0	0	0	113,234,443	114,506,467	116,484,779	117,974,932	117,353,936	115,480,564	1.1%	0.0%	0.0%	0.3%
€2009 prices	Trend in total **en route** costs in real terms %n/n-1								1.1%	1.7%	1.3%	-0.5%					
€2009 prices	Real **en route** UCs/DUCs (in €$_{2009}$ prices)	29.51						28.38	28.00	27.87	27.59	26.85	28.84	-0.9%	0.0%	0.0%	-1.4%
€2009 prices	Trend in real **en route** UCs/DUCs (in €$_{2009}$ prices) %n/n-1								-1.3%	-0.5%	-1.0%	-2.7%					

Description of the consistency between local and Union-wide targets	

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%	1.00%	1.20%	1.40%	1.60%	1.70%	1.70%	1.70%
Inflation index (2012=100)				100.0	101.0	102.2	103.6	105.2	106.9	108.6	110.3
Eurostat HICP (actuals) and IMF CPI (forecasts)				0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Inflation index (2012=100) HICP and IMF				100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Difference in percentage points					0.01	0.01	0.01	0.02	0.02	0.02	0.02
Cumulative difference in percentage points					0.01	0.02	0.04	0.05	0.07	0.09	0.10
Justification and data source in case of deviation from inflation references											

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)				3,806,000	3,813,000	3,899,000	3,990,000	4,090,000	4,180,000	4,276,000	4,370,000
	Year on Year variation TSU					0.2%	2.3%	2.3%	2.5%	2.2%	2.3%	2.2%
Baseline	STATFOR **en route** service units forecast (Baseline scenario)				0	0	0	0	0	0	0	0
Baseline	Year on Year variation TSU STATFOR											
Baseline	Difference in percentage points											
Baseline	Cumulative difference in percentage points											
Low	STATFOR **en route** service units forecast (Low scenario)				0	0	0	0	0	0	0	0
Low	Year on Year variation TSU STATFOR											
Low	Difference in percentage points											
Low	Cumulative difference in percentage points											
	Explanation of the differences (if any), justification, rationale and source											

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											

IMPORTANT NOTE: The data and justifications for the cost-efficiency targets at local level for the FAB Performance Plan comprise, for each charging zone:

• A '**Level 1**', consisting of the data and justifications in **Items A to D** above;

• A '**Level 2**', comprising:

- The data and justifications in the **Reporting Tables and Additional Information**, as per Annexes II, III, VI and VII of Implementing Regulation (EU) No 391/2013;
- The data and justifications relating to cost-efficiency required for the purpose of the Performance Plans, as per Article 11 (3) and Annexes II and IV of Implementing Regulation (EU) No 390/2013, which are neither covered by the Level 1 section, nor the Reporting Tables and Additional Information, as per Annexes II, III, VI and VII of Implementing Regulation (EU) No 391/2013. In order to ease reporting and avoid duplication, these additional data and justifications for the RP2 Performance Plan are presented as a supplementary section of the Additional Information document for each Charging Zone called '**Additional Information -4 - Additional justifications for the RP2 Performance Plan**'.

The 'Level 2' forms an integral part of the performance plan and will be used by the EC assisted by the PRB to carry out the assessment of the Performance Plan. The 'Level 2' is presented at Annex C to this FAB performance Plan.

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			685,845,884	685,886,523	687,735,208	679,153,331	668,154,411	728,678,295	728,678,295	728,678,295	0.5%	-1.7%
	Inflation %		3.34%	4.50%	2.80%	2.70%	2.30%	2.00%	1.90%	2.00%	2.00%	2.00%					
	Inflation index (Base = 100 in 2012)	90.1	93.1	97.3	100.0	102.7	105.1	107.2	109.2	111.4	113.6	115.9	100.6	2.6%	2.0%	2.2%	2.9%
	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			639,913,229	628,018,790	617,364,218	597,706,336	576,496,524	723,985,854	-1.7%	0.0%	-1.7%	-4.5%
	Total en route Service Units (TSU)	9,914,403	9,480,262	9,860,804	9,607,878			10,036,000	10,262,000	10,455,000	10,682,000	10,912,000	11,034,647	1.0%	0.0%	1.3%	-0.2%
	Real en route UCs/DUCs (in national currency at 2012 prices)	68.86	72.05	66.91	68.56			63.76	61.20	59.05	55.95	52.83	65.61	-2.6%	0.0%	-2.9%	-4.2%
€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	0	0	788,813,635	774,151,497	761,017,730	736,785,686	710,640,596	892,448,987	-1.7%	0.0%	-1.7%	-4.5%
	Trend in total **en route** costs in real terms %n/n-1		0.1%	-3.4%	-0.2%				-1.9%	-1.7%	-3.2%	-3.5%					
	Real **en route** UCs/DUCs (in €$_{2012}$ prices)	84.88	88.81	82.47	84.52			78.60	75.44	72.79	68.97	65.12	80.88	-2.6%	0.0%	-2.9%	-4.2%
	Trend in real **en route** UCs/DUCs (in €$_{2012}$ prices) %n/n-1		4.6%	-7.1%	2.5%				-4.0%	-3.5%	-5.2%	-5.6%					
€2009 prices	Inflation index (Base = 100 in 2009)	100.00	103.34	107.99	111.01	114.01	116.63	118.97	121.23	123.65	126.12	128.65	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	0	0	647,290,967	635,259,394	624,481,982	604,597,459	583,143,113	732,233,071	-1.7%	0.0%	-1.7%	-4.5%
	Trend in total **en route** costs in real terms %n/n-1		0.1%	-3.4%	-0.2%				-1.9%	-1.7%	-3.2%	-3.5%					
	Real **en route** UCs/DUCs (in €$_{2009}$ prices)	69.64	72.87	67.67	69.34			64.50	61.90	59.73	56.60	53.44	66.36	-2.6%	0.0%	-2.9%	-4.2%
	Trend in real **en route** UCs/DUCs (in €$_{2009}$ prices) %n/n-1		4.6%	-7.1%	2.5%				-4.0%	-3.5%	-5.2%	-5.6%					

Description of the consistency between local and Union-wide targets	

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%	2.70%	2.30%	2.00%	1.90%	2.00%	2.00%	2.00%
Inflation index (2012=100)				100.0	102.7	105.1	107.2	109.2	111.4	113.6	115.9
Eurostat HICP (actuals) and IMF CPI (forecasts)				0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Inflation index (2012=100) HICP and IMF				100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Difference in percentage points					0.03	0.02	0.02	0.02	0.02	0.02	0.02
Cumulative difference in percentage points					0.03	0.05	0.07	0.09	0.11	0.14	0.16
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			10,036,000	10,262,000	10,455,000	10,682,000	10,912,000
	Year on Year variation TSU								2.3%	1.9%	2.2%	2.2%
Baseline	STATFOR **en route** service units forecast (Baseline scenario)				0	0	0	10,036,000	10,262,000	10,455,000	10,682,000	10,912,000
Baseline	Year on Year variation TSU STATFOR								2.3%	1.9%	2.2%	2.2%
Baseline	Difference in percentage points							#VALUE!	0.00	0.00	0.00	0.00
Baseline	Cumulative difference in percentage points							0.00	0.00	0.00	0.00	0.00
Low	STATFOR **en route** service units forecast (Low scenario)				0	0	0	9,744,000	9,884,000	9,988,000	10,104,000	10,217,000
Low	Year on Year variation TSU STATFOR								1.4%	1.1%	1.2%	1.1%
Low	Difference in percentage points							#VALUE!	0.01	0.01	0.01	0.01
Low	Cumulative difference in percentage points							0.03	0.04	0.05	0.06	0.07
	Explanation of the differences (if any), justification, rationale and source				n/a							

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							

IMPORTANT NOTE: The data and justifications for the cost-efficiency targets at local level for the FAB Performance Plan comprise, for each charging zone:

• A '**Level 1**', consisting of the data and justifications in **Items A to D** above;

• A '**Level 2**', comprising:

- The data and justifications in the **Reporting Tables and Additional Information**, as per Annexes II, III, VI and VII of Implementing Regulation (EU) No 391/2013;
- The data and justifications relating to cost-efficiency required for the purpose of the Performance Plans, as per Article 11 (3) and Annexes II and IV of Implementing Regulation (EU) No 390/2013, which are neither covered by the Level 1 section, nor the Reporting Tables and Additional Information, as per Annexes II, III, VI and VII of Implementing Regulation (EU) No 391/2013. In order to ease reporting and avoid duplication, these additional data and justifications for the RP2 Performance Plan are presented as a supplementary section of the Additional Information document for each Charging Zone called '**Additional Information -4 - Additional justifications for the RP2 Performance Plan**'.

The 'Level 2' forms an integral part of the performance plan and will be used by the EC assisted by the PRB to carry out the assessment of the Performance Plan. The 'Level 2' is presented at Annex C to this FAB performance Plan.

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)	13,475,403						14,026,000	14,352,000	14,635,000	14,958,000	15,282,000	15,038,647	1.3%	0.0%	0.0%	0.3%
	Trend in Total en route Service Units (TSU)%n/n-1								2.32%	1.97%	2.21%	2.17%					
	Total en route costs in real terms (in €$_{2012}$ prices)	948,215,580					0	903,687,573	890,290,661	879,137,000	856,390,106	829,590,460	1,009,810,987	-1.3%	0.0%	0.0%	-3.9%
	Trend in total en route costs in real terms (in €$_{2012}$ prices) %n/n-1								-1.48%	-1.25%	-2.59%	-3.13%					
	Real en route UCs/DUCs (in €$_{2012}$ prices)	70.37	0.00	0.00	0.00	0.00	0.00	64.43	62.03	60.07	57.25	54.29	67.15	-2.6%	0.0%	0.0%	-4.2%
	Trend in real en route UCs/DUCs (in €$_{2012}$ prices)%n/n-1								-3.72%	-3.16%	-4.69%	-5.18%					
€2009 prices	Total en route costs in real terms (in €$_{2009}$ prices)	795,538,501					0	760,525,411	749,765,860	740,966,761	722,572,391	700,497,049	847,713,635	-1.3%	0.0%	0.0%	-3.7%
	Trend in total en route costs in real terms (in €$_{2009}$ prices) %n/n-1								-1.41%	-1.17%	-2.48%	-3.06%					
	Real en route UCs/DUCs (in €$_{2009}$ prices)	59.04	0.00	0.00	0.00	0.00	0.00	54.22	52.24	50.63	48.31	45.84	56.37	-2.5%	0.0%	0.0%	-4.1%
	Trend in real en route UCs/DUCs (in €$_{2009}$ prices)%n/n-1								-3.65%	-3.08%	-4.59%	-5.11%					

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	-3.4%
	Inflation %	1.40%	1.60%	1.70%	1.70%	1.70%	
	Inflation index (Base = 100 in 2012)	103.6	105.2	106.9	108.6	110.3	-1.6%
	Total terminal determined costs in real terms (in national currency at 2012 prices)	23,749,228	24,836,597	25,147,521	25,475,414	25,610,517	-1.9%
	Total terminal Service Units (TSU) used for the determined unit cost	142,200	147,200	152,800	158,800	164,400	-3.6%
	Real terminal DUCs (in national currency at 2012 prices)	167.01	168.73	164.58	160.42	155.78	1.8%
€2012 prices	2012 average exchange rate (1EUR=)	1	1	1	1	1	
€2012 prices	Total terminal determined costs in real terms (in $€_{2012}$ prices)	23,749,228	24,836,597	25,147,521	25,475,414	25,610,517	-1.9%
€2012 prices	Trend in total terminal determined costs in real terms %n/n-1		4.6%	1.3%	1.3%	0.5%	
€2012 prices	Real terminal DUCs (in $€_{2012}$ prices)	167.01	168.73	164.58	160.42	155.78	1.8%
€2012 prices	Trend in real terminal DUCs (in $€_{2012}$ prices) %n/n-1		1.0%	-2.5%	-2.5%	-2.9%	
€2009 prices	Inflation index (Base = 100 in 2009)	105.10	106.70	108.40	110.10	111.80	
€2009 prices	2009 average exchange rate (1EUR=)	1	1	1	1	1	
€2009 prices	Total terminal determined costs in real terms (in $€_{2009}$ prices)	23,410,276	24,487,441	24,799,539	25,128,338	25,266,905	-1.9%
€2009 prices	Trend in total terminal determined costs in real terms %n/n-1		4.6%	1.3%	1.3%	0.6%	
€2009 prices	Real terminal DUCs (in $€_{2009}$ prices)	164.63	166.35	162.30	158.24	153.69	1.7%
€2009 prices	Trend in real terminal DUCs (in $€_{2009}$ prices) %n/n-1		1.0%	-2.4%	-2.5%	-2.9%	

Description and justification of how the local targets contribute to the performance of the European ATM network	

B - Inflation assumptions

Ireland	2015 D	2016 D	2017 D	2018 D	2019 D
Inflation %	1.40%	1.60%	1.70%	1.70%	1.70%
Inflation index (2012=100)	103.6	105.2	106.9	108.6	110.3
Eurostat HICP (actuals) and IMF CPI (forecasts)	0.00%	0.00%	0.00%	0.00%	0.00%
Inflation index (2012=100) HICP and IMF	100.00	100.00	100.00	100.00	100.00
Difference in percentage points		0.02	0.02	0.02	0.02
Cumulative difference in percentage points		0.05	0.07	0.09	0.10
Justification and data source in case of deviation from inflation references					

C - Service Units forecast for terminal

Ireland	2015 D	2016 D	2017 D	2018 D	2019 D
Total terminal service units (TNSU)	142,200	147,200	152,800	158,800	164,400
Year on Year variation TNSU		3.5%	3.8%	3.9%	3.5%
STATFOR terminal service units forecast (Baseline scenario)	0	0	0	0	0
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)

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					

IMPORTANT NOTE: The data and justifications for the cost-efficiency targets at local level for the FAB Performance Plan comprise, for each charging zone:

• A '**Level 1**', consisting of the data and justifications in Items **A to D** above;

• A '**Level 2**', comprising:

- The data and justifications in the **Reporting Tables and Additional Information**, as per Annexes II, III, VI and VII of Implementing Regulation (EU) No 391/2013;

- The data and justifications relating to cost-efficiency required for the purpose of the Performance Plans, as per Article 11 (3) and Annexes II and IV of Implementing Regulation (EU) No 390/2013, which are neither covered by the Level 1 section, nor the Reporting Tables and Additional Information, as per Annexes II, III, VI and VII of Implementing Regulation (EU) No 391/2013. In order to ease reporting and avoid duplication, these additional data and justifications for the RP2 Performance Plan are presented as a supplementary section of the Additional Information document for each Charging Zone called '**Additional Information -4 - Additional justifications for the RP2 Performance Plan**'.

The 'Level 2' forms an integral part of the performance plan and will be used by the EC assisted by the PRB to carry out the assessment of the Performance Plan. The 'Level 2' is presented at Annex C to this FAB performance Plan.

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 - CURRENTLY NO AIRPORTS	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)						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=)	#N/A	#N/A	#N/A	#N/A	#N/A	
	Total terminal determined costs in real terms (in €2012 prices)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
	Trend in total terminal determined costs in real terms %n/n-1		#N/A	#N/A	#N/A	#N/A	
	Real terminal DUCs (in €2012 prices)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
	Trend in real terminal DUCs (in €2012 prices) %n/n-1		#N/A	#N/A	#N/A	#N/A	
€2009 prices	Inflation index (Base = 100 in 2009)	#N/A	#N/A	#N/A	#N/A	#N/A	
	2009 average exchange rate (1EUR=)	#N/A	#N/A	#N/A	#N/A	#N/A	
	Total terminal determined costs in real terms (in €2009 prices)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
	Trend in total terminal determined costs in real terms %n/n-1		#N/A	#N/A	#N/A	#N/A	
	Real terminal DUCs (in €2009 prices)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
	Trend in real terminal DUCs (in €2009 prices) %n/n-1		#N/A	#N/A	#N/A	#N/A	
	Description and justification of how the local targets contribute to the performance of the European ATM network						

B - Inflation assumptions

United Kingdom - Zone A - CURRENTLY NO AIRPORTS	2015 D	2016 D	2017 D	2018 D	2019 D
Inflation %					
Inflation index (2012=100)	0.0	0.0	0.0	0.0	0.0
Eurostat HICP (actuals) and IMF CPI (forecasts)	#N/A	#N/A	#N/A	#N/A	#N/A
Inflation index (2012=100) HICP and IMF	#N/A	#N/A	#N/A	#N/A	#N/A
Difference in percentage points		#N/A	#N/A	#N/A	#N/A
Cumulative difference in percentage points		#N/A	#N/A	#N/A	#N/A
Justification and data source in case of deviation from inflation references					

C - Service Units forecast for terminal

United Kingdom - Zone A - CURRENTLY 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)	#N/A	#N/A	#N/A	#N/A	#N/A
Year on Year variation TNSU STATFOR		#N/A	#N/A	#N/A	#N/A
Difference in percentage		#N/A	#N/A	#N/A	#N/A
Cumulative difference in percentage		#N/A	#N/A	#N/A	#N/A

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

D - Alert thresholds (terminal service units)

United Kingdom - Zone A - CURRENTLY NO	**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					

IMPORTANT NOTE: The data and justifications for the cost-efficiency targets at local level for the FAB Performance Plan comprise, for each charging zone:

• A '**Level 1**', consisting of the data and justifications in Items **A to D** above;

• A '**Level 2**', comprising:

- The data and justifications in the **Reporting Tables and Additional Information**, as per Annexes II, III, VI and VII of Implementing Regulation (EU) No 391/2013;

- The data and justifications relating to cost-efficiency required for the purpose of the Performance Plans, as per Article 11 (3) and Annexes II and IV of Implementing Regulation (EU) No 390/2013, which are neither covered by the Level 1 section, nor the Reporting Tables and Additional Information, as per Annexes II, III, VI and VII of Implementing Regulation (EU) No 391/2013. In order to ease reporting and avoid duplication, these additional data and justifications for the RP2 Performance Plan are presented as a supplementary section of the Additional Information document for each Charging Zone called '**Additional Information -4 - Additional justifications for the RP2 Performance Plan**'.

The 'Level 2' forms an integral part of the performance plan and will be used by the EC assisted by the PRB to carry out the assessment of the Performance Plan. The 'Level 2' is presented at Annex C to this FAB performance Plan.

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)	136,370,196	137,949,677	140,143,547	141,772,743	143,216,355	-1.2%
	Inflation %	2.00%	1.90%	2.00%	2.00%	2.00%	
	Inflation index (Base = 100 in 2012)	107.18	109.21	111.40	113.63	115.90	-1.9%
	Total terminal determined costs in real terms (in national currency at 2012 prices)	127,234,742	126,315,976	125,802,107	124,767,000	123,568,900	0.7%
	Total terminal Service Units (TSU) used for the determined unit cost	1,124,615	1,154,259	1,175,410	1,199,943	1,225,089	-2.1%
	Real terminal DUCs (in national currency at 2012 prices)	113.14	109.43	107.03	103.98	100.87	2.9%
€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)	156,840,794	155,708,242	155,074,802	153,798,838	152,321,953	0.7%
	Trend in total terminal determined costs in real terms %n/n-1		-0.7%	-0.4%	-0.8%	-1.0%	
	Real terminal DUCs (in $€_{2012}$ prices)	139.46	134.90	131.93	128.17	124.34	2.9%
	Trend in real terminal DUCs (in $€_{2012}$ prices) %n/n-1		-3.3%	-2.2%	-2.9%	-3.0%	
€2009 prices	Inflation index (Base = 100 in 2009)	118.98	121.24	123.67	126.14	128.66	
	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)	128,684,124	127,754,893	127,235,170	126,188,272	124,976,523	0.7%
	Trend in total terminal determined costs in real terms %n/n-1		-0.7%	-0.4%	-0.8%	-1.0%	
	Real terminal DUCs (in $€_{2009}$ prices)	114.43	110.68	108.25	105.16	102.01	2.9%
	Trend in real terminal DUCs (in $€_{2009}$ prices) %n/n-1		-3.3%	-2.2%	-2.9%	-3.0%	

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 %	2.00%	1.90%	2.00%	2.00%	2.00%
Inflation index (2012=100)	107.2	109.2	111.4	113.6	115.9
Eurostat HICP (actuals) and IMF CPI (forecasts)	0.00%	0.00%	0.00%	0.00%	0.00%
Inflation index (2012=100) HICP and IMF	100.00	100.00	100.00	100.00	100.00
Difference in percentage points		0.02	0.02	0.02	0.02
Cumulative difference in percentage points		0.09	0.11	0.14	0.16
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)	1,124,615	1,154,259	1,175,410	1,199,943	1,225,089
Year on Year variation TNSU		2.6%	1.8%	2.1%	2.1%
STATFOR terminal service units forecast (Baseline scenario)	0	0	0	0	0
Year on Year variation TNSU STATFOR					
Difference in percentage					
Cumulative difference in percentage					
Explanation of the differences (if any), justification, rationale and source	Used latest draft forecast for the charging zone rather then the September 2013 forcast. This is subject to change when the official new forecast becomes available.				

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				

IMPORTANT NOTE: The data and justifications for the cost-efficiency targets at local level for the FAB Performance Plan comprise, for each charging zone:

• A '**Level 1**', consisting of the data and justifications in Items **A to D** above;

• A '**Level 2**', comprising:

- The data and justifications in the **Reporting Tables and Additional Information**, as per Annexes II, III, VI and VII of Implementing Regulation (EU) No 391/2013;

- The data and justifications relating to cost-efficiency required for the purpose of the Performance Plans, as per Article 11 (3) and Annexes II and IV of Implementing Regulation (EU) No 390/2013, which are neither covered by the Level 1 section, nor the Reporting Tables and Additional Information, as per Annexes II, III, VI and VII of Implementing Regulation (EU) No 391/2013. In order to ease reporting and avoid duplication, these additional data and justifications for the RP2 Performance Plan are presented as a supplementary section of the Additional Information document for each Charging Zone called '**Additional Information -4 - Additional justifications for the RP2 Performance Plan**'.

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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
nominal 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=)	0.811235	0.811235	0.811235	0.811235	0.811235	
	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)	#N/A	#N/A	#N/A	#N/A	#N/A	
	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)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
	Trend in total terminal determined costs in real terms %n/n-1		#N/A	#N/A	#N/A	#N/A	
	Real terminal DUCs (in €2009 prices)	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
	Trend in real terminal DUCs (in €2009 prices) %n/n-1		#N/A	#N/A	#N/A	#N/A	

Description and justification of how the local targets contribute to the performance of the European ATM network	

B - Inflation assumptions

United Kingdom - Zone C (London Approach) -	2015 D	2016 D	2017 D	2018 D	2019 D
Inflation %					
Inflation index (2012=100)	0.0	0.0	0.0	0.0	0.0
Eurostat HICP (actuals) and IMF CPI (forecasts)	#N/A	#N/A	#N/A	#N/A	#N/A
Inflation index (2012=100) HICP and IMF	#N/A	#N/A	#N/A	#N/A	#N/A
Difference in percentage points		#N/A	#N/A	#N/A	#N/A
Cumulative difference in percentage points		#N/A	#N/A	#N/A	#N/A
Justification and data source in case of deviation from inflation references					

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)					
Year on Year variation TNSU					
STATFOR terminal service units forecast (Baseline scenario)	#N/A	#N/A	#N/A	#N/A	#N/A
Year on Year variation TNSU STATFOR		#N/A	#N/A	#N/A	#N/A
Difference in percentage		#N/A	#N/A	#N/A	#N/A
Cumulative difference in percentage		#N/A	#N/A	#N/A	#N/A
Explanation of the differences (if any), justification, rationale and source					

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					

IMPORTANT NOTE: The data and justifications for the cost-efficiency targets at local level for the FAB Performance Plan comprise, for each charging zone:

• A '**Level 1**', consisting of the data and justifications in Items **A to D** above;

• A '**Level 2**', comprising:

- The data and justifications in the **Reporting Tables and Additional Information**, as per Annexes II, III, VI and VII of Implementing Regulation (EU) No 391/2013;

- The data and justifications relating to cost-efficiency required for the purpose of the Performance Plans, as per Article 11 (3) and Annexes II and IV of Implementing Regulation (EU) No 390/2013, which are neither covered by the Level 1 section, nor the Reporting Tables and Additional Information, as per Annexes II, III, VI and VII of Implementing Regulation (EU) No 391/2013. In order to ease reporting and avoid duplication, these additional data and justifications for the RP2 Performance Plan are presented as a supplementary section of the Additional Information document for each Charging Zone called '**Additional Information -4 - Additional justifications for the RP2 Performance Plan**'.

The 'Level 2' forms an integral part of the performance plan and will be used by the EC assisted by the PRB to carry out the assessment of the Performance Plan. The 'Level 2' is presented at Annex C to this FAB performance Plan.

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.

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. The main focus so far has been on safety impacts, which will generally be determined by reference to established principles of safety management and system change processes.

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, in accordance with Article 11. 3. (e) of the Commission ATM Performance Implementing Regulation, assess the FAB Plan in relation to their individual ANSP contribution to the FAB Plan's impact on safety and also through an interdependency analysis that identifies potential changes to the elements of the functional system and the possible mitigation measures to be considered. The ANSPs may make use of the EASA guidance published in the Annex to ED Decision 2013/032/R Acceptable Means of Compliance and Guidance Material for the Implementation and Measurement of Safety Key Performance Indicators (SKPIs). The exposition will include an explanation of how the safety of the current operation is assured, as will a study of the impact of changes to the functional system and their safety mitigation. Any trade off's between Safety Key Performance Areas and other Key Performance Areas will be identified and will include appropriate mitigation measures.

The ANSP individual contributions attached in Annex F 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. No cumulative or additive effects have been noted and the plan is considered to be at a minimum safety neutral and in general gives rise to increased level of safety. The application and maintenance of SMS will provide an appropriate level of safety assurance coupled with NSA oversight activity.

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

3.4 - Contribution of each air navigation service provider

This section has been integrated within each individual KPI.

SECTION 4: INCENTIVE SCHEMES

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.	
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 achieving additional flight efficiencies would prejudice greater gains elsewhere; -The scale of flight efficiency benefits (including vertical trajectories and benefits within 40NM of airports) generated since the start of RP2.
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 need 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 Consultation Document attached in Annex A

UK Incentive on 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 inefficencies 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 appplied 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.
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 Consultation Document attached in Annex A
Additional comments	

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 Consultation Document attached in Annex A
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	From 2017 to the end of RP2, NERL's eligibility to earn bonuses in the 3Di incentive will be contingent on the successful implementation of a harmonised TA of 18,000 ft. Furthermore, NERL will be liable to pay penalties equal to 1% of its en route revenue from user charges for 2017 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 2017, NERL will be subject to the bonus and penalty mechanism for 3Di for the years 2017, 2018 and 2019.
Additional comments	

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 Consultation Document attached in Annex A
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 failed; -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 would 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 would 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	

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 Consultation Document attached in Annex A
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	

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 Consultation Document attached in Annex A
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	

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 VI of the same Regulation.
Therefore, the information needed is included in the Reporting Tables attached in Annex C.

SECTION 5: MILITARY DIMENSION OF THE PLAN

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.	
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.	5.1 5.2			

5 - MILITARY DIMENSION OF THE PLAN

5.1 - Application of FUA legislation to improve capacity

attached in Annex E

5.2 - Additional (Key) Performance Indicators (and targets) relevant to civil milit

UK:
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

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

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.	
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"

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

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.	
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. FNGP 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 FNGP will also coordinate closely with the NATS Licence Management Coordination Committee (NLMCC), responsible for oversight of all aspects of the NATS Licence. The CAA will introduce a new licence condition for NATS to ensure enforcement of the Plan.

FNGP 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 FNGP 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 FNGP, 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 (not applicable to the consultation of the draft Plan)

Annex B. Relevant documentation in line with the NSP

Annex C. Reporting Tables
Annex C.1.1 IE ENR Tables
Annex C.1.3 IE TER Tables
Annex C.2.1 UK ENR Tables
Annex C.2.2 UK ENR Additional Information
Annex C.2.3 UK TER Tables (Zone B)
Annex C.2.4 UK TER Additional Information (Zone B)
Annex C.2.5 UK TER Tables (Zone C)
Annex C.2.6 UK TER Additional Informauin (Zone C)
Annex D. ANSPs investment plans
Annex D.1 NATS Investments

Annex E. FUA

Annex F. Safety Assessment

Annex G. Comparison of RP1 and RP2 targets

Public Consultation Material

This Annex will be completed post consultation.

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. **(Directly links to NSP Strategic Objective SO7) NERL uncertain whether IAA are using the tool in 2014**

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 colspan="2">Further benefits from the implementation of iFACTS (Nov 2011)</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

Charging zone name	Ireland
Currency	Euro
Entity name:	All Entities

Period of reference : **2015-2019**

Cost details	Determined costs (performance plan) 2015	2016	2017	2018	2019	NPP RP1 2014
1. Detail by nature (in nominal terms)						
1.1 Staff	63,935.0	66,142.9	69,125.2	69,729.7	71,674.2	67,174.0
1.2 Other operating costs (1)	40,247.4	39,829.3	40,088.7	40,830.4	40,312.8	37,214.0
1.3 Depreciation	9,605.1	10,811.8	11,569.6	13,089.7	12,906.2	10,600.0
1.4 Cost of capital	5,348.9	5,521.4	5,613.0	6,367.6	6,435.5	6,716.0
1.5 Exceptional items	0.0	0.0	0.0	0.0	0.0	0.0
1.6 Total costs	119,136.4	122,305.4	126,396.5	130,017.4	131,328.7	121,704.0
Total % n/n-1		2.7%	3.3%	2.9%	1.0%	
Staff % n/n-1		3.5%	4.5%	0.9%	2.8%	
Other op. % n/n-1		-1.0%	0.7%	1.9%	-1.3%	
2. Detail by service (in nominal terms)						
2.1 Air Traffic Management	90,187.3	91,696.5	94,883.1	98,375.3	99,782.5	102,906.0
2.2 Communication (2)	3,000.0	3,070.0	3,175.0	3,295.0	3,350.0	0.0
2.3 Navigation (2)	2,515.0	2,550.0	2,650.0	2,745.0	2,785.0	0.0
2.4 Surveillance (2)	4,062.0	4,170.0	4,329.0	4,566.0	4,626.0	0.0
2.5 Search and rescue	0.0	0.0	0.0	0.0	0.0	0.0
2.6 Aeronautical Information (2)	1,500.0	1,525.0	1,550.0	1,575.0	1,600.0	0.0
2.7 Meteorological services (2)	6,810.0	8,077.0	8,413.0	7,871.0	7,398.0	6,802.0
2.8 Supervision costs	1,461.8	1,482.2	1,506.0	1,531.6	1,557.6	2,059.0
2.9 Other State costs (1)	9,600.3	9,734.7	9,890.4	10,058.5	10,229.6	9,937.0
2.10 Total costs	119,136.4	122,305.4	126,396.5	130,017.4	131,328.7	121,704.0
Total % n/n-1		2.7%	3.3%	2.9%	1.0%	
ATM % n/n-1		1.7%	3.5%	3.7%	1.4%	
CNS % n/n-1		2.2%	3.7%	4.5%	1.5%	
3. Complementary information (in nominal terms)						
Average asset base						
3.1 Net book val. fixed assets	62,930.0	64,953.0	66,035.0	74,918.0	75,718.0	79,012.0
3.2 Adjustments total assets	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
3.4 Total asset base	62,930.0	64,953.0	66,035.0	74,918.0	75,718.0	79,012.0
Cost of capital %						
3.5 Cost of capital pre tax rate	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%
3.6 Return on equity	7.8%	7.8%	7.8%	7.8%	7.8%	7.7%
3.7 Average interest on debts	5.1%	5.1%	5.1%	5.1%	5.1%	3.6%
Cost of common projects						
3.8 Total costs of common projects	0.0	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 sharing						
4. Total costs after deduction of costs for services to exempted flights (in nominal terms)						
4.1 Costs for exempted VFR flights	127.0	127.0	127.0	127.0	127.0	127.0
4.2 Total determined/actual costs	**119,009.4**	**122,178.4**	**126,269.5**	**129,890.4**	**131,201.7**	
5. Cost-efficiency KPI - Determined/Actual Unit Cost (in real terms)						
5.1 Inflation % (3)	1.40%	1.60%	1.70%	1.70%	1.70%	1.60%
5.2 Price index (4)	105.1	106.7	108.4	110.1	111.8	103.7
5.3 Total costs real terms (5)	**113,234.4**	**114,506.5**	**116,484.8**	**117,974.9**	**117,353.9**	**117,340.3**
Total % n/n-1		1.1%	1.7%	1.3%	-0.5%	
5.4 Total Service Units	**3,990.0**	**4,090.0**	**4,180.0**	**4,276.0**	**4,370.0**	**4,004.0**
Total % n/n-1		2.5%	2.2%	2.3%	2.2%	
5.5 Unit cost	**28.38**	**28.00**	**27.87**	**27.59**	**26.85**	**29.31**
Total % n/n-1	-3.2%	-1.3%	-0.5%	-1.0%	-2.7%	

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 index - base 100 in year 2009 inflation N-2 inflation N-1 :
Actual price index - base 100 in year 2009 inflation N-2 : inflation N-1

(5) Determined costs (performance plan) in real terms

Table 1 - Total Costs and Unit Costs

Charging zone name	Ireland
Currency	Euro
Entity name:	IAA

Period of reference : **2015-2019**

	Determined costs (performance plan)					NPP RP1				
Cost details	**2015**	**2016**	**2017**	**2018**	**2019**			**2014**		
1. Detail by nature (in nominal terms)										
1.1 Staff	57,863.0	59,817.6	62,554.2	63,753.1	66,060.5			61,250		
1.2 Other operating costs (1)	28,447.3	27,359.7	27,357.3	27,860.9	27,264.3			24,340		
1.3 Depreciation	9,605.1	10,312.8	11,062.6	12,574.7	12,383.2			10,600		
1.4 Cost of capital	5,348.9	5,521.4	5,613.0	6,367.6	6,435.5			6,716		
1.5 Exceptional items	0.0	0.0	0.0	0.0	0.0			0		
1.6 Total costs	101,264.3	103,011.5	106,587.1	110,556.3	112,143.5			102,906.0		
Total % n/n-1		0.0	0.0	0.0	0.0					
Staff % n/n-1		0.0	0.0	0.0	0.0					
Other op. % n/n-1		0.0	0.0	0.0	0.0					
2. Detail by service (in nominal terms)										
2.1 Air Traffic Management	90,187.3	91,696.5	94,883.1	98,375.3	99,782.5			102,906		
2.2 Communication (2)	3,000.0	3,070.0	3,175.0	3,295.0	3,350.0					
2.3 Navigation (2)	2,515.0	2,550.0	2,650.0	2,745.0	2,785.0					
2.4 Surveillance (2)	4,062.0	4,170.0	4,329.0	4,566.0	4,626.0					
2.5 Search and rescue	0.0	0.0	0.0	0.0	0.0					
2.6 Aeronautical Information (2)	1,500.0	1,525.0	1,550.0	1,575.0	1,600.0					
2.7 Meteorological services (2)	0.0	0.0	0.0	0.0	0.0					
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	101,264.3	103,011.5	106,587.1	110,556.3	112,143.5			102,906		
Total % n/n-1		1.7%	3.5%	3.7%	1.4%					
ATM % n/n-1		1.7%	3.5%	3.7%	1.4%					
CNS % n/n-1		2.2%	3.7%	4.5%	1.5%					
3. Complementary information (in nominal terms)										
Average asset base										
3.1 Net book val. fixed assets	62,930	64,953	66,035	74,918	75,718			79,012		
3.2 Adjustments total assets	0	0	0	0	0			0.0		
3.3 Net current assets	0	0	0	0	0			0.0		
3.4 Total asset base	62,930.0	64,953.0	66,035.0	74,918.0	75,718.0			79,012.0		
Cost of capital %										
3.5 Cost of capital pre tax rate	8.5%	8.5%	8.5%	8.5%	8.5%			8.5%		
3.6 Return on equity	7.8%	7.8%	7.8%	7.8%	7.8%			7.7%		
3.7 Average interest on debts	5.1%	5.1%	5.1%	5.1%	5.1%			3.6%		
Cost of common projects										
3.8 Total costs of common projects	0.0	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 sharing										
4. Total costs after deduction of costs for services to exempted flights (in nominal terms)										
4.1 Costs for exempted VFR flights	127.0	127.0	127.0	127.0	127.0			127.0		
4.2 Total determined/actual costs	**101,137.3**	**102,884.5**	**106,460.1**	**110,429.3**	**112,016.5**			**102,779.0**		
5. Cost-efficiency KPI - Determined/Actual Unit Cost (in real terms)										
5.1 Inflation % (3)	1.40%	1.60%	1.70%	1.70%	1.70%			1.60%		
5.2 Price index (4)	105.1	106.7	108.4	110.1	111.8			103.7		
5.3 Total costs real terms (5)	**96,229.6**	**96,424.1**	**98,210.4**	**100,299.1**	**100,193.6**			**99,216.3**		
Total % n/n-1		0.2%	1.9%	2.1%	-0.1%					
5.4 Total Service Units	**3,990.0**	**4,090.0**	**4,180.0**	**4,276.0**	**4,370.0**			**4,004.0**		
Total % n/n-1		2.5%	2.2%	2.3%	2.2%					
5.5 Unit cost	**24.12**	**23.58**	**23.50**	**23.46**	**22.93**			**24.78**		
Total % n/n-1	-2.7%	-2.2%	-0.3%	-0.2%	-2.3%					

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 index - base 100 in year 2009 inflation N-2 0.00% inflation N-1 0.00%
Actual price index - base 100 in year 2009 inflation N-2 : inflation N-1:

(5) Determined costs (performance plan) in real terms

Table 1 - Total Costs and Unit Costs

Charging zone name	Ireland
Currency	Euro
Entity name:	MET Eireann

Period of reference : **2015-2019**

	Determined costs (performance plan)					NPP RP1				
Cost details	**2015**	**2016**	**2017**	**2018**	**2019**			**2014**		
1. Detail by nature (in nominal terms)										
1.1 Staff	4,551.0	4,783.0	5,004.0	4,383.0	3,993.0			4,428.0		
1.2 Other operating costs (1)	2,259.0	2,795.0	2,902.0	2,973.0	2,882.0			2,374.0		
1.3 Depreciation		499.0	507.0	515.0	523.0					
1.4 Cost of capital										
1.5 Exceptional items										
1.6 Total costs	6,810.0	8,077.0	8,413.0	7,871.0	7,398.0			6,802.0		
Total % n/n-1		0.2	0.0	-0.1	-0.1					
Staff % n/n-1		0.1	0.0	-0.1	-0.1					
Other op. % n/n-1		0.2	0.0	0.0	0.0					
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)	6,810.0	8,077.0	8,413.0	7,871.0	7,398.0			6,802.0		
2.8 Supervision costs										
2.9 Other State costs (1)										
2.10 Total costs	6,810.0	8,077.0	8,413.0	7,871.0	7,398.0			6,802.0		
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	0.0	0.0	0.0	0.0	0.0					
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	#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	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 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	0.0	0.0	0.0					
4.2 Total determined/actual costs	**6,810.0**	**8,077.0**	**8,413.0**	**7,871.0**	**7,398.0**			**6,802.0**		
5. Cost-efficiency KPI - Determined/Actual Unit Cost (in real terms)										
5.1 Inflation % (3)	1.40%	1.60%	1.70%	1.70%	1.70%			1.60%		
5.2 Price index (4)	105.1	106.7	108.4	110.1	111.8			103.7		
5.3 Total costs real terms (5)	**6,479.5**	**7,569.8**	**7,761.1**	**7,149.0**	**6,617.2**			**6,558.1**		
Total % n/n-1		16.8%	2.5%	-7.9%	-7.4%					
5.4 Total Service Units	**3,990.0**	**4,090.0**	**4,180.0**	**4,276.0**	**4,370.0**			**4,004.0**		
Total % n/n-1		2.5%	2.2%	2.3%	2.2%					
5.5 Unit cost	**1.62**	**1.85**	**1.86**	**1.67**	**1.51**			**1.64**		
Total % n/n-1	-1.0%	14.0%	0.3%	-10.0%	-9.4%					

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 index - base 100 in year 2009 inflation N-2 inflation N-1 :
Actual price index - base 100 in year 2009 inflation N-2 : inflation N-1

(5) Determined costs (performance plan) in real terms

Table 1 - Total Costs and Unit Costs

Charging zone name	Ireland
Currency	Euro
Entity name:	NSA

Period of reference : **2015-2019**

	Determined costs (performance plan)					NPP RP1				
Cost details	**2015**	**2016**	**2017**	**2018**	**2019**			**2014**		
1. Detail by nature (in nominal terms)										
1.1 Staff	1,521.0	1,542.3	1,567.0	1,593.6	1,620.7			1,496.0		
1.2 Other operating costs (1)	9,541.1	9,674.6	9,829.4	9,996.5	10,166.5			10,500.0		
1.3 Depreciation	0.0	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			0.0		
1.5 Exceptional items	0.0	0.0	0.0	0.0	0.0			0.0		
1.6 Total costs	11,062.1	11,216.9	11,396.4	11,590.1	11,787.2			11,996.0		
Total % n/n-1			1.6%	1.7%	1.7%					
Staff % n/n-1			1.6%	1.7%	1.7%					
Other op. % n/n-1			1.6%	1.7%	1.7%					
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)										
2.8 Supervision costs	1,461.8	1,482.2	1,506.0	1,531.6	1,557.6			2,059.0		
2.9 Other State costs (1)	9,600.3	9,734.7	9,890.4	10,058.5	10,229.6			9,937.0		
2.10 Total costs	11,062.1	11,216.9	11,396.4	11,590.1	11,787.2			11,996.0		
Total % n/n-1		1.4%	1.6%	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										
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 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	0.0	0.0	0.0					
4.2 Total determined/actual costs	**11,062.1**	**11,216.9**	**11,396.4**	**11,590.1**	**11,787.2**			**11,996.0**		
5. Cost-efficiency KPI - Determined/Actual Unit Cost (in real terms)										
5.1 Inflation % (3)	1.40%	1.60%	1.70%	1.70%	1.70%			1.60%		
5.2 Price index (4)	105.1	106.7	108.4	110.1	111.8			103.7		
5.3 Total costs real terms (5)	**10,525.3**	**10,512.6**	**10,513.3**	**10,526.9**	**10,543.1**			**11,565.9**		
Total % n/n-1		-0.1%	0.0%	0.1%	0.2%					
5.4 Total Service Units	**3,990.0**	**4,090.0**	**4,180.0**	**4,276.0**	**4,370.0**			**4,004.0**		
Total % n/n-1		2.5%	2.2%	2.3%	2.2%					
5.5 Unit cost	**2.64**	**2.57**	**2.52**	**2.46**	**2.41**			**2.89**		
Total % n/n-1	-8.7%	-2.6%	-2.1%	-2.1%	-2.0%					

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 index - base 100 in year 2009 inflation N-2 inflation N-1 :
Actual price index - base 100 in year 2009 inflation N-2 : inflation N-1

(5) Determined costs (performance plan) in real terms

Table 3 - Complementary Information

Charging zone name	Ireland	Period of reference : **2015-2019**

PART A : Complementary Information on costs	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
	Determined costs (performance plan)					Actual costs				
Eurocontrol costs										
1.1 EUROCONTROL costs (Euro)	7,109.0	7,269.0	7,439.0	7,613.0	7,792.0					
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) (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										
Costs exempted from the cost sharing arrangements - Article 14(2)(b) (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										

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

PART B : Complementary information on adjustments	Amounts	Total C/O	Before RP2	2015	2016	2017	2018	2019	After RP
Inflation adjustment Year 2013									
Inflation adjustment Year 2014									
Inflation adjustment Year 2015									
Inflation adjustment Year 2016									
Inflation adjustment Year 2017									
Inflation adjustment Year 2018									
Inflation adjustment Year 2019									
Total Inflation Adjustment									
Traffic balance Year Year 2013									
Traffic balance Year Year 2014									
Traffic balance Year Year 2015									
Traffic balance Year Year 2016									
Traffic balance Year Year 2017									
Traffic balance Year Year 2018									
Traffic balance Year Year 2019									
Total Traffic Adjustment									
Traffic risk sharing revenue Year 2013									
Traffic risk sharing revenue Year 2014									
Traffic risk sharing revenue Year 2015									
Traffic risk sharing revenue Year 2016									
Traffic risk sharing revenue Year 2017									
Traffic risk sharing revenue Year 2018									
Traffic risk sharing revenue Year 2019									
Total Traffic Risk sharing revenue adjustment									
Traffic risk sharing loss Year 2012									
Traffic risk sharing loss Year 2013									
Traffic risk sharing loss Year 2014									
Traffic risk sharing loss Year 2015									
Traffic risk sharing loss Year 2016									
Traffic risk sharing loss Year 2017									
Traffic risk sharing loss Year 2018									
Traffic risk sharing loss Year 2019									
Total Traffic Risk sharing loss adjustment									
Costs exempted from cost sharing Year 2012									
Costs exempted from cost sharing Year 2013									
Costs exempted from cost sharing Year 2014									
Costs exempted from cost sharing Year 2015									
Costs exempted from cost sharing Year 2016									
Costs exempted from cost sharing Year 2017									
Costs exempted from cost sharing Year 2018									
Costs exempted from cost sharing Year 2019									
Total costs exempted from cost sharing									
O-u recoveries before determined costs Year 2005									
O-u recoveries before determined costs Year 2006									
O-u recoveries before determined costs Year 2007									
O-u recoveries before determined costs Year 2008									
O-u recoveries before determined costs Year 2009									
O-u recoveries before determined costs Year 2010									
O-u recoveries before determined costs Year 2011									
Total carry-overs									

Table 1 - Total Costs and Unit Costs

Charging zone name	Ireland
Currency	Euro
Entity name:	All Entities

Period of reference : **2015-2019**

Cost details	Determined costs (performance plan) 2015	2016	2017	2018	2019
1. Detail by nature (in nominal terms)					
1.1 Staff	12,350.1	12,729.4	13,132.8	13,333.8	13,541.6
1.2 Other operating costs (1)	5,638.6	5,947.2	6,153.3	6,297.8	6,404.4
1.3 Depreciation	4,185.1	4,817.6	5,059.5	5,358.7	5,501.5
1.4 Cost of capital	2,430.4	2,633.9	2,537.1	2,676.0	2,800.9
1.5 Exceptional items	0.0	0.0	0.0	0.0	0.0
1.6 Total costs	24,604.2	26,128.1	26,882.7	27,666.3	28,248.4
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	20,128.1	21,200.5	21,791.4	22,595.4	23,217.4
2.2 Communication (2)	658.6	698.2	717.5	744.9	767.2
2.3 Navigation (2)	552.1	579.9	598.8	620.6	637.8
2.4 Surveillance (2)	891.7	948.3	978.2	1,032.2	1,059.4
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)	1,702.4	2,019.2	2,103.2	1,967.8	1,849.2
2.8 Supervision costs	292.9	297.6	302.7	307.8	313.1
2.9 Other State costs (1)	378.4	384.4	390.9	397.6	404.3
2.10 Total costs	24,604.2	26,128.1	26,882.7	27,666.3	28,248.4
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	28,600.0	31,000.0	29,800.0	31,500.0	33,000.0
3.2 Adjustments total assets	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
3.4 Total asset base	28,600.0	31,000.0	29,800.0	31,500.0	33,000.0
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	7.8%	7.8%	7.8%	7.8%	7.8%
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	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 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	0.0	0.0	0.0
4.2 Total determined/actual costs	**24,604.2**	**26,128.1**	**26,882.7**	**27,666.3**	**28,248.4**
5. Cost-efficiency KPI - Determined/Actual Unit Cost (in real terms)					
5.1 Inflation % (3)	1.40%	1.60%	1.70%	1.70%	1.70%
5.2 Price index (4)	105.1	106.7	108.4	110.1	111.8
5.3 Total costs real terms (5)	**23,410.3**	**24,487.4**	**24,799.5**	**25,128.3**	**25,266.9**
Total % n/n-1		4.6%	1.3%	1.3%	0.6%
5.4 Total Service Units	**142.2**	**147.2**	**152.8**	**158.8**	**164.4**
Total % n/n-1		3.5%	3.8%	3.9%	3.5%
5.5 Unit cost	**164.63**	**166.35**	**162.30**	**158.24**	**153.69**
Total % n/n-1	#DIV/0!	1.0%	-2.4%	-2.5%	-2.9%

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 index - base 100 in year 2009 inflation N-2 inflation N-1 :
Actual price index - base 100 in year 2009 inflation N-2 : inflation N-1

(5) Determined costs (performance plan) in real terms

Table 1 - Total Costs and Unit Costs

Charging zone name	Ireland
Currency	Euro
Entity name:	IAA

Period of reference : **2015-2019**

	Determined costs (performance plan)				
Cost details	**2015**	**2016**	**2017**	**2018**	**2019**
1. Detail by nature (in nominal terms)					
1.1 Staff	10,937.1	11,254.0	11,597.5	11,948.8	12,249.3
1.2 Other operating costs (1)	4,677.9	4,846.2	5,018.6	5,138.4	5,260.9
1.3 Depreciation	4,185.1	4,692.8	4,932.7	5,229.9	5,370.7
1.4 Cost of capital	2,430.4	2,633.9	2,537.1	2,676.0	2,800.9
1.5 Exceptional items	0.0	0.0	0.0	0.0	0.0
1.6 Total costs	22,230.5	23,426.9	24,085.9	24,993.1	25,681.8
Total % n/n-1		0.1	0.0	0.0	0.0
Staff % n/n-1		0.0	0.0	0.0	0.0
Other op. % n/n-1		0.0	0.0	0.0	0.0
2. Detail by service (in nominal terms)					
2.1 Air Traffic Management	20,128.1	21,200.5	21,791.4	22,595.4	23,217.4
2.2 Communication (2)	658.6	698.2	717.5	744.9	767.2
2.3 Navigation (2)	552.1	579.9	598.8	620.6	637.8
2.4 Surveillance (2)	891.7	948.3	978.2	1,032.2	1,059.4
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)	0.0	0.0	0.0	0.0	0.0
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	22,230.5	23,426.9	24,085.9	24,993.1	25,681.8
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	28,600	31,000	29,800	31,500	33,000
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	28,600.0	31,000.0	29,800.0	31,500.0	33,000.0
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	7.8%	7.8%	7.8%	7.8%	7.8%
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	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 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	**22,230.5**	**23,426.9**	**24,085.9**	**24,993.1**	**25,681.8**
5. Cost-efficiency KPI - Determined/Actual Unit Cost (in real terms)					
5.1 Inflation % (3)	1.40%	1.60%	1.70%	1.70%	1.70%
5.2 Price index (4)	105.1	106.7	108.4	110.1	111.8
5.3 Total costs real terms (5)	**21,151.8**	**21,955.9**	**22,219.5**	**22,700.4**	**22,971.2**
Total % n/n-1		3.8%	1.2%	2.2%	1.2%
5.4 Total Service Units	**142.2**	**147.2**	**152.8**	**158.8**	**164.4**
Total % n/n-1		3.5%	3.8%	3.9%	3.5%
5.5 Unit cost	**148.75**	**149.16**	**145.42**	**142.95**	**139.73**
Total % n/n-1	#DIV/0!	0.3%	-2.5%	-1.7%	-2.3%

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 index - base 100 in year 2009 inflation N-2 0.00% inflation N-1 0.00%
Actual price index - base 100 in year 2009 inflation N-2 : inflation N-1:

(5) Determined costs (performance plan) in real terms

Table 1 - Total Costs and Unit Costs

Charging zone name	Ireland
Currency	Euro
Entity name:	MET Eireann

Period of reference : **2015-2019**

	Determined costs (performance plan)				
Cost details	**2015**	**2016**	**2017**	**2018**	**2019**
1. Detail by nature (in nominal terms)					
1.1 Staff	1,137.8	1,195.8	1,251.0	1,095.8	998.2
1.2 Other operating costs (1)	564.6	698.6	725.4	743.2	720.2
1.3 Depreciation		124.8	126.8	128.8	130.8
1.4 Cost of capital					
1.5 Exceptional items					
1.6 Total costs	1,702.4	2,019.2	2,103.2	1,967.8	1,849.2
Total % n/n-1		0.2	0.0	-0.1	-0.1
Staff % n/n-1		0.1	0.0	-0.1	-0.1
Other op. % n/n-1		0.2	0.0	0.0	0.0
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)	1,702.4	2,019.2	2,103.2	1,967.8	1,849.2
2.8 Supervision costs					
2.9 Other State costs (1)					
2.10 Total costs	1,702.4	2,019.2	2,103.2	1,967.8	1,849.2
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	0.0	0.0	0.0	0.0	0.0
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	#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	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 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	0.0	0.0	0.0
4.2 Total determined/actual costs	**1,702.4**	**2,019.2**	**2,103.2**	**1,967.8**	**1,849.2**
5. Cost-efficiency KPI - Determined/Actual Unit Cost (in real terms)					
5.1 Inflation % (3)	1.40%	1.60%	1.70%	1.70%	1.70%
5.2 Price index (4)	105.1	106.7	108.4	110.1	111.8
5.3 Total costs real terms (5)	**1,619.8**	**1,892.4**	**1,940.2**	**1,787.3**	**1,654.0**
Total % n/n-1		16.8%	2.5%	-7.9%	-7.5%
5.4 Total Service Units	**142.2**	**147.2**	**152.8**	**158.8**	**164.4**
Total % n/n-1		3.5%	3.8%	3.9%	3.5%
5.5 Unit cost	**11.39**	**12.86**	**12.70**	**11.25**	**10.06**
Total % n/n-1	#DIV/0!	12.9%	-1.2%	-11.4%	-10.6%

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 index - base 100 in year 2009 inflation N-2 inflation N-1 :
Actual price index - base 100 in year 2009 inflation N-2 : inflation N-1

(5) Determined costs (performance plan) in real terms

Table 1 - Total Costs and Unit Costs

Charging zone name	Ireland
Currency	Euro
Entity name:	NSA

Period of reference : **2015-2019**

	Determined costs (performance plan)				
Cost details	**2015**	**2016**	**2017**	**2018**	**2019**
1. Detail by nature (in nominal terms)					
1.1 Staff	275.2	279.6	284.3	289.2	294.1
1.2 Other operating costs (1)	396.1	402.4	409.3	416.2	423.3
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	671.3	682.0	693.6	705.4	717.4
Total % n/n-1			1.7%	1.7%	1.7%
Staff % n/n-1			1.7%	1.7%	1.7%
Other op. % n/n-1			1.7%	1.7%	1.7%
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)					
2.8 Supervision costs	292.9	297.6	302.7	307.8	313.1
2.9 Other State costs (1)	378.4	384.4	390.9	397.6	404.3
2.10 Total costs	671.3	682.0	693.6	705.4	717.4
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					
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 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	0.0	0.0	0.0
4.2 Total determined/actual costs	**671.3**	**682.0**	**693.6**	**705.4**	**717.4**
5. Cost-efficiency KPI - Determined/Actual Unit Cost (in real terms)					
5.1 Inflation % (3)	1.40%	1.60%	1.70%	1.70%	1.70%
5.2 Price index (4)	105.1	106.7	108.4	110.1	111.8
5.3 Total costs real terms (5)	**638.7**	**639.2**	**639.9**	**640.7**	**641.7**
Total % n/n-1		0.1%	0.1%	0.1%	0.2%
5.4 Total Service Units	**142.2**	**147.2**	**152.8**	**158.8**	**164.4**
Total % n/n-1		3.5%	3.8%	3.9%	3.5%
5.5 Unit cost	**4.49**	**4.34**	**4.19**	**4.03**	**3.90**
Total % n/n-1	#DIV/0!	-3.3%	-3.6%	-3.7%	-3.3%

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 index - base 100 in year 2009 inflation N-2 inflation N-1 :
Actual price index - base 100 in year 2009 inflation N-2 : inflation N-1

(5) Determined costs (performance plan) in real terms

Table 3 - Complementary Information

Charging zone name	Ireland	Period of reference : **2015-2019**

PART A : Complementary Information on costs	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
	Determined costs (performance plan)					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) (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										
Costs exempted from the cost sharing arrangements - Article 14(2)(b) (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										

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

PART B : Complementary information on adjustments	Amounts	Total C/O	Before RP2	2015	2016	2017	2018	2019	After RP
Inflation adjustment Year 2013									
Inflation adjustment Year 2014									
Inflation adjustment Year 2015									
Inflation adjustment Year 2016									
Inflation adjustment Year 2017									
Inflation adjustment Year 2018									
Inflation adjustment Year 2019									
Total Inflation Adjustment									
Traffic balance Year Year 2013									
Traffic balance Year Year 2014									
Traffic balance Year Year 2015									
Traffic balance Year Year 2016									
Traffic balance Year Year 2017									
Traffic balance Year Year 2018									
Traffic balance Year Year 2019									
Total Traffic Adjustment									
Traffic risk sharing revenue Year 2013									
Traffic risk sharing revenue Year 2014									
Traffic risk sharing revenue Year 2015									
Traffic risk sharing revenue Year 2016									
Traffic risk sharing revenue Year 2017									
Traffic risk sharing revenue Year 2018									
Traffic risk sharing revenue Year 2019									
Total Traffic Risk sharing revenue adjustment									
Traffic risk sharing loss Year 2012									
Traffic risk sharing loss Year 2013									
Traffic risk sharing loss Year 2014									
Traffic risk sharing loss Year 2015									
Traffic risk sharing loss Year 2016									
Traffic risk sharing loss Year 2017									
Traffic risk sharing loss Year 2018									
Traffic risk sharing loss Year 2019									
Total Traffic Risk sharing loss adjustment									
Costs exempted from cost sharing Year 2012									
Costs exempted from cost sharing Year 2013									
Costs exempted from cost sharing Year 2014									
Costs exempted from cost sharing Year 2015									
Costs exempted from cost sharing Year 2016									
Costs exempted from cost sharing Year 2017									
Costs exempted from cost sharing Year 2018									
Costs exempted from cost sharing Year 2019									
Total costs exempted from cost sharing									
O-u recoveries before determined costs Year 2005									
O-u recoveries before determined costs Year 2006									
O-u recoveries before determined costs Year 2007									
O-u recoveries before determined costs Year 2008									
O-u recoveries before determined costs Year 2009									
O-u recoveries before determined costs Year 2010									
O-u recoveries before determined costs Year 2011									
Total carry-overs									

Table 1 - Total Costs and Unit Costs

Charging zone name	UK - Route
Currency	GBP £
Entity name:	All Entities

Period of reference : **2012-2014**

	Forecast		Determined costs (performance plan)			Actual costs				
Cost details	**2010F**	**2011F**	**2012**	**2013**	**2014**	**2010**	**2011**	**2012**	**2013**	**2014**
1. Detail by nature (in nominal terms)										
1.1 Staff	246,073.0	267,784.6	274,652.6	281,086.3	279,527.9	264,635.0	278,368.9	273,294.0		
1.2 Other operating costs (1)	181,169.4	181,350.9	191,836.2	196,621.1	199,955.6	171,388.4	158,581.4	166,812.5		
1.3 Depreciation	84,536.9	120,033.1	131,608.7	156,228.3	162,903.6	107,413.1	122,025.6	133,258.9		
1.4 Cost of capital	60,261.8	66,521.1	67,600.4	69,194.2	69,398.7	65,015.5	68,828.4	68,586.3		
1.5 Exceptional items	12,783.4	17,555.8	17,924.6	17,109.6	16,892.5	27,367.1	13,974.6	16,789.0		
1.6 Total costs	584,824.6	653,245.6	683,622.6	720,239.5	728,678.3	635,819.1	641,778.9	658,740.7		
Total % n/n-1		11.7%	4.7%	5.4%	1.2%		0.9%	2.6%		
Staff % n/n-1		8.8%	2.6%	2.3%	-0.6%		5.2%	-1.8%		
Other op. % n/n-1		0.1%	5.8%	2.5%	1.7%		-7.5%	5.2%		
2. Detail by service (in nominal terms)										
2.1 Air Traffic Management	423,928.4	482,562.2	502,819.6	532,816.8	535,185.8	457,846.9	460,947.8	475,866.8		
2.2 Communication (2)	36,265.5	39,736.3	41,486.2	43,697.7	46,112.5	39,544.0	43,752.5	44,565.7		
2.3 Navigation (2)	5,032.7	5,688.0	6,014.0	6,396.0	6,729.4	5,395.6	14,302.1	14,799.4		
2.4 Surveillance (2)	26,256.8	32,964.6	35,497.4	39,171.9	40,755.7	29,621.6	29,559.2	30,108.6		
2.5 Search and rescue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
2.6 Aeronautical Information (2)	3,011.7	4,094.0	4,317.0	4,547.0	4,739.0	3,475.1	3,904.5	3,994.9		
2.7 Meteorological services (2)	27,453.0	29,386.0	29,073.0	28,500.0	28,300.0	30,440.0	29,100.0	29,130.0		
2.8 Supervision costs	7,767.9	7,246.7	7,309.2	7,440.7	8,357.7	7,472.5	7,462.9	6,866.0		
2.9 Other State costs (1)	55,108.5	51,567.7	57,106.2	57,669.4	58,498.2	62,023.4	52,750.0	53,409.2		
2.10 Total costs	584,824.6	653,245.6	683,622.6	720,239.5	728,678.3	635,819.1	641,778.9	658,740.7		
Total % n/n-1		11.7%	4.7%	5.4%	1.2%		0.9%	2.6%		
ATM % n/n-1		13.8%	4.2%	6.0%	0.4%		0.7%	3.2%		
CNS % n/n-1		16.0%	5.9%	7.6%	4.9%		17.5%	2.1%		
3. Complementary information (in nominal terms)										
Average asset base										
3.1 Net book val. fixed assets	0.0	923,664.0	939,362.0	970,760.0	975,658.0	999,058.9	937,267.3	939,762.3		
3.2 Adjustments total assets	0.0	70,800.0	58,700.0	48,700.0	45,500.0	0.0	72,030.4	41,681.6		
3.3 Net current assets	0.0	-6,000.0	4,300.0	6,100.0	7,000.0	0.0	12,155.1	33,018.0		
3.4 Total asset base	0.0	988,464.0	1,002,362.0	1,025,560.0	1,028,158.0	999,058.9	1,021,452.8	1,014,461.9		
Cost of capital %										
3.5 Cost of capital pre tax rate	#DIV/0!	6.7%	6.7%	6.7%	6.7%	6.5%	6.7%	6.8%		
3.6 Return on equity	2.2%	2.2%	2.5%	2.5%	2.5%	0.7%	0.8%	1.8%		
3.7 Average interest on debts	4.5%	4.5%	5.0%	5.0%	5.0%	4.5%	4.5%	5.0%		
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 sharing								-3,696.6		
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	0.0		
4.2 Total determined/actual costs	**584,824.6**	**653,245.6**	**683,622.6**	**720,239.5**	**728,678.3**	**635,819.1**	**641,778.9**	**658,740.7**		
5. Cost-efficiency KPI - Determined Unit Rate/Actual Unit Cost (in real terms)										
5.1 Inflation % (3)	3.34%	2.53%	1.70%	1.76%	1.89%	3.34%	4.50%	2.80%		
5.2 Price index (4)	103.3	106.0	107.8	109.7	111.7	103.3	108.0	111.0		
5.3 Total costs real terms (5)	**565,926.3**	**616,521.4**	**634,383.4**	**656,811.0**	**652,161.2**	**615,273.0**	**594,296.8**	**593,388.8**		
Total % n/n-1		8.9%	2.9%	3.5%	-0.7%		-3.4%	-0.2%		
5.4 Total Service Units	**10,262.5**	**9,971.0**	**10,324.9**	**10,667.2**	**11,034.6**	**9,480.3**	**9,860.8**	**9,607.9**		
Total % n/n-1		-2.8%	3.5%	3.3%	3.4%		4.0%	-2.6%		
5.5 DUR / Unit cost	**55.15**	**61.83**	**61.44**	**61.57**	**59.10**	**64.90**	**60.27**	**61.76**		
Total % n/n-1		12.1%	-0.6%	0.2%	-4.0%		-7.1%	2.5%		

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 index - base 100 in 2009
Actual price index - base 100 in year 2009

(5) Determined costs (performance plan) in real terms – actual/revised forecast costs at 2009 prices

Table 1 - Total Costs and Unit Costs

Charging zone name	UK - Route
Currency	GBP £
Entity name:	NERL

Period of reference : **2012-2014**

	Forecast		Determined costs (performance plan)			Actual costs				
Cost details	**2010F**	**2011F**	**2012**	**2013**	**2014**	**2010**	**2011**	**2012**	**2013**	**2014**
1. Detail by nature (in nominal terms)										
1.1 Staff	228,975	249,813	256,724	263,251	261,603	246,840	261,069	255,644		
1.2 Other operating costs (1)	113,019	126,377	131,295	135,995	138,308	105,152	102,681	110,160		
1.3 Depreciation	79,437	114,707	126,283	150,901	157,576	101,989	116,726	127,940		
1.4 Cost of capital	59,713	66,143	67,173	68,829	69,095	64,467	68,340	68,159		
1.5 Exceptional items	12,783.4	17,555.8	11,924.6	11,109.6	10,892.5	26,967.1	13,974.6	10,789		
1.6 Total costs	493,927	574,596	593,400	630,087	637,473	545,415	562,791	572,693		
Total % n/n-1		16.3%	3.3%	6.2%	1.2%		3.2%	1.8%		
Staff % n/n-1		9.1%	2.8%	2.5%	-0.6%		5.8%	-2.1%		
Other op. % n/n-1		11.8%	3.9%	3.6%	1.7%		-2.3%	7.3%		
2. Detail by service (in nominal terms)										
2.1 Air Traffic Management	418,485	477,024	490,955	520,684	522,805	452,841	455,960	464,435		
2.2 Communication (2)	36,266	39,736	41,486	43,698	46,112	39,544	43,752	44,566		
2.3 Navigation (2)	5,033	5,688	6,014	6,396	6,729	5,396	14,302	14,799		
2.4 Surveillance (2)	26,257	32,965	35,497	39,172	40,756	29,622	29,559	30,109		
2.5 Search and rescue	0	0	0	0	0	0	0	0		
2.6 Aeronautical Information (2)	2,587	4,094	4,317	4,547	4,739	3,008	3,904	3,995		
2.7 Meteorological services (2)	0	0	0	0	0	0	0	0		
2.8 Supervision costs	5,300	5,039	5,107	5,289	6,257	5,062	5,263	4,766		
2.9 Other State costs (1)	0	10,050	10,023	10,301	10,075	9,942	10,050	10,023		
2.10 Total costs	493,927	574,596	593,400	630,087	637,473	545,415	562,791	572,693		
Total % n/n-1		16.3%	3.3%	6.2%	1.2%		3.2%	1.8%		
ATM % n/n-1		14.0%	2.9%	6.1%	0.4%		0.7%	1.9%		
CNS % n/n-1		16.0%	5.9%	7.6%	4.9%		17.5%	2.1%		
3. Complementary information (in nominal terms)										
Average asset base										
3.1 Net book val. fixed assets		913,200	930,200	962,900	969,100	987,293	926,767	930,600		
3.2 Adjustments total assets		70,800	58,700	48,700	45,500	0	72,030	41,682		
3.3 Net current assets		-6,000	4,300	6,100	7,000	0	12,155	33,018		
3.4 Total asset base	0.0	978,000.0	993,200.0	1,017,700.0	1,021,600.0	987,292.9	1,010,952.8	1,005,299.9		
Cost of capital %										
3.5 Cost of capital pre tax rate		6.8%	6.8%	6.8%	6.8%	6.5%	6.8%	6.8%		
3.6 Return on equity		11.5%	11.5%	11.5%	11.5%	11.8%	11.5%	11.5%		
3.7 Average interest on debts		3.6%	3.6%	3.6%	3.6%	3.9%	3.6%	3.6%		
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 sharing								0.0		
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	**493,927.1**	**574,595.9**	**593,399.6**	**630,086.5**	**637,473.3**	**545,415.1**	**562,790.9**	**572,692.7**		
5. Cost-efficiency KPI - Determined Unit Rate/Actual Unit Cost (in real terms)										
5.1 Inflation % (3)	3.34%	2.53%	1.70%	1.76%	1.89%	3.34%	4.50%	2.80%		
5.2 Price index (4)	103.3	106.0	107.8	109.7	111.7	103.3	108.0	111.0		
5.3 Total costs real terms (5)	**477,966.1**	**542,293.2**	**550,658.9**	**574,597.4**	**570,533.4**	**527,790.3**	**521,152.8**	**515,877.4**		
Total % n/n-1		13.5%	1.5%	4.3%	-0.7%		-1.3%	-1.0%		
5.4 Total Service Units	**10,262.5**	**9,971.0**	**10,324.9**	**10,667.2**	**11,034.6**	**9,480.3**	**9,860.8**	**9,607.9**		
Total % n/n-1		-2.8%	3.5%	3.3%	3.4%		4.0%	-2.6%		
5.5 DUR / Unit cost	**46.57**	**54.39**	**53.33**	**53.87**	**51.70**	**55.67**	**52.85**	**53.69**		
Total % n/n-1		16.8%	-1.9%	1.0%	-4.0%		-5.1%	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 index - base 100 in 2009
Actual price index - base 100 in year 2009

(5) Determined costs (performance plan) in real terms – actual/revised forecast costs at 2009 prices

Table 1 - Total Costs and Unit Costs

Charging zone name	UK - Route
Currency	GBP £
Entity name:	Met Office

Period of reference : **2012-2014**

	Forecast		Determined costs (performance plan)			Actual costs				
Cost details	**2010F**	**2011F**	**2012**	**2013**	**2014**	**2010**	**2011**	**2012**	**2013**	**2014**
1. Detail by nature (in nominal terms)										
1.1 Staff	13,025	13,942	13,700	13,400	13,300	14,200	13,700	13,730		
1.2 Other operating costs (1)	10,690	11,443	11,373	11,100	11,000	11,740	11,400	11,400		
1.3 Depreciation	3,738	4,001	4,000	4,000	4,000	4,100	4,000	4,000		
1.4 Cost of capital	0	0	0	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	30,440	29,100	29,130		
Total % n/n-1		7.0%	-1.1%	-2.0%	-0.7%		-4.4%	0.1%		
Staff % n/n-1		7.0%	-1.7%	-2.2%	-0.7%		-3.5%	0.2%		
Other op. % n/n-1		7.0%	-0.6%	-2.4%	-0.9%		-2.9%	0.0%		
2. Detail by service (in nominal terms)										
2.1 Air Traffic Management	0	0	0	0	0	0	0	0		
2.2 Communication (2)	0	0	0	0	0	0	0	0		
2.3 Navigation (2)	0	0	0	0	0	0	0	0		
2.4 Surveillance (2)	0	0	0	0	0	0	0	0		
2.5 Search and rescue	0	0	0	0	0	0	0	0		
2.6 Aeronautical Information (2)	0	0	0	0	0	0	0	0		
2.7 Meteorological services (2)	27,453	29,386	29,073	28,500	28,300	30,440	29,100	29,130		
2.8 Supervision costs	0	0	0	0	0	0	0	0		
2.9 Other State costs (1)	0	0	0	0	0	0	0	0		
2.10 Total costs	27,453	29,386	29,073	28,500	28,300	30,440	29,100	29,130		
Total % n/n-1		7.0%	-1.1%	-2.0%	-0.7%		-4.4%	0.1%		
ATM % n/n-1										
CNS % n/n-1										
3. Complementary information (in nominal terms)										
Average asset base										
3.1 Net book val. fixed assets		0	0	0	0	0	0	0		
3.2 Adjustments total assets		0	0	0	0	0	0	0		
3.3 Net current assets		0	0	0	0	0	0	0		
3.4 Total asset base	0.0	0.0	0.0	0.0	0.0	0.0	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!	#DIV/0!	#DIV/0!		
3.6 Return on equity		0.0%	0.0%	0.0%	0.0%	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										
Costs exempted from cost sharing (Article 14(2)(b))										
3.9 Total costs exempted from cost sharing								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		
4.2 Total determined/actual costs	**27,453.0**	**29,386.0**	**29,073.0**	**28,500.0**	**28,300.0**	**30,440.0**	**29,100.0**	**29,130.0**		
5. Cost-efficiency KPI - Determined Unit Rate/Actual Unit Cost (in real terms)										
5.1 Inflation % (3)	3.34%	2.53%	1.70%	1.76%	1.89%	3.34%	4.50%	2.80%		
5.2 Price index (4)	103.3	106.0	107.8	109.7	111.7	103.3	108.0	111.0		
5.3 Total costs real terms (5)	**26,565.9**	**27,734.0**	**26,979.0**	**25,990.1**	**25,328.3**	**29,456.3**	**26,947.0**	**26,240.1**		
Total % n/n-1		4.4%	-2.7%	-3.7%	-2.5%		-8.5%	-2.6%		
5.4 Total Service Units	**10,262.5**	**9,971.0**	**10,324.9**	**10,667.2**	**11,034.6**	**9,480.3**	**9,860.8**	**9,607.9**		
Total % n/n-1		-2.8%	3.5%	3.3%	3.4%		4.0%	-2.6%		
5.5 DUR / Unit cost	**2.59**	**2.78**	**2.61**	**2.44**	**2.30**	**3.11**	**2.73**	**2.73**		
Total % n/n-1		7.4%	-6.1%	-6.8%	-5.8%		-12.0%	-0.1%		

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

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

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

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

(4) Forecast price index - base 100 in 2009
Actual price index - base 100 in year 2009

(5) Determined costs (performance plan) in real terms – actual/revised forecast costs at 2009 prices

Table 1 - Total Costs and Unit Costs

Charging zone name	UK Route
Currency	GBP £
Entity name:	UK CAA + DfT Eurocontrol

Period of reference : **2012-2014**

	Forecast		Determined costs (performance plan)			Actual costs				
Cost details	**2010F**	**2011F**	**2012**	**2013**	**2014**	**2010**	**2011**	**2012**	**2013**	**2014**
1. Detail by nature (in nominal terms)										
1.1 Staff	4,073	4,029	4,229	4,435	4,625	3,595	3,600	3,920		
1.2 Other operating costs (1)	57,461	43,532	49,168	49,526	50,648	54,496	44,500	45,252		
1.3 Depreciation	1,362	1,325	1,326	1,327	1,328	1,324	1,300	1,319		
1.4 Cost of capital	549	378	427	365	304	549	488	427		
1.5 Exceptional items	0.0	0.0	6,000.0	6,000.0	6,000.0	0.0	0.0	6,000		
1.6 Total costs	63,445	49,264	61,150	61,653	62,905	59,964	49,888	56,918		
Total % n/n-1		-22.4%	24.1%	0.8%	2.0%		-16.8%	14.1%		
Staff % n/n-1		-1.1%	5.0%	4.9%	4.3%		0.1%	8.9%		
Other op. % n/n-1		-24.2%	12.9%	0.7%	2.3%		-18.3%	1.7%		
2. Detail by service (in nominal terms)										
2.1 Air Traffic Management	5,443	5,538	11,865	12,133	12,381	5,006	4,988	11,432		
2.2 Communication (2)	0	0	0	0	0	0	0	0		
2.3 Navigation (2)	0	0	0	0	0	0	0	0		
2.4 Surveillance (2)	0	0	0	0	0	0	0	0		
2.5 Search and rescue	0	0	0	0	0	0	0	0		
2.6 Aeronautical Information (2)	425	0	0	0	0	467	0	0		
2.7 Meteorological services (2)	0	0	0	0	0	0	0	0		
2.8 Supervision costs	2,468	2,208	2,202	2,152	2,101	2,410	2,200	2,100		
2.9 Other State costs (1)	55,109	41,518	47,083	47,368	48,423	52,081	42,700	43,386		
2.10 Total costs	63,445	49,264	61,150	61,653	62,905	59,964	49,888	56,918		
Total % n/n-1		-22.4%	24.1%	0.8%	2.0%		-16.8%	14.1%		
ATM % n/n-1										
CNS % n/n-1										
3. Complementary information (in nominal terms)										
Average asset base										
3.1 Net book val. fixed assets		10,464	9,162	7,860	6,558	11,766	10,500	9,162		
3.2 Adjustments total assets		0	0	0	0	0	0	0		
3.3 Net current assets		0	0	0	0	0	0	0		
3.4 Total asset base	0.0	10,464.0	9,162.0	7,860.0	6,558.0	11,766.0	10,500.0	9,162.0		
Cost of capital %										
3.5 Cost of capital pre tax rate		3.6%	4.7%	4.6%	4.6%	4.7%	4.6%			
3.6 Return on equity		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%		
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 sharing								-3,696.6		
4. Total costs after deduction of costs for services to exempted flights (in nominal terms)										
4.1 Costs for exempted VFR flights								0.0		
4.2 Total determined/actual costs	**63,444.5**	**49,263.7**	**61,150.0**	**61,653.0**	**62,905.0**	**59,964.0**	**49,888.0**	**56,918.0**		
5. Cost-efficiency KPI - Determined Unit Rate/Actual Unit Cost (in real terms)										
5.1 Inflation % (3)	3.34%	2.53%	1.70%	1.76%	1.89%	3.34%	4.50%	2.80%		
5.2 Price index (4)	103.3	106.0	107.8	109.7	111.7	103.3	108.0	111.0		
5.3 Total costs real terms (5)	**61,394.3**	**46,494.2**	**56,745.6**	**56,223.5**	**56,299.5**	**58,026.3**	**46,197.0**	**51,271.3**		
Total % n/n-1		-24.3%	22.0%	-0.9%	0.1%		-20.4%	11.0%		
5.4 Total Service Units	**10,262.5**	**9,971.0**	**10,324.9**	**10,667.2**	**11,034.6**	**9,480.3**	**9,860.8**	**9,607.9**		
Total % n/n-1		-2.8%	3.5%	3.3%	3.4%		4.0%	-2.6%		
5.5 DUR / Unit cost	**5.98**	**4.66**	**5.50**	**5.27**	**5.10**	**6.12**	**4.68**	**5.34**		
Total % n/n-1		-22.1%	17.9%	-4.1%	-3.2%		-23.5%	13.9%		

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 index - base 100 in 2009
Actual price index - base 100 in year 2009

(5) Determined costs (performance plan) in real terms – actual/revised forecast costs at 2009 prices

Table 2 - Unit rate calculation

Charging zone name : UK - Route
Entity name: All Entities

Period of reference : **2012-2014**

Unit rate calculation	2010	2011	2012	2013	2014
1. Determined costs in nominal terms and inflation adjustment					
1.1 Determined costs in nominal terms - VFR excl. - Table 1	584,824.6	653,245.6	683,622.6	720,239.5	728,678.3
1.2 Actual inflation rate - Table 1	3.3%	4.5%	2.8%		
1.3 Forecast inflation rate - Table 1	3.3%	2.5%	1.7%	1.8%	1.9%
1.4 Inflation adjustment (1) : year n amount to be carried over			19,638	0	0
2. Forecast and actual total service units					
2.1 Forecast total service units (performance plan)	10,262.50	9,971.00	10,324.93	10,667.23	11,034.65
2.2 Actual total service units	9,480.26	9,860.80	9,607.88	0.00	0.00
2.3 Actual / forecast total service units (in %)			93.1%		
3. Costs subject to traffic risk sharing					
3.1 Determined costs in nominal terms - VFR excl. (reported from Table 1)	493,927.1	574,596	593,400	630,087	637,473
3.2 Inflation adjustment : amount carried over to year n	0.0	0.0	13,282.7	16,915.9	1,413.9
3.3 Traffic : amounts carried over to year n	0.0	34,215.2	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	0.0	0.0	20,183.3	1,980.3
3.6 Costs exempt from cost sharing : amounts carried over to year n	0.0	0.0	0.0	0.0	0.0
3.7 Bonus or penalty for performance	0.0	10,181.5	3,211.8	8,944.8	1,080.8
3.8 Over(-) or under(+) recoveries (2) : amounts carried over to year n	0.0	-44,396.7	16,020.8	9,260.2	35,805.9
3.9 Total for the calculation of year n unit rate	493,927	574,596	625,915	685,391	677,754
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	0.0	-20,183.3	-1,980.3	0.0
3.12 Over/under recoveries from traffic variations n to be carried-over	0.0	0.0	-20,183.3	-1,980.3	0.0
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)	90,898	78,650	90,223	90,153	91,205
4.2 Inflation adjustment : amount carried over to year n	0.0	0.0	0.0	0.0	2,722.4
4.3 Traffic : amounts carried over to year n	0.0	0.0	0.0	0.0	6,280.7
4.4 Costs exempt from cost sharing : amounts carried over to year n	0.0	0.0	0.0	0.0	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	6,457.0	5,032.0	213.0	570.8	0.0
4.7 Total for the calculation of year n unit rate	97,355	83,682	90,436	90,724	100,208
4.8 Over/under recoveries from traffic variations n to be carried-over	0.0	0.0	-6,280.7	0.0	0.0
5. Other revenues - applied unit rate (in national currency)					
5.1 Total other revenues	0.0	0.0	411.0	5,083.1	424.4
5.2 Total revenues from Public Authorities	0.0	0.0	411.0	5,083.1	424.4
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	0.0	0.0	0.0	424.4
5.7 Grand total for the calculation of year n unit rate	591,281.6	658,277.6	715,939.8	771,031.5	777,537.9
5.8 Year n unit rate (in national currency)	**57.62**	**66.03**	**69.33**	**72.28**	**70.46**
5.9 ANSP component of the unit rate	48.13	57.63	60.58	63.78	61.42
5.10 MET component of the unit rate	2.69	2.91	3.15	2.64	2.85
5.11 NSA-State component of the unit rate	6.80	5.49	5.60	5.86	6.19
5.12 Year n unit rate that would have applied without other revenues	57.62	66.02	69.38	72.76	70.50

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

Charging zone name : UK - Route
Entity name: NERL

Period of reference : **2012-2014**

Unit rate calculation	2010	2011	2012	2013	2014
1. Determined costs in nominal terms and inflation adjustment					
1.1 Determined costs in nominal terms - VFR excl. - Table 1	493,927.1	574,595.9	593,399.6	630,086.5	637,473.3
1.2 Actual inflation rate - Table 1	3.3%	4.8%	3.1%		
1.3 Forecast inflation rate - Table 1	3.3%	2.5%	1.7%	1.8%	1.9%
1.4 Inflation adjustment (1) : year n amount to be carried over		13,282.7	16,916.0		
2. Forecast and actual total service units					
2.1 Forecast total service units (performance plan)	10,262.50	9,971.00	10,324.93	10,667.23	11,034.65
2.2 Actual total service units	9,480.26	9,860.80	9,607.88		
2.3 Actual / forecast total service units (in %)			93.1%		
3. Costs subject to traffic risk sharing					
3.1 Determined costs in nominal terms - VFR excl. (reported from Table 1)	493,927.1	574,595.9	593,399.6	630,086.5	637,473.3
3.2 Inflation adjustment : amount carried over to year n			13,282.7	16,916	1,413.9
3.3 Traffic : amounts carried over to year n		34,215.21			
3.4 Traffic risk sharing : add. revenue carried over to year n			0.00	0.00	0.00
3.5 Traffic risk sharing : revenues losses carried over to year n			0.0	20,183.3	1,980.3
3.6 Costs exempt from cost sharing : amounts carried over to year n					
3.7 Bonus or penalty for performance		10,181.46	3,211.8	8,944.8	1,080.8
3.8 Over(-) or under(+) recoveries (2) : amounts carried over to year n		-44,396.68	16,020.8	9,260.2	35,805.9
3.9 Total for the calculation of year n unit rate	493,927.1	574,595.9	625,914.8	685,390.8	677,754.2
3.10 Traffic risk sharing : add. rev. year n to be carried-over			0.0	0.0	0.0
3.11 Traffic risk sharing : revenue loss year n to be carried-over			-20,183.3	-1,980.3	0.0
3.12 Over/under recoveries from traffic variations n to be carried-over			-20,183.3	-1,980.3	0.0
Parameters for traffic risk sharing					
3.13 % additional revenue returned to users in year n+2			70%	70%	70%
3.14 % loss of revenue borne by airspace users			70%	70%	70%
4. Costs not subject to traffic risk sharing					
4.1 Determined costs in nominal terms - VFR excl. (Table 1)					
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	411.0	5,083.1	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	0.0	0.0	0.0	0.0
5.7 Grand total for the calculation of year n unit rate	493,927.1	574,595.9	625,503.8	680,307.7	677,754.2
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
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

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

Charging zone name : UK - Route
Entity name: Met Office

Period of reference : **2012-2014**

Unit rate calculation	2010	2011	2012	2013	2014
1. Determined costs in nominal terms and inflation adjustment					
1.1 Determined costs in nominal terms - VFR excl. - Table 1	27,453.0	29,386.0	29,073.0	28,500.0	28,300.0
1.2 Actual inflation rate - Table 1	3.3%	4.5%	2.8%		
1.3 Forecast inflation rate - Table 1	3.3%	2.5%	1.7%	1.8%	1.9%
1.4 Inflation adjustment (1) : year n amount to be carried over			877.25		
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
2.2 Actual total service units	9,480.3	9,860.8	9,607.9		
2.3 Actual / forecast total service units (in %)			93.1%		
3. Costs subject to traffic risk sharing					
3.1 Determined costs in nominal terms - VFR excl. (reported from Table 1)					
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)	27,453.0	29,386.0	29,073.0	28,500.0	28,300.0
4.2 Inflation adjustment : amount carried over to year n					877.25
4.3 Traffic : amounts carried over to year n			0.0	0.0	2,262.16
4.4 Costs exempt from cost sharing : amounts carried over to year n					
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	110.0	-400.0	3,500.0	-300.0	0.0
4.7 Total for the calculation of year n unit rate	27,563.0	28,986.0	32,573.0	28,200.0	31,439.4
4.8 Over/under recoveries from traffic variations n to be carried-over			-2,262.16		
5. Other revenues - applied unit rate (in national currency)					
5.1 Total other revenues					
5.2 Total revenues from Public Authorities					
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	27,563.0	28,986.0	32,573.0	28,200.0	31,439.4
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
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

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

Charging zone name : UK - Route
Entity name: UK CAA + DfT Eurocontrol

Period of reference : **2012-2014**

Unit rate calculation	2010	2011	2012	2013	2014
1. Determined costs in nominal terms and inflation adjustment					
1.1 Determined costs in nominal terms - VFR excl. - Table 1	63,444.5	49,263.7	61,150.0	61,653.0	62,905.0
1.2 Actual inflation rate - Table 1	3.3%	4.5%	2.8%		
1.3 Forecast inflation rate - Table 1	3.3%	2.5%	1.7%	1.8%	1.9%
1.4 Inflation adjustment (1) : year n amount to be carried over			1,845.14		
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
2.2 Actual total service units	9,480.3	9,860.8	9,607.9		
2.3 Actual / forecast total service units (in %)			93.1%		
3. Costs subject to traffic risk sharing					
3.1 Determined costs in nominal terms - VFR excl. (reported from Table 1)					
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)	63,444.5	49,263.7	61,150.0	61,653.0	62,905.0
4.2 Inflation adjustment : amount carried over to year n					1,845.14
4.3 Traffic : amounts carried over to year n					4,018.52
4.4 Costs exempt from cost sharing : amounts carried over to year n					
4.5 Restructuring costs : amounts carried over to year n			0.0	0.0	0.0
4.6 Over(-) or under(+) recoveries (2) : amounts carried over to year n	6,347.0	5,432.0	-3,287.0	870.8	0.0
4.7 Total for the calculation of year n unit rate	69,791.5	54,695.7	57,863.0	62,523.8	68,768.7
4.8 Over/under recoveries from traffic variations n to be carried-over			-4,018.52		
5. Other revenues - applied unit rate (in national currency)					
5.1 Total other revenues					424.4
5.2 Total revenues from Public Authorities					
5.3 of which Union assistance programmes					
5.4 of which National public funding					
5.5 Commercial activities					
5.6 Other other revenues					424.4
5.7 Grand total for the calculation of year n unit rate	69,791.5	54,695.7	57,863.0	62,523.8	68,344.3
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
5.12 Year n unit rate that would have applied without other revenues	6.80	5.49	5.60	5.86	6.23

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

Charging zone name	UK - Route	Period of reference : **2012-2014**

PART A : Complementary Information on costs	**2010F**	**2011F**	**2012**	**2013**	**2014**	**2010**	**2011**	**2012**	**2013**	**2014**
	Determined costs (performance plan)					**Actual costs**				
Eurocontrol costs										
1.1 EUROCONTROL costs (Euro)	61,700.0	49,405.0	53,319.4	53,642.6	54,837.0	59,651.0	49,246.0	53,481.3	0.0	0.0
1.2 Exchange rate (if applicable)	0.8928	0.8403	0.8830	0.8830	0.8830	0.8581	0.8676	0.8112	0.0000	0.0000
Cost of common projects										
2.1 Total costs of common projects									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) (by nature)										
3.1 Staff										
3.2 Other operating costs								-3,696.6		
3.3 Depreciation										
3.4 Cost of capital										
3.5 Exceptional items										
3.6 Total costs exempted from cost sharing								-3,696.6	0.0	0.0
Costs exempted from the cost sharing arrangements - Article 14(2)(b) (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								-3,696.6		
3.12 Total costs exempted from cost sharing								-3,696.6	0.0	0.0
Restructuring costs, if authorised in accordance with Article 7(4)	**Planned costs (business case)**					**Actual costs (for information)**				
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**
Inflation adjustment Year 2012	4,136.3	4,136.3						4,136.3	
Inflation adjustment Year 2013									
Inflation adjustment Year 2014									
Total Inflation Adjustment	4,136.3	4,136.3						4,136.3	0
Traffic balance Year 2012	6,280.7	6,280.7						6,280.7	
Traffic balance Year 2013									
Traffic balance Year 2014									
Total Traffic Adjustment	6,280.7	6,280.7						6,280.7	0
Traffic risk sharing revenue Year 2012	0	0						0.0	
Traffic risk sharing revenue Year 2013									
Traffic risk sharing revenue Year 2014									
Total Traffic Risk sharing revenue adjustment								0.0	0
Traffic risk sharing loss Year 2010 (NERL Licence Orig est)	-44,396.7	44,396.7				12,225.5	7,844.3	35,813.0	
Traffic risk sharing loss Year 2010 (NERL Licence adj for actual traffic pre 2011)	-11,486.1	11,486.1							
Traffic risk sharing loss Year 2010 (Adj for actual post 2011 traffic)	-5,204.1	5,204.1				3,795.3	1,416.0	-7.1	TBA
Traffic risk sharing loss Year 2011	0.0	0.0							
Traffic risk sharing loss Year 2012	-22,163.7	22,163.7					20,183.3	1,980.3	TBA
Traffic risk sharing loss Year 2013									
Traffic risk sharing loss Year 2014									
Total Traffic Risk sharing loss adjustment	-83,250.6	-83,250.6				16,020.8	29,443.6	37,786.2	0.0
Costs exempted from cost sharing Year 2012	-3,696.6	-3,696.6							-3,697
Costs exempted from cost sharing Year 2013		0							
Costs exempted from cost sharing Year 2014		0							
Total costs exempted from cost sharing	-3,697	-3,697							-3,697
O-u recoveries before determined costs Year 2005		-							
O-u recoveries before determined costs Year 2006		-							
O-u recoveries before determined costs Year 2007		-							
O-u recoveries before determined costs Year 2008	-6,957.0	6,957.0		6,957.0					0
O-u recoveries before determined costs Year 2009	-4,601.0	4,601.0		-500.0	5,101.0				0
O-u recoveries before determined costs Year 2010	-144.0	144.0			-69.0	213.0			0
O-u recoveries before determined costs Year 2011	-570.8	570.8					570.8		0
Total carry-overs	-12,272.8	12,272.8		6,457.0	5,032.0	213.0	570.8	0.0	0

Table 1 - Total Costs and Unit Costs

Charging zone name	UK Route
Currency	GBP
Entity name:	All entities

Period of reference : **2015-2019**

	Determined costs (performance plan)					Actual costs				
Cost details	**2015**	**2016**	**2017**	**2018**	**2019**	**2015**	**2016**	**2017**	**2018**	**2019**
1. Detail by nature (in nominal terms)										
1.1 Staff	264,469.8	266,360.6	272,113.9	274,134.4	272,954.9					
1.2 Other operating costs (1)	174,248.3	176,026.0	178,270.6	179,625.6	179,014.4					
1.3 Depreciation	170,360.0	173,266.3	170,624.9	161,322.3	155,691.5					
1.4 Cost of capital	57,099.3	53,348.6	49,893.5	47,189.1	44,099.9					
1.5 Exceptional items	19,668.9	16,884.8	16,832.9	16,882.3	16,393.9					
1.6 Total costs	685,846.2	685,886.2	687,735.7	679,153.6	668,154.5					
Total % n/n-1		0.0%	0.3%	-1.2%	-1.6%					
Staff % n/n-1		0.7%	2.2%	0.7%	-0.4%					
Other op. % n/n-1		1.0%	1.3%	0.8%	-0.3%					
2. Detail by service (in nominal terms)										
2.1 Air Traffic Management	502,692.9	501,954.6	502,771.4	494,763.8	485,023.9					
2.2 Communication (2)	47,151.9	47,061.9	47,120.8	46,333.3	45,376.6					
2.3 Navigation (2)	15,873.8	15,866.3	15,751.1	15,299.6	15,004.7					
2.4 Surveillance (2)	31,855.9	31,795.0	31,834.8	31,302.8	30,656.5					
2.5 Search and rescue	0.0	0.0	0.0	0.0	0.0					
2.6 Aeronautical Information (2)	4,314.5	4,422.4	4,532.9	4,646.3	4,762.4					
2.7 Meteorological services (2)	28,061.0	27,852.3	27,672.5	27,492.1	27,341.4					
2.8 Supervision costs	7,421.1	7,372.9	7,329.0	7,404.4	6,861.9					
2.9 Other State costs (1)	48,474.8	49,561.1	50,722.7	51,911.1	53,127.0					
2.10 Total costs	685,845.9	685,886.5	687,735.2	679,153.3	668,154.4					
Total % n/n-1		0.0%	0.3%	-1.2%	-1.6%					
ATM % n/n-1		-0.1%	0.2%	-1.6%	-2.0%					
CNS % n/n-1		-0.2%	0.0%	-1.9%	-2.0%					
3. Complementary information (in nominal terms)										
Average asset base										
3.1 Net book val. fixed assets	44,761.0	43,459.0	42,157.0	40,855.0	39,855.0					
3.2 Adjustments total assets	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					
3.4 Total asset base	997,278.7	931,800.4	871,454.5	824,165.4	770,241.2					
Cost of capital %										
3.5 Cost of capital pre tax rate	5.7%	5.7%	5.7%	5.7%	5.7%					
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	8,605.9	8,172.6	5,855.0	7,601.7	7,763.2					
Costs exempted from cost sharing (Article 14(2)(b))										
3.9 Total costs exempted 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	0.0	0.0	0.0					
4.2 Total determined/actual costs	**685,845.9**	**685,886.5**	**687,735.2**	**679,153.3**	**668,154.4**					
5. Cost-efficiency KPI - Determined/Actual Unit Cost (in real terms)										
5.1 Inflation % (3)	2.00%	1.90%	2.00%	2.00%	2.00%					
5.2 Price index (4)	107.18	109.21	111.40	113.63	115.90					
5.3 Total costs real terms (5)	**639,913.2**	**628,018.8**	**617,364.2**	**597,706.3**	**576,496.5**					
Total % n/n-1		-1.9%	-1.7%	-3.2%	-3.5%					
5.4 Total Service Units	**10,036.0**	**10,262.0**	**10,455.0**	**10,682.0**	**10,912.0**					
Total % n/n-1		2.3%	1.9%	2.2%	2.2%					
5.5 Unit cost	**63.76**	**61.20**	**59.05**	**55.95**	**52.83**					
Total % n/n-1		-4.0%	-3.5%	-5.2%	-5.6%					

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 index - base 100 in year 2012 *inflation N-2* *2.714%* *inflation N-1* *2.30%*

Actual price index - base 100 in year 2012 *inflation N-2 :* *2.714%* *inflation N-1* *2.30%*

(5) Determined costs (performance plan) in real terms – actual/revised forecast costs at N-3 prices

2.700

Table 1 - Total Costs and Unit Costs

Charging zone name	UK Route
Currency	GBP
Entity name:	NERL

Period of reference : **2015-2019**

	Determined costs (performance plan)					Actual costs				
Cost details	**2015**	**2016**	**2017**	**2018**	**2019**	**2015**	**2016**	**2017**	**2018**	**2019**
1. Detail by nature (in nominal terms)										
1.1 Staff	247,873.8	249,795.6	255,548.9	257,569.4	256,357.9					
1.2 Other operating costs (1)	114,796.5	115,455.6	116,501.4	116,625.4	114,751.0					
1.3 Depreciation	165,041.0	167,947.3	165,304.9	156,002.3	150,981.5					
1.4 Cost of capital	54,767.9	51,077.9	47,683.0	45,038.8	41,995.8					
1.5 Exceptional items	13,668.9	10,884.8	10,832.9	10,882.3	10,393.9					
1.6 Total costs	596,148.1	595,161.1	595,871.0	586,118.2	574,480.0					
Total % n/n-1		-0.2%	0.1%	-1.6%	-2.0%					
Staff % n/n-1		0.8%	2.3%	0.8%	-0.5%					
Other op. % n/n-1		0.6%	0.9%	0.1%	-1.6%					
2. Detail by service (in nominal terms)										
2.1 Air Traffic Management	491,386.9	490,448.6	491,062.4	482,855.8	472,885.9					
2.2 Communication (2)	47,151.9	47,061.9	47,120.8	46,333.3	45,376.6					
2.3 Navigation (2)	15,873.8	15,866.3	15,751.1	15,299.6	15,004.7					
2.4 Surveillance (2)	31,855.9	31,795.0	31,834.8	31,302.8	30,656.5					
2.5 Search and rescue										
2.6 Aeronautical Information (2)	4,314.5	4,422.4	4,532.9	4,646.3	4,762.4					
2.7 Meteorological services (2)										
2.8 Supervision costs	5,565.1	5,566.9	5,569.0	5,680.4	5,793.9					
2.9 Other State costs (1)										
2.10 Total costs	596,148.1	595,161.1	595,871.0	586,118.2	574,480.0					
Total % n/n-1		-0.2%	0.1%	-1.6%	-2.0%					
ATM % n/n-1		-0.2%	0.1%	-1.7%	-2.1%					
CNS % n/n-1		-0.2%	0.0%	-1.9%	-2.0%					
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	952,517.7	888,341.4	829,297.5	783,310.4	730,386.2					
Cost of capital %										
3.5 Cost of capital pre tax rate	5.75%	5.75%	5.75%	5.75%	5.75%					
3.6 Return on equity	13.40%	13.40%	13.40%	13.40%	13.40%					
3.7 Average interest on debts	2.60%	2.60%	2.60%	2.60%	2.60%					
Cost of common projects										
3.8 Total costs of common projects	8,605.9	8,172.6	5,855.0	7,601.7	7,763.2					
Costs exempted from cost sharing (Article 14(2)(b))										
3.9 Total costs exempted 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	**596,148.1**	**595,161.1**	**595,871.0**	**586,118.2**	**574,480.0**					
5. Cost-efficiency KPI - Determined/Actual Unit Cost (in real terms)										
5.1 Inflation % (3)	2.00%	1.90%	2.00%	2.00%	2.00%					
5.2 Price index (4)	107.2	109.2	111.4	113.6	115.9					
5.3 Total costs real terms (5)	**556,222.7**	**544,947.8**	**534,899.8**	**515,828.4**	**495,672.4**					
Total % n/n-1		-2.0%	-1.8%	-3.6%	-3.9%					
5.4 Total Service Units	**10,036.0**	**10,262.0**	**10,455.0**	**10,682.0**	**10,912.0**					
Total % n/n-1		2.3%	1.9%	2.2%	2.2%					
5.5 Unit cost	**55.42**	**53.10**	**51.16**	**48.29**	**45.42**					
Total % n/n-1		-4.2%	-3.7%	-5.6%	-5.9%					

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 index - base 100 in year 2012 inflation N-2 2.71% inflation N-1 2.30%

Actual price index - base 100 in year 2012 inflation N-2 : inflation N-1:

(5) Determined costs (performance plan) in real terms – actual/revised forecast costs at N-3 (2012) prices

Table 1 - Total Costs and Unit Costs

Charging zone name	UK Route
Currency	GBP
Entity name:	MET Office

Period of reference : **2015-2019**

	Determined costs (performance plan)					Actual costs				
Cost details	**2015**	**2016**	**2017**	**2018**	**2019**	**2015**	**2016**	**2017**	**2018**	**2019**
1. Detail by nature (in nominal terms)										
1.1 Staff	12,911.0	12,718.0	12,550.0	12,377.0	12,230.0					
1.2 Other operating costs (1)	9,062.0	9,046.3	9,034.5	9,027.1	9,023.4					
1.3 Depreciation	4,000.0	4,000.0	4,000.0	4,000.0	4,000.0					
1.4 Cost of capital	2,088.0	2,088.0	2,088.0	2,088.0	2,088.0					
1.5 Exceptional items	0.0	0.0	0.0	0.0	0.0					
1.6 Total costs	28,061.0	27,852.3	27,672.5	27,492.1	27,341.4					
Total % n/n-1		-0.7%	-0.6%	-0.7%	-0.5%					
Staff % n/n-1		-1.5%	-1.3%	-1.4%	-1.2%					
Other op. % n/n-1		-0.2%	-0.1%	-0.1%	0.0%					
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)	28,061.0	27,852.3	27,672.5	27,492.1	27,341.4					
2.8 Supervision costs										
2.9 Other State costs (1)										
2.10 Total costs	28,061.0	27,852.3	27,672.5	27,492.1	27,341.4					
Total % n/n-1		-0.7%	-0.6%	-0.7%	-0.5%					
ATM % n/n-1										
CNS % n/n-1										
3. Complementary information (in nominal terms)										
Average asset base										
3.1 Net book val. fixed assets	39,505.0	39,505.0	39,505.0	39,505.0	39,505.0					
3.2 Adjustments total assets										
3.3 Net current assets	0.0	0.0	0.0	0.0	0.0					
3.4 Total asset base	39,505.0	39,505.0	39,505.0	39,505.0	39,505.0					
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	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	0.0	0.0	0.0					
Costs exempted from cost sharing (Article 14(2)(b))										
3.9 Total costs exempted 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	0.0	0.0	0.0					
4.2 Total determined/actual costs	**28,061.0**	**27,852.3**	**27,672.5**	**27,492.1**	**27,341.4**					
5. Cost-efficiency KPI - Determined/Actual Unit Cost (in real terms)										
5.1 Inflation % (3)	2.00%	1.90%	2.00%	2.00%	2.00%					
5.2 Price index (4)	107.2	109.2	111.4	113.6	115.9					
5.3 Total costs real terms (5)	**26,181.7**	**25,502.4**	**24,841.0**	**24,195.1**	**23,590.7**					
Total % n/n-1		-2.6%	-2.6%	-2.6%	-2.5%					
5.4 Total Service Units	**10,036.0**	**10,262.0**	**10,455.0**	**10,682.0**	**10,912.0**					
Total % n/n-1		2.3%	1.9%	2.2%	2.2%					
5.5 Unit cost	**2.61**	**2.49**	**2.38**	**2.27**	**2.16**					
Total % n/n-1		-4.7%	-4.4%	-4.7%	-4.6%					

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 index - base 100 in year 2012 inflation N-2 2.71% inflation N-1 2.30%

Actual price index - base 100 in year 2012 inflation N-2 : inflation N-1

(5) Determined costs (performance plan) in real terms – actual/revised forecast costs at N-3 (2012) prices

Table 1 - Total Costs and Unit Costs

Charging zone name	UK Route
Currency	GBP
Entity name:	UK CAA & DFT

Period of reference : **2015-2019**

	Determined costs (performance plan)					Actual costs				
Cost details	**2015**	**2016**	**2017**	**2018**	**2019**	**2015**	**2016**	**2017**	**2018**	**2019**
1. Detail by nature (in nominal terms)										
1.1 Staff	3,685	3,847	4,015	4,188	4,367					
1.2 Other operating costs (1)	50,390	51,524	52,735	53,973	55,240					
1.3 Depreciation	1,319	1,319	1,320	1,320	710					
1.4 Cost of capital	243	183	123	62	16					
1.5 Exceptional items	6,000	6,000	6,000	6,000	6,000					
1.6 Total costs	61,637.15	62,872.79	64,192.23	65,543.29	66,333.11					
Total % n/n-1		2.0%	2.1%	2.1%	1.2%					
Staff % n/n-1		4.4%	4.4%	4.3%	4.3%					
Other op. % n/n-1		2.3%	2.3%	2.3%	2.3%					
2. Detail by service (in nominal terms)										
2.1 Air Traffic Management	11,306	11,506	11,709	11,908	12,138					
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	1,856	1,806	1,760	1,724	1,068					
2.9 Other State costs (1)	48,475	49,561	50,723	51,911	53,127					
2.10 Total costs	61,636.80	62,873.12	64,191.71	65,543.06	66,333.01					
Total % n/n-1		2.0%	2.1%	2.1%	1.2%					
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	5,256.0	3,954.0	2,652.0	1,350.0	350.0					
3.2 Adjustments total assets										
3.3 Net current assets										
3.4 Total asset base	5,256.0	3,954.0	2,652.0	1,350.0	350.0					
Cost of capital %										
3.5 Cost of capital pre tax rate	4.6%	4.6%	4.6%	4.6%	4.6%					
3.6 Return on equity	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%					
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 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	0.0	0.0	0.0					
4.2 Total determined/actual costs	**61,636.8**	**62,873.1**	**64,191.7**	**65,543.1**	**66,333.0**					
5. Cost-efficiency KPI - Determined/Actual Unit Cost (in real terms)										
5.1 Inflation % (3)	2.00%	1.90%	2.00%	2.00%	2.00%					
5.2 Price index (4)	107.2	109.2	111.4	113.6	115.9					
5.3 Total costs real terms (5)	**57,508.8**	**57,568.6**	**57,623.4**	**57,682.9**	**57,233.4**					
Total % n/n-1		0.1%	0.1%	0.1%	-0.8%					
5.4 Total Service Units	**10,036.0**	**10,262.0**	**10,455.0**	**10,682.0**	**10,912.0**					
Total % n/n-1		2.3%	1.9%	2.2%	2.2%					
5.5 Unit cost	**5.73**	**5.61**	**5.51**	**5.40**	**5.24**					
Total % n/n-1		-2.1%	-1.8%	-2.0%	-2.9%					

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 index - base 100 in year 2012 inflation N-2 2.71% inflation N-1 2.30%

Actual price index - base 100 in year 2012 inflation N-2 : inflation N-1

(5) Determined costs (performance plan) in real terms – actual/revised forecast costs at N-3 (2012) prices

Table 2 - Unit rate calculation

Charging zone name : UK Route
Entity name : All Entities

Period of reference : **2015-2019**

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	685,845.9	685,886.5	687,735.2	679,153.3	668,154.4
1.2 Actual inflation rate - Table 1					
1.3 Forecast inflation rate - Table 1	2.0%	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)	10,036.00	10,262.00	10,455.00	10,682.00	10,912.00
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)					
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					
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					
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					
5.12 Year n unit rate that would have applied without other revenues					

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

Charging zone name : UK Route
Entity name : NERL

Period of reference : **2015-2019**

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	596,148.1	595,161.1	595,871.0	586,118.2	574,480.0
1.2 Actual inflation rate - Table 1					
1.3 Forecast inflation rate - Table 1	2.0%	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)	10,036.0	10,262.0	10,455.0	10,682.0	10,912.0
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	25,074.3	28,043.5	0.0	0.0	0.0
3.3 Traffic : amounts carried over to year n	836.1	4,002.6	0.0	0.0	0.0
3.4 Traffic risk sharing : add. revenue carried over to year n					
3.5 Traffic risk sharing : revenues losses carried over to year n	32,205.5	42,974.8	0.00	0.00	0.00
3.6 Costs exempt from cost sharing : amounts carried over to year n	879.7	1,102.0	1,105.5	1,107.5	1,096.1
3.7 Bonus or penalty for performance	-2,027.6	0.0	0.0	0.0	0.0
3.8 Over(-) or under(+) recoveries (2) : amounts carried over to year n					
3.9 Total for the calculation of year n unit rate	56,968.0	76,122.9	1,105.5	1,107.5	1,096.1
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)					
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					
5.3 of which Union assistance programmes					
5.4 of which National public funding					
5.5 Commercial activities					
5.6 Other other revenues	-689.8	0.0	0.0	0.0	0.0
5.7 Grand total for the calculation of year n unit rate	652,426.3	671,284.0	596,976.5	587,225.7	575,576.1
5.8 Year n unit rate (in national currency)	**65.01**	**65.41**	**57.10**	**54.97**	**52.75**
5.9 ANSP component of the unit rate	**65.01**	**65.41**	**57.10**	**54.97**	**52.75**
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					

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

Charging zone name :UK Route
Entity name : MET Office

Period of reference : **2015-2019**

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	28,061.0	27,852.3	27,672.5	27,492.1	27,341.4
1.2 Actual inflation rate - Table 1					
1.3 Forecast inflation rate - Table 1	2.0%	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)	10,036.0	10,262.0	10,455.0	10,682.0	10,912.0
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)					
4.2 Inflation adjustment : amount carried over to year n	930				
4.3 Traffic : amounts carried over to year n	2,412.0				
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					
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					
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					
5.12 Year n unit rate that would have applied without other revenues					

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

Charging zone name : UK Route
Entity name : CAA DfT

Period of reference : **2015-2019**

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	61,636.8	62,873.1	64,191.7	65,543.1	66,333.0
1.2 Actual inflation rate - Table 1					
1.3 Forecast inflation rate - Table 1	2.0%	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)	10,036.0	10,262.0	10,455.0	10,682.0	10,912.0
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)					
4.2 Inflation adjustment : amount carried over to year n	606				
4.3 Traffic : amounts carried over to year n	1,239.0				
4.4 Costs exempt from cost sharing : amounts carried over to year n	5,653.0				
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					
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					
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					
5.12 Year n unit rate that would have applied without other revenues					

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

Charging zone name	UK Route	Period of reference : **2015-2019**

PART A : Complementary Information on costs	**2015**	**2016**	**2017**	**2018**	**2019**	**2015**	**2016**	**2017**	**2018**	**2019**
	Determined costs (performance plan)					**Actual costs**				
Eurocontrol costs										
1.1 EUROCONTROL costs (Euro)	56,254.0	57,410.0	58,297.0	59,361.0	60,451.0					
1.2 Exchange rate (if applicable)	0.85066	0.85066	0.85066	0.85066	0.85066					
Cost of common projects										
2.1 Total costs of common projects	8,605.9	8,172.6	5,855.0	7,601.7	7,763.2					
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) (by nature)										
3.1 Staff										
3.2 Other operating costs	47,852.7	48,836.1	49,590.6	50,495.7	51,422.9					
3.3 Depreciation										
3.4 Cost of capital										
3.5 Exceptional items										
3.6 Total costs exempted from cost sharing	47,852.7	48,836.1	49,590.6	50,495.7	51,422.9					
Costs exempted from the cost sharing arrangements - Article 14(2)(b) (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	47,852.7	48,836.1	49,590.6	50,495.7	51,422.9					
3.12 Total costs exempted from cost sharing	47,852.7	48,836.1	49,590.6	50,495.7	51,422.9					
Restructuring costs, if authorised in accordance with Article 7(4)	**Planned costs (business case)**									
4.1 Total restructuring costs	0.0	0.0	0.0	0.0	0.0					

PART B : Complementary information on adjustments	**Amounts**	**Total C/O**	**Before RP2**	**2015**	**2016**	**2017**	**2018**	**2019**	**After RP**
Inflation adjustment Year 2013				20,421					
Inflation adjustment Year 2014					18,023				
Inflation adjustment Year 2015									
Inflation adjustment Year 2016									
Inflation adjustment Year 2017									
Inflation adjustment Year 2018									
Inflation adjustment Year 2019									
Total Inflation Adjustment	0.0	0.0	0	20,421	18,023	0	0	0.0	0
Traffic balance Year Year 2013									
Traffic balance Year Year 2014									
Traffic balance Year Year 2015									
Traffic balance Year Year 2016									
Traffic balance Year Year 2017									
Traffic balance Year Year 2018									
Traffic balance Year Year 2019									
Total Traffic Adjustment									
Traffic risk sharing revenue Year 2013				43,250					
Traffic risk sharing revenue Year 2014					49,189				
Traffic risk sharing revenue Year 2015									
Traffic risk sharing revenue Year 2016									
Traffic risk sharing revenue Year 2017									
Traffic risk sharing revenue Year 2018									
Traffic risk sharing revenue Year 2019									
Total Traffic Risk sharing revenue adjustment	0	0	0	43,250	49,189	0	0	0.0	0
Traffic risk sharing loss Year 2012									
Traffic risk sharing loss Year 2013									
Traffic risk sharing loss Year 2014									
Traffic risk sharing loss Year 2015									
Traffic risk sharing loss Year 2016									
Traffic risk sharing loss Year 2017									
Traffic risk sharing loss Year 2018									
Traffic risk sharing loss Year 2019									
Total Traffic Risk sharing loss adjustment									
Costs exempted from cost sharing Year 2012	-3,696	-3,696		-3,696					
Costs exempted from cost sharing Year 2013				986					
Costs exempted from cost sharing Year 2014					4,368				
Costs exempted from cost sharing Year 2015									
Costs exempted from cost sharing Year 2016									
Costs exempted from cost sharing Year 2017									
Costs exempted from cost sharing Year 2018									
Costs exempted from cost sharing Year 2019									
Total costs exempted from cost sharing	-3,696	-3,696	0	-2,710	4,368	0	0	0	0
O-u recoveries before determined costs Year 2005									
O-u recoveries before determined costs Year 2006									
O-u recoveries before determined costs Year 2007									
O-u recoveries before determined costs Year 2008									
O-u recoveries before determined costs Year 2009									
O-u recoveries before determined costs Year 2010									
O-u recoveries before determined costs Year 2011									
Total carry-overs									

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;

1. The UK cost base is prepared under 4 separate organisations:

    a. 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.

    b. 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 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.

    c. 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.

    d. 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.

2. 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.

3. 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;

NERL:

1. 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

2. 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).

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

Pension Costs

4. 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.

5. 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 2015). 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, through to [2016]. From 2017, the cash contributions reflect 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 - % of Pensionable Pay (£m)

Outturn	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20
Cash Contributions	79.5	80.2	81.4	83.2	76.6	75.5
Charge to Income Statement	72.9	69.7	69.6	68.5	66.5	65.7

6. 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

7. 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 for RP2 (£m)

Outturn	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20
Fixed assets – net book value	1069.3	1057.1	1061.1	1020.8	986.3	944.1
Working capital	89.9	13.4	-41.3	-50.1	-67.9	-81.4
RIM	0.0	31.3	0.0	0.0	0.0	0.0
Pensions pass through	11.4	0.0	0.0	0.0	0.0	0.0
Total RAB	**1170.6**	**1101.8**	**1019.7**	**970.8**	**918.3**	**862.8**

Fixed assets

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

Fixed assets - Net book value

Outturn	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20
Current cost (RAB basis)	1069.3	1057.1	1061.1	1020.8	986.3	944.1
Historical cost (Statutory accounts basis)	945.0	979.1	986.8	967.2	937.6	888.0

Working capital

9. 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

10. 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.

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

12. 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.

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

Pensions Pass-Through

14. 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.

15. The pensions asset is being depreciated over 12 or 15 years depending on when the asset was . 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.

16. The deprecation charge on the pesniosn pass through asset 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

17. 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 similar, 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 loss due to the timing difference.

18. 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

19. 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

20. 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

21. 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.

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

23. 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:

1. 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 historical costs.

MET:

2. 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:

3. Together, IAS and the Charging Regulation require fixed assets to be 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.

4. 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]

5. 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

[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. As noted in Annex K paragraph 1 and for reasons given in paragraph 18, it is the proceeds of asset disposals that are deducted from the RAB and are therefore reflected in depreciation.

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.

6. 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.

7. 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

Outturn	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20
Depreciation charge on the basis of						
Current cost accounting (regulatory depreciation lives)	186.8	198.3	199.9	195.2	182.0	180.3
Historical cost accounting (statutory accounts depreciation lives)	99.6	111.7	131.5	138.4	141.4	153.7

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:

1. 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 RP2 is shown in the table below.

£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	3,652	1,350	350
Cost of capital	244	183	125	63	16

MET:

2. Over the period 2015 – 2019 (RP2) there will be significant investment in the next generation of Meteorological satellites. 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. An outline profile of the changes can be seen in the table below, however for simplicity of pricing this has been averaged across the RP2 period.

£000s	2015	2016	2017	2018	2019
Aviation Asset Base	37,080	37,501	39,239	40,769	42,937
Cost of Capital %	5.3%	5.3%	5.3%	5.3%	5.3%
Cost of capital £k	1,960	1,982	2,074	2,155	2,269
Average 2015-2019					
Aviation Asset Base					39,505
Cost of Capital %					5.3%
Cost of capital £k					2,088

NERL

3. 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.

4. 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 by considering 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.

5. 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.

6. 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 5.75% and this is applied to the average RAB.

Cost of Capital Estimate

Percent	RP2	RP1

[2] http://www.caa.co.uk/default.aspx?catid=5&pagetype=90&pageid=585

[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.

Gearing		60	60
Pre tax cost of debt		2.45	3.6
Total Market returns		6.25	7.00
Risk free rate		0.75	1.75
Equity risk premium		5.50	5.25
Equity beta (number)		1.11	1.35
Post tax cost of equity		6.87	8.8
Tax uplift		36	27
Pre-tax cost of equity		10.73	12.1
Vanilla WACC4		4.22	5.7
Pre-tax WACC	}	5.75	7.0
Accounting rate of return (the rate applied to the RAB)			6.76

7. The Executive Summary of PwC's report is set out 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 5.75%. 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 [ref] and Competition Commission's recent provisional determination for Northern Ireland Electricity. [ref]

   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 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 36% 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].

[4] The vanilla WACC is the weighted average of the pre-tax cost of debt and the post tax cost of equity.

[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).

Summary of PwC report

8. 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 RP2

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	(0.65)	(0.65)
Increase in tax	n/a	0.53
RP2 proposals	**4.22**	**5.75**

9. In summary, the reduction in the pre-tax WACC compared to RP1 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, the possible adjustments to total assets and the return on equity

10. These 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;

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

MET:

1. The criteria used are defined in Annex II of WMO 904. All Aviation meteorological services provided under designation by the Met Office are currently charged to en-route services.

NERL:

2. NERL does not provide terminal services. In respect of approach charges NERL collects a separate regulated fee from users of London Approach services, which are managed by NERL. The revenue from this service is offset against en route charges

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:

1. 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 £26,637k in 2015 to £24,072k 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:

1. 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.

2. 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.

3. 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.

4. 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. .

5. 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;

NSA:

6. The CAA's forecast costs for 2015, the first year of RP2, are £13.677m. This represents a 5.5% reduction in nominal terms, and 7.1% in real terms, compared with the final year of RP1.

7. The reduction in costs is largely as a result of the extensive Process and Performance Improvement (PPI) project, designed to improve the CAA's efficiency and effectiveness, and reduce the financial burden on industry.

8. For the remainder of RP2, the CAA's costs are forecast to increase by an average of 0.3% per annum in nominal terms (an average annual reduction of 1.5% in real terms). Based on the latest traffic forecasts for RP2, the CAA's Determined Unit Rate will reduce by 15% in real terms over the five year period, equivalent to an average of RPI-3.8%

9. There is still a degree of uncertainty in respect of some of the CAA's costs. The merging of the Directorate of Airspace Policy (DAP) with the Safety Regulation Group (SRG) has recently been announced. It is not expected to lead to any significant change to the costs of regulating the UK's en-route airspace; however, a comprehensive analysis of the implications has not yet been carried out and there may be some considerations that need to be factored into our final costs for the period.

10. The £6m annual provision to fund the pensions benefit obligation (PBO) of NATS pensioners and deferred pensioners is being carried forward throughout RP2. The next actuarial valuation of the pensions' scheme is due in December 2013 with the results known in March or April 2014. Any resulting change to the annual provision to fund the scheme's liabilities will be detailed in the UK's National Performance Plan for RP2.

DfT:

11. The costs reported against the DfT represent the UK's share of the Eurocontrol cost-base. A forecast cost-base for Eurocontrol for the period 2015 to 2019, and the allocation of the costs across Member States, was published in May following the recent meeting of the SCF.

12. The UK's cost base in Euro has been converted to Sterling using a constant exchange rate for the entire Reference Period. The rate used is the April 2013 exchange rate.

13. The forecast cost for the first year of RP2 is £47.853m, a reduction of 1.2% in nominal terms, and 2.8% in real terms, compared with the final year of RP1. For the remainder of RP2, the cost is forecast to increase by an average of 1.8% per annum in nominal terms (a flat budget in real terms).

14. Based on the latest traffic forecast for RP2, the Determined Unit Rate for Eurocontrol costs represents an average annual change of RPI – 2.6%

MET:

15. For RP2 the NSA has agreed designation arrangements with the Met Office to provide Met Services. The arrangements allow for a fixed reduction in Core underpinning capability from 2015 and ongoing annual efficiencies of 2.5% in Core and Direct services for the period 2015 to 2019. Provision has also been made for a continuation of the Met Office Civil Contingency Aircraft facility, support and maintenance for a Volcanic Ash detection LIDAR network, Volcanic ash satellite product and dispersion modelling development and Met R&D. Total Met costs are forecast to be £26.6m in 2015 in real terms and to fall to £24.1m in 2019.

NERL:

16. The reported costs are derived from NERL's revised business plan as modified by the CAA.

17. NERL commenced its customer consultation on 29 May2013 based on 2 plans with different scenarios. These are available on the NATS customer website. Plan 1 provided for a real determined unit rate cost reduction of 5.3% p.a. after excluding pension pass through and cost of change with Plan 2 delivering a 6% real unit cost efficiency on an equivalent basis but with greater risk around day to day service quality and timescales for implementing the CAA's Future Airspace Strategy.

18. The CAA has adjusted these costs by

- adding back the costs of change
- limiting the allowance for increases in unit staff costs to the inflation rate
- making a 10% downward adjustment to expected cash pension costs in 018 and 2019
- removing the allowance for operating cost contingency
- not making an allowance for certain costs relating to the employee shareholder scheme.

19. More details of these costs are shown in the consultation material on the performance plan.

20. The traffic forecast is Eurocontrol's STATFOR Medium Term Forecast (September 20113.

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

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;

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.

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;

UK Policy on Exempted Flights

21. In addition to the mandatory exemptions, the UK plans to exempt the following flights from en-route charges in RP2:

- 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.

22. 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:

1. NERL reports on a single till basis agreed with the company's Regulator. As a consequence no income from other sources has been separately reported as this 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, services to other group companies, miscellaneous income, London Approach fees and revenue associated with the SESAR Joint Undertaking and other European programmes.

2. 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. The RP2 tables are based on an initial assumption that the current charge will be continued into RP2.

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

NERL (from 2011):

1. Capacity (delay). NERL is subject to an incentive/penalty regime in respect of 3 capacity KPI's which reflect i) annual flight delay 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.

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. 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.

5. Details of the incentive scheme for RP2 is discussed in the Consultation Document (Appendix A).

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

N/a

ADDITIONAL INFORMATION – 3 – Complementary Information

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

No Common Projects currently adopted.

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:

1. 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.

2. A balance of £3.7m (credit) will be carried forward to RP2 in respect of 2012 Eurocontrol costs. The underlying assumptions giving rise to this figure are as shown below:

	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	

NERL:

3. 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 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.

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;

NERL:

1. Due to the price profiling adjustment in 2013 & 2014 (resulting from pre 2011 traffic adjustments), an element will need to be recovered in RP2 due to the lower than forecast traffic in these periods.

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

NERL:

1. Due to the forecast estimated traffic in 2013 and 2014 (more than 10% lower than RP1 initial estimates), the carry forward for risk sharing is currently estimated at £43.2m for 2015 and £49.2m for 2016.

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

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

This information is covered in the PRB template

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.

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,

1. The cost of debt is included in the WACC estimate. The real cost of debt is estimated to be 2.45%. This is the midpoint of the range estimated by PwC.

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

2. 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%.

3. 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;

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;

These are broken down in the respective 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.

The uncontrollable costs from RP1 have been amortised over 15 years.
They do contribute to the planned DC for RP1 but appear as additional passthrough items in table 2 line 3.6.

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.

4. 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.

5. As mentioned in paragraph 54 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

Charging zone name	UK Zone B - Terminal
Currency	GBP
Entity name:	ANSP

Period of reference : **2015-2019**

	Determined costs (performance plan)					Actual costs				
Cost details	**2015**	**2016**	**2017**	**2018**	**2019**	**2015**	**2016**	**2017**	**2018**	**2019**
1. Detail by nature (in nominal terms)										
1.1 Staff	51,963	50,947	52,403	53,811	55,142					
1.2 Other operating costs	56,050	57,480	58,907	60,122	61,306					
1.3 Depreciation	1,009	754	526	474	483					
1.4 Cost of capital *	20,182	20,113	20,429	20,615	20,762					
1.5 Exceptional items	286	282	288	290	290					
1.6 Total costs	129,490	129,576	132,553	135,311	137,983					
Total % n/n-1		0.1%	2.3%	2.1%	2.0%					
Staff % n/n-1		-2.0%	2.9%	2.7%	2.5%					
Other op. % n/n-1		2.6%	2.5%	2.1%	2.0%					
* See section E for additional information										
2. Detail by service (in nominal terms)										
2.1 Air Traffic Management	109,715	109,788	112,310	114,647	116,911					
2.2 Communication (1)	3,125	3,127	3,199	3,265	3,330					
2.3 Navigation (1)	5,088	5,091	5,208	5,317	5,422					
2.4 Surveillance (1)	10,405	10,412	10,651	10,872	11,087					
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)	1,158	1,158	1,185	1,210	1,233					
2.8 Supervision costs	0	0	0	0	0					
2.9 Other State costs	0	0	0	0	0					
2.10 Total costs	129,490	129,576	132,553	135,311	137,983					
Total % n/n-1		0.1%	2.3%	2.1%	2.0%					
ATM % n/n-1		0.1%	2.3%	2.1%	2.0%					
CNS % n/n-1		0.1%	2.3%	2.1%	2.0%					
3. Complementary information (in nominal terms)										
Average asset base (see Section E for additional information)										
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 % (see Section E for additional information)										
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	**129,490**	**129,576**	**132,553**	**135,311**	**137,983**					
5. Cost-efficiency KPI - Determined/Actual Unit Cost (in real terms)										
5.1 Inflation % (2)	1.75%	1.80%	1.90%	1.91%	1.98%					
5.2 Price index (3)	105.3	107.2	109.3	111.4	113.6					
5.3 Total costs real terms (4)	**122,918**	**120,826**	**121,297**	**121,495**	**121,483**					
Total % n/n-1		-1.7%	0.4%	0.2%	0.0%					
5.4 Total Service Units										
Total % n/n-1										
5.5 Unit cost										
Total % n/n-1										

Costs and asset base items 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 index - base 100 in year N-3 inflation N-2 1.80% inflation N- 1.70%

Actual price index - base 100 in year N-3 inflation N-2 : inflation N-1:

(4) Determined costs (performance plan) in real terms – actual/revised forecast costs at N-3 prices

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.

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.

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, Birmingham Airport Limited does not see BAATL as a profit centre this is therefore reflected within the cost of capital line.

(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

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

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

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

Table 1 - Total Costs and Unit Costs

Charging zone name	UK London Approach
Currency	GBP
Entity name:	All entities

Period of reference : **2015-2019**

	Determined costs (performance plan)					Actual costs				
Cost details	**2015**	**2016**	**2017**	**2018**	**2019**	**2015**	**2016**	**2017**	**2018**	**2019**
1. Detail by nature (in nominal terms)										
1.1 Staff	5,034.1	5,210.6	5,494.4	5,788.2	6,011.3					
1.2 Other operating costs (1)	2,331.4	2,408.3	2,504.8	2,620.9	2,690.8					
1.3 Depreciation	3,360.4	3,513.1	3,563.9	3,515.5	3,549.8					
1.4 Cost of capital	1,362.0	1,319.3	1,268.0	1,251.9	1,233.4					
1.5 Exceptional items	0.0	0.0	0.0	0.0	0.0					
1.6 Total costs	12,087.9	12,451.4	12,831.0	13,176.4	13,485.3					
Total % n/n-1		3.0%	3.0%	2.7%	2.3%					
Staff % n/n-1		3.5%	5.4%	5.3%	3.9%					
Other op. % n/n-1		3.3%	4.0%	4.6%	2.7%					
2. Detail by service (in nominal terms)										
2.1 Air Traffic Management	12,057.1	12,419.9	12,799.0	13,143.7	13,451.9					
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)	0.0	0.0	0.0	0.0	0.0					
2.8 Supervision costs	30.8	31.4	32.0	32.7	33.3					
2.9 Other State costs (1)	0.0	0.0	0.0	0.0	0.0					
2.10 Total costs	12,087.9	12,451.4	12,831.0	13,176.4	13,485.3					
Total % n/n-1		3.0%	3.0%	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	23,687.6	22,945.9	22,052.1	21,772.5	21,451.5					
3.2 Adjustments total assets	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					
3.4 Total asset base	23,687.6	22,945.9	22,052.1	21,772.5	21,451.5					
Cost of capital %										
3.5 Cost of capital pre tax rate	5.7%	5.7%	5.7%	5.7%	5.7%					
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	0.0	0.0	0.0					
Costs exempted from cost sharing (Article 14(2)(b))										
3.9 Total costs exempted 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	0.0	0.0	0.0					
4.2 Total determined/actual costs	**12,087.9**	**12,451.4**	**12,831.0**	**13,176.4**	**13,485.3**					
5. Cost-efficiency KPI - Determined/Actual Unit Cost (in real terms)										
5.1 Inflation % (3)	2.00%	1.90%	2.00%	2.00%	2.00%					
5.2 Price index (4)	107.18	109.21	111.40	113.63	115.90					
5.3 Total costs real terms (5)	**11,278.3**	**11,400.8**	**11,518.1**	**11,596.3**	**11,635.5**					
Total % n/n-1		1.1%	1.0%	0.7%	0.3%					
5.4 Total Service Units	**851.2**	**868.4**	**880.6**	**895.8**	**909.2**					
Total % n/n-1		2.0%	1.4%	1.7%	1.5%					
5.5 Unit cost	**13.25**	**13.13**	**13.08**	**12.95**	**12.80**					
Total % n/n-1		-0.9%	-0.4%	-1.0%	-1.1%					

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

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

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

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

(4) Forecast price index - base 100 in year 2012 inflation N-2 2.714% inflation N-1 2.30%
Actual price index - base 100 in year 2012 inflation N-2 : inflation N-1

(5) Determined costs (performance plan) in real terms – actual/revised forecast costs at N-3 prices

Table 1 - Total Costs and Unit Costs

Charging zone name	UK London Approach
Currency	GBP
Entity name:	NERL

Period of reference : **2015-2019**

Cost details	Determined costs (performance plan) 2015	2016	2017	2018	2019	Actual costs 2015	2016	2017	2018	2019
1. Detail by nature (in nominal terms)										
1.1 Staff	5,034.1	5,210.6	5,494.4	5,788.2	6,011.3					
1.2 Other operating costs (1)	2,331.4	2,408.3	2,504.8	2,620.9	2,690.8					
1.3 Depreciation	3,360.4	3,513.1	3,563.9	3,515.5	3,549.8					
1.4 Cost of capital	1,362.0	1,319.3	1,268.0	1,251.9	1,233.4					
1.5 Exceptional items	0.0	0.0	0.0	0.0	0.0					
1.6 Total costs	12,087.9	12,451.4	12,831.0	13,176.4	13,485.3					
Total % n/n-1		3.0%	3.0%	2.7%	2.3%					
Staff % n/n-1		3.5%	5.4%	5.3%	3.9%					
Other op. % n/n-1		3.3%	4.0%	4.6%	2.7%					
2. Detail by service (in nominal terms)										
2.1 Air Traffic Management	12,057.1	12,419.9	12,799.0	13,143.7	13,451.9					
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	30.8	31.4	32.0	32.7	33.3					
2.9 Other State costs (1)										
2.10 Total costs	12,087.9	12,451.4	12,831.0	13,176.4	13,485.3					
Total % n/n-1		3.0%	3.0%	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	23,687.6	22,945.9	22,052.1	21,772.5	21,451.5					
3.2 Adjustments total assets										
3.3 Net current assets										
3.4 Total asset base	23,687.6	22,945.9	22,052.1	21,772.5	21,451.5					
Cost of capital %										
3.5 Cost of capital pre tax rate	5.7%	5.7%	5.7%	5.7%	5.7%					
3.6 Return on equity	13.4%	13.4%	13.4%	13.4%	13.4%					
3.7 Average interest on debts	2.60%	2.60%	2.60%	2.6%	2.6%					
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 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	**12,087.9**	**12,451.4**	**12,831.0**	**13,176.4**	**13,485.3**					
5. Cost-efficiency KPI - Determined/Actual Unit Cost (in real terms)										
5.1 Inflation % (3)	2.00%	1.90%	2.00%	2.00%	2.00%					
5.2 Price index (4)	107.2	109.2	111.4	113.6	115.9					
5.3 Total costs real terms (5)	**11,278.3**	**11,400.8**	**11,518.1**	**11,596.3**	**11,635.5**					
Total % n/n-1		1.1%	1.0%	0.7%	0.3%					
5.4 Total Service Units	**851.2**	**868.4**	**880.6**	**895.8**	**909.2**					
Total % n/n-1		2.0%	1.4%	1.7%	1.5%					
5.5 Unit cost	**13.25**	**13.13**	**13.08**	**12.95**	**12.80**					
Total % n/n-1		-0.9%	-0.4%	-1.0%	-1.1%					

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

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

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

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

(4) Forecast price index - base 100 in year 2012 inflation N-2 2.714% inflation N-1 2.30%
Actual price index - base 100 in year 2012 inflation N-2 : inflation N-1:

(5) Determined costs (performance plan) in real terms – actual/revised forecast costs at N-3 (2012) prices

Table 2 - Unit rate calculation

Charging zone name : UK London approach
Entity name:All Entities

Period of reference : **2015-2019**

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	12,087.9	12,451.4	12,831.0	13,176.4	13,485.3
1.2 Actual inflation rate - Table 1					
1.3 Forecast inflation rate - Table 1	2.0%	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)	851.18	868.38	880.64	895.75	909.16
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)					
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					
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	12,087.9	12,451.4	12,831.0	13,176.4	13,485.3
5.8 Year n unit rate (in national currency)	**14.20**	**14.34**	**14.57**	**14.71**	**14.83**
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					
5.12 Year n unit rate that would have applied without other revenues					

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

Charging zone name : UK London Approach
Entity name: NERL

Period of reference : **2015-2019**

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	12,087.9	12,451.4	12,831.0	13,176.4	13,485.3
1.2 Actual inflation rate - Table 1					
1.3 Forecast inflation rate - Table 1	2.0%	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)	851.2	868.4	880.6	895.8	909.2
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)					
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					
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	12,087.9	12,451.4	12,831.0	13,176.4	13,485.3
5.8 Year n unit rate (in national currency)					
5.9 ANSP component of the unit rate	14.20	14.34	14.57	14.71	14.83
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					

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

Charging zone name	UK Route						Period of reference : **2015-2019**			

PART A : Complementary Information on costs	**2015**	**2016**	**2017**	**2018**	**2019**	**2015**	**2016**	**2017**	**2018**	**2019**
	Determined costs (performance plan)					**Actual costs**				
Eurocontrol costs										
1.1 EUROCONTROL costs (Euro)										
1.2 Exchange rate (if applicable)	0.85066	0.85066	0.85066	0.85066	0.85066					
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) (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										
Costs exempted from the cost sharing arrangements - Article 14(2)(b) (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										

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

PART B : Complementary information on adjustments	**Amounts**	**Total C/O**	**Before RP2**	**2015**	**2016**	**2017**	**2018**	**2019**	**After RP**
Inflation adjustment Year 2013									
Inflation adjustment Year 2014									
Inflation adjustment Year 2015									
Inflation adjustment Year 2016									
Inflation adjustment Year 2017									
Inflation adjustment Year 2018									
Inflation adjustment Year 2019									
Total Inflation Adjustment									
Traffic balance Year Year 2013									
Traffic balance Year Year 2014									
Traffic balance Year Year 2015									
Traffic balance Year Year 2016									
Traffic balance Year Year 2017									
Traffic balance Year Year 2018									
Traffic balance Year Year 2019									
Total Traffic Adjustment									
Traffic risk sharing revenue Year 2013									
Traffic risk sharing revenue Year 2014									
Traffic risk sharing revenue Year 2015									
Traffic risk sharing revenue Year 2016									
Traffic risk sharing revenue Year 2017									
Traffic risk sharing revenue Year 2018									
Traffic risk sharing revenue Year 2019									
Total Traffic Risk sharing revenue adjustment									
Traffic risk sharing loss Year 2012									
Traffic risk sharing loss Year 2013									
Traffic risk sharing loss Year 2014									
Traffic risk sharing loss Year 2015									
Traffic risk sharing loss Year 2016									
Traffic risk sharing loss Year 2017									
Traffic risk sharing loss Year 2018									
Traffic risk sharing loss Year 2019									
Total Traffic Risk sharing loss adjustment									
Costs exempted from cost sharing Year 2012									
Costs exempted from cost sharing Year 2013									
Costs exempted from cost sharing Year 2014									
Costs exempted from cost sharing Year 2015									
Costs exempted from cost sharing Year 2016									
Costs exempted from cost sharing Year 2017									
Costs exempted from cost sharing Year 2018									
Costs exempted from cost sharing Year 2019									
Total costs exempted from cost sharing									
O-u recoveries before determined costs Year 2005									
O-u recoveries before determined costs Year 2006									
O-u recoveries before determined costs Year 2007									
O-u recoveries before determined costs Year 2008									
O-u recoveries before determined costs Year 2009									
O-u recoveries before determined costs Year 2010									
O-u recoveries before determined costs Year 2011									
Total carry-overs									

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.

(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>

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

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

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 period in years)	Allocation en-route / terminal ANS (%)	Planned date of entry into operation
		2015	2016	2017	2018	2019				
Airspace Development	60.0	9.9	8.9	7.2	6.9	9.3	42.2	9 years	78 /6	Phased delivery over RP2
LAMP	67.9	5.6	7.5	7.5	4.3	0.0	25.0	9 years	78 /6	Phased from 2015 with full (LAMP) delivery by 2020
Centre Systems Software Devt	212.6	57.2	47.7	29.5	31.8	28.3	194.5	6-12 years	78 /6	Phased delivery over RP2
CNS Infrastructure	133.1	19.6	19.8	26.9	23.0	13.4	102.7	7-20 years	78 /6	Phased delivery over RP2
CO2 and Fuel Saving	5.6	1.1	1.1	1.1	1.1	1.2	5.6	9 years	78 /6	Phased delivery over RP2
iTEC FDP/NCW	226.0	35.2	38.8	31.5	31.5	32.7	169.8	20 years	78 /6	Phased to 2022
Sub-total Capex above (1)	**705.1**	**128.6**	**123.8**	**103.8**	**98.6**	**84.9**	**539.7**			
Sub-total others Capex (2)	112.0	17.4	16.0	14.6	15.3	20.8	84.1	6-20 years	78 /6	Phased delivery over RP2
Total investments for RP2 (1)+(2)	**817.1**	**146.0**	**139.8**	**118.4**	**113.9**	**105.7**	**623.8**			

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 RI	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	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 RI	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	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 RI	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	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	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/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 RI				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 NPP 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.

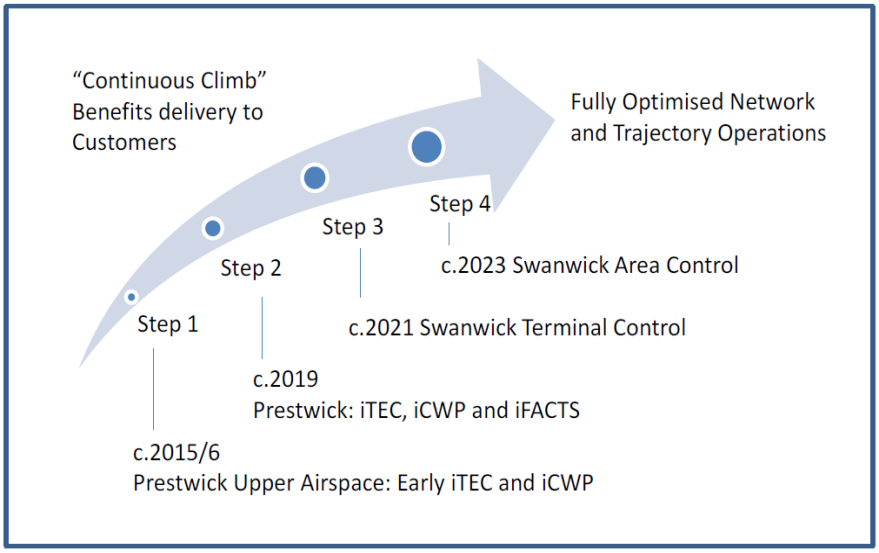
The FDP system is being developed collaboratively through the "Interoperability Through European Collaboration" (ITEC) programme; it is intended that the NCW will be developed and procured in a similar collaborative manner. The ITEC-FDP and ITEC-NCW investments will be rolled out progressively across 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 risk index	5 additional flights per busy hour
TC	8 point reduction in risk index	8 additional flights per busy hour
AC	4 point reduction in risk 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.

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 20% reduction in CO_2 emissions, equivalent to 1,200kT CO_2 pa (377kT 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% improvement in the London Terminal Control Risk 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.

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.

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-

[1] Regulation (EC) No 551/2004 on the organisation and use of the airspace in the Single European Sky.

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 route free 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.

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 VR 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 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 VR 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 route free 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

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 reference value and target: 0.28 mins/flt in 2019 UK allocation of FAB target: 0.254 mins/flt +FAB incentive and UK incentives
Cost efficiency	DUCs reduction of -1.4% pa	DUCs reduction of -5.3% pa
Safety	n/a	EoSM: NSA Level C by 2019 / ANSP Level D by 2019 RAT: States 80% of A-E SMI & RI by 2017 States 100% of AA-C ATM-S by 2019 ANSPs 80% of A-E 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 reference value and target: 0.28 mins/flt in 2019 IE allocation of FAB target: 0.150 mins/flt + FAB incentives
Cost efficiency	DUCs reduction of 4.2% pa over RP1 in real terms	DUCs reduction of 1.7% 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-E SMI & RI by 2017 States 100% of AA-C ATM-S by 2019 ANSPs 80% of A-E 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