

# NATIONAL SUPERVISORY AUTHORITY OF PORTUGAL

# NATIONAL PERFORMANCE PLAN FOR AIR NAVIGATION SERVICES FIRST REFERENCE PERIOD 2012 – 2014

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The following table identifies the authorities who have successively approved the Portuguese National Performance Plan:

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#### 1. Introduction

#### 1.1. The situation

The National Performance Plan for Portugal (Portuguese NPP), developed in order to comply with Commission Regulation (CE) No. 691/2010 (Reg. 691/2010), covers the "first reference period", which will run from January 2012 to the end of 2014 (RP1). The Portuguese NPP sets the proposed Portuguese performance targets for capacity and cost-efficiency consistent with the European wide performance targets established through Commission Decision 2011/121/EU.

This document was prepared by INAC, as National Supervisory Authority (NSA) for ANS.

This is the proposed version of the Portuguese NPP which was updated following the consultation of stakeholders and in accordance with the most recent information on service units forecast, real costs for air navigation services in 2010 and EUROCONTROL costs.

The accountable entities covered by this performance plan are Instituto Nacional de Aviação Civil, INAC, I.P. (INAC), Instituto de Meteorologia, I.P. (IM) and NAV Portugal, E.P.E. (NAV):

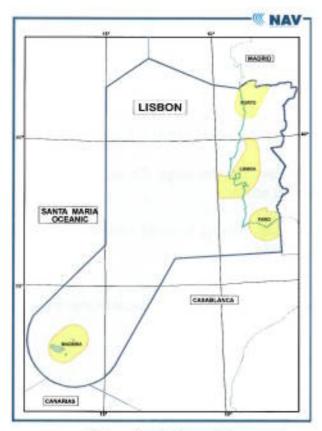
- INAC is the National Aviation Authority, established in 1998, which also acts as NSA, this latter role having been made explicit in 2007, by means of a change to its constitutive act;
- IM is the Portuguese Authority for Aeronautical Meteorology and acts also as provider of MET in all the airspace under the responsibility of Portugal. The functions as authority and MET provider have been functionally separated;
- NAV is certified by INAC for the provision of ATS, AIS and CNS, and has been designated by the Minister of Public Works, Transports and Communications as ATS provider in the airspace described in Portugal's Aeronautical Information Publication.

Providers of AFIS, as well as providers of signal of local radio-aids (Locators), although certified in accordance with SES regulations, are not within the scope of this NPP.

The Portuguese NPP covers the services provided in the en route airspace controlled by NAV which corresponds to the Lisbon FIR/UIR limits. NAV provides en route control services also in the Santa Maria Oceanic FIR which are out of the scope of Reg. 691/2010 and, therefore, are not included in this NPP.



The geographical scope of the Portuguese NPP is represented in Picture no.1.



Picture No. 1 Lisboa FIR

Spain and Portugal decided that, for RP1, AESA will be the NSA that will provide to the Commission the information on the aggregated performance targets for the SW FAB as required in article 5 of Reg. 691/2010. These aggregated targets will be calculated after the targets in this NPP – and Spain's NPP - have been accepted.

According to Reg No 691/2010 the Santa Maria Oceanic FIR is not covered by the performance scheme. Therefore the aggregated targets for the SW FAB initiative will be the result of the aggregation of the Madrid, Canaries and Lisbon FIRs' targets.



# 1.2. Overall assumptions for RP1

## 1.2.1. Economic assumptions

For the purposes of this NPP, the main assumptions taken into account are related with the:

- National Gross Domestic Product (GDP) growth and its comparison with the expected GDP growth to the European Union, EURO Zone and the World.
- Inflation rate, as "Average Consumer Prices", due to its impact on the determined costs.
- Service Units, having in mind their impact on the determined cost and enroute unit rate.
- Financial assistance requested by the Portuguese Government to the European Union and International Monetary Fund (IMF).

### National Gross Domestic Product

The latest economic forecast published by IMF - World Economic Outlook - points out to the recession of Portuguese economy in 2011 (-1,5%) and 2012 (-0,48%) followed by a recovery in 2013 (0,9%) and 2014 (1%).

Table 1 - Macroeconomic Scenario

	2009	2010	2011	2012	2013	2014
Gross Domestic Product (constant prices, 10 <sup>9</sup> €)	160,067	162,305	159,852	159,091	160,523	162,128
Gross Domestic Product growth	-2,47%	1,4%	-1,51%	-0,48%	0,9%	1%
Inflation rate (in nominal terms)		1,4%	1,9%	1,4%	1,4%	1,4%

Source: GDP- IMF, April 2011

Inflation Rate: Forecast 2012-2014.

#### Inflation rate

According to IMF forecasts, the inflation rate remains, during RP1, around 1,4%.



# Gross Domestic Product Growth in the European Union and in the World

Having in mind the globalization of international air transport and gradual liberalization of international air services, the economic general trend in the main economic areas and their respective impact on the traffic shall be considered.

Figure 1 shows the comparison of the GDP growth among Portugal, the Union European Union, the Euro Zone and the World.

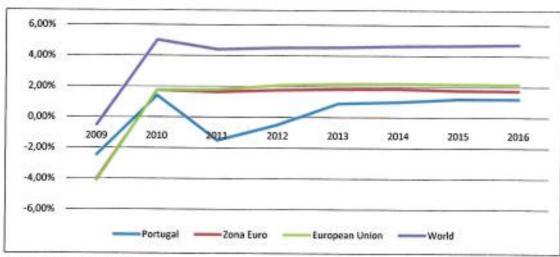


Figure 1 – Comparison of Gross Domestic Product Growth

Source: IMF, April 2011

In the forthcoming years, the average annual growth of the European Union and World GDP could reach 2% and 5%, respectively. Therefore, the impact of the Portuguese economic recession on the air navigation services provision could be, in some measure, mitigated, due to economic growth in these economic areas.

# Contingency measures

Although the financial assistance requested by Portuguese Government has been approved by the European Union, ECB and IMF, the contingency measures have not been implemented.



## 1.2.2. Traffic forecast

The service units reflect the medium-term forecast for Lisbon FIR, according to the "base scenario", which was published by STATFOR on May 2011.

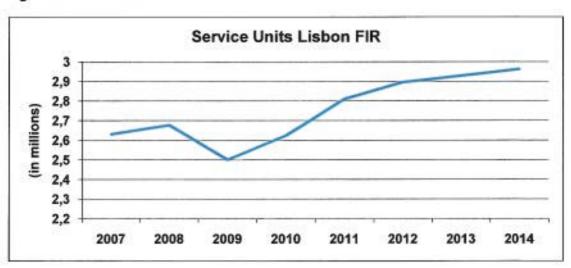
Table 2 - Medium -Term Forecast - Lisbon FIR

Service Units (000)	2009 A	2010 A	2011 F	2012 F	2013 F	2014 F	2014/2009
Base scenario	2.501	2.624	2.811	2.896	2.929	2.962	3%
%n/n-1		4,9%	7,1%	3,0%	1,1%	1,1%	

Source: STATFOR May 2011

Based on this scenario, it is expected that the annual average increase of the service units will be 3%, from 2009 to 2014. During the RP1 the service units increase will be lower than the annual average (2012: 3%; 2013 and 2014, 1,1%).

Figure 2- Service units



#### 1.2.3. Status of aviation safety

Portugal is in the process of implementing a State Safety Programme (SSP), as required by ICAO Standards.

The formal approval of a SSP is still pending at the time of the drafting of this NPP, but fundamental parts have been implemented, namely an independent accident (and serious incidents) investigation board ("Gabinete de Prevenção e Investigação de Acidentes com Aeronaves" – GIPAA) established by the



Decree-Law No. 318/1999, and the occurrence reporting system, established by the Decree-Law No. 218/2005.

For the provision of Air Navigation Services (ANS) in Portugal, the occurrence reporting has reached a good level, as well as their analyses at ANSP level. Developments on the safety regulatory part of the system are planned, at NSA level, during the time frame of this NPP, in order to reach a good maturity of the system.

Besides the monitoring of safety performance indicators adopted and published by ICAO (namely the rate of fatal accidents) at national level, and in particular, for ANS, INAC ensures that the service providers have developed a Safety Management System (SMS) and safety performance indicators in accordance with ICAO and European requirements. While performing its safety oversight function, INAC evaluates the quality of those indicators and reviews the safety performance of the service providers against the established indicators (the current indicators are "rate of incidents classified as A+B" and "rate of systems malfunctions with impact on safety").

# 1.2.4. Institutional context for the provision of ANS in Portugal:

Following elections on June the 5<sup>th</sup>, a new Government has been established and changes are expected that will have repercussion in the insertion in the structure for public administration of the accountable entities for this NPP.

- At Government Level, it has already been clarified that the provision and oversight of ANS is under the responsibility of the Minister for Economy, except for MET. MET service provision was formerly under the responsibility of the former Ministry for Science, Technology and Higher Education (MCTES), but, at the date of closure of this version of the NPP, there is no confirmation on the tutelage of MET service provision and oversight.
- INAC is a public institute, under the tutelage of the Minister for Economy, through the Secretary of State for Public Works, Transport and Communications. INAC has the powers of a national regulatory authority covering all fields in aviation with the exception of MET and SAR. The authority on the electromagnetic spectrum is ANACOM, a state agency, also under the tutelage of the Minister for Economy, also though the Secretary of State for Public Works, Transport and Communications. Within ANS, INAC is also, formally, the NSA for ATM, AIS and CNS.
- IM is a public institute, under the tutelage of the (former) MCTES, but without regulatory power. IM is the national meteorological authority for aviation. IM has established one unit – "Gabinete de Apoio à Autoridade Meteorológica para a Aeronáutica" – functionally separated from the MET service providers (METSP) of IM which are under the responsibility of the



"Divisão de Meteorologia Aeronáutica" and of the "Delegação Regional da Madeira". This separation has just been formally communicated to the Commission, and the certification of the METSP will take place still before the beginning of RP1. The designation of the METSP is also foreseen to take place before the beginning of RP1.

IM and INAC will ensure their supervisory function in a coordinated way through conveniently updated arrangements.

- NAV is a 100% state-owned commercial company that provides ATM, AIS and CNS services in the Portuguese airports and in the airspace under the responsibility of Portugal (with the exception of services provided at military aerodromes where general air traffic is authorised).
- Search and Rescue is provided under the responsibility of the Ministry of National Defence (MDN). Air Search and Rescue is provided by the Portuguese Air Force. In case other means are required (Navy or other) the operations are coordinated by the Air Command of the Portuguese Air Force.



### 1.3. Stakeholder consultation

Drafted with the cooperation of the accountable entities and of the other national involved entities, this NPP has been presented to other national stakeholders, namely airspace users and social partners, as well as airport operators, on May the 25<sup>th</sup>. The list of invitees, their attendance, issues raised and INAC's responses are included in Annex A to this performance plan.

International stakeholders consultation has taken place jointly with Spain, on May the 31<sup>st</sup>. The list of invitees, their attendance, issues raised on the Portuguese NPP and INAC's responses are included in Annex A to this performance plan.



### 2. National performance targets and alert thresholds

### 2.1. Performance targets and alert thresholds

### 2.1.1. Safety targets

The effectiveness of safety management as measured by the ATM Safety Maturity Survey Framework will be monitored, after eventual changes needed for consistency with the indicator currently being developed at EU-level.

Similarly, the current practice for the severity classification of incidents will be reviewed following the conclusion of the undergoing development of the Risk Analysis Tool (RAT) at EU-level, and the necessary changes made, for consistency, in order to use the RAT. The use of the RAT will be monitored. The "rate of occurrences classified as A or B" indicator will be maintained. Other indicators based on the occurrence reporting system that will be calculated and monitored during RP1 are "airspace infringements", "separation minima infringements" and "ATM Specific Technical Events".

The indicator for the measure of a just culture, also under development at EUlevel, will be adopted, in accordance with Reg. 691/2010.

No formal targets are established for this set of indicators. The trend will be monitored and the effects of safety action plans evaluated.

During the time frame of this NPP, a SSP will be formally established in accordance with ICAO Standards (SARPs).

#### 2.1.2. Environment targets

For RP1, the EU-wide environment Key Performance Indicator (KPI), is the average en-route flight efficiency. An EU-wide target has been established, for this KPI. However, there is no requirement for a national environment KPI.

In May 2009, Portugal implemented free route airspace in Lisbon FIR/UIR, above FL245, all year round, on a 24/24 hour basis. Entry and exit points in the FIR/UIR were set, leaving to the aircraft operator full discretion in the choice of the route within Lisbon FIR/UIR.

Practically all horizontal flight inefficiencies were eliminated and only comparatively small improvements are possible. Aiming at those improvements, there are projects with positive environmental effects in the part of the en-route trajectory below FL245 (refer to section 2.2.2.), but a national environment KPI is not established for RP1.



# 2.1.3. Capacity targets and threshold

The mandatory capacity KPI, "minutes of en route ATFM delay per flight" is "the difference (in minutes) between the take-off time requested by the aircraft operator in the last filed flight plan and the calculated take-off time allocated by the central unit of ATFM".

In order to support the preparation of the national performance plans for RP1, the Directorate Network Management of EUROCONTROL has prepared a set of values representing, from the network perspective, the optimum share at local level of the European-wide target, and which constitute reference figures. Taking into account those figures, Portugal adopts the value of 0,15 minutes en route ATFM delay for the whole year of 2014 and for all causes and, as indicative intermediate values for 2012 and 2013, 0,25 and 0,20 respectively.

The alert threshold for the possible activation of the alert mechanism referred to in regulation Reg. 671/2010 is defined in the same way as the EU-wide threshold: a deviation over a calendar year by at least 10% of the actual traffic recorded by the Performance Review Body (PRB) versus the EU-wide traffic forecasts adopted as reference.

The adopted values are shown in the following table:

Table 3 - Minutes of en route ATFM delay per flight

National targets			National threshold
2012	2013	2014	A deviation over a calendar year by at least 10% of the
0,25	0,20	0,15	actual traffic recorded by the Performance Review Body (PRB) versus the EU-wide traffic forecasts

# 2.1.4. Cost-efficiency targets and threshold

According to the provisions of number 4, Section 2, Annex I of Reg. 691, for RP1, the national cost-efficiency KPI "...shall be the national determined unit rate for en route air navigation services, defined as follows:

- (a) the indicator is the result of the ratio between the determined costs and the forecast traffic contained in the performance plans...
- (b) the indicator is expressed in national currency and in real terms;
- (c) the indicator is provided for each year of the reference period."

Table 4 below shows the determined cost and service units considered for the RP1 and the respective cost-efficiency targets.



Table 4 - Cost-efficiency targets

	2009 A	2010 A	2011 F*	2012 F	2013 F	2014 F
Total determined costs in real terms (millions of €)	123,22	108,82	119,76	119,31	120,27	120,48
Total en route Services Unit (000)	2.501	2.624	2.757	2.896	2.929	2.962
Real en route determined unit rate (at € 2009 prices)	49,27	41,47	43,43	41,20	41,06	40,67
%n/n-1		-16%	5%	-5%	0%	-1%

<sup>(\*)</sup> For 2011, the real en route determined unit rate reflects the base costs and service units used in the determination of the Lisbon FIR unit en-route rate as approved by the Enlargement Committee of EUROCONTROL on November 2010.

# Determined costs

Table 5 and Table 5-A show the forecast relating to the total determined costs by nature, in nominal terms, as well as the total determined costs, in real terms, at 2009 prices, respectively.

Table 5 - Determined costs by nature (in nominal terms)

ANS en route cost by	2009 A	2010 A	2011 F	2012 F	2013 F	2014 F		
nature	(millions of euros)							
Staff	89,3	79,1	90,3	89,8	91,2	92,9		
%n/n-1	-	-11,5%	14,3%	-0,6%	1,6%	1,8%		
Other operating costs	23,7	21,8	21,7	22,3	22,5	22,9		
%n/n-1	-	-8,1%	-0,2%	2,7%	1,0%	1,6%		
Depreciation	7,9	6,4	7,9	9,0	10,1	10,3		
%n/n-1	-	-20%	25%	13%	12%	2%		
Cost of capital	2,3	3,1	3,7	3,9	4,0	3,8		
%n/n-1	-	37,5%	19,2%	5,1%	0,3%	-4,2%		
Exceptional items	0	0,0	0,0	0,0	0,0	0,0		
%n/n-1	-	-		44	**	**		
Total ANS en-route cost in nominal terms	123,2	110,3	123,7	125,0	127,8	129,8		
%n/n-1	-	-10,5%	12,1%	1,0%	2,2%	1,6%		



Table 5 - A - Determined costs by nature (in real 2009 terms)

	2009 A	2010 A	2011 F	2012 F	2013 F	2014 F			
	(millions of euros)								
Total determined costs in nominal terms	123,2	110,3	123,7	125,0	127,8	129,8			
Inflation %	-0,8%	1,4%	1,9%	1,4%	1,4%	1,4%			
Inflation index (100 in 2009)	100,0	101,4	103,3	104,8	106,2	107,7			
Total determined costs in real 2009 terms	123,2	108,8	119,8	119,3	120,3	120,5			
%n/n-1		-11,7%	10,1%	-0,4%	0,8%	0,2%			

Following the implementation of the contingency measures imposed by Portuguese Government on 2010, which led to a substantial reduction of "staff costs" around 12% (in nominal terms) it is expected, during RP1, a stabilization of the evolution of the determined costs.

In this sense, the National costs for the period 2012/2014 reflect:

- Staff costs evolution, which takes into account the salary review and the progression in the different professional careers;
- Operating costs evolution, which takes into account the estimated inflation rates;
- Capital costs evolution according to the five-year investment plan.

Annex B contains detailed information on en-route costs

Table 6 shows the main investments included in the five-year investment plan that contributes to the performance targets.

The table at annex II (Additional Information Annex-II) provides high level information on the main items within planned investments. The major projects are linked with improvements of ATM systems, in line with ATM Master Plan (i.e. iTEC & eFDP), and CNS infrastructure.



Table 6 - Investment plan

(thousands of euros)

Investment areas	2010	2011	2012	2013	2014	2015	Total
TOTAL	14.000	13.230	12.387	10.689	12.298	11.064	73.669
ATM SYSTEM	10.511	8.474	7.788	7.495	7.576	7.936	49.780
COMMUNICATIONS	495	656	1.016	362	966	144	3.640
NAV AIDS	207	171	457	750	862		2488
SURVEILLANCE	100	394	1469	855	1.516	1.397	5.731
METEO	753	4	- 4	14	-		757
BUILDINGS	1.231	2.422	816	394	544	754	6.161
OTHER	703	1.109	841	833	833	833	5.152

Table 6-A below shows the main investments, within the several investment areas, that are connected with the 29 SESAR IP1 Operational Improvement steps (OIs) that have been prioritized by the IP1 Steering Group

Table 6-A - Main investments for the 29 priority Ols

Area	ATM Ols	Title
	AUO-0301	Controller-Pilot voice communications (en route) complemented by data-link
ATM	TS-0102	Basic arrival management supporting TMA improvements
systems	IS-0101	Improving flight-plan consistency pre-departure
	DCB-0201	Interactive network capacity planning
	TS-0305	Arrival management expanded to en route airspace
Navigation	AOM-0601	Terminal airspace organisation adapted through use of best practice, PRNAV and FUA (where suitable)
(NAV AIDS)	AOM-0602	Enhanced terminal airspace with curved/segmented, steep and RNAV approaches (where suitable)
	AO-0201	Enhanced ground Controller situational awareness in all weather conditions
Surveillance	AO-0102	Automated alerting of Controller in case of runway incursion or intrusion into restricted areas
Other (AIS)	IS-0203	Harmonised aeronautical information through common data model

Table 7 shows the determined costs by entities. More detailed information will be provided on Chapter 3.



Table 7 – Determined costs by entities in nominal terms

ANS en route cost by	2009 A	2010 A	2011 F	2012 F	2013 F	2014 F
entity			(millions	of euros)		
ANSP	108,3	95,1	110,1	110,7	113,5	115,3
%n/n-1	-	-12,2%	15,8%	0,6%	2,5%	1,6%
MET	5,3	5,3	5,2	5,1	5,1	5,0
%n/n-1		0,6%	-3,0%	-0,8%	-0,9%	-0.9%
CAA/NSA*	9,6	10,0	8,5	9,2	9,2	9,4
%n/n-1	-	3%	-14%	7%	196	2%
Total ANS en-route cost in nominal terms	123,2	110,3	123,7	125,0	127,8	129,8
%n/n-1	-	-10,5%	12,1%	1,0%	2,2%	1,6%

<sup>(\*)</sup> It includes EUROCONTROL's costs.

#### Threshold

For the cost-efficiency target, the alert threshold will be consistent with threshold adopted pursuant to Article 9(3) of Reg. 691/2010 and Article 2 of Commission Decision (2011/121/EU) of 21 February, setting the European Union-wide performance targets and alert thresholds.

In this context, the alert threshold shall be active in following circumstances:

- "...a deviation over a calendar year by at least 10% of the actual traffic recorded by the Performance Review Body versus the traffic forecasts...";
- "...a deviation over a calendar year by at least 10% of the actual cost at European Union-wide level recorded by the Performance Review Body versus the reference determined costs...".

### Terminal ANS Costs

According to the performance scheme, for RP1 no targets are required to be set for terminal costs. However, Member States shall provide an overview of determined costs for terminal services.



Table 8 - Terminal ANS costs

TNC en route cost by	2010 A	2011 F	2012 F	2013 F	2014 F					
nature	(millions of euros)									
Staff	22,7	25,7	25,5	25,9	26,4					
%n/n-1	-	13,3%	-0,8%	1,7%	1,6%					
Other operating costs	1,6	1,8	1,8	1,8	1,8					
%n/n-1	-	14,6%	-2,9%	1,4%	1,49					
Depreciation	2,0	3,2	2,9	3,0	3,4					
%n/n-1	-	55%	-7%	3%	119					
Cost of capital	0,8	0,7	0,7	0,7	0,7					
%n/n-1		-6,4%	4,6%	-4,3%	-5,49					
Exceptional items	0,0	0,0	0,0	0,0	0,0					
%n/n-1	-		1	177						
Total TNC en-route cost in nominal terms	27,1	31,4	31,0	31,5	32,2					
%n/n-1	-	16,0%	-1,4%	1,7%	2,49					

Annex B contains detailed information on terminal costs.



# 2.2. Consistency with EU-wide targets

### 2.2.1. Safety

As, in this NPP, Portugal has not set targets for national safety indicators and as, for RP1, there are no EU-wide safety targets, the evaluation of consistency between targets is not applicable.

#### 2.2.2. Environment

The implementation, in May 2009, of FRAL, free route airspace in all Lisbon FIR/UIR, above FL245 (se also section 2.1.2) all year round, has removed structural airspace restrictions (route network) to the attainment of optimum trajectories from the environment viewpoint (at those Flight Levels), thus facilitating the European network management function.

Although the main sources of horizontal flight inefficiency in the Lisbon FIR/UIR have thus been resolved, some projects for further reduction of restrictions to the trajectory that the aircraft operator wants to follow are foreseen and relate to flights with part of the trajectory below FL 245 (departing, or arriving, from national airports):

- Continuous descent operation;
- AIRE (Atlantic Interoperability to Reduce Emissions).

### 2.2.3. Capacity

The capacity of the Portuguese ATM system was satisfactory in 2009 and 2010, when the en route ATFM delay per flight was, respectively, 0,02 and 0,12 minutes per flight, throughout the year.

The value for 2014 adopted for this NPP, as well as the reference figures adopted for 2012 and 2013, are lower than the reference values provided by CFMU which represent, from the network perspective, the optimum share at local level of the European-wide target.

In conclusion, we consider that the adopted value is consistent with the EU target.

Lower values than the ones provided as reference raise concerns on the increases in costs in a context of increasing traffic and of extended periods for the effectiveness of corrective measures, without a clear beneficial effect in the EU network target.



Nevertheless, some projects and actions are planned to ensure that capacity is enough to contribute to the network capacity increase and compensate for the increase in traffic:

- New ACC sectors put in place, if necessary, depending on traffic evolution;
- Improvement of staff planning and rostering procedures for timely availability of ATCO in accordance with operational needs;
- Automated support for conflict detection and conformance monitoring;
- Airport Collaborative Decision Making.

# 2.2.4. Cost-efficiency

According to article 1 (c) of the Commission on Decision (2011/121/EU) of 21 February 2011, setting the European Union-wide performance targets and alert thresholds for the provision of years 2012 to 2014, the cost efficiency European Union target shall reach "... a reduction of the average European Union-wide determined unit rate for en route air navigation services from 59,97 EUR in 2011 to 53,92 EUR in 2014 (expressed in real terms, EUR 2009), with intermediate annual values of 57,88 EUR in 2012 and 55,87 EUR in 2013."

The definition of this target is based on the following assumptions:

- "Traffic forecasted at European Union-wide level, expressed in en route service units: 108.776.000 in 2012, 111.605.000 in 2013 and 114.610.000 in 2014.
- Reference to determined costs forecasted at European Union-wide level (expressed in real terms, EUR 2009) 6.296.000.000 in 2012, 6.234.000.000 in 2013 and 6.179.000.000 in 2014."

According to these assumptions, the average increase of traffic forecasted at European Union-wide level will be 2,6% per year, while the average decrease of the determined cost will be 1% per year. Therefore, a reduction of the European Union-wide determined unit rate for en route air navigation services by 3,5% per year could be achieved.

Regarding national cost-efficiency targets proposed for RP1, it is important to note that the Lisbon FIR en route unit rate is lower than the average EU-wide determined unit rate for en route air navigation services.

The National cost efficiency target is based on the following assumptions:

A moderate growth of the service units: 3 % in 2012, 1% in 2013 and 2014.



 A stabilization of determined costs in RP1, after a substantial decrease of staff costs on 2010 (12%)

The targets result in an annual average decrease of determined unit rate of 3,8% (2009-2014).

Table 9 - Consistency with EU-wide targets

Cost-efficiency target	2009 A	2010 A	2011 F	2012 F	2013 F	2014 F	% average annual
EU-WIDE %n/n-1			59,97	57,88 -3,5%	55,87 -3,5%	53,92 -3,5%	-3,5%
Lisbon FIR %n/n-1	49,27	41,47 -15,8%	43,43 4,7%	41,20 -5,1%	41,06 -0,3%	40,67 -0,9%	-3,8%

### 2.2.5 Interrelations and trade-offs

Under the assumptions considered on this NPP, there is an interrelation between "capacity" and "cost-efficiency" targets, implying a trade-off between these targets.

The adopted targets, both for delay and for cost-efficiency, were set in order to have a positive contribution to the EU-wide targets. The delay targets are near – although lower - to the indicative reference values as these have been calculated for ensuring the overall delay targets. The cost-efficiency targets, although already smaller than the EU-wide targets, correspond to a 2009-2014 rate of decrease higher than the value aimed at as a EU-wide average.



# 2.3. Carry-overs from the years before RP1

The following table provides an overview of carry-overs from the years before RP1 that are relevant to the period covered by RP1.

Table 10 - Carry-overs from the years before RP1 (millions of euros)

Carry over from	To 2009	To 2010	To 2011	To 2012	To 2013	To 2014	To 2015	To RP2
2007	-2,613							
2008	STATEOUR	-8,709						
2009			-6,927					
2010				-9,443				
2011								
Total	-2,613	-8,709	-6,927	-9,443				



# 2.4. Parameters for risk sharing and incentives

# 2.4.1. Safety, environment and capacity

No incentives are established, in the Portuguese NPP for RP1, for safety, environment and capacity performance areas.

# 2.4.2. Cost-efficiency

In accordance with article 11 of Regulation No. 1191/2010, the "costefficiency" will be subject to the following incentives:

# Traffic risk-sharing

- a. Where, over a given year the actual number of total service units is not higher or lower by more than 2% than the forecast established at the beginning of the reference period, the additional revenue or loss in revenue of NAV, E.P.E will not be carried over;
- b. Where, over a given year, the actual number of services units exceeds the forecast established at the beginning of the reference period by more than 2%, 70% of additional revenue obtained by NAV in excess of 2% of the difference between the actual service units and the forecast with regard to determined costs shall be returned to airspace users no later than in year n+2.
- c. Where, over a given year, the actual number of services units falls below the forecast established at the beginning of the reference period by more than 2%, 70% of the loss in revenue incurred by NAV in excess of 2% of the difference between the actual service units and the forecast with regard to determined costs shall be borne by the airspace users no later than in year n+2.
- d. Where, over a given year, the actual number amount of total service units is lower than 90% of the forecast established at the beginning of the reference period, the full amount of the loss incurred by NAV in excess of the 10% of the difference between the actual total service units and the forecast in respect of determined costs shall be borne by airspace users no later than in year n+2.
- e. Where, over a given year, the actual amount of total service units is higher than 110% of the forecast established at the beginning of the reference period, the full amount of the additional revenue obtained by NAV in excess of the 10% of the difference between the actual total service units and the forecast in respect of determined costs shall be returned to airspace users no later than in year n+2.



The determined costs established in relation to:

- The costs of relevant national authorities, and
- The determined cost of meteorological services

are not subject to traffic risk-sharing and may be recovered regardless of the level of traffic.

### Cost risk sharing

The cost risk sharing mechanism establishes that costs in excess of the determined cost shall be borne by the entity concerned and that if costs fall short of the determined costs, the entity may retain the shortfall. The entity concerned must, therefore, bear all the cost risk.

However, certain exceptions to this principle will be applied in relation to:

- Unforeseen charges in national pensions regulations and pension accounting regulations;
- · Unforeseen changes in national taxation law;
- Unforeseen and new costs items not covered in the national performance plan but required by law;
- Unforeseen changes in costs or revenues stemming from international agreements;
- Significant changes in interest rates on loans.

Changes in such items may be carried over and taken into account in the next Reference Period.



# 3. Contribution of each accountable entity

#### 3.1. NAV

# 3.1.1. Safety

No safety targets are set for RP1 in this NPP

### 3.1.2. Environment

No environment targets are set for RP1 in this NPP

# 3.1.3. Capacity

NAV will be the only entity accountable for meeting the en-route capacity targets.

# 3.1.4. Cost-efficiency

According to the table below the evolution of ANSP total costs in the Lisbon FIR reflects:

- Staff costs evolution, which takes into account the salary review and the progression in the different professional careers;
- Operating costs evolution, which takes into account the estimated inflation rates;
- · Capital costs evolution according to the five-year investment plan.



Table 11 - Determined costs by nature (in nominal terms)

ANSP en route cost by	2009 A	2010 A	2011 F	2012 F	2013 F	2014 F			
nature	(millions of euros)								
Staff	86,0	75,9	87,1	86,6	88,0	89,7			
%n/n-1	-	-11,7%	14,7%	-0,6%	1,7%	1,9%			
Other operating costs	12,6	10,1	12,0	11,9	12,1	12,3			
%n/n-1	-	-19,6%	18,5%	-0,4%	1,5%	1,5%			
Depreciation	7,5	6,0	7,3	8,3	9,5	9,6			
%n/n-1		-21%	23%	14%	13%	2%			
Cost of capital	2,2	3,1	3,7	3,9	3,9	3,7			
%n/n-1		37,7%	19,3%	5,3%	0,1%	-4,4%			
Exceptional items	0	0,0	0,0	0,0	0,0	0,0			
%n/n-1				1000	-				
Total ANSP en-route cost in nominal terms	108,3	95,1	110,1	110,7	113,5	115,3			
%n/n-1		-12,2%	15,8%	0,6%	2,5%	1,6%			

ANSP en route cost by	2009 A	2010 A	2011 F	2012 F	2013 F	2014 F			
services	(millions of euros)								
Air traffic management	74,3	60,5	74,2	74,6	76,4	77,5			
%n/n-1	-	-18,5%	22,7%	0,5%	2,4%	1,4%			
Communication	8,9	8,8	10,3	10,6	11,2	11,5			
%n/n-1		-1,3%	18,0%	2,3%	5,7%	2,4%			
Navigation	7,4	7,0	7,4	7,3	7,6	7,5			
%n/n-1	-	-5%	5%	-1%	4%	-1%			
Surveillance	7,5	8,6	6,8	6,8	6,6	7,0			
%n/n-1	**	15,0%	-21,0%	-0,4%	-2,1%	6,4%			
Search and Rescue	3,658	3,8	3,9	4,0	4,1	4,2			
%n/n-1	-	2,9%	2,3%	2,9%	2,3%	2,3%			
Aeronautical Information	5,942	5,7	6,3	6,3	6,4	6,5			
%n/n-1	-	-4,2%	10,5%	0,6%	1,6%	1,6%			
Meteorological services	0,653	0,7	1,2	1,2	1,2	1,1			
%n/n-1	**	12,0%	59,1%	1,8%	-2,5%	-0,7%			
Supervision costs	0	0,0	0,0	0,0	0,0	0,0			
%n/n-1	an.			-					
Other State costs	0	0,0	0,0	0,0	0,0	0,0			
%n/n-1	( <del></del> )				-				
Total MET en-route cost in nominal terms	108,3	95,1	110,1	110,7	113,5	115,3			
%n/n-1	-	-12,2%	15,8%	0,6%	2,5%	1,6%			



The main investments to be made within the next 5 years are described in point 2.1.4 (table 6).

The costs of capital are calculated in accordance with the WACC method, which was capped at 6,76%. It reflects a return on equity of 7,6% and an average interest on debts of 1,9%.

Table 12 - Costs of capital

	2009 A	2010 A	2011 F	2012 F	2013 F	2014 F
Return on equity	6,80%	9,20%	7,60%	7,60%	7,60%	7,60%
Average interest on debts	2,20%	0,90%	1,90%	1,90%	1,90%	1,90%
Cost of capital pre tax-rate	6,01%	7,80%	6,76%	6,76%	6,76%	6,76%

According to article 6 of Commission Regulation (EU) no.1191/2010 amending Regulation (EC) no.1794/2006 laying down a common charging scheme for air navigation services, "the return on equity shall be based on the actual financial risk incurred by the air navigation service provider".

For this purpose, it has been taken into account:

- A risk-free rate of return of 5,31%, which corresponds to Portuguese government bond rates (yield on 10-years), dated of August 2010. The current Portuguese government bond rate is much higher than 5,31%
- A equity risk premium of 2.25%
- A levered beta of 1%

The average interest of debts (1,9%) reflects the financial conditions which were applied to NAV in 2009

### Investments

The main investments are described on point 2.1.4 (table 6).

# Incentive mechanisms to be applied

No incentive mechanisms will be applied to NAV in relation to safety and environment, since no targets have been set. No specific incentives have been established for capacity. The only incentive mechanism applied to NAV is the one for the cost-efficiency target, which comprises the risk-sharing mechanisms defined in the Common Charging Regulation and described in Section 2.4.1.



#### 3.2 IM

IM is considered to be accountable only for the cost-efficiency target.

The IM direct costs are related to the services provided to IFR Traffic, being allocated to the activity directly, according to the ICAO Recommendations (Doc 9161). The core costs are linked to facilities and products that serve meteorological requirements.

For calculation of IFR MET Costs, 4 steps are followed:

- Step 1: Distribution of costs by categories according to Cost Centres: staff, infrastructure, operating cost, international contributions and investments
- Step 2: MET Aviation Costs Analyses: Direct costs (100%) and Core costs (As the services working for Aeronautic Activity)
- Step 3: Cost Verification and Analysis for each centre
- Step 4: Application of cost as the services working for Aeronautic Activity.

The Meteo Costs for the period 2012/14 to Lisbon FIR reflect:

- Staff costs evolution, which takes into account the salary review and the progression in the different professional careers. The Institute's tendency to decrease its staff had a breaking point in 2009 due to politics restrictions and internal orientations, expecting an increasing in 2015.
- Operating costs evolution which takes into account the estimates inflation rates. The Institute is committed to decrease its operating costs in a continuous and sustainable way. That's a key objective in the decisionmaking process.
- Depreciation costs are calculated using the percentage share to aeronautical activities and the operational capital (in accordance with the expected operating life).
- Capital costs evolution according to the five-year investment plan and based on an interest rate of 4%. It is not included any allowance for the return on equity. The interest rate will be subject to review according to interest rate applied to financial assistance granted by IMF.

Table 13 shows the determined MET cost by nature allocated to the Lisbon FIR.



Table 13 - Determined costs by nature

MET en route cost by	2009 A	2010 A	2011 F	2012 F	2013 F	2014 F				
nature	(millions of euros)									
Staff	3,1	2,8	2,8	2,7	2,7	2,7				
%n/n-1	-	-7,8%	-2,6%	-2,0%	-1,0%	-1,0%				
Other operating costs	1,7	2,0	1,7	1,7	1,7	1,7				
%n/n-1		16,2%	-15,2%	0,3%	-1,0%	-1,0%				
Depreciation	0,4	0,4	0,6	0,6	0,6	0,6				
%n/n-1	**	-4%	51%	2%	-1%	-2%				
Cost of capital	0,0	0,1	0,1	0,1	0,1	0,1				
%n/n-1	-	27,9%	13,9%	-3,2%	10,0%	10,0%				
Exceptional items	0	0,0	0,0	0,0	0,0	0,0				
%n/n-1	-				-	14				
Total MET en-route cost in nominal terms	5,3	5,3	5,2	5,1	5,1	5,0				
%n/n-1		0,6%	-3,0%	-0.8%	0.0%	-1,8%				

### Investments

The investments in the Meteorological Radar have been planned since 2008, although only this year the applications to European Programmes have been accepted. Those investments include North and Madeira weather radar and are based on the budget applications (to the European Programmes) assuming that 30% is the percentage share to Aeronautical Activity.

All the other costs to 2011 are supported on the Activity Plan and the years after is assumed a 5% growth.

Table 14 - Investment Plan

(thousands of euros)

Description	2010	2011	2012	2013	2014	2015
Facilities' Restructuring	201	240	252	277	305	320
Meteorological Radar	76	168	954	1477	1555	1567
Diverse Hardware and Software	220	200	210	231	254	267
Technical Equipment	226	200	210	231	254	267
Other	180	160	168	185	203	213
TOTAL	904	968	1794	2401	2572	2700



# Incentive mechanisms to be applied on IM

No traffic risk sharing will be applied to IM.

No incentive mechanisms will be applied to IM in relation to safety and environment, since no targets have been set. No specific incentives have been applied in relation to capacity.

IM costs are not subject to traffic risk sharing.

The only incentive mechanism applied to IM is the one for the cost-efficiency target, which comprises the cost risk-sharing mechanisms defined in the Common Charging Regulation and described in Section 2.4.1.



#### 3.3. INAC

# 3.3.1 Safety

Although there are no safety targets set in this NPP, INAC is responsible for the certification and supervision of the provision of ANS, as well as for producing an annual safety report on its activities.

INAC will also develop the safety analysis of the occurrence reporting system, at regulatory level, by fully implementing systematic analysis and review procedures aiming at safety improvement regulatory measures.

# 3.3.2. Capacity and environment

INAC has no direct responsibility for the provision of capacity or for environmental performance of the provision of ANS

# 3.3.3. Cost-efficiency

Table 15 below provides detailed information on NSA determined costs by nature.

Table 15 - Determined costs by nature

NSA en route cost by	2009 A	2010 A	2011 F	2012 F	2013 F	2014 F				
nature(*)		(millions of euros)								
Staff	0,2	0,3	0,5	0,5	0,5	0,5				
%n/n-1	-	32,6%	56,1%	1,5%	1,5%	1,5%				
Other operating costs	0,1	0,08	0,1	0,1	0,1	0,1				
%n/n-1	-	-18,8%	-10,3%	1,4%	1,4%	1,4%				
Depreciation	0,0	0,0	0,0	0,0	0,0	0,0				
%n/n-1	-	-37%	-38%	2%	2%	2%				
Cost of capital	0,0	0,0	0,0	0,0	0,0	0,0				
%n/n-1	-	-50,3%	4,0%	6,8%	6,8%	6,8%				
Exceptional items	0	0,0	0,0	0,0	0,0	0,0				
%n/n-1	-		-	_	-	-				
Total NSA en-route cost in nominal terms	0,334	0,389	0,551	0,559	0,568	0,576				
%n/n-1	10-0	16,3%	41,7%	1,5%	1,5%	1,5%				

<sup>(\*)</sup> EUROCONTROL's costs are not included.



NSA determined costs reflect mainly the direct costs with staff (salaries, training and external representation at EUROCONTROL, European Commission and others) dedicated to carry out regulation, supervision and auditing tasks.

The cost of capital reflects an interest rate of 4% - which is substantially below actual National rate bonds - applied on net book value of the assets in operation in each year. No allowance for the return on equity is included. The interest rate will be subject to review according to interest rate applied to financial assistance granted by IMF.

# Incentive mechanisms to be applied on INAC

No incentive mechanisms will be applied to INAC, I.P. in relation to safety and environment, since no targets have been set. No specific incentives have been applied in relation to capacity.

INAC, I.P.'s costs are not subject to traffic risk sharing.

The only incentive mechanism applied to the NSA is that for the cost-efficiency target, which comprises the cost risk-sharing mechanisms defined in the Common Charging Regulation and described in Section 2.4.1.



# 4. Civil-military dimension of the plan

Military aviation in Portugal is under the responsibility of the Portuguese Air Force. The Portuguese Air Force provides ANS within airspace under military responsibility, namely TWR and APP services at military aerodromes where civil traffic is authorised, as well as FIS for traffic in class G airspace below FL55, between sunrise and sunset.

The Ministry of Defence is responsible for the provision of SAR. Within the Ministry of Defence, the Portuguese Air Force is responsible for the provision of Air SAR and, in case other means are necessary, for the overall coordination.

For the purpose of this NPP, the Portuguese Air Force, as a provider of ANS, is involved in the areas of safety and of capacity.

# 4.1. Safety

The Portuguese Air Force is not certified as an ANSP in spite of providing Air Traffic Services to general air traffic. In 2010, the Portuguese Air Force and INAC signed an agreement establishing arrangements for ensuring the maximum compliance with the "Common Requirements" in the provision of ANS.

# 4.2. Capacity

Contribution of the military for the capacity of the airspace is made through the full involvement in the implementation of the Flexible Use of Airspace (FUA) concept, as follows:

# Strategic level (level 1)

The functions at the strategic level are assigned to the Joint National High Level Policy Body (INFANAV), which gathers high representatives from INAC, the Portuguese Air Force and NAV. INFANAV ensures the effective sharing and efficient use of airspace by civil and military users stemming from the application of the FUA Concept.

The INFANAV is supported by a permanent executive body (OCEA), with a representative of each of the three INFANAV entities (that can call for experts on specialised subjects), and with a full-time coordinator.

INFANAV and OCEA correspond to the implementation of FUA level 1.



# Pre-tactical level (level 2)

A joint civil-military Airspace Management Cell (AMC) is operating since 1996 with civil and military representatives. This AMC collects and analyses all airspace requests and decides the daily airspace allocation taking into account the user requirements, available capacity and the effects on the network. Ad hoc special requests for airspace usage on a short-term basis will be dealt with, within the tactical environment.

The AMC corresponds to the implementation of FUA level 2.

## Tactical level (level 3)

FUA level 3 coordination is made at supervisor level (military Supervisor and civil OPS Room Supervisor, both physically located at Lisbon ACC) and facilitates real-time activation, de-activation or modification of the airspace allocated at pre-tactical level, according to actual traffic and capacity versus military airspace needs.

A close working relationship was established over the years between civil and military air traffic controllers and civil and military ATM staff, which is the result of a long practice of an integrated approach to the provision of ATM and is facilitated by the co-location of civil and military controllers at the Lisbon ACC, by the use of the same displays and of the extensive share of information. This relationship facilitates the effectiveness of the application of FUA in the Airspace Management tasks.

The agreement that constitutes the basis for the operation of INFANAV and the Operating Procedures of the AMC are being detailed and updated, in order to clarify, in a formal and explicit way the functions and tasks of all the actors, taking into close consideration Commission Regulation 2150/2005 and EUROCONTROL specification for the application of FUA (SPEC-0112).



## 5. Analysis of sensitivity and comparison with previous performance plans

### 5.1. Sensitivity to external assumptions

The ANS system in Portugal has, currently, enough capacity. Following the downturn in traffic in 2009, some recovery has been experienced in 2010 and continues in 2011. Cost containment measures have been made, and as a result, it is not expected that significant further cost savings could be made in the event of traffic being lower than expected.

It is expected that a traffic growth higher than the forecasts - but not enough to justify the activation of the alert mechanism - can be handled through some compromise between extra costs and delays, without affecting the targets.

### 5.2. Comparison with previous performance plan

As this is the first Performance Plan for ANS provided in Portugal, this comparison is not possible.



### 6. Implementation of the performance plan

The monitoring of the performance of the accountable entities in 2012, 2013 and 2014, will take place as follows:

### 6.1. NAV

NAV is certified by INAC in accordance with the Common Requirements. The ongoing oversight system put in place is described in the report of the Single European Sky Implementation for 2010 (paragraphs 14.4 and 14.6). Under this system, non-conformities imply corrective actions, closely monitored. The system in place includes procedures for the verification of declarations of verification of changes to functional systems. Projects aiming at the improvement of performance and specifically referred to in this NPP are verified within the system in place.

NAV has restructured the format of its Business Plan in order to adapt it to the Performance Scheme. It will be approved after this NPP has been formally accepted. In accordance with Section 2.2 of Annex I of Reg. 2096/2005 as amended by Reg. 691/2010, NAV shall make the content of the performance part of the business plan and of the annual plan available to the Commission under conditions set by INAC in accordance with Portuguese law.

The verification of the implementation of processes implied by KPIs (namely the implementation of the RAT) takes place after the first six months of 2012. The verification of their continuity is included in the ongoing oversight system.

Further to the ongoing oversight system, the monitoring of the targets of this NPP is made every six months. INAC monitors, in particular, the actual external assumptions and external factors, the actual values of the uncontrollable costs and the reaching of the alert thresholds.

For the production of the annual report to the Commission on this NPP NAV, will, by April 2013, 2014 and 2015, report to INAC the actual performance in the previous year including explanations of any deviations from the expected performance and, when applicable (in 2013 and 2014) the revised plans for the remaining part of RP1.

### 6.2. IM

The verification of the implementation of processes implied by KPIs (costefficiency targets) is included in the oversight system.

Further to this verification, the monitoring of the targets is done every six months through the presentation by the METSP of a dedicated report to the MET authority, which seeks explanations and clarifications on any deviations,



validates it and sends the annual report to INAC for inclusion in the Annual National Progress Report.

### 6.3. INAC

Further to the safety oversight and monitoring of NAV, INAC reviews the information provided by NAV and seeks explanations and clarifications from those entities on any deviations. INAC monitors, in particular, the actual external assumptions and external factors, the actual values of the uncontrollable costs and the reaching of the alert thresholds and decides whether the alert mechanism should be invoked.

INAC receives from IM the information for the annual report, prepares the Annual National Progress Report and submits it to the Government, via the Ministry of Economy.

The approved Annual Progress Report is sent to the Performance Review Body by INAC.



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Public consultation - stakeholders' list and consultation material



## 1 . National stakeholders consultation (May the 25<sup>th</sup>)

## 1.1. List of Stakeholders

	Invited	Attended
GPIAA	(Aircraft Accident Prevention and Investigation Board)	Yes
ANA, S.A.	(National Airports Operator - Continental Europe and Azores)	Yes
ANAM, S.A.	(Madeira Airports Operator)	Yes
APCTA	(Portuguese Air Traffic Controllers Association)	Yes
AOPA - PORTUGAL	(Aircraft Owners and Pilots Association)	Yes
APPLA	(Portuguese Airline Pilots Association)	No
APTICA	(Portuguese Aeronautical Information and Communications Technicians Association)	Yes
APTTA	(Portuguese Association of Air Transport and Aerial Work Operators)	Yes
APTTA	Portuguese Association of ATS Engineering and Personnel	Yes

## 1.2. Version of NPP presented: draft 3.0

## 1.3. Comments and responses (summaries, translated into English)

### Portuguese Air Traffic Controllers Association (written comment)

N°	Section/ Paragraph	Question/Comment	Answer
01	1.1/5	Text is not clear. It should make clear that while the scope of the NPP is the Lisbon FIR/UIR, this is only part of the airspace that is controlled by NAV.	Accepted, Text adapted.
02	1.1/7	O NPP does not refer the method for calculating the "FAB aggregated performance targets".      In the calculation of the "aggregated performance targets", clarify how Santa Maria FIR is going to be taken into account.	1. As this calculation is just for indicative purposes, it was not considered an essential element. For information: the capacity aggregated targets will be calculated as an average weighted by the number of en-route flights in the FAB airspace within the EUR and AFI ICAO regions; the cost-efficiency aggregated targets will be calculated dividing the sum of the en-route cost bases for the SW FAB FIRs within the EUR and AFI ICAO regions for the total en-route units of service.  2. A brief reference was added in the text to the (non)consideration of the Santa Maria values for the calculation of the aggregated values.
03	2.1.2	There should be more emphasis on the free-route airspace implementation in the Lisbon UIR, which eliminated almost all horizontal flight inefficiencies.	Accepted. Text adapted.
04	2.1.4/Table 4	The document does not provide any macroeconomic evidence	The LSSIP values are referred to November 2010. The values in the NPP version for discussion were updated and aligned with the Government



		that can justify the differences between the cost-efficiency target published in the LSSIP Portugal and the one proposed on NPP, This Association requests more information on the reasons for the reduction of determined costs proposed in the NPP.	measures which were implemented for the second half of 2010 and for 2011.
05	2.1.4/Table 5	Several percentage values need correction.	Agreed. Besides being updated, the values of the table were reviewed

## 2. International stakeholders consultation (May the 31st)

### 2.1 List of Stakeholders

275	Invited	Attended
IACA	International Air Carriers Association	No
IATA	International Air Transport Association	Yes
AEA	Association of European Airlines	No
ERAA	The European Regions Airline Association	No
ELFAA	European Low Fares Airline Association	Yes
EBAA	European Business Aviation Association	No
IAOPA	International Aircraft Owners and Pilots Association	No

## 2.2. Agenda of the meeting

Item	Subject	Time
1	Welcome and objectives	9:00
	Spain	9:10
2	Consultation process	9:10
3	Operations:Safety	9:20
4	Clarification and discussion	9:35
5	Environment and FUA	9:45
6	Clarification and discussion	9:55
7	Operation: Capacity	10:00
8	Clarification and discussion	10:20
	Coffee Break	10:40
9	Cost-Efficiency KPIs	11:00
10	Clarification and discussion	11:20
11	Closing	11:50
	Break for lunch	20,000
	Portugal	13:15
12	Context and overall assumptions	13:15
13	Clarification and discussion	13:35
14	Safety, Environment and Capacity	13:50
15	Clarification and discussion	14:10
16	Cost-efficiency	14:25
17	Clarification and discussion	14:45
18	Closing	15:00



## 2.3. Version of NPP presented: draft 3.0

## 2.4. Comments and responses

IATA made some comments, which were sent, in writing, at a later date. Answers to the comments, were given during the meeting and also in writing, in a letter, as an answer to IATA's letter.

Both letters - IATA's and INAC's - are attached.





Mr. Francisco Balacó Infrastructure & Air Navigation Directorate Portuguese Civil Aviation Authority Rue B, Edeficio 4 Portela Airport 1749-034 Lisbon

Sent by e-mail balaco@inac.pt 14 June 2011

Dear Mr. Balacó.

#### Portuguese ANS National Performance Plan (NPP) 2012-14.

Thank you and your team for the very open and constructive consultation on the draft NPP in Lisbon on 31 May. As promised I am following up in writing to summarise our main points.

We note that Portugal is proposing a delay target of 0.15 minutes by 2014 with intermediate values of 0.25 and 0.20 minutes respectively for 2012 and 2013 which is significantly better than the EC-wide target of 0.50 Minutes. We note however, this is below the EUROCONTROL indicative reference values for Portugal, and given your recent record of only 0.02 and 0.12 minutes in 2009 and 2010 we believe the national targets should be more ambitious and challenging.

We recognize that Portuguese ANS is relatively good value, with a unit rate for Lisbon which is 18<sup>th</sup> highest within the EUROCONTROL area and currently 18.5% below the average charge, as well as the lowest charge of all for Santa Maria. At the November 2010 enlarged Committee for Route Charges meeting we thanked Portugal for having successfully stabilized Lisbon costs over the last five years to enable a nominal 3.3% reduction to the unit rate over the same period. We were therefore expecting Portugal to propose ambitious targets and be a leader within the EC Performance Scheme.

In this regard we are pleased to note that Portugal proposes a cost-effectiveness target for a 3.5% per annum decrease in 2009 prices for the determined unit rate during RP1. This is however the minimum EC-wide target, and while we can understand States' reluctance to possibly contribute more than others we believe Portugal has the record and capability to be more ambitious.

This is against the background that the original EC-wide target of 4.5% per annum unit rate reduction has already been diluted to 3.5% by the Single European Sky Committee, and that the average 3% forecast traffic and 2% average inflation each year makes this a relatively soft target to achieve in real terms. Additionally, while we recognize that the Portuguese unit rates are

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relatively low this is assisted by many internal and external factors including pricing parities and relatively low airspace complexity.

From our experience with NPP consultations we are concerned that many States are exaggerating or over-estimating the risks in moving from the previous full cost recovery system to the Performance Scheme. In our view the risks are much smaller than claimed given that almost all ANSPs are still 100% Government-owned monopoly providers, that users still retain 70% of the traffic risk between -2% and -10% of traffic reduction, and that there are extensive allowable mitigations under "uncontrollable" costs within the Performance Regulation. Our perception is that no State wants to contribute more to the EC-wide target than any other, and are therefore being excessively cautious in their targeting. We are expecting that the EC/PRB assossments of the States' NPPs will address this key issue and result in better individual targets

In the circumstances outlined above we believe that Portugal should continue its record of being a good example and leader by targeting more ambitious cost-effectiveness and delay targets in the final NPP.

Please do not hesitate to contact us for any further discussion on this key issue.

Yours sincerely,

Laurie O'Toole

Assistant Director Airport & ATC Charges

IATA Geneva

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Mr Laurie O'Toole Assistant Director Airport & ATC Charges International Air Transport Association Route de l'Aéroprot 33, P.O. Box 416 1215 Geneva 15 Airport Switzerland

Sent by e-mail Otoole Librata org on 2011-06-29

N/Ref. 13081 / 2011-06-29 /DINAV Proc. Y/ Ref: your letter of 14 June 2011

SUBJECT: Portuguese ANS National Performance Plan (NPP) 2012-2014

Thank you for your participation in the consultation held in Lisbon on May 31<sup>st</sup> and for sending to us, in writing, the points you have made as comments during the presentation of the draft National Performance Plan for Portugal, prepared in accordance with Commission Regulation (EC) No. 691/2010.

The "capacity" and "cost-efficiency" targets in the Portuguese NPP are set for the period 2012-2014 in order to ensure a positive contribution to the corresponding EU-wide targets. These targets are not independent, and there is a trade-off to take into consideration when setting them.

The EU-wide delay target of 0.5 minutes per flight by 2014 has originated a simulation, by EUROCONTROL, in order to establish indicative values per FIR, apportioned in order to ensure the EU-wide target. For the Lisbon FIR – the one under the responsibility of Portugal that is subject to the NPP – the resulting indicative delay value was 0.16 minutes by 2014.

The target set for the Portuguese NPP is lower than the value resulting from the simulation which was determined as the necessary, from a network perspective, to obtain the EU-wide target. A more ambitious delay target could give rise to an increase of the risk of not complying with the cost-efficiency target, or contributing less to it, due to the interrelationship between the two indicators.

The targets for the en-route determined unit rate that were presented at the consultation meeting are substantially lower than the EU-wide targets. They include the effect of the cost containment measures taken by the Portuguese Government which resulted in a sizeable reduction of staff costs between 2009 and 2010. This was achieved without deterioration of the levels of safety and of quality of service.





The final version of the NPP will have targets updated in accordance with the information that meanwhile, has become available. As this letter is sent already after the enlarged Committee for Route Charges of June the 21<sup>st</sup>, I can point out that the final targets have been set to 40.67 € in 2014, with intermediate annual values of 41.20 EUR in 2012 and 41.06 EUR in 2013.

This value is 24.6% lower than the EU-wide target. Although, while setting the Plan, the annual average decrease was not an objective, the en-route determined unit rate for the NPP represents an average annual decrease of 3.8% since 2009.

We believe that this NPP seeks to contribute, in a balanced and consistent way, to a better quality and a greater efficiency of the services provided in the SES environment and that it represents the continuation of the efforts that Portugal has been making in order to improve the air navigation services provided in the airspace under his responsibility.

Yours sincerely

Francisco Balacó

Director, Aerodromes and Air Navigation



ANNEX B

Reporting tables as per article 8 of the common charging scheme regulation

Charging zone name Portugal Lisboa Period of reference : 2012-2014

Consolidation - all entities

	Forecast	Costs*	Dete	rmined Cos	ts	Actual costs				
		•								
Cost details	2010F*	2011F*	2012	2013	2014	2010	2011	2012	2013	2014
1. Detail by nature (in nominal ter	ms)									
1.1 Staff	85,1	90,3	89,8	91,2	92,9	79,1				
1.2 Other operating costs	23,6	21,7	22,3	22,5	22,9	21,8				
1.3 Depreciation	8,0	7,9	9,0	10,1	10,3	6,4				
1.4 Cost of capital	3,4	3,7	3,9	4,0	3,8	3,1				
1.5 Exceptional items	0,0	0,0	0,0	0,0	0,0	0,0				
1.6 Total costs	120,1	123,7	125,0	127,8	129,8	110,3				
Total % n/n-1		3,0%	1,0%	2,2%	1,6%					
Staff % n/n-1		6,2%	-0,6%	1,6%	1,8%					
Other op. % n/n-1		-7,9%	2,7%	1,0%	1,6%					
2. Detail by service (in nominal ter	rms)									
2.1 Air Traffic Management	69,4	74,2	74,6	76,4	77,5	60,5				
2.2 Communication	10,3	10,3	10,6	11,2	11,5	8,8				
2.3 Navigation	7,3	7,4	7,3	7,6	7,5	7,0				
2.4 Surveillance	6,5	6,8	6,8	6,6	7,0	8,6				
2.5 Search and rescue	3,8	3,9	4,0	4,1	4,2	3,8				
2.6 Aeronautical Information	6,3	6,3	6,3	6,4	6,5	5,7				
2.7 Meteorological services	6,4	6,3	6,3	6,2	6,2	6,0				
2.8 Supervision costs	0,4	0,6	0,6	0,6	0,6	0,4				
2.9 Other State costs	9,8	8,0	8,6	8,7	8,9	9,6				
2.10 Total costs	120,1	123,7	125,0	127,8	129,8	110,3				
Total % n/n-1	120,1	3,0%	1,0%	2,2%	1,6%	110,0				
ATM % n/n-1		7,0%	0,5%	2,4%	1,4%					
CNS % n/n-1		2,0%	0,5%	3,1%	2,5%					
3. Cost of capital - Cost of common	projects (in r	nominal term	s)							
Average asset base										
3.1 Net book val. fixed assets	38,9	37,1	38,6	38,5	35,7	22,1				
3.2 Adjustments total assets	0,0	0,0	0,0	0,0	0,0	0,0				
3.3 Net current assets	19,5	19,0	20,3	20,6	21,0	18,9				
3.4 Total asset base	58,4	56,1	58,9	59,1	56,7	41,0				
Cost of capital %										
3.5 Cost of capital pre tax rate	5,9%	6,7%	6,7%	6,7%	6,7%	7,7%				
3.6 Return on equity										
3.7 Average interest on debts										
Cost of common projects										
3.8 Common Project 1	0,0	0,0	0,0	0,0	0,0	0,0%				
4. Inflation - Total costs in real tern	15									
4.1 Inflation % (1)	1,4%	1,9%	1,4%	1,4%	1,4%	1,4%	1,9%	1,4%	1,4%	1,4
4.2 Price index - Base 100 in 2009	101,4	103,3	104,8	106,2	107,7	1,770	1,570	1,770	1,770	1,4
4.3 Total costs real terms (2)	118,4	119,8	119,3	120,3	120,5	108,8				
Total % n/n-1	110,4	1,1%	-0,4%	0,8%	0,2%	100,0				
5. Deduction of costs allocated to	evemnted VE	P flights (in m	ominal torm	uc)						
5.1 Total costs	120,1	123,7	125,0	127,8	129,8	110,3		ı		
5.2 Costs for exempted VFR flights	0,0	0,0	0,0	0,0	0,0	0,0				
5 / ( OSTS TOR EXEMPTED WER THOPTS I										

Costs and asset base items in '000 000 national currency  $\,$  - Service units in '000 000

- (1) Forecast inflation used for establishing the determined costs in nominal terms actual inflation recorded by EUROSTAT
- (2) Determined costs (performance plan) in real terms actual costs in real terms
- (3) Determined costs (after deduction of VFR costs) reported at Annex II (in nominal terms)

Charging zone name Portugal Lisboa Period of reference : **2012-2014**ANSP Name NAV Portugal

ANSP Name	NAV Portuga	NAV Portugal									
	Forecast	Costs*	Dete	ermined Cos	sts	Actual costs					
Cost details	2010F*	2011F*	2012	2013	2014	2010	2011	2012	2013	2014	
4. Data il la control din considerations	1										
1. Detail by nature (in nominal term		07.4	00.0	00.0	00.7	75.0					
1.1 Staff	82,1	87,1	86,6	88,0	89,7	75,9					
<ul><li>1.2 Other operating costs</li><li>1.3 Depreciation</li></ul>	12,2	12,0	11,9	12,1	12,3	10,1					
1.4 Cost of capital	7,0 3,2	7,3 3,7	8,3 3,9	9,5 3,9	9,6 3,7	6,0 3,1					
1.5 Exceptional items	3,2	3,7	3,9	3,3	3,7	3,1					
1.6 Total costs	104,6	110,1	110,7	113,5	115,3	95,1					
Total % n/n-1	104,0	5,3%	0,6%	2,5%	1,6%	33,1					
Staff % n/n-1		6,0%	-0,6%	1,7%	1,9%						
Other op. % n/n-1		-1,8%	-0,4%	1,5%	1,5%						
other op. 78 hyn 1		1,070	0,170	1,370	1,570						
2. Detail by service (in nominal term											
2.1 Air Traffic Management	69,4	74,2	74,6	76,4	77,5	60,5					
2.2 Communication	10,3	10,3	10,6	11,2	11,5	8,8					
2.3 Navigation	7,3	7,4	7,3	7,6	7,5	7,0					
2.4 Surveillance	6,5	6,8	6,8	6,6	7,0	8,6					
2.5 Search and rescue	3,8	3,9	4,0	4,1	4,2	3,8					
2.6 Aeronautical Information	6,3	6,3	6,3	6,4	6,5	5,7					
2.7 Meteorological services	1,0	1,2	1,2	1,2	1,1	0,7					
2.8 Supervision costs											
2.9 Other State costs											
2.10 Total costs	104,6	110,1	110,7	113,5	115,3	95,1					
Total % n/n-1		5,3%	0,6%	2,5%	1,6%						
ATM % n/n-1		7,0%	0,5%	2,4%	1,4%						
CNS % n/n-1		2,0%	0,5%	3,1%	2,5%						
3. Cost of capital - Cost of common p	rojects (in nomi	nal terms)									
Average asset base											
3.1 Net book val. fixed assets	34,6	35,5	37,1	36,8	33,9	20,7					
3.2 Adjustments total assets	0,0	0,0	0,0	0,0	0,0	0,0					
3.3 Net current assets	19,5	19,0	20,3	20,6	21,0	18,9					
3.4 Total asset base	54,1	54,5	57,4	57,5	54,9	39,6					
Cost of capital %											
3.5 Cost of capital pre tax rate	6,01%	6,76%	6,76%	6,76%	6,76%	7,8%					
3.6 Return on equity	6,8%	7,6%	7,6%	7,6%	7,6%	9,2%					
3.7 Average interest on debts	2,2%	1,9%	1,9%	1,9%	1,9%	0,9%					
Cost of common projects											
3.8 Common Project 1											
4. Inflation - Total costs in real terms											
4.1 Inflation % (1)	1,4%	1,9%	1,4%	1,4%	1,4%	1,4%	1,9%	1,4%	1,4%	1,4%	
4.2 Price index - Base 100 in 2009	101,4	103,3	104,8	106,2	107,7		-,- / 0	_,	_,	_, ., .	
4.3 Total costs real terms (2)	103,1	106,5	105,7	106,8	107,1	93,7					
Total % n/n-1		3,3%	-0,8%	1,1%	0,2%	,					
F. Daduation of control 11 11 11	annual at the fire				_						
5. Deduction of costs allocated to ex		•		143.5	145 0	05.4		,	T	1	
5.1 Total costs	104,6	110,1	110,7	113,5	115,3	95,1					
5.2 Costs for exempted VFR flights	104.6	110 1	110 7	112 5	115 2	05.4					
5.3 Total costs after deduction (3)	104,6	110,1	110,7	113,5	115,3	95,1					

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

- (1) Forecast inflation used for establishing the determined costs in nominal terms actual inflation recorded by EUROSTAT
- (2) Determined costs (performance plan) in real terms actual costs in real terms
- (3) Determined costs (after deduction of VFR costs) reported at Annex II (in nominal terms)

Charging zone name Portugal Lisboa Period of reference : **2012-2014**MET Service provider name IM

INET Service provider flame	IIVI									
	Forecast Costs* Determined Costs				Actual costs					
Cost details	2010F*	2011F*	2012	2013	2014	2010	2011	2012	2013	2014
Detail by nature (in nominal te	rms)									
1.1 Staff	2,6	2,8	2,7	2,7	2,7	2,8				
1.2 Other operating costs	1,6	1,7	1,7	1,7	1,7	2,0				
1.3 Depreciation	1,0	0,6	0,6	0,6	0,6	0,4				
1.4 Cost of capital	0,2	0,1	0,1	0,1	0,1	0,1				
1.5 Exceptional items										
1.6 Total costs	5,4	5,2	5,1	5,1	5,0	5,3				
Total % n/n-1		-4,2%	-0,8%	-0,9%	-0,9%					
Staff % n/n-1		6,0%	-2,0%	-1,0%	-1,0%					
Other op. % n/n-1		9,6%	0,3%	-1,0%	-1,0%					
2. Detail by service (in nominal te	erms)									
2.1 Air Traffic Management										
2.2 Communication										
2.3 Navigation										
2.4 Surveillance										
2.5 Search and rescue										
2.6 Aeronautical Information										
2.7 Meteorological services	5,4	5,2	5,1	5,1	5,0	5,3				
2.8 Supervision costs										
2.9 Other State costs			- 4	- 4	- 0	<b>5</b> 0				
2.10 Total costs	5,4	5,2	5,1	5,1	5,0	5,3				
Total % n/n-1		-4,2%	-0,8%	-0,9%	-0,9%					
ATM % n/n-1 CNS % n/n-1										
CN3 /6 11/11-1										
3. Cost of capital - Cost of commor	projects (i	n nominal t	erms)							
Average asset base 3.1 Net book val. fixed assets	4,3	1,5	1,5	1,6	1,8	1,3				
3.2 Adjustments total assets	4,3	1,3	1,3	1,0	1,0	1,3				
3.3 Net current assets										
3.4 Total asset base	4,3	1,5	1,5	1,6	1,8	1,3				
Cost of capital %	.,5	2,0	2,3	2,0	2,0	2,3				
3.5 Cost of capital pre tax rate	4,0%	4,0%	4,0%	4,0%	4,0%	4,0%				
3.6 Return on equity	1,070	1,070	1,070	1,070	1,070	1,070				
3.7 Average interest on debts										
Cost of common projects										
3.8 Common Project 1										
4. Inflation - Total costs in real terr	ms									
4.1 Inflation % (1)	1,4%	1,9%	1,4%	1,4%	1,4%	1,4%	1,9%	1,4%	1,4%	1,4%
4.2 Price index - Base 100 in 2009	101,4	103,3	104,8	106,2	107,7	-, .,.	_,5/0	1,170	±, .,o	±, ./0
4.3 Total costs real terms (2)	5,3	5,0	4,9	4,8	4,7	5,2				
Total % n/n-1		-6,0%	-2,2%	-2,3%	-2,3%	-,-				
5. Deduction of costs allocated to	evemnted \	/ED flights	lin nomina	l tarms)						
5.1 Total costs	5,4	5,2	5,1	5,1	5,0	5,3	I	T	I	
5.2 Costs for exempted VFR flights	3,4	3,2	3,1	3,1	5,0	3,3				
5.3 Total costs after deduction (3)	5,4	5,2	5,1	5,1	5,0	5,3				
3.3 Total Costs after deduction (3)	3,4	3,2	٥,1	3,1	3,0	2,3				

Costs and asset base items in '000 000 national currency - Service units in '000 000  $\,$ 

- (1) Forecast inflation used for establishing the determined costs in nominal terms actual inflation recorded by EUROSTAT
- (2) Determined costs (performance plan) in real terms actual costs in real terms
- (3) Determined costs (after deduction of VFR costs) reported at Annex II (in nominal terms)

Charging zone name Portugal Lisboa Period of reference : 2012-2014
State - NSA INAC

State - NSA	INAC									
	Forecast Costs* Determined Costs						Α	ctual costs	1	
Cost details	2010F*	2011F*	2012	2013	2014	2010	2011	2012	2013	2014
Cost details	ZUIUF	ZULIF	2012	2013	2014	2010	2011	2012	2013	2014
1. Detail by nature (in nominal te	rms)									
1.1 Staff	0,3	0,5	0,5	0,5	0,5	0,3				
1.2 Other operating costs	9,8	8,1	8,7	8,7	8,9	9,7				
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										
1.6 Total costs	10,1	8,5	9,2	9,2	9,4	10,0				
Total % n/n-1		-15,9%	7,5%	0,7%	2,2%					
Staff % n/n-1		59,5%	1,5%	1,5%	1,5%					
Other op. % n/n-1		-18,2%	7,8%	0,6%	2,2%					
2. Detail by service (in nominal te	rms)									
2.1 Air Traffic Management										
2.2 Communication										
2.3 Navigation										
2.4 Surveillance										
2.5 Search and rescue										
2.6 Aeronautical Information										
2.7 Meteorological services										
2.8 Supervision costs	0,4	0,6	0,6	0,6	0,6	0,4				
2.9 Other State costs	9,8	8,0	8,6	8,7	8,9	9,6				
2.10 Total costs	10,1	8,5	9,2	9,2	9,4	10,0				
Total % n/n-1		-15,9%	7,5%	0,7%	2,2%					
ATM % n/n-1										
CNS % n/n-1										
2 Cost of conital Cost of common	. municata /iu									
3. Cost of capital - Cost of common Average asset base	projects (in	nominai t	erms)		1					1
3.1 Net book val. fixed assets	0,004	0,004	0,004	0,004	0,005	0,004				
3.2 Adjustments total assets	0,004	0,004	0,004	0,004	0,003	0,004				
3.3 Net current assets										
3.4 Total asset base	0,004	0,004	0,004	0,004	0,005	0,004				
Cost of capital %	0,004	0,004	0,004	0,004	0,003	0,004				
3.5 Cost of capital pre tax rate	4,2%	4,0%	4,0%	4,0%	4,0%	4,2%				
3.6 Return on equity	7,270	4,070	4,070	4,070	4,070	7,270				
3.7 Average interest on debts										
Cost of common projects										
3.8 Common Project 1										
			·				·			<u>_</u>
4. Inflation - Total costs in real terr										
4.1 Inflation % (1)	1,4%	1,9%	1,4%	1,4%	1,4%	1,4%	1,9%	1,4%	1,4%	1,4%
4.2 Price index - Base 100 in 2009	101,4	103,3	104,8	106,2	107,7					
4.3 Total costs real terms (2)	10,0	8,3	8,8	8,7	8,8	9,8				
Total % n/n-1		-17,5%	6,0%	-0,7%	0,8%					
5. Deduction of costs allocated to	exempted V	/FR flights	in nomina	l terms)						
5.1 Total costs	10,1	8,5	9,2	9,2	9,4	10,0				
5.2 Costs for exempted VFR flights		-,-	-,-	-,-	-, -	2,-				
5.3 Total costs after deduction (3)	10,1	8,5	9,2	9,2	9,4	10,0				

Costs and asset base items in '000 000 national currency - Service units in '000 000  $\,$ 

- (1) Forecast inflation used for establishing the determined costs in nominal terms actual inflation recorded by EUROSTAT
- (2) Determined costs (performance plan) in real terms actual costs in real terms
- (3) Determined costs (after deduction of VFR costs) reported at Annex II (in nominal terms)

Charging zone name: Portugal Lisboa

Consolidation - all entities

Period of reference : 2012-2014

	Unit rate calculation	2010F*	2011F*	2012	2013	2014
	1. Determined costs in nominal terms and inflation uprate					
1.1	Determined costs in nominal terms - VFR excl. (Annex II)	120,1	123,7	125,0	127,8	129,8
1.2	Actual inflation rate recorded by EUROSTAT - Annex II	1,4%	1,9%	1,4%	1,4%	1,4%
1.3	Forecast inflation rate - Annex II	1,4%	1,9%	1,4%	1,4%	1,4%
1.4	Inflation uprate - Article 6-1a : year n amount to be carried over	0,0	0,0	0,0	0,0	0,0
	2. Forecast and actual total service units					
2.1	Forecast total service units (performance plan)	2,6	2,8	2,9	2,9	3,0
	Actual total service units	2,6	2,8	2,9	2,9	3,0
2.3	Actual / forecast total service units (in %)	99,8%	100,0%	100,0%	100,0%	100,0%
	3. Costs subject to traffic risk sharing (ANSP)					
3.1	Determined costs in nominal terms - VFR excl. (Annex II)	104,6	110,1	110,7	113,5	115,3
3.2	Inflation uprate - Article 6-1a : amount carried over to year n	0,0	0,0	0,0	0,0	0,0
3.3	Traffic - Article 11a-1(a): amounts carried over to year n	0,0	0,0	0,0	0,0	0,0
3.4	Traffic risk sharing - Article 11a-1: add. revenue carried over to year n	0,0	0,0	0,0	0,0	0,0
3.5	Traffic risk sharing - Article 11a-1: revenues losses carried over to year n	0,0	0,0	0,0	0,0	0,0
	Uncontrollable costs - Article 11a-2(c) : amounts carried over to year n	0,0	0,0	0,0	0,0	0,0
	Bonus (+) or penalty (-) for performance - Article 12-2	0,0	0,0	0,0	0,0	0,0
	Over(-) or under(+) recoveries (1) : amounts carried over to year n	8,8	6,3	-9,4	0,0	0,0
3.9	Total for the calculation of year n unit rate	113,4	116,4	101,3	113,5	115,3
	Traffic risk sharing - Article 11a-1 : add. rev. year n to be carried-over	0,0	0,0	0,0	0,0	0,0
3.11	L Traffic risk sharing - Article 11a-1 : rev. loss year n to be carried-over	0,0	0,0	0,0	0,0	0,0
	Parameters for traffic risk sharing					
3.12	2 % additional revenue returned to users in year n+2 - Article 11a-1(c)			70%	70%	70%
3.13	3 % loss of revenue borne by airspace users - Article 11a-1(d)			70%	70%	70%
	4. Costs not subject to traffic risk sharing - Article 11a-1(a)					
4.1	Determined costs in nominal terms - VFR excl. (Annex II)	15,5	13,7	14,3	14,3	14,5
4.2	Inflation uprate - Article 6-1a : amount carried over to year n	0,0	0,0	0,0	0,0	0,0
4.3	Traffic - Article 11a-1(a): amounts carried over to year n	0,0	0,0	0,0	0,0	0,0
4.4	Uncontrollable costs - Article 11a-2(c) : amounts carried over to year n	0,0	0,0	0,0	0,0	0,0
	Over(-) or under(+) recoveries (1): amounts carried over to year n	0,0	0,7	0,0	0,0	0,0
4.6	Total for the calculation of year n unit rate	15,5	14,4	14,2	14,3	14,5
	5. Other revenues - applied unit rate (in national currency)					
5.1	Revenues from other sources - Article 3	0,0	0,0	0,0	0,0	0,0
5.2	Grand total for the calculation of year n unit rate	128,9	130,8	115,5	127,8	129,8
5.3	Year n unit rate (in national currency)	49,05	47,43	39,89	43,62	43,81
5.4	ANSP component of the unit rate	43,14	42,21	34,97	38,74	38,93
5.5	MET component of the unit rate	2,14	2,08	1,75	1,73	1,69
5.6	NSA-State component of the unit rate	3,77	3,14	3,17	3,15	3,18
5.7	Year n unit rate that would have applied without other revenues	49,05	47,43	39,89	43,62	43,81
1						

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

 $(1) \ Annex \ IV-V \ \ 2. \ (vi) - over/under \ recoveries \ up \ to \ the \ year \ of \ entry \ into \ force \ of \ the \ amended \ Commission \ Regulation \ N°1794/2006$ 

Charging zone name: Portugal Lisboa Period of reference : 2012-2014

ANSP name NAV Portugal

1. Determined costs in nominal terms and inflation uprate  1.1 Determined costs in nominal terms - VFR excl. (Annex II)  1.2 Actual inflation rate recorded by EUROSTAT - Annex II  1.3 Forecast inflation rate - Annex II  1.4 Inflation uprate - Article 6-1a: year n amount to be carried over  2. Forecast and actual total service units	104,6 1,4% 1,4% 0,0	110,1 1,9%	110,7		
1.1 Determined costs in nominal terms - VFR excl. (Annex II) 1.2 Actual inflation rate recorded by EUROSTAT - Annex II 1.3 Forecast inflation rate - Annex II 1.4 Inflation uprate - Article 6-1a : year n amount to be carried over	1,4% 1,4%		110.7		
<ul> <li>1.2 Actual inflation rate recorded by EUROSTAT - Annex II</li> <li>1.3 Forecast inflation rate - Annex II</li> <li>1.4 Inflation uprate - Article 6-1a: year n amount to be carried over</li> </ul>	1,4% 1,4%		110 7		
<ul> <li>1.3 Forecast inflation rate - Annex II</li> <li>1.4 Inflation uprate - Article 6-1a: year n amount to be carried over</li> </ul>	1,4%	1,9%		113,5	115,3
1.4 Inflation uprate - Article 6-1a : year n amount to be carried over			1,4%	1,4%	1,4%
	0,0	1,9%	1,4%	1,4%	1,4%
2 Forecast and actual total service units		0,0	0,0	0,0	0,0
2. I Officast and actual total Scivice Units					
2.1 Forecast total service units (performance plan)	2,6	2,8	2,9	2,9	3,0
2.2 Actual total service units	2,6	2,8	2,9	2,9	3,0
2.3 Actual / forecast total service units (in %)	99,8%	100,0%	100,0%	100,0%	100,0%
3. Costs subject to traffic risk sharing (ANSP)					
3.1 Determined costs in nominal terms - VFR excl. (Annex II)	104,6	110,1	110,7	113,5	115,3
3.2 Inflation uprate - Article 6-1a : amount carried over to year n					
3.3 Traffic - Article 11a-1(a): amounts carried over to year n					
3.4 Traffic risk sharing - Article 11a-1: add. revenue carried over to year n					0,0
3.5 Traffic risk sharing - Article 11a-1: revenues losses carried over to year n					0,0
<ul><li>3.6 Uncontrollable costs - Article 11a-2(c): amounts carried over to year n</li><li>3.7 Bonus (+) or penalty (-) for performance - Article 12-2</li></ul>					0,0 0,0
3.8 Over(-) or under(+) recoveries (1): amounts carried over to year n	8,8	6,3	-9,4	0,0	0,0
3.9 Total for the calculation of year n unit rate	113,4	116,4	101,3	113,5	115,3
3.10 Traffic risk sharing - Article 11a-1 : add. rev. year n to be carried-over	0,0	0,0	0,0	0,0	0,0
3.11 Traffic risk sharing - Article 11a-1 : rev. loss year n to be carried-over	0,0	0,0	0,0	0,0	0,0
Parameters for traffic risk sharing					
3.12 % additional revenue returned to users in year n+2 - Article 11a-1(c)			70%	70%	70%
3.13 % loss of revenue borne by airspace users - Article 11a-1(d)			70%	70%	70%
4. Costs not subject to traffic risk sharing - Article 11a-1(a)					
4.1 Determined costs in nominal terms - VFR excl. (Annex II)					
4.2 Inflation uprate - Article 6-1a : amount carried over to year n					
4.3 Traffic - Article 11a-1(a): amounts carried over to year n					
4.4 Uncontrollable costs - Article 11a-2(c) : amounts carried over to year n					
4.5 Over(-) or under(+) recoveries (1) : amounts carried over to year n					
4.6 Total for the calculation of year n unit rate					
5. Other revenues - applied unit rate (in national currency)					
5.1 Revenues from other sources - Article 3					
5.2 Grand total for the calculation of year n unit rate	113,4	116,4	101,3	113,5	115,3
5.3 Year n unit rate (in national currency)	43,14	42,21	34,97	38,74	38,93
5.4 ANSP component of the unit rate					
5.5 MET component of the unit rate					
5.6 NSA-State component of the unit rate					
5.7 Year n unit rate that would have applied without other revenues	43,14	42,21	34,97	38,74	38,93

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

(1) Annex IV-V 2. (vi) - over/under recoveries up to the year of entry into force of the amended Commission Regulation  $N^{\circ}1794/2006$ 

Charging zone name: Portugal Lisboa

MET Service provider name IM

Period of reference : 2012-2014

	Unit rate calculation	2010F*	2011F*	2012	2013	2014
	1. Determined costs in nominal terms and inflation uprate					
	Determined costs in nominal terms - VFR excl. (Annex II)	5,4	5,2	5,1	5,1	5,0
	Actual inflation rate recorded by EUROSTAT - Annex II	1,4%	1,9%	1,4%	1,4%	1,4%
_	Forecast inflation rate - Annex II	1,4% 0,0	1,9%	1,4%	1,4%	1,4%
1.4	4 Inflation uprate - Article 6-1a : year n amount to be carried over		0,0	0,0	0,0	0,0
	2. Forecast and actual total service units					
	Forecast total service units (performance plan)	2,6	2,8	2,9	2,9	3,0
	Actual total service units	2,6	2,8	2,9	2,9	3,0
2.3	Actual / forecast total service units (in %)	99,8%	100,0%	100,0%	100,0%	100,0%
	3. Costs subject to traffic risk sharing (ANSP)					
	Determined costs in nominal terms - VFR excl. (Annex II)					
3.2	Inflation uprate - Article 6-1a : amount carried over to year n					
3.3	Traffic - Article 11a-1(a) : amounts carried over to year n					
	Traffic risk sharing - Article 11a-1: add. revenue carried over to year n					
	Traffic risk sharing - Article 11a-1: revenues losses carried over to year n					
	Uncontrollable costs - Article 11a-2(c) : amounts carried over to year n					
	Bonus (+) or penalty (-) for performance - Article 12-2					
	Over(-) or under(+) recoveries (1): amounts carried over to year n					
3.9	Total for the calculation of year n unit rate					
	Traffic risk sharing - Article 11a-1 : add. rev. year n to be carried-over					
3.11	L Traffic risk sharing - Article 11a-1 : rev. loss year n to be carried-over					
	Parameters for traffic risk sharing					
	2 % additional revenue returned to users in year n+2 - Article 11a-1(c)					
3.13	3 % loss of revenue borne by airspace users - Article 11a-1(d)					
	4. Costs not subject to traffic risk sharing - Article 11a-1(a)					
4.1	Determined costs in nominal terms - VFR excl. (Annex II)	5,4	5,2	5,1	5,1	5,0
	Inflation uprate - Article 6-1a : amount carried over to year n					
	Traffic - Article 11a-1(a): amounts carried over to year n					
	Uncontrollable costs - Article 11a-2(c) : amounts carried over to year n					
	Over(-) or under(+) recoveries (1): amounts carried over to year n	0,2	0,6	0,0		
4.6	Total for the calculation of year n unit rate	5,6	5,7	5,1	5,1	5,0
	5. Other revenues - applied unit rate (in national currency)					
_	Revenues from other sources - Article 3	0,0	0,0	0,0	0,0	0,0
5.2	Grand total for the calculation of year n unit rate	5,6	5,7	5,1	5,1	5,0
5.3	Year n unit rate (in national currency)	2,14	2,08	1,75	1,73	1,69
	ANSP component of the unit rate					
	MET component of the unit rate					
5.6	NSA-State component of the unit rate					
5.7	Year n unit rate that would have applied without other revenues	2,14	2,08	1,75	1,73	1,69

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

<sup>(1)</sup> Annex IV-V 2. (vi) - over/under recoveries up to the year of entry into force of the amended Commission Regulation  $N^{\circ}1794/2006$ 

Charging zone name: Portugal Lisboa

State - NSA INAC

Period of reference : 2012-2014

Determined costs in nominal terms and inflation uprate					
1. Determined costs in nominal terms and inflation uprate					
1.1 Determined costs in nominal terms - VFR excl. (Annex II)	10,1	8,5	9,2	9,2	9,4
1.2 Actual inflation rate recorded by EUROSTAT - Annex II	1,4%	1,9%	1,4%	1,4%	1,4%
1.3 Forecast inflation rate - Annex II	1,4%	1,9%	1,4%	1,4%	1,4%
1.4 Inflation uprate - Article 6-1a : year n amount to be carried over	0,0	0,0	0,0	0,0	0,0
2. Forecast and actual total service units					
2.1 Forecast total service units (performance plan)	2,6	2,8	2,9	2,9	3,0
2.2 Actual total service units	2,6	2,8	2,9	2,9	3,0
2.3 Actual / forecast total service units (in %)	99,8%	100,0%	100,0%	100,0%	100,0%
3. Costs subject to traffic risk sharing (ANSP)					
3.1 Determined costs in nominal terms - VFR excl. (Annex II)					
3.2 Inflation uprate - Article 6-1a : amount carried over to year n					
3.3 Traffic - Article 11a-1(a): amounts carried over to year n					
3.4 Traffic risk sharing - Article 11a-1: add. revenue carried over to year n					
3.5 Traffic risk sharing - Article 11a-1: revenues losses carried over to year n					
3.6 Uncontrollable costs - Article 11a-2(c) : amounts carried over to year n					
3.7 Bonus (+) or penalty (-) for performance - Article 12-2					
3.8 Over(-) or under(+) recoveries (1): amounts carried over to year n					
3.9 Total for the calculation of year n unit rate					
3.10 Traffic risk sharing - Article 11a-1 : add. rev. year n to be carried-over					
3.11 Traffic risk sharing - Article 11a-1: rev. loss year n to be carried-over					
Parameters for traffic risk sharing					
3.12 % additional revenue returned to users in year n+2 - Article 11a-1(c)					
3.13 % loss of revenue borne by airspace users - Article 11a-1(d)					
4. Costs not subject to traffic risk sharing - Article 11a-1(a)					
4.1 Determined costs in nominal terms - VFR excl. (Annex II)	10,1	8,5	9,2	9,2	9,4
4.2 Inflation uprate - Article 6-1a : amount carried over to year n					
4.3 Traffic - Article 11a-1(a): amounts carried over to year n					
4.4 Uncontrollable costs - Article 11a-2(c) : amounts carried over to year n					
4.5 Over(-) or under(+) recoveries (1): amounts carried over to year n	-0,2	0,1	0,0		
4.6 Total for the calculation of year n unit rate	9,9	8,7	9,2	9,2	9,4
5. Other revenues - applied unit rate (in national currency)					
5.1 Revenues from other sources - Article 3					
5.2 Grand total for the calculation of year n unit rate	9,9	8,7	9,2	9,2	9,4
5.3 Year n unit rate (in national currency)	3,77	3,14	3,17	3,15	3,18
5.4 ANSP component of the unit rate		-	-		
5.5 MET component of the unit rate					
5.6 NSA-State component of the unit rate					
5.7 Year n unit rate that would have applied without other revenues	3,77	3,14	3,17	3,15	3,18

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

<sup>(1)</sup> Annex IV-V 2. (vi) - over/under recoveries up to the year of entry into force of the amended Commission Regulation  $N^{\circ}1794/2006$ 

**State: Portugal Lisboa-Route** 

Year: 2012

1.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 the relevant ICAO Regional Air Navigation Plan, (Doc 7754) and a description of the methodology used for allocating those costs between different en route charging zones;

NAV Portugal, E.P.E.'s cost accounting is tailored to the activity. Cost-centres are defined in accordance with its organizational structure and cover all the activities. Cost allocation criterion is based on the final service provided by each cost-centre to each charging zone (Lisboa and Santa Maria) and using dedicated software (SAP/R3 and META4).

2. Description of the costs incurred by the Contracting States ("Other State costs");

There are no other State costs outside the costs in respect of the Eurocontrol costs.

**3.** 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;

Depreciation costs are calculated using the straight-line method applied to historic costs over the expected useful lives of the different assets.

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

### 4.1. NAV Portugal, E.P.E.

The interest rate applied is calculated in accordance with the WACC method (Weighted Average Cost of Capital method), which was capped at 6,76 %.

4.2. INAC, I.P.

The interest rate of 4 % is applied on net book value of the assets in operation in each year.

4.3. IM, IP

The interest rate of 4% is applied on net book value of the assets in operation in each year.

5. Definition of the criteria used to allocate costs between terminal and en route services;

NAV Portugal, E.P.E.'s cost accounting is tailored to the activity. Cost-centres are defined in accordance with its organizational structure and cover all the activities. Cost allocation criterion is based on the final service provided by each cost-centre in respect of terminal or en route services and using dedicated software (SAP/R3 and META4).

**State: Portugal Lisboa-Route** 

Year: 2012

**6.** 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, weather radar and satellite observations, surface and upper-air observation networks, meteorological communication systems, data-processing centres and supporting core research, training and administration;

In accordance with the Decree-law nº 220/97, of 20<sup>th</sup> August, every year in May (Preliminary Estimates) and in October (Definitive Estimates):

- IM, IP (Instituto de Meteorologia) provides to NAV Portugal, E.P.E. the forecast costaccounting data related to aeronautical activities in respect of Lisboa and Santa Maria Charging Zones, which are included in the respective cost basis for the calculation of the national unit rate and.
- NAV Portugal, E.P.E. reimburses IM, I.P., annually, for its costs recovered through route charges system.

The IM direct costs are related to the following services provided to IFR Traffic, being allocated to the activity directly:

- Flight Documentation (WAFS products, SIGWX charts/forecasts for low-level flights and required OPMET)
- Provision of information to meteorological information systems and local operators (including the use of remote briefing/consultation systems)
- TAFs
- METARs
- SPECIs
- Provision of information for ATS and AIS units
- · Provision of information for SAR units
- SIGMETS
- Landing forecasts (including TREND) and forecasts for take-off
- Meteorological Watch Offices (MWO)
- Aerodrome meteorological offices (MO)
- Aeronautical meteorological stations
- Telecommunications for aeronautical meteorological purposes, including VSAT stations to receive WAFS products and OPMET data
- Specific aeronautical meteorological research
- Specific aeronautical meteorological training

The core costs are linked to the following shared facilities and products:

- General analysis and forecast offices
- Meteorological data processing (including maintenance of climatological data base)
- Commonly used meteorological telecommunications facilities and services
- Surface observation stations (making synoptic and climatological observations)
- Upper-air observation stations
- Weather radar
- Meteorological satellite reception
- Core training
- · Core research
- Core technical support (including administration)

**State: Portugal Lisboa-Route** 

Year: 2012

**7.** Description of the methodology used for allocating total MET costs and MET core costs to civil aviation and between en route charging zones;

The IM, I.P.'s accounting software and system as implemented in 2008 is based on the double-entry bookkeeping system and analytical accountancy.

For calculation of IFR MET Costs, the next steps are followed:

Step 1: Distribution of costs by categories according to Cost Centres

- Staff
- Infrastructure
- Operating costs
- International contributions
- Investments

Step 2: MET Aviation Costs Analyses

- Direct costs (100%)
- Core costs (As the services working for Aeronautic Activity)

Step 3: Cost Verification and Analysis for each centre

Step 4: Application of cost as the services working for Aeronautic Activity

### Distribution of Costs by charging zone:

- LISBOA –75%
- SANTA MARIA –25%

**State: Portugal Lisboa-Route** 

Year: 2012

## **8.** Description and explanation of the differences between planned and actual figures for year "n - 1":

Actual unit rate 2010 (€ 45,43) decreases € 3,62 in relation to the basic unit rate 2010 (€ 49,05), namely due to the evolution of the following elements:

- a 8,7 % decrease in National costs (M€ 9,5), namely due to:
  - a) a 7% decrease in Staff Costs (M€ 6) which namely reflects the cost containment measures adopted, in line with the Growing and Stability Programme of the Portuguese Government, namely, freezing wages, progressions and promotions and a very strict control on staff admissions;
  - b) a 11,9% decrease in Operating Costs (M€ 1,9) in results of the cost containment measures adopted in Suppliers and External Services components and,
  - c) a 16,9% decrease in Capital Costs (M€ 1,9) due to a rescheduled in investment policy by prioritising investment projects;
- a 1,8% decrease in Eurocontrol Costs (M€ 0,179);
- a 7,5% increase in reduction for exempted flights (M€ 0,151).

This evolution resulted in a 7,8% decrease in chargeable costs, which connected with a 0,5% decrease of the chargeable service units, resulted in the 7,4% decrease in 2010 actual national unit rate.

(10<sup>3</sup> €)

LISBOA	2010						
LISBOA	BASIC	ACTUAL	Δ%				
NATIONAL COSTS	110.321	100.758	-8,7				
EUROCONTROL COSTS	9.762	9.583	-1,8				
REDUCTION FOR EXEMPTED FLIGHT	2.009	2.160	+7,5				
CHARGEABLE COSTS	126.783	116.890	-7,8				
CHARGEABLE SERVICE UNIT	2.584.800	2.572.775	-0,5				
NATIONAL UNIT RATE (€)	49,05	45,43	-7,4				

State: Portugal Lisboa-Route

Year: 2012

### 9. Description and explanation of the five-year planned costs based on the business plan;

### 9.1.EVOLUTION 2012 (Preliminary Estimates)/2011 (BASIC)

The preliminary national unit rate 2012 (€ 39,89) decreases € 7,54 in relation to the basic national unit rate 2011 (€ 47,43), due to the evolution of the following elements:

- a 0,5% increase in National Costs, namely due to:
  - a) a 0,6% decrease in Staff Costs (M€ 0,564), reflecting the effect of the cost containment measures approved by the Portuguese Government for 2011:
  - b) a 0,3% decrease in Operating Costs (M€ 0,043) in result of the continuity of the cost containment measures adopted in Suppliers and External Services components and,
  - c) a 10,6% increase in Capital Costs (M€ 1,236), according with the Investment Plan as attached (Annex 1 NAV Portugal and IM).
- a 7,9% increase in Eurocontrol Costs (M€ 0,630);
- a 9% increase in reduction for Exempted Flights (M€ 0,203) and,
- a negative effect of the adjustment mechanism of the year 2010 (over recovery of M€ 9,296), which means a 7,4% decrease in the reduced cost base, which connected to a 5% increase in total service units result in the 3,8% decrease of the preliminary national unit rate 2012, excluded the effect of the adjustment mechanism of the year 2010.

Consequently, the simultaneous conjugation of the evolution in respect of the elements above results in a 11,8% decrease in the Total Chargeable Costs, which connected to a 5% increase in total service units, results in a 15,9% decrease of the preliminary national unit rate 2012 in relation to the basic national unit rate 2011.

	NATIONAL U	NATIONAL UNIT RATE (€)			
LISBOA	2011	2011 2012			
	BASIC	PRELIMINARY	VALUE	%	
CHARGEABLE COSTS /	47.40	20.00	7.54	15.0	
TOTAL SERVICE UNIT	47,43	39,89	-7,54	-15,9	
REDUCED COST-BASE /	44,87	43,17	-1,70	-3.8	
TOTAL SERVICE UNIT	44,07	40,17	1,70	0,0	

### 9.2. EXPECTED EVOLUTION IN COSTS BEYOND 2012

The National costs for the period 2013/14 reflect:

- Staff cost's evolution, which takes into account the salary review and the progression in the different professional careers;
- Operating cost's evolution, which takes into account the estimated inflation rate and,
- Capital cost's evolution according to the five-year investment plan.

**State: Portugal Lisboa-Route** 

Year: 2012

### 1. Description and rationale for the establishment of the different en route charging zones;

The Lisboa en-route Charging Zone corresponds to Lisboa Upper Flight Information Region and Lisboa Flight Information Region, as referred to in the Conditions of Application of the Route Charges System and Conditions of Payment.

### 2. Description and explanation on the calculation of the forecast chargeable service units;

For the calculation of the unit rate it is considered the Forecast of the service units for 2012-2014, as established by Eurocontrol/STATFOR Doc434, dated 20 May 2011 Update.

UN	ID:	(00	10)

LISBOA	2012 P	2013 P	2014 P
TOTAL SERVICE UNITS	2 896	2 929	2 962
% n/n-1	3,0%	1,2%	1,1%

## **3.** Description of the policy on exemptions and a description of the financing means to cover the related costs:

In addition to the mandatory exemptions as described in the Conditions of Application of the Route Charges System and Conditions of Payment, Portugal exempts the following flights from en-route charges:

- Portuguese Military Flights
- Military flights of other States on a bilateral basis (reciprocity)
- Flights performed exclusively for the purpose of the instruction or testing of flight crew
- Flights performed exclusively for the checking or testing of equipment used or intended to be used as ground aids to air navigation
- · Circular flights
- Authorised Humanitarian Flights
- VFR flights
- Customs and police flights

In view of the accomplishment of the Article 9.4 of the Commission Regulation (EC)  $N^{\circ}$  1794/2006, the Government of Portugal maintains in course the actions to ensure to NAV Portugal the reimbursement of costs incurred for exempted flights, which, naturally, are not taken into account for the calculation of the national unit rate.

4. Description of the income from other sources when they exist;	
None	

**State: Portugal Lisboa-Route Year: 2012** 

<b>5.</b> Description and explanation of incentives applied on air navigation service providers and, in particular, the modalities to be applied in setting regulatory conditions on the level of unit rates. Description and explanation of the objectives in terms of performance and on the modalities to take them into account in the setting of maximum unit rates;
None
<b>6.</b> Description of the plans of air navigation service providers in order to meet projected demand and performance objectives;
The capacity of Lisbon ACC meets either the actual or future demand for the next years, remaining safety, cost-effectiveness and high quality of services NAV Portugal, E.P.E.'s key areas. On the assumption that traffic increases, in average, about 1% per annum, forecasts a trend in costs, which is expected to guarantee the stability of the unit rate for the period 2013/2014. In the framework of the operational efficiency gains leading to lower indirect costs for airlines, it should be recalled the measures implemented by NAV Portugal over the past years, resulting in the reduction of en-route delays to values below the reference provided by Capacity Planning Process of Eurocontrol, as well as the "Free Route" Project, above a determined FL (245/285) implemented in Summer 2009.
7. Description and explanation of incentives applied on users of en route services;
None
8. Description and explanation of the methodology used with respect to the recovery of the balance resulting from over or under recovery of previous years;
The adjustment mechanism is applied in the traditional way (n+2).

**State: Portugal Lisboa-Route Year: 2012** 

## LISBOA EN ROUTE CHARGING ZONE

### **EN ROUTE AIR NAVIGATION INVESTMENT EXPENDITURES ANSP - NAV PORTUGAL**

(10<sup>3</sup> FUR)

(10° EUR)								
PROJECT	2010	2011	2012	2013	2014	2015	TOTAL	Becoming Operational on (Semester/Year)
TOTAL	14.000	13.230	12.387	10.689	12.298	11.064	73.669	
ATM SYSTEM	10.511	8.474	7.788	7.495	7.576	7.936	49.780	
■ Lisbon ATM System Development	1.203	1.717	861	557	124		4.462	
■ TWRATM	584	190	75	8			857	
■ SDT ATM	1.368	1.071	387	230	230	230	3.516	
■ iTEC-eFDP	6.529	5.186	6.265	6.700	7.196	7.679	39.555	
■ Other	827	310	200		27	27	1.390	
COMMUNICATIONS	495	656	1.016	362	966	144	3.640	
■ VGS (data-link)	96	101	3	80	10		290	11;13
■ Tape recorders	27	122	910	202	10	2	1.274	12
■ Communications Enhancements	20	157	103	53	53	50	435	
■ VCS	179	85		27	744	18	1.053	
<ul><li>Upgrade ATIS/Volmet</li></ul>	147	143	1				291	11
■ Other	26	46			150	75	297	
NAV AIDS	207	171	457	750	862		2.448	
■ Replacements of VOR's, TACAN and DME's			72	16	846		934	11;12;13
■ DME's for PRNAV to TMA's	207	171	385	734	16		1.514	10;14
SURVEILLANCE	100	394	1.469	855	1.516	1.397	5.731	
■ North Radar Enhancements	43	205	645	606			1.500	13
■ SSR Mode S			3	249	1.516	1.397	3.165	15
■ WAM/ADS-B Madeira	57	189	821				1.067	12
METEO	753	4					757	10
BUILDINGS	1.231	2.422	816	394	544	754	6.161	
OTHER	:::::703	:::1.109	841	833	:::::833	833	··· 5.152	

### IM, I.P. Investment Plan (Lisboa and Santa Maria)

(10<sup>3</sup> EUR)

						(IU EUR)
Description	2010	2011	2012	2013	2014	2015
Facilities' Restructuring	201	240	252	277	305	320
Meteorological Radar	76	168	954	1.477	1.555	1.567
Diverse Hardware and Software	220	200	210	231	254	267
Technical Equipment	226	200	210	231	254	267
Other	180	160	168	185	203	213
TOTAL	904	968	1.794	2.401	2.572	2.700

Organisation: ANSP

Charging zone: Portugal - TNC

Year 2012

	2008 A	2009 A	2010 A	2011 F	2012 F	2013 P	2014 P	2015 P	2016 P
Detail by nature (in '000 euro)									
Staff	26.453	24.609	22.709	25.726	25.514	25.949	26.367	26.799	27.301
Stati	19,9%	-7,0%	-7,7%	13,3%	-0,8%	1,7%	1,6%	1,6%	1,9%
Other operating costs	1.521	1.451	1.586	1.817	1.765	1.789	1.814	1.843	1.876
out of operating decid	5,2%	-4,6%	9,3%	14,6%	-2,9%	1,4%	1,4%	1,6%	1,8%
Depreciation	2.248	2.144	2.030	3.154	2.945	3.043	3.379	3.605	3.605
·	-16,0%	-4,6%	-5,3%	55,4%	-6,6%	3,3%	11,0%	6,7%	0,0%
Cost of capital	838	543	750	703	735	703	665	694	669
·	6,8%	-35,3%	38,3%	-6,4%	4,6%	-4,3%	-5,4%	4,3%	-3,6%
Exceptional items									
Total costs	31.059	28.746	27.075	31.400	30.958	31.484	32.225	32.940	33.450
	15,2%	-7,4%	-5,8%	16,0%	-1,4%	1,7%	2,4%	2,2%	1,5%
Detail by services (in '000 euro)									
Air traffic management	24.222	22.146	20.632	24.164	23.847	24.248	24.822	25.473	25.866
	32,3%	-8,6%	-6,8%	17,1%	-1,3%	1,7%	2,4%	2,6%	1,5%
Communication	2.150	2.100	2.060	2.312	2.283	2.318	2.361	2.392	2.430
	-17,1%	-2,3%	-1,9%	12,2%	-1,3%	1,6%	1,9%	1,3%	1,6%
Navigation	2.666	2.566	2.481	2.769	2.714	2.764	2.831	2.844	2.889
	8,5%	-3,8%	-3,3%	11,6%	-2,0%	1,8%	2,4%	0,4%	1,6%
Surveillance	1.020	973	947	1.063	1.042	1.060	1.091	1.101	1.118
	-55,4%	-4,5%	-2,7%	12,2%	-2,0%	1,8%	2,9%	0,9%	1,5%
Search and rescue									
Aeronautical information	782	746	747	825	812	828	847	855	868
	7,4%	-4,6%	0,2%	10,5%	-1,6%	1,9%	2,4%	0,9%	1,6%
Meteorological services	219	216	207	266	260	265	272	275	279
	-62,8%	-1,6%	-3,8%	28,3%	-2,2%	2,0%	2,5%	1,2%	1,5%
Supervision costs									
Other State costs									
Total costs	31.059	28.746	27.075	31.400	30.958	31.484	32.225	32.940	33.450
10141 00313	15,2%	-7,4%	-5,8%	16,0%	-1,4%	1,7%	2,4%	2,2%	1,5%
l l	10,270	7,170	0,070	10,070	1,170	1,770	2,170	2,270	1,070
Complementary information on in	flation and o	on the cost	of capital (i	n '000 euro)					
Inflation rate	2,6%	-0,8%	1,4%	1,9%	1,4%	1,4%	1,4%	1,6%	1,8%
				l					
Average operating capital	10.502	10.011	9.620	10.393	10.869	10.403	9.840	10.266	9.893
Of which average leng term assets	10 E00	-4,7% 10,011	-3,9%	8,0%	4,6%	-4,3%	-5,4% 9.840	4,3%	-3,6%
Of which, average long term assets	10.502	10.011 -4,7%	9.620 -3,9%	10.393 8,0%	10.869 4,6%	10.403 -4,3%	-5,4%	10.266 4,3%	9.893 -3,6%
Cost of capital before tax (%)	7,98%	5,42%	7,80%	6,76%	6,76%	6,76%	6,76%	6,76%	6,76%
oct of dapital bololo tax (10)	7,5076	J, ¬∠ /0	7,5076	0,7070	3,7070	3,7 0 70	0,7070	5,7070	
Return on equity (%)	8,76%	6,16%	9,16%	7,56%	7,56%	7,56%	7,56%	7,56%	7,56%
Average interest on debts (%)	4,93%	1,88%	0,88%	1,86%	1,88%	1,88%	1,88%	1,88%	1,88%

Organisation: Consolidated
Charging zone: Portugal - TNC

Year 2012

2008	2009	2010	2011	2012	2013	2014	2015 B	2016 P
	<u> </u>	A		•	::::::: <b>.</b> [::::::::::::::::::::::::::::::::::::		::::::: <mark>:</mark> :::::::::	
	T							
								27.301
1								1,9%
								1.876
	1							1,8%
								3.605
	1					1		0,0%
								669
6,8%	-35,3%	38,3%	-6,4%	4,6%	-4,3%	-5,4%	4,3%	-3,6%
31.059	28.746	27.075	31.400	30.958	31.484	32.225	32.940	33.450
								1,5%
	,	.,	-,	,	,	,	,	,
24.222	22.146	20.632	24.164	23.847	24.248	24.822	25.473	25.866
32,3%	-8,6%	-6,8%	17,1%	-1,3%	1,7%	2,4%	2,6%	1,5%
2.150	2.100	2.060	2.312	2.283	2.318	2.361	2.392	2.430
-17,1%	-2,3%	-1,9%	12,2%	-1,3%	1,6%	1,9%	1,3%	1,6%
2.666	2.566	2.481	2.769	2.714	2.764	2.831	2.844	2.889
8,5%	-3,8%	-3,3%	11,6%	-2,0%	1,8%	2,4%	0,4%	1,6%
1.020	973	947	1.063	1.042	1.060	1.091	1.101	1.118
-55,4%	-4,5%	-2,7%	12,2%	-2,0%	1,8%	2,9%	0,9%	1,5%
782	746	747	825	812	828	847	855	868
								1,6%
219	216	207	266	260	265		275	279
-62,8%	-1,6%	-3,8%	28,3%	-2,2%	2,0%		1,2%	1,5%
								33.450
15,2%	-7,4%	-5,8%	16,0%	-1,4%	1,7%	2,4%	2,2%	1,5%
flation and	on the cost	of capital (ir	'000 euro)					
2,6%	-0,8%	1,4%	1,9%	1,4%	1,4%	1,4%	1,6%	1,8%
10.502								9.893
	1							-3,6%
10.502								9.893
7.000/								-3,6%
7,98%	5,42%	7,80%	0,76%	6,76%	0,/6%	ხ,/ხ%	0,/6%	6,76%
8,76%	6,16%	9,16%	7,56%	7,56%	7,56%	7,56%	7,56%	7,56%
' !			l		ı			Į.
	26.453 19,9% 1.521 5,2% 2.248 -16,0% 838 6,8% 31.059 15,2% 24.222 32,3% 2.150 -17,1% 2.666 8,5% 1.020 -55,4% 782 7,4% 219 -62,8% 31.059 15,2% flation and control	26.453	26.453   24.609   22.709   19.9%   -7.0%   -7.7%   1.521   1.451   1.586   5.2%   -4.6%   9.3%   2.248   2.144   2.030   -16.0%   -4.6%   -5.3%   838   543   750   6.8%   -35.3%   38	A         A         F           26.453         24.609         22.709         25.726           19.9%         -7.0%         -7.7%         13,3%           1.521         1.451         1.586         1.817           5,2%         -4,6%         9,3%         14,6%           2.248         2.144         2.030         3.154           -16,0%         -4,6%         -5,3%         55,4%           838         543         750         703           6,8%         -35,3%         38,3%         -6,4%           31.059         28.746         27.075         31.400           15,2%         -7,4%         -5,8%         16,0%           24.222         22.146         20.632         24.164           32,3%         -8,6%         -6,8%         17,1%           2.150         2.100         2.060         2.312           -17,1%         -2,3%         -1,9%         12,2%           2.666         2.566         2.481         2.769           8,5%         -3,8%         -3,3%         11,6%           1.020         973         947         1.063           -5,4%         -4,6%         0,2%	A         A         F         F           26.453         24.609         22.709         25.726         25.514           19.9%         -7.0%         -7.7%         13.3%         -0.8%           1.521         1.451         1.586         1.817         1.765           5.2%         -4.6%         9.3%         14.6%         -2.9%           2.248         2.144         2.030         3.154         2.945           -16,0%         -4.6%         -5.3%         55.4%         -6.6%           838         543         750         703         735           6.8%         -35,3%         38,3%         -6.4%         4.6%           31.059         28.746         27.075         31.400         30.958           15,2%         -7,4%         -5,8%         16,0%         -1,4%           24.222         22.146         20.632         24.164         23.847           32,3%         -8,6%         -6,8%         17,1%         -1,3%           2.150         2.100         2.060         2.312         2.283           -17,1%         -2,3%         -1,9%         12,2%         -1,3%           2.666         2.566         2.	A         A         F         P           26.453         24.609         22.709         25.726         25.514         25.949           19.9%         -7.0%         -7.7%         13.3%         -0.8%         1,7%           1.521         1.451         1.586         1.817         1.765         1.789           5.2%         -4.6%         9,3%         14.6%         -2,9%         1,4%           2.248         2.144         2.030         3.154         2.945         3.043           -16,0%         -4.6%         -5.3%         55.4%         -6.6%         3.3%           838         543         750         703         735         703           6.8%         -35,3%         38,3%         -6.4%         4.6%         -4,3%           31.059         28.746         27.075         31.400         30.958         31.484           15,2%         -7.4%         -5.8%         16,0%         -1.4%         1,7%           24.222         22.146         20.632         24.164         23.847         24.248           32.3%         -8.6%         -6.8%         17,1%         -1.3%         1,7%           2.150         2.100 <td< td=""><td>A         A         F         F         P         P           26.453         24.609         22.709         25.726         25.514         25.949         26.367           19.9%         -7.0%         -7.7%         13.3%         -0.8%         1,7%         1.6%           1.521         1.451         1.586         1.817         1.765         1.789         1.814           5.2%         -4.6%         9.3%         14.6%         -2.9%         1.4%         1.4%           2.248         2.144         2.030         3.154         2.945         3.043         3.379           -16.0%         -4.6%         -5.3%         55.4%         -6.6%         3.3%         11.0%           838         543         750         703         735         703         665           6.8%         -35.3%         38.3%         -6.4%         4.6%         -4.3%         2.54%           15.2%         -7.4%         -5.8%         16.0%         -1.4%         1.7%         2.4%           24.222         22.146         20.632         24.164         23.847         24.248         24.822           32.3%         -1.6%         -1.3%         1.7%         2.4%</td></td<> <td>A         A         F         F         P         P         P           26.453         24.609         22.709         25.726         25.514         25.949         26.367         26.799           19.9%         -7.0%         -7.7%         13.3%         -0.8%         1.7%         1.6%         1.6%           5.2%         -4.6%         9.3%         14.6%         -2.9%         1.4%         1.48         1.6%           2.248         2.144         2.030         3.154         2.945         3.043         3.379         3.665           1-6.0%         -4.6%         -5.3%         55.4%         -6.6%         3.3%         11.0%         6.7%           838         543         750         703         735         703         665         694           6.8%         -35,3%         38.3%         -6.4%         4.6%         -4.3%         2.225         32.940           15,2%         -7.4%         -5.8%         16.0%         -1.4%         1.7%         2.4%         2.6%           24.222         22.146         20.632         24.164         23.847         24.248         24.822         25.473           32.3%         -1.0         -5.6%</td>	A         A         F         F         P         P           26.453         24.609         22.709         25.726         25.514         25.949         26.367           19.9%         -7.0%         -7.7%         13.3%         -0.8%         1,7%         1.6%           1.521         1.451         1.586         1.817         1.765         1.789         1.814           5.2%         -4.6%         9.3%         14.6%         -2.9%         1.4%         1.4%           2.248         2.144         2.030         3.154         2.945         3.043         3.379           -16.0%         -4.6%         -5.3%         55.4%         -6.6%         3.3%         11.0%           838         543         750         703         735         703         665           6.8%         -35.3%         38.3%         -6.4%         4.6%         -4.3%         2.54%           15.2%         -7.4%         -5.8%         16.0%         -1.4%         1.7%         2.4%           24.222         22.146         20.632         24.164         23.847         24.248         24.822           32.3%         -1.6%         -1.3%         1.7%         2.4%	A         A         F         F         P         P         P           26.453         24.609         22.709         25.726         25.514         25.949         26.367         26.799           19.9%         -7.0%         -7.7%         13.3%         -0.8%         1.7%         1.6%         1.6%           5.2%         -4.6%         9.3%         14.6%         -2.9%         1.4%         1.48         1.6%           2.248         2.144         2.030         3.154         2.945         3.043         3.379         3.665           1-6.0%         -4.6%         -5.3%         55.4%         -6.6%         3.3%         11.0%         6.7%           838         543         750         703         735         703         665         694           6.8%         -35,3%         38.3%         -6.4%         4.6%         -4.3%         2.225         32.940           15,2%         -7.4%         -5.8%         16.0%         -1.4%         1.7%         2.4%         2.6%           24.222         22.146         20.632         24.164         23.847         24.248         24.822         25.473           32.3%         -1.0         -5.6%

ANSP Year 2012 Organisation: Charging zone: Portugal - Terminal/Lisboa 2008 2009 2010 2011 2012 2013 2014 2015 2016 Α Α F F Р P Ρ P Α Detail by nature (in '000 euro) 7.384 6.427 6.048 7.131 7.120 7.241 7.360 7.482 7.625 -5,9% -0,2% 38,8% -13,0% 17,9% 1,7% 1,6% 1,7% 1,9% 393 375 375 386 Other operating costs 300 289 404 370 380 5,5% -3,7% 40,0% -7,2% -1,4% 1,4% 1,4% 1,6% 1,8% Depreciation 564 510 426 967 1.003 1.047 1.043 1.492 1.492 -34,7% -9,7% -16,5% 127,1% 3,8% 4,4% -0,4% 43,1% 0,0% Cost of capital 183 288 279 115 167 148 215 98 -14,1% -32,8% 27,4% 70,1% 9,5% -19,3% 45,7% 33,7% -3,2% Exceptional items 7.303 8.641 8.677 8.811 8.998 9.649 9.790 **Total costs** 8.363 6.977 26,7% -12,7% -4.5% 23.9% 0,4% 1,6% 2,1% 7,2% 1,5% Detail by services (in '000 euro) 8.580 Air traffic management 7.933 6.931 6.624 8.239 8.273 8.402 9.200 9.335 48,4% -12,6% -4,4% 24,4% 0,4% 1,6% 2,1% 7,2% 1,5% Communication 117 101 96 110 110 112 114 122 124 13,9% 7,2% 1,5% -63,2% -13,7% -5,0% 0,4% 1,6% 2,1% 147 Navigation 157 135 128 146 149 152 163 166 -13,2% -13,7% -5,0% 13,9% 0,4% 1,6% 2,1% 7,2% 1,5% 110 122 124 Surveillance 117 101 96 110 112 114 -77,6% -13,7% -5,0% 13,9% 0,4% 1,5% 1,6% 2,1% 7,2% Search and rescue Aeronautical information 34 32 37 37 37 38 41 41 1,5% -64,4% -13,7% -5,0% 13,9% 0,4% 1,6% 2,1% 7,2% Meteorological services -100,0% Supervision costs Other State costs

**Total costs** 

8.363

26,7%

7.303

-12,7%

6.977

-4,5%

8.641

23,9%

8.677

0,4%

8.811

1,6%

8.998

2,1%

9.649

7,2%

9.790

1,5%

Year

56

1,3%

5.114

1,3%

-2,6%

5.047

-2,6%

10,4%

5.182

9,0%

58

4,6%

5.351

4,6%

57

-1,9%

5.248

-1,9%

58

<u>1,4</u>%

5.321

1,4%

2012

ANSP

Organisation:

Meteorological services

**Total costs** 

Supervision costs

Other State costs

Charging zone: Portugal - Terminal/Porto 2008 2009 2010 2011 2012 2013 2014 2015 2016 Α Α F F Р P Ρ P Α Detail by nature (in '000 euro) 4.402 4.084 3.946 4.040 3.990 4.058 4.121 4.184 4.257 2,4% 14,5% -7,2% -3,4% -1,3% 1,7% 1,5% 1,5% 1,7% 337 341 351 357 Other operating costs 353 298 260 336 345 32,4% -15,7% -12,5% 29,2% -0,2% 1,4% 1,4% 1,6% 1,8% Depreciation 351 373 356 690 635 580 800 671 671 6,0% 6,2% -4,5% 93,8% -7,9% -8,7% 37,9% -16,1% 0,0% Cost of capital 194 192 116 86 136 42 36 117 20,0% -39,5% 63,8% -39,7% -25,3% 57,0% -37,1% -50,8% -14,4% Exceptional items 4.872 4.754 5.182 5.047 5.114 5.351 5.248 5.321 **Total costs** 5.299 15,1% -8,1% -2,4% 9.0% -2,6% 1,3% 4.6% -1.9% 1,4% Detail by services (in '000 euro) 3.508 3.758 3.859 Air traffic management 3.986 3.611 3.660 3.709 3.880 3.805 33,0% -9,4% -2,8% 7,1% -2,6% 1,3% 4,6% -1,9% 1,4% 255 295 299 Communication 269 259 287 291 304 303 -3,8% 15,8% 1,3% -1,9% -24,7% -1,7% -2,6% 4,6% 1,4% Navigation 603 579 573 646 629 637 667 654 663 2,8% -4,1% -1,0% 12,8% -2,6% 1,3% 4,6% -1,9% 1,4% 287 291 295 Surveillance 264 253 251 280 284 297 -0,9% 1,4% -40,1% -4,0% 14,5% -2,6% 1,3% 4,6% -1,9% Search and rescue Aeronautical information 123 118 116 140 136 138 145 142 144 4,6% -3,5% -1,9% 20,5% -2,6% 1,3% 4,6% -1,9% 1,4%

52

-1,1%

4.754

-2,4%

-4,2%

4.872

-8,1%

-48,1%

5.299

15,1%

Year ANSP 2012 Organisation: Charging zone: Portugal - Terminal/Faro 2008 2009 2010 2011 2012 2013 2014 2015 2016 Α Α F F Р P Ρ P Α Detail by nature (in '000 euro) 4.345 4.297 3.470 4.315 4.275 4.348 4.418 4.489 4.573 -19,3% 13,3% -1,1% 24,4% -0,9% 1,7% 1,6% 1,6% 1,9% 285 356 374 Other operating costs 288 277 368 351 361 367 -4,0% -1,0% -2,9% 32,8% -4,4% 1,4% 1,4% 1,6% 1,8% Depreciation 473 517 526 692 444 501 648 544 544 5,1% 9,5% 1,6% 31,6% -35,9% 12,9% 29,3% -16,1% 0,0% Cost of capital 138 130 42 42 95 68 114 22,4% -43,0% 20,8% -28,8% 91,8% -12,2% -32,9% -44,9% 0,0% Exceptional items 5.319 5.179 4.368 5.443 5.200 5.503 5.442 5.532 **Total costs** 5.243 11.6% -1,2% -15,7% 24.6% -4.5% 2,3% 3.5% -1,1% 1,7% Detail by services (in '000 euro) 4.003 4.048 4.003 4.069 Air traffic management 3.862 3.792 3.061 3.825 3.912 26,9% -1,8% -19,3% 30,8% -4,5% 2,3% 3,5% -1,1% 1,7% 295 299 Communication 277 276 267 295 281 288 298 -4,5% 2,3% 1,7% -23,2% -0,1% -3,4% 10,4% 3,5% -1,1% 658 Navigation 642 645 600 629 643 665 658 669 9,7% 5,9% 0,6% -7,1% -4,5% 2,3% 3,5% -1,1% 1,7% 292 292 297 Surveillance 282 284 264 279 285 295 -40,0% -6,8% 3,5% 1,7% 0,7% 10,4% -4,5% 2,3% -1,1% Search and rescue Aeronautical information 125 124 123 138 132 135 139 138 140 16,0% -0,3% -0,9% 11,9% -4,5% 2,3% 3,5% 1,7% -1,1% Meteorological services 57 56 58 59 58 <u>-4,5</u>% 1,7% -49,2% 0,4% -7,4% 8,8% 2,3% 3,5% -1,1% Supervision costs

Other State costs

**Total costs** 

5.243

11,6%

5.179

-1,2%

4.368

-15,7%

5.443

24,6%

5.200

-4,5%

5.319

2,3%

5.503

3,5%

5.442

-1,1%

5.532

1,7%

Organisation: ANSP							[	Year	2012
Charging zone: Portugal	- Terminal/Ma	deira					_		
	2008 A	2009 A	2010 A	2011 F	2012 F	2013 P	2014 P	2015 P	2016 P
Detail by nature (in '000 euro)									
Staff	5.261	4.954	4.626	5.242	5.187	5.276	5.358	5.441	5.538
	15,8%	-5,8%	-6,6%	13,3%	-1,1%	1,7%	1,6%	1,6%	1,8%
Other operating costs	200	186	208	256	241	245	248	252	256
1 3	-8,4%	-6,9%	11,6%	23,1%	-5,8%	1,4%	1,4%	1,6%	1,8%
Depreciation	148	167	175	203	173	205	186	197	197
·	-13,3%	13,0%	5,1%	15,5%	-14,5%	18,1%	-9,1%	6,1%	0,0%
Cost of capital	34	30	45	39	35	29	30	32	32
	35,0%	-12,5%	52,3%	-13,8%	-11,5%	-16,6%	4,6%	7,7%	-0,1%
Exceptional items									
Total costs	5.642	5.337	5.055	5.740	5.636	5.753	5.822	5.923	6.024
	13,9%	-5,4%	-5,3%	13,5%	-1,8%	2,1%	1,2%	1,7%	1,7%
Detail by services (in '000 euro)									
Air traffic management	4.343	4.066	3.791	4.255	4.177	4.265	4.315	4.391	4.465
	18,9%	-6,4%	-6,8%	12,2%	-1,8%	2,1%	1,2%	1,7%	1,7%
Communication	455	448	445	516	507	517	524	533	542
	0,0%	-1,6%	-0,6%	15,9%	-1,8%	2,1%	1,2%	1,7%	1,7%
Navigation	492	489	475	561	551	562	569	579	589
	10,8%	-0,7%	-2,8%	18,0%	-1,8%	2,1%	1,2%	1,7%	1,7%
Surveillance	109	100	105	130	128	130	132	134	136
0	-33,0%	-8,5%	5,3%	23,6%	-1,8%	2,1%	1,2%	1,7%	1,7%
Search and rescue									
Aeronautical information	154	143	153	179	175	179	181	184	187
	11,6%	-7,3%	7,1%	16,9%	-1,8%	2,1%	1,2%	1,7%	1,7%
Meteorological services	89	91	86	99	98	100	101	103	104
	-12,8%	2,3%	-5,7%	16,1%	-1,8%	2,1%	1,2%	1,7%	1,7%
Supervision costs			_	_					
Other State costs									
Total costs	5.642	5.337	5.055	5.740	5.636	5.753	5.822	5.923	6.024
	13,9%	-5,4%	-5,3%	13,5%	-1,8%	2,1%	1,2%	1,7%	1,7%

Organisation:	ANSP								Year	2012
Charging zone:	Portugal	- Terminal/Oth	ner Aerodro	mes				•		
			•							
		2008	2009	2010	2011	2012 F	2013	2014 P	2015	2016
		Α	Α	Α	F	F	Р	<b></b>	Р	Р
Detail by nature (in	'000 euro)									
Staff	•	5.062	4.846	4.618	4.997	4.942	5.026	5.112	5.201	5.308
		12,1%	-4,3%	-4,7%	8,2%	-1,1%	1,7%	1,7%	1,8%	2,0%
Other operating cost	S	379	393	437	482	466	473	479	487	495
		0,9%	3,7%	11,1%	10,4%	-3,2%	1,4%	1,4%	1,6%	1,8%
Depreciation		712	577	547	603	689	710	702	700	700
		-17,3%	-19,0%	-5,2%	10,3%	14,3%	3,1%	-1,2%	-0,2%	0,0%
Cost of capital		357	240	320	312	300	276	258	289	279
		1,6%	-32,9%	33,3%	-2,2%	-3,9%	-7,9%	-6,8%	12,3%	-3,4%
Exceptional items										
Total cos	sts	6.511	6.056	5.922	6.394	6.398	6.485	6.550	6.678	6.783
		6,7%	-7,0%	-2,2%	8,0%	0,1%	1,4%	1,0%	1,9%	1,6%
Detail by services (i										
Air traffic management	ent	4.098	3.745	3.649	3.910	3.912	3.961	3.999	4.074	4.138
		25,3%	-8,6%	-2,6%	7,2%	0,0%	1,3%	1,0%	1,9%	1,6%
Communication		1.032	1.015	997	1.097	1.097	1.110	1.121	1.144	1.162
		-6,4%	-1,6%	-1,8%	10,0%	0,0%	1,2%	1,0%	2,0%	1,6%
Navigation		773	718	704	758	759	772	778	790	802
		20,6%	-7,1%	-1,8%	7,6%	0,1%	1,8%	0,7%	1,5%	1,6%
Surveillance		247	235	230	244	245	249	253	262	265
		-64,1%	-5,0%	-1,9%	5,9%	0,5%	1,6%	1,5%	3,5%	1,4%
Search and rescue										
Aeronautical informa	tion	342	327	323	333	332	338	344	350	356
Actoriadilear informa	.tiOii	33,6%	-4,3%	-1,1%	2,9%	-0,1%	1,9%	1,6%	1,8%	1,6%
Meteorological service	200	20	16	18	53	53	54	55	58	59
ivictoorological servic	,03	-86,7%	-18,4%	11,2%	197,1%	-0,1%	2,3%	1,6%	6,2%	1,0%
Supervision costs		30,770	10,470	. 1,2/0	107,170	0,170	2,070	1,070	0,2 /0	1,070
- Cap 51 1101011 00010										
Other State costs										
i		1								
Total cos	sts	6.511	6.056	5.922	6.394	6.398	6.485	6.550	6.678	6.783

Organisation: Consolidated

Charging zone: Portugal - Terminal / Others (list)

Year 2012

	2008 A	2009 A	2010 A	2011 F	2012 F	2013 P	2014 P	2015 P	2016 P
Porto Santo	1.686	1.515	1.475	1.669	1.686	1.751	1.757	1.768	1.797
Ponta Delgada	1.531	1.463	1.425	1.538	1.526	1.559	1.606	1.635	1.663
Santa Maria	1.318	1.177	1.158	1.266	1.263	1.289	1.311	1.406	1.419
Horta	1.194	1.265	1.254	1.322	1.358	1.351	1.351	1.357	1.381
Flores	782	637	611	600	566	535	524	512	523
Total	6.511	6.056	5.922	6.394	6.398	6.485	6.550	6.678	6.783
	6,7%	-7,0%	-2,2%	8,0%	0,1%	1,4%	1,0%	1,9%	1,6%

Portugal - Terminal Year: 2012

1.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 the relevant ICAO Regional Air Navigation Plan, (Doc 7754) and a description of the methodology used for allocating those costs between different en route charging zones:

NAV Portugal, E.P.E.'s cost accounting is tailored to the activity. Cost-centres are defined in accordance with its organizational structure and cover all the activities. Cost allocation criterion is based on the final service provided by each cost-centre to each charging zone and using dedicated software (SAP/R3 and META4).

## 2.Description and explanation of the differences between planned and actual figures for year (n-1);

Actual 2010 costs decreases M€ 3,423 in relation to the basic costs, namely due to the evolution of the following elements:

- a) a 8,1 % decrease in Staff Costs (M€ 2,013) which namely reflects the cost containment measures adopted, in line with the Growing and Stability Programme of the Portuguese Government, namely, freezing wages, progressions and promotions and a very strict control on staff admissions;
- b) a 6,2% decrease in Operating Costs (M€ 0,104), which reflects the costs containment efforts in Suppliers and External Services components and,
- c) a 29,3% decrease in Capital Costs (depreciation and cost of capital), amounting to M€ 1,151, due to a rescheduled in investment policy by prioritising investment projects.

 $(10^3 \, \text{€})$ 

COSTS DETAIL BY NATURE		2010	(10 0)
COSTS DETAIL BY NATURE	BASIC	ACTUAL	Δ%
STAFF COSTS	24.722	22.709	-8,1
OTHER OPERATING COSTS	1.690	1.586	-6,2
DEPRECIATION COSTS	3.082	2.030	-34,1
COST OF CAPITAL	849	750	-11,7
REDUCTION FOR EXEMPTED FLIGHT	140	295	+100,1
CHARGEABLE COSTS	30.203	26.780	-11,3

3.Description and explanation of the five-year planned costs based on the business plan;

### 3.1.EVOLUTION 2012 (Preliminary Estimates)/2011 (BASIC)

The preliminary terminal unit rate 2012 (€ 150,74) decreases € 22,49 (13%) in relation to the basic national unit rate 2011 (€ 173,23), which reflects the evolution of the following elements:

- a) a 0,8 % decrease in Staff Costs (M€ 0,212) which namely reflects the costs containment measures approved by the Portuguese Government for 2011;
- b) a 2,9% decrease in Operating Costs (M€ 0,052) in result of the continuity of the cost containment measures adopted in Suppliers and External Services components;
- c) a 4,6% decrease in Capital Costs (depreciation and cost of capital), amounting to (M€ 0,177) according with the Investment Plan as attached (Annex 1);
- d) a 33,6% increase in reduction for exempted flight (M€ 0,084) and,
- e) a negative effect of the adjustment mechanism of the year 2010 (over recovery of M€ 2,641), which means a 8,6% decrease in the reduced cost base, which connected to a 3,2% increase in chargeable service units result in the 0,2% decrease of the preliminary national unit rate 2012, excluded the effect of the adjustment mechanism of the year 2010.

Consequently, the simultaneous conjugation of the evolution in respect of the elements above results in a 10,2% decrease in the Total Chargeable Costs, which connected to a 3,2% increase in chargeable service units, results in a 22,49 € decrease of the preliminary national unit rate 2012 in relation to the basic Terminal unit rate 2011.

 $(10^3 \, \text{€})$ 

COSTS DETAIL BY NATURE	2011 BASIC	2012 PRELIMINARY	Δ%
STAFF COSTS	25.726	25.514	-0,8
OTHER OPERATING COSTS	1.817	1.765	-2,9
DEPRECIATION COSTS	3.154	2.945	-6,6
COST OF CAPITAL	703	735	+4,5
REDUCTION FOR EXEMPTED FLIGHT	250	334	+33,6
AMOUNTS CARRIED OVER TO YEAR	0	-2.641	s.s.
CHARGEABLE COSTS	31.150	27.984	-10,2
Chargeable Service Unit (MTOW/50) <sup>0,7</sup>	179.822	185.636	+3,2
UNIT RATE (€)	173,23	150,74	-13,0

### 3.2. EXPECTED EVOLUTION IN COSTS BEYOND 2012

The National costs for the period 2013/16 reflect:

- Staff cost's evolution, which takes into account the salary review and the progression in the different professional careers;
- Operating cost's evolution, which takes into account the estimated inflation rate and.
- Capital cost's evolution according to the five-year investment plan.

Portugal - Terminal Year: 2012

4.Description of the costs incurred by the Contracting States (' Other State costs');
There are no other State costs

5. 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

Depreciation costs are calculated using the straight-line method applied to historic costs, over the expected useful lives of the different assets.

6. Justification for the cost of capital, including the components of the asset base;

The interest rate applied is calculated in accordance with the WACC method (Weighted Average Cost of Capital method), which was capped at 6,76%.

7. Description of the cost for each airport for each terminal charging zone: for aerodromes with less than 20 000 commercial air transport movements per year being calculated as the average over the previous three years, costs may be presented in an aggregated way per aerodrome;

Vide Reporting Table 1.

8. 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, weather radar and satellite observations, surface and upper-air observation networks, meteorological communication systems, data-processing centres and supporting core research, training and administration;

Not applicable.

9.Description of the methodology used for allocating total MET costs and MET core costs to civil aviation and between charging zones;

Not applicable.

Organisation: Consolidated
Charging zone: Portugal - TNC

Year 2012

•			<u> </u>						
	2008 A	2009 A	2010 A	2011 F	2012 F	2013 P	2014 P	2015 P	2016 P
Unit rate (in '000 euro) and servi	ce units ('000	D)							
Total costs for the zone(1)		,	27.075	31.400	30.958	31.484	32.225	32.940	33.450
				16,0%	-1,4%	1,7%	2,4%	2,2%	1,5%
Cost of exempted VFR flights									
Costs of exempted IFR flights			295	250	334	340	348	355	361
				-15,3%	33,5%	1,7%	2,4%	2,2%	1,5%
Costs of exempted flights			295	250	334	340	348	355	361
				-15,3%	33,5%	1,7%	2,4%	2,2%	1,5%
Amounts carried over to year (i)					-2.641				
Income from other sources									
Chargeable costs	1		26.780	31.150	27.984	31.145	31.877	32.585	33.089
				16,3%	-10,2%	11,3%	2,4%	2,2%	1,5%
Total service units			176,894	181,254	187,661	192,120	197,051	202,139	206,373
				2,5%	3,5%	2,4%	2,6%	2,6%	2,1%
Chargeable service units			174,986	179,822	185,636	190,048	194,925	199,958	204,146
				2,8%	3,2%	2,4%	2,6%	2,6%	2,1%

<sup>(1)</sup> As the sum of all total costs presented in Reporting Table 1 which are allocated to this charging zone (when certain air navigation services are outsourced, the cost to be taken into account shall be the cost of the annual expenditure).

153,04

173,23

13,2%

Unit rate (2)

Ī	2008	2009	2010	2011 2012	2013	2014	2015	2016
	Α	Α	Α	F F	P	P	Р	Р

150,74

-13,0%

163,88

8,7%

163,54

-0,2%

162,96

162,09

-0,5%

### Unit rate (in euro)

Exchange rate (1 EUR =)	1,00000	1,00000	1,00000	1,00000	1,00000	1,00000	1,00000	1,00000	1,00000
Unit rate			153,04	173,23	150,74	163,88	163,54	162,96	162,09
				13,2%	-13,0%	8.7%	-0.2%	-0.4%	-0,5%

<sup>(2)</sup> Unit rate (in euro) = Chargeable costs/Chargeable service units.

<sup>\* 2010</sup> unit rate published in November 2009.

	2008 A	2009 A	2010 A	2011 F	2012 F	2013 P	2014 P	2015 P	2016 P
Balance to be carried over (in '00		_ ^	_ ^	•	•	•			<u>-</u>
Charges billed to users			29.420						
Total costs for the zone(1)			27.075						
Income from other sources									
Cost of exempted VFR flights			0						
Cost of exempted IFR flights			295						
Costs of exempted flights			295						
Amounts carried over to year (i)			-2.641						
Balance of year (i)			-2.641						

Portugal-Terminal Year: 2012

1.Description and rationale for the establishment of the different charging zones, in particular with regard to terminal charging zones and potential cross-subsidies between airports;

Portugal Terminal Charging Zone corresponds to all airports served by NAV Portugal, EPE (Lisboa, Porto, Faro, Madeira, Porto Santo, Ponta Delgada, Santa Maria, Horta and Flores).

## 2.Description and explanation on the calculation of the forecast chargeable service units:

For the calculation of the unit rate it is considered the following traffic data forecast, taking into account the weight factor to the power of 0,7:

UNID:(000)

PORTUGAL TCZ	2011 F	2012 P	2013 P	2014 P	2015 P	2016 P	
CHARGEABLE SERVICE UNITS	179 822	185 636	190 048	194 925	199 958	204 148	
% n/n-1	2,8%	3,2%	2,4%	2,6%	2,6%	2,1%	

3.Description and explanation of the methodology used with respect to the recovery of the balance resulting from over/under recovery of previous years;

The adjustment mechanism is applied in the traditional way (n+2). Only as from 2010 onwards, the adjustment mechanism will be applied in the traditional way (n+2=2012).

4.Description of the policy on exemptions and a description of the financing means to cover the related costs;

In addition to the mandatory exemptions as described in the Article 9.1 of the Commission Regulation (EC)  $N^{\circ}$  1794/2006, Portugal exempts the following flights from terminal charges:

- Portuguese Military Flights
- Military flights of other States on a bilateral basis (reciprocity)
- Flights performed exclusively for the purpose of the instruction or testing of flight crew
- Flights performed exclusively for the checking or testing of equipment used or intended to be used as ground aids to air navigation
- Circular flights
- Authorised Humanitarian Flights
- VFR flights
- Customs and police flights

In view of the accomplishment of the Article 9.4 of the Commission Regulation (EC)  $N^{\circ}$  1794/2006, the Government of Portugal maintains in course the actions to ensure to NAV Portugal the reimbursement of costs incurred for exempted flights, which, naturally, are not taken into account for the calculation of the national unit rate.

**Portugal-Terminal** 

Year: 2012

5.Description of the income from other sources when they exist; None 6. Description and explanation of incentives applied on air navigation service providers and, in particular, the modalities to be applied in setting regulatory conditions on the level of unit rates. Description and explanation of the objectives in terms of performance and on the modalities to take them into account in the setting of maximum unit rates: None 7.Description of the plans of air navigation service providers in order to meet projected demand and performance objectives; The capacity of the terminal charging zone meets either the actual or future demand for the next years, remaining safety, cost-effectiveness and high quality of services NAV Portugal, E.P.E.'s key areas. On the assumption that traffic increases, in average, about 2,5% per annum (2013/2016), forecasts a trend in costs, which is expected to guarantee a Terminal unit rates, for the period 2013/2016, which will remain stable around 163€. 8.Description and explanation of incentives applied on users of en terminal services; None.

Portugal-Terminal Year: 2012

Annex-1

# TERMINAL NAVIGATION INVESTMENT EXPENDITURES PORTUGAL - TERMINAL CHARGING ZONE

(ALL Airports served by NAV Portugal, EPE)

(10<sup>3</sup> EUR)

								(10 2011)
PROJECT	2010	2011	2012	2013	2014	2015	TOTAL	Becoming Operational on (Semester/Year)
TOTAL	1.357	2.564	2.281	3.581	1.539	7.018	18.340	
ATM SYSTEM	150	447	59	17	1.095	1.618	3.385	
■ Lisbon ATM System Development		90			990	930	2.010	
■ TWRATM	94	269	29	6	98	681	1.176	
■ Other	56	88	30	10	7	7	199	
COMMUNICATIONS	115	214	1.224	693	10	471	2.727	
■ Upgrade ATIS/Volmet			291				291	12
<ul><li>Optical fibre ring in Faro and Lisboa</li></ul>	17	35					51	12
■ VCS	85	179	288			394	946	
■ Tape recorders			645	693	10	2	1.350	12;13
■ Other	13					75	88	
NAV AIDS		266		2.544	374	1.750	4.934	
■ Precision App. Sistem Lisboa and Faro				2.021			2.021	13
■ DMEs for PRNAV to TMA's		150		485	374		1.009	11;14
■ GBAS						1.750	1.750	
■ Other		116		37			153	
SURVEILLANCE	4		831	3		3.000	3.838	
■ Multilateration (MLAT) in Lisboa			831	3			833	12
■ Replacement Lisboa Radar	4					3.000	3.004	15
METEO	841	358					1.198	11
BUILDINGS	228	1.279	168	325	60	180	2.239	
OTHER	19						19	