



# PRB Annual Monitoring Report 2014

Volume 2 - National Overviews



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# VOLUME 2 – National Overviews

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# 1 Introduction

- 1.1.1 This report complements PRB's Volume I report and presents some more detailed information per State or FAB. This information is structured into four main parts:
  - a safety part;
  - an en-route capacity part;
  - an airport capacity part; and,
  - a cost-efficiency part.
- 1.1.2 The information contained in the first three parts is self-explanatory. However, the PRB considered that the cost-efficiency part deserved a reader's guide to assist stakeholders in the reading and the understanding of PRB's analysis.
- 1.1.3 This reader's guide is presented in the following section.

# 2 Cost-efficiency monitoring at State level: Reader's Guide

# 2.1 Introduction

- 2.1.1 The objective of this Reader's Guide is to facilitate the reading and understanding of the analysis that is presented for the cost-efficiency KPI/PIs monitoring. It covers both en-route and terminal ANS cost-efficiency and comprises typically a five-page framework analysis which is consistently replicated for each State. The framework analysis has 13 specific "Items".
- 2.1.2 Page one of the cost-efficiency monitoring by State analysis begins with the presentation of contextual information (Item 1), in terms of the State's share in total EU-wide determined costs for 2014, the share of en-route and terminal ANS as covered by the SES in gate-to-gate ANS actual costs, identification of the State's main en-route Air Traffic Service Provider (ATSP) and FAB's membership and underlying information on the national currency and 2009 exchange rate to the Euro and change in exchange rate to the Euro between 2013 and 2014 (when relevant).
- 2.1.3 Item 2 focuses on the examination of the en-route Determined Unit Rate (DUR) in 2014, comparing the actual performance (as per data submitted in the June 2015 State Reporting Tables submissions and the NSAs 2014 Monitoring Reports) and that stemming from the adopted National/FAB Performance Plans (NPPs). Item 2 presents the different steps underlying the computation of the real en-route cost per Service Unit which is presented in both national currency and euros. A comparison is made between the determined en-route unit costs as forecast in the NPP and the actuals over 2009-2014. To ensure consistency with the determined costs data provided in the adopted NPPs, actual costs are expressed in real terms (2009 prices).
- 2.1.4 **Item 3** reviews the RP1 traffic situation (en-route SUs) in the State/Charging Zone, comparing planned with actual values.
- 2.1.5 Item 4, at the top of the second page, shows a comparison between the actual and the planned en-route costs by entity at State level and by nature at ATSP level, and a summary of the costs exempt from cost sharing (by factor/item and by entity). All the costs exempt from cost sharing listed here are as reported by the States through the Reporting Tables submitted in June 2015. These costs will be eligible for carry-over to the following reference period(s) in part or in whole, if deemed allowed by the European Commission after verification on the basis of the NSA report establishing and justifying these exemptions.
- 2.1.6 **Item 5** and **Item 6** on the 2<sup>nd</sup> page focus on the (main) en-route ATSP, the most significant contributor to the State's en-route costs and the only (or main) entity subject to the costs and traffic risk sharing mechanisms foreseen by the Charging Regulation. Note that the determined and actual costs for the main ATSP cover the total costs for the air navigation

- services provided by the main designated ATSP, including Communication, Navigation, Surveillance and Aeronautical MET services if these are provided by this main ATSP.
- 2.1.7 2014 was the third year of application of the "determined costs" method, which comprises specific risk-sharing arrangements aimed at incentivising ATSPs' economic performance (i.e. keep their costs under control). **Item 5** and **Item 6** provide an analysis of the impact of these risk-sharing arrangements on ATSP en-route economic performance in the calendar year.
- 2.1.8 This analysis uses the notion of <u>overall estimated surplus</u>, which reflects the results for the enroute activity of a given year taking into account the impact of the traffic risk and cost sharing adjustments, the financial incentives (bonus/penalty) associated with the quality of service generated during the year, as well as the surplus embedded in the cost of capital. It is important to emphasize that this is different from the net accounting profit disclosed by the ATSPs in their financial statements. Indeed, the latter include revenues and costs relating to the provision of terminal ANS, and other activities (e.g. consultancy services) which are not financed through user charges, as well as revenues and costs pertaining to other years of activity.
- 2.1.9 This estimated surplus, when expressed in percentage of the en-route revenues/costs, can be associated to a "profit margin" generated by the ATSP with respect to the en-route activity of the year, but it is not comparable to the profit margin that would be calculated straight from ATSPs financial statements.
- 2.1.10 More specifically, Item 5 shows the various steps to calculate the net ATSP gain or loss on en-route activity, taking into account the impact of the cost sharing and traffic risk sharing arrangements and additional gains/penalties resulting from financial incentives linked to capacity and/or environment where applicable. This allows computing a net gain/loss for the ATSP with respect to the en-route activity in the year 2014. Note that the calculation of this net gain/loss takes into account the costs exempt from cost sharing as reported for the ATSP (in Item 4). However, as the confirmation by the EC of their eligibility has not yet taken place, it cannot be assumed that the reported exemptions will be allowed in part or in full. For this reason, the results without taking account of the costs exempt from cost sharing is also presented in the text for the ATSP in Item 7 for those ATSPs having reported considerable exempted amounts likely to change the results significantly. Note, as well, that for a number of ATSPs the estimated economic surplus figures for 2012 and 2013 can be slightly different from those published in the 2012 and 2013 PRB monitoring reports. This may be due to one or more of the following reasons:
  - a) revision of the 2012 or 2013 costs exempt from cost-sharing by the States/NSAs, as the NSAs were given the possibility to resubmit their annual report on cost exempt from cost sharing, following clarifications made by the EC during the SSC55 (14-15 January 2015) on the interpretation of the regulation in relation to these exemptions;
  - b) improved reporting and additional information provided by the States/ATSPs on the assumptions underlying the calculation of the cost of capital (in respect of gearing, pre-tax rates, etc.); and,
  - c) in few cases, updates in the actual 2012/2013 costs made after the June 2013/2014 submissions that served as a basis for the 2012/2013 monitoring reports.
- 2.1.11 Item 6 calculates the estimated economic surplus of the ATSP for the en-route activity and compares planned with actual data for the three years of RP1. It is important to emphasise that the economic/financial analysis focuses on the ATSP results entitled to the activity in the year. The cash flow position and liquidity balance at the end of the year is impacted by the charging mechanism whereby the eligible under-recoveries (for traffic, etc.) are to be recovered in year N+2 or later. The analysis developed in Item 6 is based on assumptions (in particular for the share of equity and debt used to compute the weighted average cost of capital-WACC). The provision of more detailed information on the computation of the cost of capital since the June 2014 submissions has improved the PRB understanding and monitoring analysis.

- 2.1.12 **Item 7** on the 3<sup>rd</sup> page provides a commentary and general conclusions on the State and ATSP en-route cost-efficiency performance for the year 2014 and for RP1 as a whole. This includes a qualitative and quantitative summary of the activity along with any drivers for a divergence from the NPP and comments where relevant.
- 2.1.13 The first en-route DUR analysis on the 4<sup>th</sup> page, **Item 8**, provides an explanation of the incremental changes to the DUR (in national currency in nominal terms) to obtain the Chargeable (National) Unit Rate (CUR) which is the actual en-route unit rate charged to airspace users and takes into account, where applicable, factors such as exempted VFR flights, bonuses and penalties arising from incentives, and over- or under-recoveries from previous years. These costs and adjustments are divided by the <u>forecast total Service Units</u> for 2014 as laid out in the NPP. Note that both the DUR and the CUR presented in **Item 8** are before the addition of the administrative unit rate for the billing and collection of route charges on a regional basis.
- 2.1.14 Item 9 provides an explanation of the incremental changes to the DUR (in national currency in nominal terms) to obtain the actual en-route unit cost for airspace users (AUC-U) for 2014 (also referred to as the "true cost for users"). This reflects the unit cost that airspace users genuinely incur in respect of the activities performed in 2014 and comprises:
  - the adopted DUR;
  - the deduction of the costs for services to exempted VFR in 2014 (if any);
  - the deduction of 2014 other revenues that have already been billed to the users through the chargeable unit rate (if any); and,
  - the adjustments generated from activities of 2014, which will be charged or reimbursed to
    users in future years such as the inflation adjustment, the adjustments resulting from the
    implementation of the traffic risk-sharing (ATSP), the adjustments resulting from the
    difference in traffic (for costs not subject to traffic risk sharing), the bonus/penalty for the
    current year and the costs exempt from cost sharing (if deemed eligible).

These costs and adjustments are divided by the <u>actual total Service Units</u> in 2014.

- 2.1.15 **Item 10** (on the 5<sup>th</sup> page) focuses on the examination of the terminal ANS costs in 2014, comparing the actual terminal costs (based on the June 2015 State Reporting Tables) with those planned in the NPPs. It also provides information on the formula used to calculate the total Terminal Navigation Service Units, the total number of airports per terminal charging zone and the number of airports with over 50 000 commercial air transport movements. **Item 11** provides comments and conclusions with respect to the terminal ANS costs in 2014 and over RP1 as a whole.
- 2.1.16 Finally, the analysis concludes with a short section (Item 12) on the monitoring of gate-to-gate ANS costs in 2014. NPP data and actual data are presented along the same lines as for enroute costs (in Item 2) and terminal ANS costs (in Item 10). The share of en-route costs in gate-to-gate ANS costs is also presented so as to detect if significant changes in the relative shares of en-route/terminal have occurred, perhaps as the result of a change in cost allocation. A concise commentary and conclusions on gate-to-gate ANS costs complete the analysis under Item 13.
- 2.1.17 Note that the format of the analysis is slightly different for Spain (to enable the monitoring of the DUR for the two en-route charging zones, Spain Continental and Spain Canarias) and for France (to reflect the application in RP1 of the DCs method to terminal ANS services).

#### 2.2 Detailed reader's guide for the cost-efficiency monitoring analysis

#### Contextual economic information

#### Contextual information:

- Presents the State's size in the context of the SES total (i.e. the Pie chart showing the share of en-route and State en-route ANS determined costs in 2014 as a % of the total en-route determined costs for the SES area).
- Identifies the State main ATSP, State FAB membership, national currency, and exchange rate to the Euro in 2009 and change in exchange rate to the Euro between 2013 and 2014 (when relevant).

terminal in gate-to-gate ANS actual costs with respect to the year 2014.

# 2. En-route DUR monitoring (2014)

# State/charging zone - Data from RP1 national performance plan (NPP).

Table presenting RP1 NPP data covering the years 2009-2014 (2009 & 2010 data is actual), as included in the European Commission Notification letters to the States dated July 2012, including:

- Determined en-route costs as provided in adopted NPP, in nominal national currency.
- Inflation in percentage increases per annum and indexed (to 100 in 2009).
- Determined en-route costs in real 2009 national currency.
- Total en-route Service Units as provided in adopted NPP.
- Determined en-route unit costs (en-route costs per Service Unit) presented in real 2009 national currency and real 2009 Euros (€<sub>2009</sub>).

State/charging zone - Actual data from June 2015 Reporting Tables, covering the years 2009-2014, including:

- Actual en-route costs, in nominal national currency, as reported by the States in their en-route Reporting Tables in June 2015.
- Inflation in percentage increases per annum and indexed (100 in 2009). The inflation rates are those reported by the States in their en-route Reporting Tables in June 2015.
- Actual en-route costs in real 2009 national currency.
- Actual en-route Service Units, as reported by the States in their June 2015 en-route Reporting Tables.
- Actual en-route unit costs (en-route costs per Service Unit) presented in real 2009 national currency and real 2009 Euros (€2009), using the 2009 Reuters average exchange rate shown in Item 1.

# Difference between Actuals and Planned in absolute value and in percentage (Actuals vs. NPP)

The table compares 2012, 2013 and 2014 actual data to the forecast presented in the NPP, in value and percentage terms.

→ Identifies whether the actual real en-route unit cost is lower (improvement of the performance indicator) or higher (deterioration of the performance indicator) than the cost-efficiency target set in the NPP, and what were the drivers for the improvement or deterioration (difference in costs and difference in traffic).

# Chart: comparing actual en-route unit costs and traffic to NPP (in €2009)

This chart presents the data provided in the three tables above:

- DURs, as planned in the adopted NPP, in €<sub>2009</sub> [bar chart].
- Actual en-route unit costs in €<sub>2009</sub> [bar chart].
- Forecast and actual Total Service Units (TSU), indexed to 2009 = 100 [line chart].
- Determined and actual en-route costs, indexed to 2009 = 100 [line chart].

Illustrates the planned and actual trends in TSUs, real en-route costs and real en-route unit costs.

# 3. En-route traffic monitoring (Actual 2012-2014 TSUs compared to NPP)

## Chart: en-route traffic monitoring

This chart presents actual traffic data covering the years 2009-2014 for the State/charging zone.

- Actual TSUs covering 2009 2014.
- Planned TSUs as presented in the NPP, with error bars showing the ±2% dead band and the ±10% threshold of the traffic risk sharing mechanism.

The error bands on the chart show cases where actual 2012, 2013 and 2014 traffic may fall outside the determined traffic (as forecast in the NPP) with respect to the  $\pm 2\%$  dead band, or the  $\pm 10\%$  threshold.

→ Shows the trends in actual TSUs vs. NPP to assess the likelihood of the traffic alert mechanism to be activated during RP1.

# 4. En-route costs monitoring (2014 actuals compared to NPP)

Chart: costs by nature at State level and by entity at ATSP level, differences between the actual 2014 costs and the national performance plan (in €2009).

The first part of chart compares the actual 2014 enroute costs against the planned costs stemming from the adopted NPP at State level (in €2009) broken down by entity (ATSP, other ANSPs, METSP, NSA/EUROCONTROL). The ATSP is the "main" ATSP of the State concerned (as identified in Item 1). The other ANSPs are the other services providers in the State/Charging zone, if any (e.g. MUAC in Germany, Netherlands and Belgium/Luxembourg, ITAF in Italy, etc.).

The second part of the chart compares the actual 2014 en-route costs against the planned costs stemming from the adopted NPP at ATSP level (in €<sub>2009</sub>) broken down by nature (staff, other operating costs, depreciation, cost of capital and exceptional costs).

The 2014 actual costs are those reported in the June 2015 Reporting Tables. Note that for some States, adaptations had to be made. These are described in a specific box at the top of Item 7.

The results are presented in a bar chart that shows the differences between planned and actual in absolute terms. The percentage difference is also shown in the chart.

→ Identifies the main elements driving the differences between 2014 actual costs and determined costs established in the NPP for 2014.

# Table: Costs exempt from cost sharing

This table lists all costs reported by the State as being exempt from cost sharing (i.e. formerly labelled as "uncontrollable costs").

Costs are listed by factor/item and by entity, with their estimated value in 2014, presented in €<sub>2009</sub>, using the actual inflation index for 2014 as shown in Item 2.

The total costs exempted from cost-sharing are summed at the bottom of the table. If the total is negative, the costs are to be recovered from airspace users in future years; if costs are positive, they are to be reimbursed.

Note that all costs exempt from cost sharing listed here are as reported by the State in the June 2015 Reporting Tables. These costs will be eligible for carry-over to the following reference period(s) in part or in whole, if deemed allowed by the European Commission after verification on the basis of the NSA report establishing and justifying these exemptions.

→ Presents the costs exempt from cost sharing, as reported by the States.

# 5. Focus on ATSP - "net" ATSP gain/loss on en-route activity in 2014

**Cost sharing table:** This table presents in €<sub>2009</sub>:

- Determined costs as presented in the NPP for 2014 for the main ATSP, converted into €<sub>2009</sub> using the inflation index of the NPP (as shown in Item 2).
- Actual 2014 costs for the main ATSP, as reported in the June 2015 Reporting Tables, converted into €<sub>2009</sub> using the actual inflation index (as shown in Item 2).
   Note that for some States, adaptations had to be made. These are described in the box at the top of Item 7.
- Difference between determined and actual, showing the gain (+) or loss (-) retained/borne by the ATSP in 2014.
- any amounts reported as costs exempt from cost sharing for the ATSP, as shown in Item 4, that are to be recovered from (+) reimbursed to (-) airspace users,

Chart: combined effect of variations in costs and revenue for 2014

This chart shows the impact of the gain/loss to the ATSP in 2014 with respect to each of the items in the tables to the left:

 Revenues (±) arising from cost sharing; provided they are deemed eligible by the EC.

• the total Gain (+)/Loss (-) to be retained by the ATSP under cost sharing arrangements, taking into account the costs exempt from cost sharing. Note that, as the confirmation by the EC of their eligibility has not yet taken place, it cannot • Revenues (±) arising be assumed that the reported exemptions will be allowed in part or in full. For this reason, the results without taking account of the costs exempt from cost sharing is also presented in the text for the ATSP in Item 7 for those ATSPs having reported considerable exempted amounts likely to change the results significantly.

In Item 5, the inflation adjustment that ATSPs can carry-over is taken into account in the cost-sharing element, through the following way:

- DCs for the ATSP are converted in €<sub>2009</sub> using the forecast inflation index of the NPP; while
- actual costs for the ATSP are converted in €2009 using the actual inflation index.

In this way, the inflation adjustment ensures consistency and a direct correspondence with the adopted cost-efficiency target expressed in real terms for the airspace users. Hence, the inflation adjustment corresponds to the difference between the determined costs converted in €2009 using the inflation forecast of the NPP and the determined costs converted in €<sub>2009</sub> using the actual inflation rate.

**Traffic risk sharing table.** This table presents the impact of the traffic risk sharing mechanism and the sharing of this impact between the ATSP and airspace users.

- Difference in total service units (actual vs NPP) in percentage terms.
- Determined costs of the main ATSP in 2014 (in NPP) after deduction of costs for exempted VFR flights, as these are the basis for the calculation of the traffic risk sharing. These are expressed in €2009, using the 2014 actual inflation index (as shown in Item 2).
- The next four lines show the ATSP gain or loss under the traffic risk sharing mechanism. If actual traffic is ±2% when compared to the NPP, this is the 'dead band' and the gain/loss in revenue is borne entirely by the ATSP. The gain or loss in revenue relating to actual traffic that is between 2% and 10% (higher or lower) than the NPP is shared between the ATSP and airspace users: with the ATSP bearing 30% and the airspace users 70%. If the difference between actual and planned traffic exceeds ±10%, the gain/loss relating to traffic beyond ±10% is entirely borne by the airspace users and has therefore no impact on the ATSP gain/loss from traffic risk sharing.

For the traffic risk sharing element of Item 5, the DCs after deduction of costs for exempted VFR flights are converted in  $\in_{2009}$  using the actual inflation rate. This is justified by the fact that the gain/loss retained by the ATSP for the current year is an actual gain/loss, so converting this value into €2009 has to be done using the actual inflation rate.

Incentives table: This table shows the gain/loss to the ATSP in 2014 with respect to the financial incentives, as provided in either the Additional Information to the State Reporting Tables, or the annual NSA Monitoring Report. These are expressed in €<sub>2009</sub>, using the 2014 actual inflation index.

The final net gain/loss to the ATSP is the sum of:

- the gain/loss with respect to cost sharing;
- the gain/loss with respect to traffic risk sharing; and,
- the gain/loss with respect to financial incentives, as noted in the tables above.

These figures are also presented in the chart on the right-hand-side of the page.

→ Shows the impact of the cost sharing and traffic risk sharing arrangements and additional gains/penalties resulting from financial incentives linked to capacity and/or environment where applicable with respect to the en-route activity in the year 2014. It is important to emphasise that this analysis focuses

- Revenues (±) arising from traffic risk sharing;
- from financial incentives:
- Net ATSP gain/loss.

Figures are presented in **€**<sub>2009</sub>.

on the ATSP results entitled to the activity in the year 2014. It does not consider the cash flow position and liquidity balance at the end of the year which are impacted by the charging mechanism whereby the eligible under-recoveries (for traffic, etc.) are to be recovered in year N+2 or later.

# 6. En-route ATSP estimated surplus

**ATSP estimated surplus table.** This table presents the component data and final conclusions on the main ATSP overall estimated surplus generated in 2014 with respect to the en-route activity.

The overall estimated surplus reflects the results for the en-route activity of a given year taking into account the impact of the traffic risk and cost sharing adjustments, the financial incentives on quality of service generated during the year as well as the surplus embedded in the cost of capital. It is important to emphasize that this is different from the net accounting profit disclosed by the ATSPs in their financial statements. Indeed, the latter include revenues and costs relating to the provision of terminal ANS, and other activities (e.g. consultancy services) which are not financed through user charges, as well as revenues and costs pertaining to other years of activity. Then, the **surplus in percent of the en-route revenue/cost** can be associated to a "profit margin" generated by the ATSP with respect to the en-route activity of the year, but it is not comparable to the profit margin that would be calculated straight from ATSPs financial statements.

Planned data (as per the NPP) is presented for each year of RP1, all in  $€_{2009}$ , using the inflation index of the NPP (as shown in Item 2). Actual data is also presented for each year of RP1 and is expressed in  $€_{2009}$ , using the actual inflation index (as shown in Item 2).

- a. total asset base, as per the NPP and the June 2015 Reporting Tables.
- b. estimated proportion of financing through equity (in value and percentage terms).
- c. estimated proportion of financing through debt (in value and percentage terms).

As a general rule, the proportion of financing through equity and debt were retrieved from the reported values for the cost of capital (d), the asset base (a) and the rates of RoE (g) and debt (e), using the following formula:

- = (d-(a\*e))/((a\*g)-(a\*e)). For some ATSPs however, such a computation was not possible as it did not give "realistic" results. For these ATSPs, research was made through the available documentation (NPP, Additional Information to the en-route Reporting Tables, NSA 2014 Monitoring Report, ACE submissions, ATSP Annual Reports, etc.) and assumptions have been taken, which are detailed in a specific note presented in a box at the top of Item 7. These assumptions, as well as the results from the standard formula would need to be confirmed by the States concerned or amended where necessary.
- d. cost of capital, as reported in the NPP and the June 2015 Reporting Tables. Note that for some ATSPs, adaptations had to be made as a result of the assumptions taken for the proportion of financing through equity and for the pre-tax RoE (see g below). These are described in a specific note box at the top of Item 7.
- e. average interest on debt (percentage).
- f. the interest on debt is calculated as the average interest on debt multiplied by the value of the debt financing.
- g. The determined RoE (pre-tax) rate is the planned rate of Return on Equity, as reported in the NPP and the June 2015 Reporting Tables. In some cases, through the analysis of the different documentation referred to above, it was found that the rate of RoE reported by the ATSP in the NPP and/or the Reporting Tables was not the pre-tax rate used for calculating the cost of capital as foreseen by the Charging Regulation. In these cases, the cost of capital (d above) and RoE were recomputed and the details of the adjustments/corrections made are described in the note on top of Item 7.
- h. the estimated surplus embedded in the cost of capital for en-route is calculated as the *determined RoE* (pre-tax) rate multiplied by the value of the equity financing.
- i. the net ATSP gain/loss on en-route activity is as presented in the conclusion to the above Item 5 i.e. the sum of the ATSP gain/loss with respect to cost sharing, traffic risk sharing, and incentives.

Table presenting a summary of the surplus and ex-post return on equity (RoE) for the ATSP in respect of the en-route activity:

This table presents, in €2009, the following:

• the overall estimated surplus (+/-) for the en-route activity, which is the sum of the estimated surplus embedded in the cost of capital for en-route (h above) and the net ATSP gain(+)/loss(-) on en-route activity based on actual performance (i above).

- the planned revenues/costs for the en-route activity corresponds to the determined costs for the ATSP as per the NPP (converted into €<sub>2009</sub> using the inflation index of the NPP as shown in Item 2). The actual revenues/costs for the en-route activity is the sum of the actual costs for the ATSP and the Net ATSP gain(+)/loss(-) on en-route activity (both as presented in Item 5).
- the estimated surplus (+/-) as a percentage of en-route revenues/costs.
- the estimated ex-post RoE pre-tax rate (in %) is calculated as the ratio of the *overall estimated surplus* to estimated proportion of financing through equity. This value should be compared to the determined RoE (pre-tax) presented a few rows above in the same table.
- → Shows the direct implications of the risk sharing arrangements on the ATSP economic surplus and financial strength, focusing on the ATSPs results for the en-route activity performed in 2014.

# Chart: estimated surplus for en-route activity

This chart shows, for each year of RP1, the actual and estimated surplus (+/-) for the en-route activity as calculated in Item 6 compared to the estimated surplus embedded in the cost of capital for en-route (as per the NPP). For each year the estimated surplus (+/-) as a % of en-route revenues/costs is also shown.

# 7. General conclusions on the monitoring of the 2014 en-route DUR

# Notes on the information provided by the State

These notes, if any, present specificities reported by the State and issues to be highlighted. They also detail specific adjustments made to the data provided by the State for the purpose of the monitoring analysis (in particular in relation to Items 5 and 6).

# At State/Charging zone level:

Analysis and general conclusions on the 2014 en-route DUR at State/Charging zone level, including:

- Comparison of actual costs and actual traffic to the costs and traffic forecast in the NPP.
- Comment on the application of the traffic risk sharing mechanism in the State: whether the 2014 difference between actual and planned traffic falls within the ± 2% dead band or the ±10% threshold.
- Comment on the differences between the 2014 actual costs and those planned in the NPP, including an analysis of which entity is driving this difference and, when applicable, about the specific cost drivers of this difference (excluding ATSPs costs which are analysed in a dedicated section see box below).
- A note on the costs exempt from cost sharing reported by the State. Note that all costs exempt from cost sharing listed here are as reported by the State in the June 2015 Reporting Tables. These costs will be eligible for carry-over to the following reference period(s) in part or in whole, if deemed allowed by the European Commission after verification on the basis of the NSA report establishing and justifying these exemptions.
- Comment on RP1 as a whole analysing what is the cumulative difference (%) for the number of TSUs and determined costs (% and M€<sub>2009</sub>) and what is the difference between the weighted average actual unit cost over RP1 and the level planned in the NPP.

#### At Air Traffic Service Provider (ATSP) level

The State's (main) ATSP is the most significant contributor to total State en-route costs, so ATSP costs are therefore discussed in a standalone section. Note that the determined and actual costs for this main ATSP cover the total costs for the air navigation services it provides, including Communication, Navigation, Surveillance and MET services if applicable.

This section provides an analysis and general conclusions on the 2014 en-route DUR at ATSP level, including, if available:

- comparison of actual 2014 en-route costs to those planned in the NPP, noting the key drivers for the observed differences.
- comments on actual capital expenditure and asset base as compared to that forecast in the NPP, with reasons for any divergence from the plan if known.
- a summary of the net result (positive or negative surplus) for the ATSP with respect to the en-route activity in 2014 (cf. Items 5 and 6).

A conclusion for the en-route 2014 monitoring analysis is presented at the bottom of Item 7. As part of this conclusion, comments on RP1 as a whole are also provided looking at the net cumulative gain/loss over RP1 (M€<sub>2009</sub>), with an analysis of the traffic risk effect and the cost sharing effect.

# 8. En-route DUR 2014 vs 2014 unit rate charged to users

Chart: 2014 Chargeable Unit Rate (CUR) vs 2014 DUR in national currency in nominal terms.

This bar chart provides a breakdown of the various components added to the 2014 Determined Unit Rate (DUR) to obtain the unit rate charged to airspace users, i.e. the Chargeable Unit Rate (CUR). These components include adjustments detailed below.

The blue bar on the far left hand side of the chart presents the 2014 DUR. Each of the incremental bars following the 2014 DUR from left to right show the contribution (in nominal terms) of each adjustment to reach the 2014 CUR, presented in the yellow bar on the right-hand-side of the chart.

→ Shows the difference between the 2014 DUR (in nominal terms and national currency) and the unit rate charged to airspace users in 2014.

Notes to the chart outlining the difference between the DUR and the Actual en-route unit rate charged to users:

The DUR for 2014 expressed in nominal terms differs from the actual en-route unit rate charged to users in 2014 (CUR). The CUR takes account of: the DUR, but also, a deduction of the costs for services to exempted VFR in 2014, as determined prior to the reference period and a deduction of 2014 other revenues; as well as adjustments relating to the activities of previous years that are carried-over to 2014. These adjustments include:

- · the inflation adjustment;
- the adjustment resulting from the implementation of the traffic risk-sharing (ATSP);
- the adjustment resulting from the difference in traffic (for costs not subject to traffic risk sharing);
- the bonus/penalty from previous year(s); and,
- the legacy carry-overs incurred in the full cost recovery regime up to and including 2011.

These costs and adjustments are divided by the **forecast total service units** for 2014 as laid out in the performance plan.

Summary of information presented in the chart above with indication of the drivers of the observed difference between the DUR and the Actual en-route unit rate charged to users (CUR).

# 9. En-route DUR 2014 vs 2014 actual unit cost for users

Chart: 2014 actual unit cost for users vs 2014 DUR in national currency in nominal terms.

This bar chart provides a breakdown of the various components added to the 2014 Determined Unit Rate (DUR) to obtain the actual unit cost for airspace users (AUC-U) for 2014 (sometimes referred to as the "true cost for users"). These components include adjustments detailed below.

The blue bar on the far left-hand-side of the chart presents the 2014 DUR (similar to item 8 above). Each of the incremental bars following the 2014 DUR from left to right show the contribution (in nominal terms) of each adjustment to reach the 2014 AUC-U, presented in the yellow bar on the right-hand-side of the chart.

→ Shows the difference between the 2014 DUR (in nominal terms) and the actual unit cost for users in 2014

Notes to the chart outlining the difference between the DUR and the actual unit cost for users.

The DUR for 2014 (expressed in nominal terms) can also be compared to the actual en-route unit cost for users (AUC-U) for 2014, which reflects the unit cost that airspace users genuinely incur in respect of the activities performed in 2014.

The AUC-U comprises: the DUR, the deduction of the costs for services to exempted VFR in 2014 and the deduction of 2014 other revenues that has already been billed to the users through the chargeable unit rate, as well as <u>adjustments relating to the activities of 2014 but which will be charged or reimbursed to users in future years.</u> These adjustments include:

· the inflation adjustment;

- the adjustments resulting from the implementation of the traffic risk-sharing (ATSP);
- the adjustments resulting from the difference in traffic (for costs not subject to traffic risk sharing);
- the bonus/penalty for the current year; and,
- the costs exempt from cost sharing (if deemed eligible).

These costs and adjustments are divided by the actual total service units in 2014.

Summary of information presented in chart above with indication of the drivers of the observed difference between the DUR and the actual en-route unit cost for airspace users (AUC-U).

## 10. Terminal costs and unit rates monitoring (2014)

Table providing an overview of the situation in the State, including:

- the exponent (x) applied in the Terminal Service Unit formula (MTOW^x) for each year from 2009 to 2014;
- the number of airports in the terminal charging zone(s); and,
- the number of airports with over 50 000 movements.

# Table showing State data provided in the RP1 NPP:

- Terminal ANS costs for the charging zones, in nominal national currency.
- Inflation index applied to NPP data (100 in 2009).
- Real Terminal ANS costs in both 2009 national currency and €2009.

### Table showing actual data as reported in the June 2015 Reporting Tables:

- Terminal ANS costs in nominal national currency.
- Inflation index applied to actual 2014 State data (100 in 2009).
- Real terminal ANS costs, in both 2009 national currency and €2009.
- Total Terminal Service Units actual 2009-2014.
- Actual real unit costs (in real 2009 national currency).
- Actual unit rate applied, as reported in the 2014 NSA Monitoring Report or in other documentation if not available through the NSA Monitoring Report.

Table showing the difference between actual and planned data (for the years 2012-2014) in absolute value and in percentage terms, for all the elements listed above.

# 11. General conclusions on the Terminal ANS costs and unit rates monitoring

The conclusions provide:

- an overview of the Terminal ANS situation in the State and the airports included, as well as the exponent applied in the State's formula for TNS and whether the harmonised SES formula [(MTOW/50)^0.7] applies:
- comments on the difference between actual 2014 terminal ANS costs and the forecast presented in the NPP, and the driver(s) of this difference, if known;
- comments on RP1 as a whole, comparing cumulative actual costs (% and M€<sub>2009</sub>) with costs planned in the NPP
- → Identifies whether the differences in actual terminal ANS costs is comparable to the differences observed in en-route costs, so as to identify transfers (if any) between the "regulated" en-route costs established with the determined costs method and the "non-regulated" terminal ANS costs which are still subject to full cost recovery until 2015 (except for France).

# 12. Monitoring of gate-to-gate ANS costs (2014)

# Table showing the gate-to-gate costs from the NPP.

It covers all years of RP1 as well as 2009-2011 when data is available. The table includes:

- En-route costs (determined costs 2012-2014), presented in real 2009 national currency.
- Terminal ANS costs, presented in real 2009 national currency.
- Gate-to-gate ANS costs (i.e. sum of en-route and terminal costs), presented both in real 2009 national currency and €<sub>2009</sub>.
- Share of en-route costs in total gate-to-gate ANS costs.

# Table showing the actual gate-to-gate costs as submitted by the State in the June 2015 Reporting Tables.

It covers all years of RP1 as well as 2009-2011 when data is available. The table includes:

- En-route actual costs (2009-2014), presented in real 2009 national currency.
- Terminal ANS actual costs (2009-2014), presented in real 2009 national currency.
- Gate-to-gate ANS actual costs (i.e. sum of en-route and terminal costs) for the period 2009-2014, presented both in real 2009 national currency and €<sub>2009</sub>.
- Actual share of en-route costs in total gate-to-gate ANS costs.

Table showing the difference between the actual and the planned data (for the years 2012-2014) in absolute value and in percentage terms, for all the elements listed above.

# 13. General conclusions on the gate-to-gate ANS costs

The conclusions provide:

- a comparison between the State's actual 2014 gate-to-gate ANS costs and those presented in the NPP, along with any drivers for the difference, if known.
- any changes in the proportion of en-route costs in total gate-to-gate ANS costs over the period.
- → Identifies whether the actual share of en-route and terminal ANS costs is in line with the share foreseen in the NPP, to identify any change in cost-allocation methodology and identify transfers (if any) between en-route and terminal ANS costs (as in 12 above).





# PRB Annual Monitoring Report 2014

Austria

Working Draft 2.0

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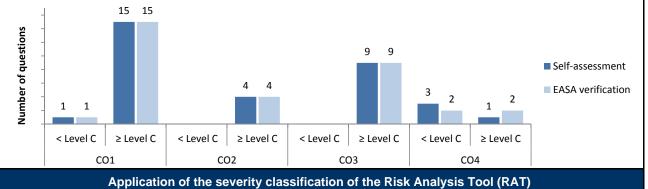
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# Monitoring of SAFETY indicators for 2014

Effectiveness of Safety Management										
	2012	2013	2014	State level Observations						
State level	42	42	52							
ANSP [Austro Control]	81	84	85							



#### 2012 2013 2014 Assessed No Assessed No Assessed No reported reported reported (%) (%) (%) **ATM Ground** 100% 100% 100% **Separation Minima** 38 30 40 Infringements (SMIs) **ATM Overall** 100% 90% 100% ATM Ground 100% 100% 0% Runway Incursions (RIs) 28 10 7 **ATM Overall** 0% 60% 100% ATM Specific Occurences (ATN

M-Specific)		64	100%	56	100%	97	100%
Source of RA	Γ data:			Austro	Control		

Just culture									
		State							
Number of questions answered with Yes or No	2012 2013		2014						
	YES	NO	YES	NO	YES	NO			
Policy and its implementation	7	3	7	3	8	1			
Legal/Judiciary	4	4	4	4	6	1			
Occurrence reporting and Investigation	2	0	2	0	2	0			
TOTAL	13	7	13	7	16	2			

		, ,	ANSP [Aus	tro Contro	IJ	
Number of questions answered with Yes or No	20	12	20	13	20	14
	YES	NO	YES	NO	YES	NO
Policy and its implementation	13	0	13	0	13	0
Legal/Judiciary	2	1	3	0	3	0
Occurrence reporting and Investigation	6	2	6	2	6	2
TOTAL	21	3	22	2	22	2

### **Monitoring of CAPACITY indicators for 2014**

Minutes of ATFM en-route delay										
	2012	2013	2014	Observations						
Reference value	0.3	0.24	0.23							
National Target	0.85	0.98	0.23							
Actual performance	0.13	0.21	0.02							

# National capacity assessment

In line with the expectations and the improvements seen in 2013, Austro Control delivered better results than expected in the Performance Plan.

## Military dimension of the plan

Although specifically requested in IR 691/2010 Annex II, Template for Performance Plans, paragraph 4: the Performance Plan for Austria did not contain any description of how FUA would be applied to increase capacity.

# **PRB Capacity assessment**

Austria has provided an excellent level of capacity that is better than both the national target and the level of performance required to be consistent with the EU-wide target for 2014. Austria provided a positive contribution to the Union-wide targets in each year of the first reference period.

# **Effective booking procedures**

The ratio of time airspace was actually used for activity requiring segregation or restriction from GAT and the amount of time it was allocated as being restricted on the day of operations: 66%

No information was provided regarding the allocation of airspace at H-3, so it is impossible to determine how much restricted or segregated airspace, that was surplus to requirements, was released for GAT use.

# **Previous recommendations**

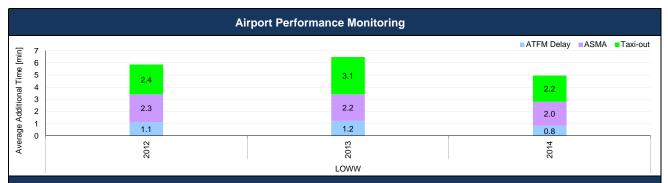
**Annual Monitoring Report 2013**: Austria is requested to provide additional information on effective booking procedures, namely the allocation of airspace at H-3.

# NSA report on follow-up to recommendations

**Follow up to Annual Monitoring Report 2013:** No information on the allocation of airspace at H-3 was provided in the national monitoring report.

# Recommendations

# **Monitoring of CAPACITY indicators for 2014**



Airport Data									
Airport Name	ICAO Code	RP1 Year	Average of Apt. ATFM arr. Delay [min./arr.]	Total Apt. ATFM arr. delay [min.]	Additional ASMA time [min./arr.]	Total Additional ASMA time [min]	Additional taxi-out time [min./dep.]	Total Additional taxi-out time [total]	Sum of Total Additional Time [min]
		2012	1.1	147 760	2.3	294 272	2.4	290 409	732 441
Vienna	LOWW	2013	1.2	153 171	2.2	254 176	3.1	343 094	750 441
		2014	0.8	102 920	2.0	239 221	2.2	241 489	583 630
		2012	1.1	147 760	2.3	294 272	2.4	290 409	732 441
Total		2013	1.2	153 171	2.2	254 176	3.1	343 094	750 441
		2014	0.8	102 920	2.0	239 221	2.2	241 489	583 630
Absolute Difference		2014-2013	-0.4	<u>-50 251</u>	0.2	<u></u> -14 955	-0.9	<u>-101 605</u>	<u>-166 811</u>
		2014-2012	-0.3	44 840	-0.3	55 051	-0.3	<b>-48 920</b>	<u>-148 811</u>

# **Critical Issues**

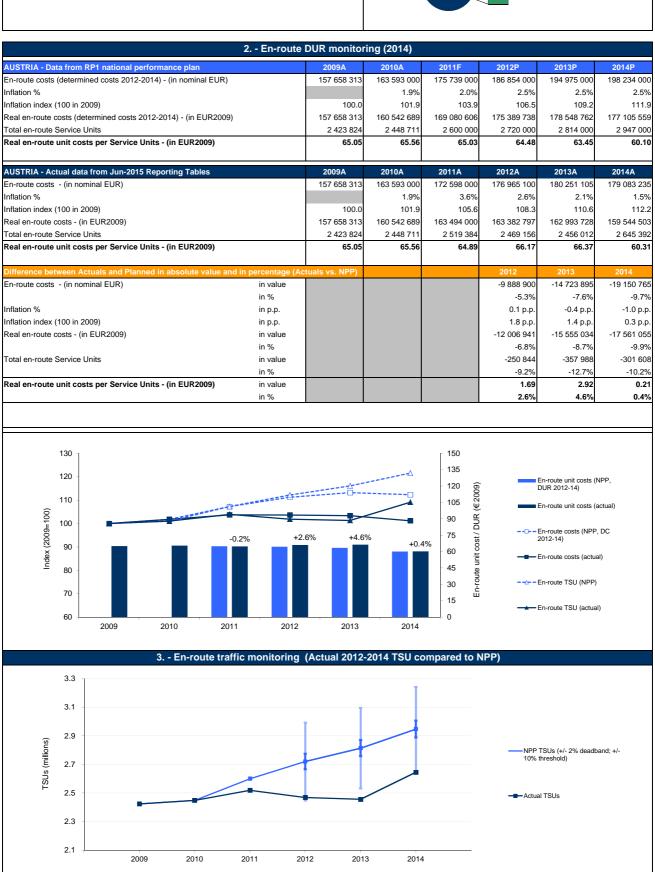
• None

# **Specific Analysis**

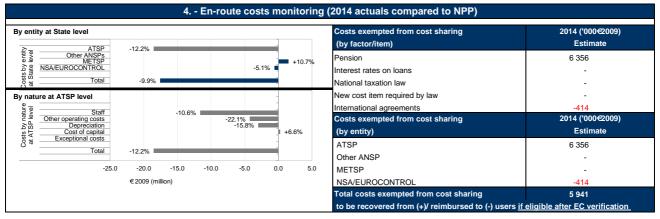
- Data regularly provided on schedule.
- Both the new terminal Skylink and the Collaborative Arrival Regulation Avoidance (CARA) process operated from 2012 at Vienna Airport were expected to result in better performance.
- Performance at Vienna airport indeed noticeably improved since 2012. Although, performance slightly degraded in 2013, it has been improved again in 2014.
- In average over RP1, total additional time decreased by 20% for a decrease of traffic by 6%.

#### Monitoring of en-route and terminal COST-EFFICIENCY for 2014

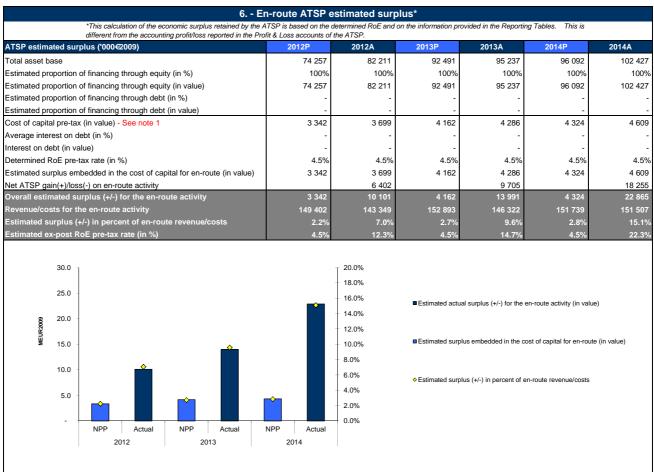




#### Monitoring of en-route and terminal COST-EFFICIENCY for 2014



Cost sharing ('000€2009)	2014A					
Determined costs for the ATSP (NPP)	151 739	Combined effect of variations in costs and traffic for 2014 ('000€2009)				
ctual costs for the ATSP	133 252	1	1			
Oifference in costs: gain (+)/Loss (-) retained/borne by the ATSP	18 487					
mounts excluded from cost sharing to be recovered from (+) reimbursed to (-) users	6 356	Gain/loss from cost sharing				
Gain (+)/Loss (-) to be retained by the ATSP in respect of cost sharing - See note 2	24 843					
raffic risk sharing ('000€009)	2014A					
Difference in total service units (actual vs NPP)	-10.23%	Gain/loss from traffic risk sharing				
Determined costs after deduction of costs for exempted VFR flights	149 707	-				
TSP gain (traffic between 0 and +2% higher than NPP)	-		1			
TSP gain (traffic between +2% and +10% higher than NPP)	-	Bonus/penalty from incentives				
TSP loss (traffic between 0 and -2% below NPP)	-2 994					
TSP loss (traffic between -2% and -10% below NPP)	-3 593					
Sain (+)/Loss (-) to be retained by the ATSP in respect of traffic risk sharing	-6 587					
ncentives ('000€2009)	2014A	Net ATSP gain/loss				
TSP bonus (+) / penalty (-)	2014A					
Gain (+)/Loss (-) to be retained by the ATSP in respect of incentives	-	-25 0	00 -15 000 -5 000 5 000 15 000 25 000			



#### Monitoring of en-route and terminal COST-EFFICIENCY for 2014

#### 7. - General conclusions on the monitoring of the 2014 en-route DUR

#### Notes on information provided by AUSTRIA

#### Note 1: ATSP estimated surplus

Based on information provided in the additional information enclosed to the en-route Reporting Tables, the capital structure considered by Austro Control to compute its Weighted Average Cost of Capital (WACC) rate over RP1 was 85% of debt and 15% of equity. However, it is understood that the proportion of debt financing reflects Austro Control pension obligations.

Therefore, for the purposes of analysing Austro Control economic surplus with respect to the en-route activity in 2014, the estimated proportion of financing through equity (both planned and actual) has been adjusted to 100%. Accordingly, the rate of RoE that was considered in this monitoring analysis is equal to the WACC rate (i.e. 4.5%). This implies that the whole cost of capital (4.6 M€2009 in 2014) is considered as the estimated surplus embedded in the cost of capital.

#### Note 2: Net ATSP gain in respect of the cost sharing without costs exempted

Note that if the costs exempted from cost sharing reported by Austria for the year 2014 (+6.4 M€2009) are not deemed eligible by the European Commission, the net gain generated by Austro Control on its en-route activity would amount to +11.9 M€2009 instead of +18.3 M€2009.

#### At State / Charging Area level

The actual 2014 traffic measured in total Service Units (TSUs) is significantly lower (-10.2%) than the figure planned in Austria's National Performance Plan for RP1 (NPP). On the other hand, the actual en-route costs at State level for the year 2014 are -9.9% below the determined costs published in the NPP, in real terms (€2009). As a result, Austria's actual real en-route unit cost (60.31 €2009) is slightly higher (i.e. +0.4%) than the Determined Unit Rate (DUR) (60.10 €2009) for 2014.

The difference between actual and planned TSUs (-10.2%) exceeds the -10% threshold foreseen in the traffic risk sharing mechanism. The loss of en-route revenues is shared between the ATSP and airspace users, with the loss borne by the ATSP amounting to some -6.6 M€2009.

#### Actual 2014 costs vs. NPP

For Austria, real en-route costs when expressed in real terms are substantially lower (-9.9% or some -17.6 M€2009) than planned in the NPP for the year 2014. Among the different entities which are part of Austria's en-route cost-base, only the METSP shows higher costs than planned (i.e. +10.7%). Indeed, actual 2014 en-route costs are significantly lower than planned for Austro Control (-12.2%) and the NSA/EUROCONTROL (-5.1%). A detailed analysis of the deviation between Austro Control actual and planned en-route costs for the year 2014 is provided in the box below.

In 2014, costs exempt from cost sharing are reported for a total of +5.9 M€2009 to be passed on to users for the en-route activity. Of these, +6.4 M€2009 are related to changes in pension obligations, while a negative amount (-0.4 M€2009) is linked to EUROCONTROL Agency costs. These costs will be eligible for carry-over to the following reference period(s), if deemed allowed by the European Commission after verification on the basis of the NSA report establishing and justifying these exemptions.

#### **RP1 summary**

When considering the whole of RP1 (2012-2014), for the Austrian en-route charging zone, actual en-route costs were -8.5% lower than planned (some -45.1  $M \ge 0.09$ ) while the number of actual en-route TSUs was -10.7% lower than the amount provided in the NPP. As a result, over RP1 the actual weighted average unit cost (64.19  $\le 0.09$ ) was +2.5% higher than planned in the NPP (62.62  $\le 0.09$ ).

#### At ATSP level

#### Actual 2014 Austro Control costs vs. NPP

In 2014, the deviation observed between Austro Control actual and determined costs (-12.2% or -18.5 M€2009) mainly reflects lower staff costs (-10.6% or -11.6 M€2009), other operating costs (-22.1% or -4.2 M€2009) and depreciation costs (-15.8% or -3.0 M€2009) than foreseen in the NPP. In the meantime, the cost of capital is slightly higher (+6.6% or some +0.3 M€2009) than planned. As indicated in the additional information enclosed to the June 2015 en-route Reporting Tables, the lower than planned staff costs reflect "reduced overtime and optimized training planning", while the lower other operating costs are the result of "cost optimization program including training, external services, optimization of maintenance contracts, travel costs". It is understood that the lower actual depreciation costs observed in 2014 mainly reflect the fact that the actual capex is -23.3% lower (some -5.0 M€2009) than planned in the NPP for RP1.

#### Austro Control net gain/loss and estimated surplus on en-route activity in 2014

Austro Control generated a net gain of +18.3 M€2009 for en-route activity for the year 2014. This result is a combination of two contrasting elements:

- a gain of +24.8 M€2009 mainly reflecting the fact that actual 2014 en-route costs were lower than planned; and,
- a loss of -6.6 M€2009 in revenues since actual 2014 traffic was significantly lower than planned.

Note that if the costs exempted from cost sharing reported by Austria for the year 2014 (+6.4 M€2009) are not deemed eligible by the European Commission, the net gain generated by Austro Control on its en-route activity would amount to +11.9 M€2009.

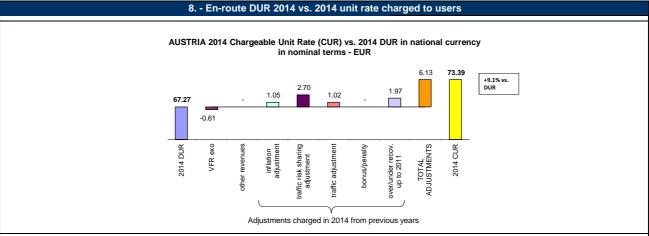
Ex-post, the overall estimated economic surplus for the year is computed by adding the surplus embedded in the cost of capital (+4.6 M€2009) to the net gain for the en-route activity in 2014 (+18.3 M€2009). As a result, the overall estimated economic surplus for the en-route activity in 2014 amounts to +22.9 M€2009 which corresponds to 15.1% of 2014 en-route revenues (compared to 2.8% as planned in the NPP).

#### Conclusion

In the context of substantially lower actual traffic than planned in 2014 (-10.2%), Austro Control was able to significantly revise downwards actual en-route costs in real terms (-12.2%) compared to the amount planned in the NPP and generate a net gain of +18.3 M€2009 for the en-route activity. When considering the surplus embedded in the cost of capital through the return on equity, the overall estimated surplus generated in 2014 amounts to +22.9 M€2009 (or 15.1% of total en-route revenues).

When considering the whole of RP1 (2012-2014), Austro Control generated cumulative gains of +53.6 M€2009 in respect of cost sharing, as actual costs were lower than planned for all years of RP1. These gains more than compensated for the cumulative loss of -19.2 M€2009 in respect of the traffic risk sharing, since actual traffic was consistently lower than planned during the period (-10.7% as a whole over RP1). As a result, the cumulative gains amounting to +34.4 M€2009 could be retained by Austro Control on the en-route activity over RP1. Accounting for the estimated surplus embedded in the en-route cost of capital (+12.6 M€2009 over RP1) leads to an overall estimated surplus of +47.0 M€2009, which corresponds to an average ex-post return on equity of 16.8% (compared to 4.5% as initially planned in the NPP).

#### Monitoring of en-route and terminal COST-EFFICIENCY for 2014



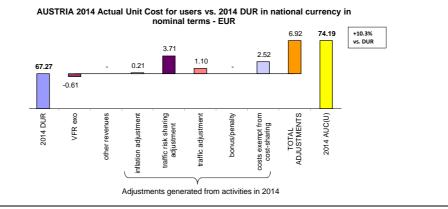
The DUR for 2014 expressed in nominal terms differs from the actual en-route unit rate charged to users in 2014 (CUR).

- the DUR, but also, a deduction of the costs for services to exempted VFR in 2014, as determined prior to the reference period and a deduction of 2014 other revenues;
- as well as adjustments relating to the activities of previous years that are carried-over to 2014. These adjustments include:
- the inflation adjustment:
- \* the adjustment resulting from the implementation of the traffic risk-sharing (ATSP);
- \* the adjustment resulting from the difference in traffic (for costs not subject to traffic risk sharing); \* the bonus/penalty from previous year(s).
- \* the legacy carry-overs incurred in the full cost recovery regime up to and including 2011.

These costs and adjustments are divided by the forecast total service units for 2014 as laid out in the performance plan.

In 2014, the actual chargeable unit rate (CUR) charged to airspace users (73.39 €) is +9.1% higher than the determined unit rate (67.27 €). The difference between these two figures (+6.13 €) mainly reflects the traffic risk sharing adjustment (+2.70 €) and under-recoveries incurred until 2011 under the full cost-recovery regime (+1.97 €).

# 9. - En-route DUR 2014 vs. 2014 actual unit cost for users



The DUR for 2014 expressed in nominal terms can also be compared to the actual en route unit cost for airspace users (AUC-U) for 2014 (also sometimes referred to the "true cost for users"), which reflects the unit cost that the users incur in respect of the activities performed in 2014. The AUC-U comprises:

- the DUR, the deduction of the costs for services to exempted VFR in 2014 and the deduction of 2014 other revenues that has already been billed to the users through the
- as well as adjustments relating to the activities of 2014 but which will be charged or reimbursed to users in future years. These adjustments include:
- the inflation adjustment;
- \* the adjustments resulting from the implementation of the traffic risk-sharing (ATSP);

  \* the adjustments resulting from the difference in traffic (for costs not subject to traffic risk sharing);
- \* the bonus/penalty for the current year;
  \* the costs exempt from cost sharing (if deemed eligible).

These costs and adjustments are divided by the actual total service units in 2014.

The unit cost that the users incur in respect to the activities performed in 2014 amounts to 74.19 €, which is +10.3% higher than the nominal DUR (67.27 €). The difference observed between the two figures (+6.92 €) reflects the traffic risk sharing adjustment (+3.71 €), an amount related to costs exempt from cost-sharing (+2.52 €), the traffic adjustment (+1.10 €), the inflation adjustment (+0.21 €) and the adjustment associated to exempted VFR flights (-0.61 €).

#### Monitoring of en-route and terminal COST-EFFICIENCY for 2014

10 Terminal costs and unit rates monitoring (2014)										
		2009	2010	2011	2012	2013	2014			
Terminal Service Unit Formula	(MTOW/50)^	0.7	0.7	0.7	0.7	0.7	0.7			
Number of airports in terminal charging zone		6	6	6	6	6	6			
of which, number of airports over 50 000 movements		1	1	1	1	1	1			
AUSTRIA - Data from RP1 national performance plan		2009A	2010A	2011F	2012P	2013P	2014P			
Terminal ANS costs for the charging zones - (in EUR)		34 240 000	37 020 000	38 702 000	41 107 000	43 427 000	44 360 000			
Inflation index (100 in 2009)		100.0	101.9	103.9	106.5	109.2	111.9			
Real terminal ANS costs - (in EUR2009)		34 240 000	36 329 735	37 235 660	38 584 916	39 768 366	39 631 963			
AUSTRIA - Actual data from June 2015 Reporting Table	s	2009A	2010A	2011A	2012A	2013A	2014A			
Terminal ANS costs for the charging zones - (in EUR)		34 240 000	37 020 000	36 486 000	36 689 000	39 089 938	37 016 767			
Inflation index (100 in 2009)		100.0	101.9	105.6	108.3	110.6	112.2			
Real terminal ANS costs - (in EUR2009)		34 240 000	36 329 735	34 561 479	33 873 071	35 347 438	32 978 083			
Total terminal service units		172 644	183 493	187 122	182 127	176 345	180 113			
Actual real unit costs - (in EUR2009)		198.3	198.0	184.7	186.0	200.4	183.1			
Unit rate applied - (in EUR)					209.00	209.00	215.00			
Difference between Actuals and Planned in absolute va	lue and in percentag	e (Actuals vs. NP	P)		2012	2013	2014			
Terminal ANS costs for the charging zones - (in EUR)	in value				-4 418 000	-4 337 062	-7 343 233			
	in%				-10.7%	-10.0%	-16.6%			
Inflation index (100 in 2009)	in p.p.				1.8 p.p.	1.4 p.p.	0.3 p.p			
Real terminal ANS costs - (in EUR2009)	in value				-4 711 845	-4 420 928	-6 653 881			
	in%				-12.2%	-11.1%	-16.8%			

# 11. - General conclusions on the Terminal ANS costs and unit rates monitoring

Austria counts one terminal charging zone comprising six airports of which one above 50 000 movements per year (i.e. Vienna airport, LOWW). The harmonised SES formula (MTOW/50)^0.7 already applies in the Austrian Terminal Charging Zone.

The actual terminal ANS costs in 2014 are -16.8% (some -6.7 M€2009) lower in real terms than planned in the NPP. This difference is mainly driven by lower staff costs (-7.4% or some -1.9 M€2009) and significantly lower cost of capital (-86.9% or some -1.9 M€2009).

#### **Terminal Unit rate**

The terminal ANS unit rate applied in 2014 in the terminal charging zone is 215.00  $\in$ 

#### RP1 summary

When considering the whole of RP1 (2012-2014), actual terminal ANS costs are significantly lower (-13.4% in real terms, some -15.8 M€2009) than forecasted in the NPP. It is important to note, that Austria terminal ANS costs were consistently lower than planned during the whole RP1 (-12.2% in 2012, -11.1% in 2013 and -16.8% in 2014)

	12 Monito	ring of gate-to	-gate costs (2	2014)			
AUSTRIA - Data from RP1 national performance plan		2009A	2010A	2011F	2012P	2013P	2014P
Real en-route costs (determined costs 2012-2014) - (in EL	JR2009)	157 658 313	160 542 689	169 080 606	175 389 738	178 548 762	177 105 559
Real terminal ANS costs - (in EUR2009)		34 240 000	36 329 735	37 235 660	38 584 916	39 768 366	39 631 963
Real gate-to-gate ANS costs - (in EUR2009)		191 898 313	196 872 424	206 316 265	213 974 654	218 317 127	216 737 522
Share of en-route costs in gate-to-gate ANS costs		82.2%	81.5%	82.0%	82.0%	81.8%	81.7%
AUSTRIA - Actual data from June 2015 Reporting Tabl	es	2009A	2010A	2011A	2012A	2013A	2014A
Real en-route costs - (in EUR2009)		157 658 313	160 542 689	163 494 000	163 382 797	162 993 728	159 544 503
Real terminal ANS costs - (in EUR2009)		34 240 000	36 329 735	34 561 479	33 873 071	35 347 438	32 978 083
Real gate-to-gate ANS costs - (in EUR2009)		191 898 313	196 872 424	198 055 479	197 255 868	198 341 166	192 522 586
Share of en-route costs in gate-to-gate ANS costs		82.2%	81.5%	82.5%	82.8%	82.2%	82.9%
Difference between Actuals and Planned in absolute v	alue and in percent	age (Actuals vs. N	PP)		2012	2013	2014
Real en-route costs - (in EUR2009)	in value				-12 006 941	-15 555 034	-17 561 055
	in %				-6.8%	-8.7%	-9.9%
Real terminal ANS costs - (in EUR2009)	in value				-4 711 845	-4 420 928	-6 653 881
	in %				-12.2%	-11.1%	-16.8%
Real gate-to-gate ANS costs - (in EUR2009)	in value				-16 718 786	-19 975 961	-24 214 936
	in %				-7.8%	-9.1%	-11.2%
Share of en-route costs in gate-to-gate ANS costs	in p.p				0.9 p.p.	0.4 p.p.	1.2 p.p.

## 13. - General conclusions on the gate-to-gate ANS costs

The actual gate-to-gate ANS costs for the year 2014 (192.5 M€2009) are -11.2% (or some -24.2 M€2009) lower than planned in the NPP, as a result of significantly lower actual costs for en-route (-9.9% or some -17.6 M€2009) and terminal ANS (-16.8% or some -6.7 M€2009).

The relative share of en-route costs in gate-to-gate ANS costs is slightly higher (82.9%) than the proportion planned in the NPP for 2014 (81.7%).





# PRB Annual Monitoring Report 2014

Bulgaria

Working Draft 2.0

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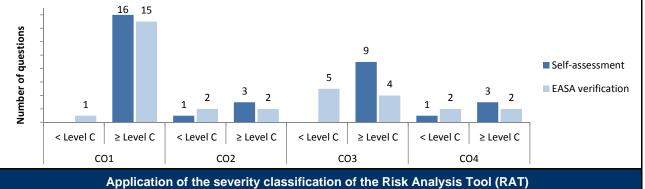
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**ATM Specific Occurences** 

(ATM-Specific)

# Monitoring of SAFETY indicators for 2014

Effectiveness of Safety Management										
	2012	2013	2014	State level Observations						
State level	58	71	70							
ANSP [BULATSA]	74	77	86							



#### 2012 2013 2014 No Assessed No Assessed No Assessed reported (%) reported (%) reported (%) ATM Ground 100% 100% 100% **Separation Minima** 2 2 4 Infringements (SMIs) ATM Overall 100% 100% 0% **ATM Ground** N/A N/A N/A Runway Incursions (RIs) 0 0 0 **ATM Overall** N/A N/A N/A

N/A

10

100%

20

100%

Source of RAT data: BULATSA

Preliminary results updated after coordination with the AST-FP in August 2015.

**ATM Overall** 

Just culture									
		State							
Number of questions answered with Yes or No	20	2012 2			2014				
	YES	NO	YES	NO	YES	NO			
Policy and its implementation	4	6	5	5	6	3			
Legal/Judiciary	4	4	3	5	3	4			
Occurrence reporting and Investigation	2	0	2	0	2	0			
TOTAL	10	10	10	10	11	7			

0

	ANSP [BULATSA]							
Number of questions answered with Yes or No	2012		2013		2014			
	YES	NO	YES	NO	YES	NO		
Policy and its implementation	9	4	11	2	11	2		
Legal/Judiciary	1	2	2	1	2	1		
Occurrence reporting and Investigation	6	2	5	3	6	2		
TOTAL	16	8	18	6	19	5		

#### Monitoring of CAPACITY indicators for 2014

Minutes of ATFM en-route delay									
	2012	2013	2014	Observations					
Reference value	0.11	0.14	0.12						
National Target	0.11	0.13	0.11						
Actual performance	0	0	0						

#### National capacity assessment

The Bulgarian ANSP has outstanding performance in capacity terms, considering the reference value provided by Eurocontrol and the contribution of Bulgaria to capacity targets at FAB and European level. During the RP1, the monitoring of the capacity performance of the ANSP shows that the zero ATFM delay per flight should not be taken as granted.

- Measures, taken to improve overall capacity revealed the highly stochastic distribution of some of the main traffic flows in the region.
- Quality of tactical information provided at network level is considered insufficient.

It is therefore necessary that the proactive measure implementation continues. Nevertheless an ATFM delay figure around the cost-optimum one should also be available. In particular in 2014, in respose to the traffic increase, a new sector configuration was intraduced within very short timeframe. The efforts made by Bulgaria in order to meet capacity demand was recognised in the PRR 2014 report.

# **PRB Capacity assessment**

Bulgaria has provided excellent capacity performance since 2012. In 2014, the Ukrainian crisis affected civil aviation both in Ukraine and neighbouring states: despite the considerable increase in traffic, the Bulgarian ANSP handled the demand with minimum delay to airspace users. Such trememdous effort resulted in a positive contribution to the EU-wide target.

### **Effective booking procedures**

The ratio of time airspace was actually used for activity requiring segregation or restriction from GAT and the amount of time it was notified as being restricted on the day of operations: 39%

No information was provided regarding the allocation of airspace at H-3, so it is impossible to determine how much restricted or segregated airspace, that was surplus to requirements, was released for GAT use.

# **Previous recommendations**

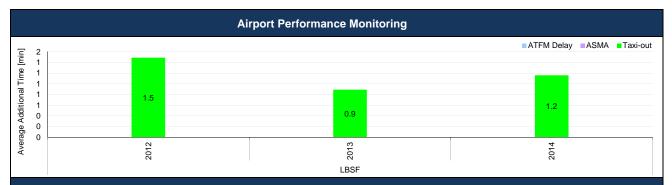
**Annual Monitoring Report 2013**: Bulgaria is requested to provide additional information on effective booking procedures, namely the allocation of airspace at H-3.

# NSA report on follow-up to recommendations

**Follow up to Annual Monitoring Report 2013:** No information on the allocation of airspace at H-3 was provided in the national monitoring report.

#### Recommendations

# **Monitoring of CAPACITY indicators for 2014**



#### **Airport Data** Average of Total Additional Total Sum of Additional Total Apt. **ICAO** Apt. ATFM Additional taxi-out Additional Total RP1 Year **Airport Name** ATFM arr. **ASMA** time arr. Delay ASMA time taxi-out Additional Code time delay [min.] [min./arr.] [min./arr.] [min] [min./dep.] time [total] Time [min] 0 1.5 29 253 29 253 2012 0.0 n/appl. n/appl. Sofia **LBSF** 0 0.0 0.9 16 922 16 922 2013 n/appl. n/appl. 0 2014 0.0 n/appl n/appl 1.2 22 811 22 811 2012 0.0 0 n/appl. n/appl. 1.5 29 253 29 253 Total 2013 0.0 0 n/appl. n/appl 0.9 16 922 16 922 2014 0.0 0 1.2 22 811 22 811 n/appl. n/appl. 2014-2013 0.0 0 n/appl. 0.3 5 889 5 889 n/appl. **Absolute Difference** 0 2014-2012 0.0 n/appl. n/appl. -0.3 -6 442 -6 442

• None

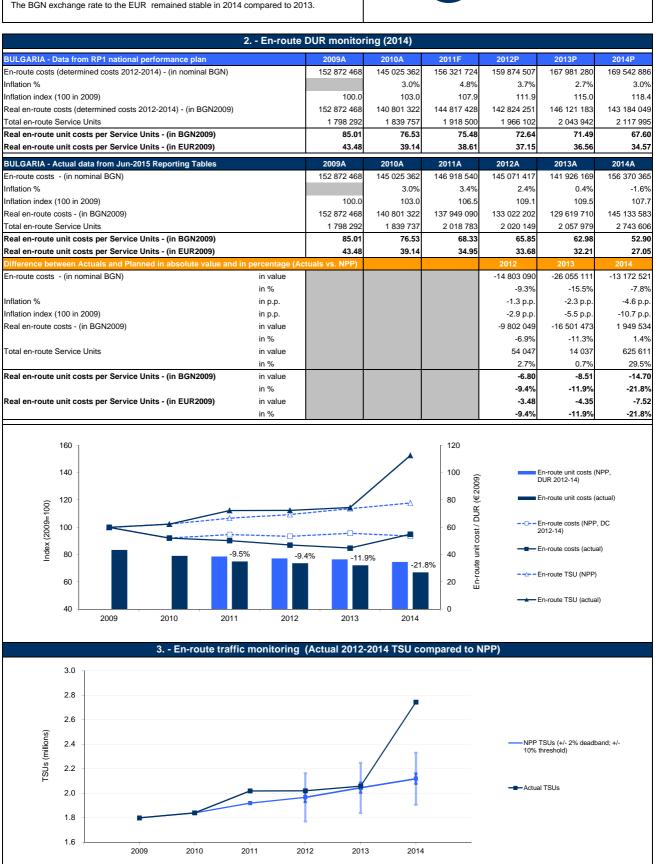
# **Specific Analysis**

**Critical Issues** 

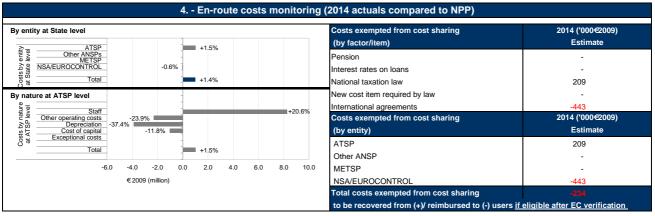
- No specific operational concern regarding RP1 performance monitoring.
- To be noted that, in average over RP1, additional taxi-out time improved by 22% at Sofia Airport for a traffic volume that is relatively constant.

#### Monitoring of en-route and terminal COST-EFFICIENCY for 2014





# Monitoring of en-route and terminal COST-EFFICIENCY for 2014



5 Focus on ATSP - "Net" ATSP g	jain/loss on en-	route activity in 2014			
Cost sharing ('000€2009)	2014A				
Determined costs for the ATSP (NPP)	68 882	Combined effect of variations in costs and traffic for 2014 (*000€2009)			
Actual costs for the ATSP	69 907				
Difference in costs: gain (+)/Loss (-) retained/borne by the ATSP	-1 025				
Amounts excluded from cost sharing to be recovered from (+) reimbursed to (-) users	209	Gain/loss from cost sharing			
Gain (+)/Loss (-) to be retained by the ATSP in respect of cost sharing	-816				
Traffic risk sharing ('000€2009)	2014A				
Difference in total service units (actual vs NPP)	29.54%	Gain/loss from traffic risk sharing			
Determined costs after deduction of costs for exempted VFR flights	69 349				
ATSP gain (traffic between 0 and +2% higher than NPP)	1 387		1		
ATSP gain (traffic between +2% and +10% higher than NPP)	1 664	Bonus/penalty from incentives			
ATSP loss (traffic between 0 and -2% below NPP)	-				
ATSP loss (traffic between -2% and -10% below NPP)	-				
Gain (+)/Loss (-) to be retained by the ATSP in respect of traffic risk sharing	3 051				
Incentives ('000€009)	2014A	Net ATSP gain/loss			
ATSP bonus (+) / penalty (-)					
Gain (+)/Loss (-) to be retained by the ATSP in respect of incentives	-	-4 00i	0 -2 000 0 2 000 4 000 ATSP loss ATSP gain		
Net ATSP gain(+)/loss(-) on en-route activity	2 235				

		•	2 235				
*This calculation of the economic		n-route ATSP e			ided in the Reporting	Tables. This is	
different from the accounting prof TSP estimated surplus ('000€2009)	fit/loss reported in the Pro	fit & Loss accounts of	the ATSP.	2013P	2013A	2014P	2014A
otal asset base		124 584	99 596	130 394	96 692	126 823	111 9
stimated proportion of financing through equity (in %	6)	100%	100%	100%	100%	100%	10
estimated proportion of financing through equity (in v	•	124 584	99 596	130 394	96 692	126 823	111 9
stimated proportion of financing through debt (in %)	,	124 004	-	- 100 004		120 020	1110
stimated proportion of financing through debt (in val		_	_	_	_	_	
cost of capital pre-tax (in value)	,	8 721	6 971	9 127	6 768	8 878	7.8
verage interest on debt (in %)		-	-	-	-	-	
nterest on debt (in value)		_	-	-	-	-	
etermined RoE pre-tax rate (in %)		7.0%	7.0%	7.0%	7.0%	7.0%	7.
stimated surplus embedded in the cost of capital for	r en-route (in value)	8 721	6 971	9 127	6 768	8 878	78
let ATSP gain(+)/loss(-) on en-route activity			6 070		8 960		22
verall estimated surplus (+/-) for the en-route ac	tivity	8 721	13 041	9 127	15 728	8 878	10 0
evenue/costs for the en-route activity	68 633	69 915	70 341	70 796	68 882	72 1	
stimated surplus (+/-) in percent of en-route reve	enue/costs	12.7%	18.7%	13.0%	22.2%	12.9%	14.
Estimated ex-post RoE pre-tax rate (in %)		7.0%	13.1%	7.0%	16.3%	7.0%	9.
18.0 16.0 14.0 12.0 10.0 8.0 6.0 4.0 2.0	PP Actual 2013	NPP Actual 2014	25.0% 20.0% 15.0% 10.0% 5.0%	■ Estimated surplu		n-route activity (in value of capital for en-route -route revenue/costs	

#### Monitoring of en-route and terminal COST-EFFICIENCY for 2014

#### 7. - General conclusions on the monitoring of the 2014 en-route DUR

#### Notes on information provided by BULGARIA

There is a minor inconsistency between the total 2014 actual nominal en-route ANS costs reported in the NSA Monitoring Report (156 370 347 BGN) and in the Reporting Tables (156 370 365 BGN). However, this difference is not deemed to significantly impact the monitoring analysis.

#### At State / Charging Area level

In 2014, Bulgaria's real en-route unit cost (27.05 €2009) is -21.8% lower than planned in the NPP (34.57 €2009). This difference is due to the fact that 2014 actual en-route costs in real terms are only +1.4% higher than the determined costs, while the actual number of total en-route service units (TSU) is much higher than planned (+29.5%). According to the "Additional Information" provided through the June 2015 "Reporting Tables", this substantial deviation from the plan in terms of traffic is mainly due to route network knock-on effects in Ukraine, Kosovo, Turkey, Syria and Iraq airspace in 2014. It should also be noted that Bulgaria did not pass the individual "traffic forecast" check in the assessment of its RP1 Performance Plan as its TSU forecast was always substantially lower than the STATFOR May 2011 base case scenario and even below the low scenario over RP1.

The difference between the actual and planned total en-route service units (+29.5%) falls way outside the +10% threshold, above which 100% of the revenue collected is carried forward and comes in deduction of chargeable costs within the unit rate eventually charged to airspace users (in 2016).

#### Actual 2014 costs vs. NPP

Real en-route costs for Bulgaria are +1.4% higher in 2014 than planned as a combination of -7.8% lower nominal en-route costs and -10.7 percentage point lower than planned inflation index. The cost excess is mostly attributable to BULATSA (+1.5% in real terms, +1.0 M€2009). A detailed analysis of BULATSA's costs is provided in the box below.

Costs exempt from cost sharing to be reimbursed to the users for the en-route activity are reported for a total of -0.2 M€2009, corresponding mostly to unforeseen changes in EUROCONTROL costs (-0.4 M€2009) and partly to "unforeseen changes in national pension regulations and pension accounting regulations" (+0.2 M€2009).

#### **RP1 summary**

When considering the whole of RP1 (2012-2014) the aggregated actual number of TSUs is +11.3% higher than planned (mostly due to the significant increase in 2014) while actual costs in real terms are -5.6% lower than the determined costs for 2012-2014 (some -12.5 M€2009). As a result, the weighted average en-route unit cost over RP1 is -15.2% lower than the level planned in the NPP.

#### At ATSP level

#### Actual 2014 BULATSA costs vs. NPP

BULATSA 2014 actual en-route costs are +1.5% higher than planned in real terms. This mainly results from higher than planned staff costs (+8.2 M€2009 or +20.6%) partially counterbalanced by lower than planned other operating costs (-2.3 M€2009 or -23.9%), depreciation costs (-3.9 M€2009 or -37.4%) and cost of capital (-1.0 M€2009 or -11.8%). According to the additional information provided along with the en-route reporting tables in June 2015, staff costs were negatively affected by the substantial and unexpected increase in traffic while the savings in other operating costs are attributable to improvements in "the internal organisation of the processes as well as the coordination and the cooperation with the external institutions". The lower than planned level of depreciation costs and cost of capital is due to the delay of procurement of some investments from previous years (mainly related to surveillance provision). With that said, in 2014, BULATSA significantly improved the fulfilment of the capex plan as it spent more on capex than foreseen (+127%) which resulted in an increase in the total asset base and in the cost of capital compared to 2013. As a result, in 2014 the total asset base and cost of capital are both -11.8% lower than planned (while in 2013 this difference was -25.8%).

#### BULATSA net gain/loss and estimated surplus on en-route activity in 2014

As shown in item 5, in 2014, BULATSA generated a net gain of +2.2 M€2009 from its en-route activity. This is the combination of two separate elements affecting BULATSA in 2014:

- a loss of -0.8 M€2009 as a result of the cost-sharing mechanism; and
- a gain of +3.1 M€2009 as a result of the traffic risk sharing mechanism.

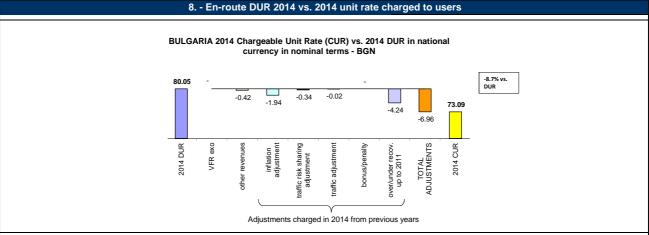
To calculate the overall economic surplus of the ATSP (BULATSA), it is also important to add the surplus embedded in the cost of capital through the return on equity. Based on the figures planned in the NPP, the return on equity amounted to +8.9 M€2009, corresponding to an estimated surplus of +12.9% of the enroute costs/revenues for 2014. Ex-post, the estimated surplus for the year computed by adding the surplus embedded in the cost of capital (+7.8 M€2009) and the net gain from the en-route activity in 2014 (+2.2 M€2009), gives a total of some +10.1 M€2009, corresponding to +14.0% of the 2014 en-route revenue. The resulting ex-post rate of return on equity for 2014 is +9.0% (compared to +7.0% planned in the NPP).

#### Conclusions

In 2014, BULATSA's actual en-route costs are slightly higher than planned (+1.5%) while TSU are substantially higher than foreseen in the NPP (+29.5%). The en-route activity for the year 2014 generated a net gain of +2.2 M€2009 for BULATSA which resulted in an estimated actual surplus of some +10.1 M€2009 (or +14.0% of the en-route revenue for 2014, up from the +12.9% planned in the RP1 PP).

When considering the whole of RP1 (2012-2014), BULATSA could retain a cumulative gain of +12.3 M€2009 in respect of cost sharing and a cumulative gain of +5.0 M€2009 in respect of traffic risk sharing. The overall cumulative net gain for the en-route activity over RP1 was +17.3 M€2009.

#### Monitoring of en-route and terminal COST-EFFICIENCY for 2014



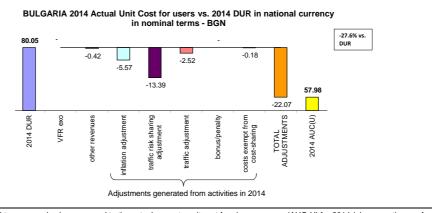
The DUR for 2014 expressed in nominal terms differs from the actual en-route unit rate charged to users in 2014 (CUR).

- the DUR, but also, a deduction of the costs for services to exempted VFR in 2014, as determined prior to the reference period and a deduction of 2014 other revenues;
- as well as adjustments relating to the activities of previous years that are carried-over to 2014. These adjustments include:
- the inflation adjustment:
- \* the adjustment resulting from the implementation of the traffic risk-sharing (ATSP);
- \* the adjustment resulting from the difference in traffic (for costs not subject to traffic risk sharing); \* the bonus/penalty from previous year(s).
- \* the legacy carry-overs incurred in the full cost recovery regime up to and including 2011.

These costs and adjustments are divided by the forecast total service units for 2014 as laid out in the performance plan.

The actual Chargeable Unit Rate (CUR) charged to users in 2014 was 73.09 BGN. This is -8.7% lower than the nominal DUR (80.05 BGN). The difference observed between these two figures (-6.96 BGN) reflects mainly the over-recoveries carried over from previous years (-4.24 BGN) and the inflation adjustment (-1.94 BGN) in addition to smaller adjustments for other revenues (-0.42 BGN), traffic risk sharing (-0.34 BGN) and traffic not subject to risk sharing (-0.02 BGN).

# 9. - En-route DUR 2014 vs. 2014 actual unit cost for users



The DUR for 2014 expressed in nominal terms can also be compared to the actual en route unit cost for airspace users (AUC-U) for 2014 (also sometimes referred to the "true cost for users"), which reflects the unit cost that the users incur in respect of the activities performed in 2014. The AUC-U comprises:

- the DUR, the deduction of the costs for services to exempted VFR in 2014 and the deduction of 2014 other revenues that has already been billed to the users through the
- as well as adjustments relating to the activities of 2014 but which will be charged or reimbursed to users in future years. These adjustments include:
- the inflation adjustment;
- \* the adjustments resulting from the implementation of the traffic risk-sharing (ATSP);

  \* the adjustments resulting from the difference in traffic (for costs not subject to traffic risk sharing);
- \* the bonus/penalty for the current year;
  \* the costs exempt from cost sharing (if deemed eligible).

These costs and adjustments are divided by the actual total service units in 2014.

The unit cost that the users incurred in respect of the activities performed in 2014 was 57.98 BGN. This is significantly lower than the nominal DUR (80.05 BGN). The difference observed between these two figures (-22.07 BGN) reflects mainly the traffic risk sharing adjustment (-13.39 BGN) and the inflation adjustment (-5.57 BGN) in addition to smaller adjustments for traffic (-2.52 BGN), other revenues (-0.42 BGN) and costs exempt from cost-sharing (-0.18 BGN)

#### Monitoring of en-route and terminal COST-EFFICIENCY for 2014

10 Terminal costs and unit rates monitoring (2014)									
		2009	2010	2011	2012	2013	2014		
Terminal Service Unit Formula	(MTOW/50)^	0.5	0.5	0.5	0.7	0.7	0.7		
Number of airports in terminal charging zone		5	5	5	5	5	5		
of which, number of airports over 50 000 movements									
BULGARIA - Data from RP1 national performance plan		2009A	2010A	2011F	2012P	2013P	2014P		
Terminal ANS costs for the charging zones - (in BGN)		23 662 105	22 822 664	20 500 000	21 800 000	22 500 000	23 600 000		
Inflation index (100 in 2009)		100.0	103.0	107.9	111.9	115.0	118.4		
Real terminal ANS costs - (in BGN2009)		23 662 105	22 157 926	18 991 329	19 475 079	19 571 982	19 930 907		
Real terminal ANS costs - (in EUR2009)		12 101 522	11 332 239	9 712 744	9 960 149	10 009 708	10 193 273		
BULGARIA - Actual data from June 2015 Reporting Tab	les	2009A	2010A	2011A	2012A	2013A	2014A		
Terminal ANS costs for the charging zones - (in BGN)		23 662 105	22 822 664	22 923 652	22 938 087	21 068 329	19 945 151		
Inflation index (100 in 2009)		100.0	103.0	106.5	109.1	109.5	107.7		
Real terminal ANS costs - (in BGN2009)		23 662 105	22 157 926	21 524 151	21 032 915	19 241 488	18 511 891		
Real terminal ANS costs - (in EUR2009)		12 101 522	11 332 238	11 008 107	10 756 874	9 840 683	9 467 545		
Total terminal service units		40 222	40 474	42 454	42 376	43 110	45 498		
Actual real unit costs - (in BGN2009)		588.3	547.5	507.0	496.3	446.3	406.9		
Unit rate applied - (in BGN)					415.57	415.57	415.57		
Difference between Actuals and Planned in absolute va	lue and in percentag	e (Actuals vs. NP	PP)		2012	2013	2014		
Terminal ANS costs for the charging zones - (in BGN)	in value				1 138 087	-1 431 671	-3 654 849		
	in%				5.2%	-6.4%	-15.5%		
Inflation index (100 in 2009)	in p.p.				-2.9 p.p.	-5.5 p.p.	-10.7 p.p.		
Real terminal ANS costs - (in BGN2009)	in value				1 557 836	-330 494	-1 419 016		
	in%				8.0%	-1.7%	-7.1%		
Real terminal ANS costs - (in EUR2009)	in value				796 725	-169 025	-725 728		
	in%				8.0%	-1.7%	-7.1%		

#### 11. - General conclusions on the Terminal ANS costs and unit rates monitoring

The terminal charging zone in Bulgaria comprises five airports (Sofia, Burgas, Varna, Plovdiv and Gorna/Oryakhovitsa) in 2014. Starting from 2012 the harmonised SES formula (MTOW/50)\0.7 is applied to determine the number of terminal navigation service units (TNSU), although Bulgaria decided not to fully apply all charging regulation requirements as none of their airport reached the threshold of 50 000 commercial air transport movements.

The actual 2014 terminal ANS costs are some -0.7 M€2009 (-7.1%) lower than the forecast presented in the NPP in real terms. Between 2013 and 2014, actual terminal ANS costs decreased by -0.4 M€2009 (-3.8%) in real terms. According to the additional information provided along with the terminal reporting tables in June 2015 this is due to the "completion of the transfer of lighting service provision at the international airports from BULATSA to airport operators" and to the reallocation of some approach and tower ATCOs to the ACC taking into account the traffic developments.

#### RP1 summary

When considering the whole of RP1 (2012-2014), actual terminal ANS costs are -0.3% lower in real terms (or some -0.1 M€2009) than planned in the NPP.

12 Monitoring of gate-to-gate costs (2014)								
BULGARIA - Data from RP1 national performance plan		2009A	2010A	2011F	2012P	2013P	2014P	
Real en-route costs (determined costs 2012-2014) - (in BGN2	2009)	152 872 468	140 801 322	144 817 428	142 824 251	146 121 183	143 184 049	
Real terminal ANS costs - (in BGN2009)		23 662 105	22 157 926	18 991 329	19 475 079	19 571 982	19 930 907	
Real gate-to-gate ANS costs - (in BGN2009)		176 534 573	162 959 249	163 808 756	162 299 330	165 693 165	163 114 956	
Real gate-to-gate ANS costs - (in EUR2009)		90 285 160	83 342 325	83 776 789	83 004 823	84 740 534	83 421 959	
Share of en-route costs in gate-to-gate ANS costs		86.6%	86.4%	88.4%	88.0%	88.2%	87.8%	
BULGARIA - Actual data from June 2015 Reporting Table	s	2009A	2010A	2011A	2012A	2013A	2014A	
Real en-route costs - (in BGN2009)		152 872 468	140 801 322	137 949 090	133 022 202	129 619 710	145 133 583	
Real terminal ANS costs - (in BGN2009)		23 662 105	22 157 926	21 524 151	21 032 915	19 241 488	18 511 891	
Real gate-to-gate ANS costs - (in BGN2009)		176 534 573	162 959 248	159 473 241	154 055 117	148 861 198	163 645 474	
Real gate-to-gate ANS costs - (in EUR2009)		90 285 160	83 342 325	81 559 475	78 788 481	76 132 153	83 693 282	
Share of en-route costs in gate-to-gate ANS costs		86.6%	86.4%	86.5%	86.3%	87.1%	88.7%	
Difference between Actuals and Planned in absolute valu	e and in percenta	ge (Actuals vs. NI	PP)		2012	2013	2014	
Real en-route costs - (in BGN2009)	in value				-9 802 049	-16 501 473	1 949 534	
	in %				-6.9%	-11.3%	1.4%	
Real terminal ANS costs - (in BGN2009)	in value				1 557 836	-330 494	-1 419 016	
in %					8.0%	-1.7%	-7.1%	
Real gate-to-gate ANS costs - (in BGN2009) in value					-8 244 213	-16 831 967	530 518	
	in %				-5.1%	-10.2%	0.3%	
Real gate-to-gate ANS costs - (in EUR2009)	in value				-4 216 342	-8 608 381	271 323	
	in %				-5.1%	-10.2%	0.3%	
Share of en-route costs in gate-to-gate ANS costs	in p.p				-1.7 p.p.	-1.1 p.p.	0.9 p.p.	

#### 13. - General conclusions on the gate-to-gate ANS costs

The actual 2014 gate-to-gate ANS costs (the aggregation of en-route determined costs and terminal ANS costs subject to the SES regulations) are +0.3% higher in real terms than the forecast presented in the NPP.

The relative share of en-route costs in the aggregated gate-to-gate ANS costs increased to 88.7% in 2014 after being relatively stable between 2009 and 2013 at around 86-87%. This would be due to a reallocation of staff and costs to en-route in 2014. Compared to the forecast in the National Performance Plan, the actual share of enroute costs in gate-to-gate costs is +0.9 percentage point higher in 2014.





# PRB Annual Monitoring Report 2014 Cyprus

Working Draft 2.0

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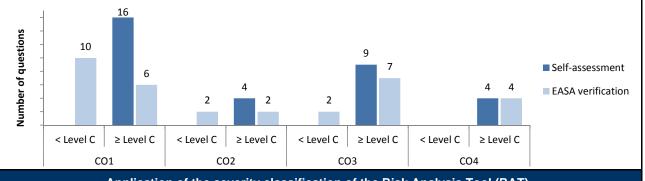
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## Monitoring of SAFETY indicators for 2014

Effectiveness of Safety Management								
	2012	2013	2014	State level Observations				
State level	66	67	68					
ANSP [CYATS]	60	60	63					



## Application of the severity classification of the Risk Analysis Tool (RAT)

		20	2012		2013		2014	
		No reported	Assessed (%)	No reported	Assessed (%)	No reported	Assessed (%)	
Separation Minima	ATM Ground	4	0%	7	71%	6	83%	
Infringements (SMIs)	ATM Overall	4	0%	,	14%		0%	
Runway Incursions (RIs)	ATM Ground	1	0%	1	100%	0	N/A	
Rullway Illcursions (Ris)	ATM Overall	'	0%	'	0%		N/A	
ATM Specific Occurences (ATM-Specific)  ATM Overall		146	0%	115	0%	131	0%	
Source of RAT data:		DCA						

Just	cul	lture
------	-----	-------

	State							
Number of questions answered with Yes or No	2012		2013		2014			
	YES	NO	YES	NO	YES	NO		
Policy and its implementation	9	1	9	1	8	1		
Legal/Judiciary	8	0	8	0	6	1		
Occurrence reporting and Investigation	2	0	2	0	2	0		
TOTAL	19	1	19	1	16	2		

	ANSP [CYATS]							
Number of questions answered with Yes or No	2012		2013		2014			
	YES	NO	YES	NO	YES	NO		
Policy and its implementation	12	1	11	2	11	2		
Legal/Judiciary	2	1	2	1	2	1		
Occurrence reporting and Investigation	6	2	6	2	5	3		
TOTAL	20	4	19	5	18	6		

#### **Monitoring of CAPACITY indicators for 2014**

Minutes of ATFM en-route delay									
	2012	2013	2014	Observations					
Reference value	0.93	0.59	0.3						
National Target	1.9	1.7	1.0						
Actual performance	1.59	2.16	1.91						

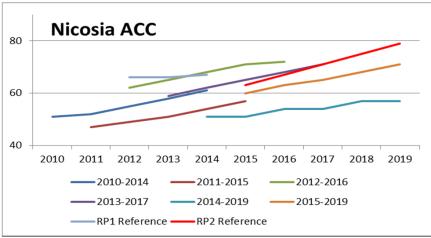
#### **National capacity assessment**

The main reasons for not achieving the performance target of 2014 were as follows:

- Political developments in the south-east Mediterranean and Ukraine which altered the usual flows of air traffic, increased airspace complexity and necessitated the downward revision of capacity so as to maintain a high level of safety.
- The significant rise in air traffic demand which was much beyond what was forecast (at times, by 18%)
- The limited response of air traffic control personnel to overtime work. This resulted in reduced sector opening times and hence in a limited capability to handle the increased traffic demand.

None of the reasons above were under the control of the ANSP, hence no additional measures could be taken to improve the situation further. It is worth noting however that the capacity performance was steadily improving since July 2014.

# ANSP capacity plan



## **PRB Capacity assessment**

For the second year in a row, Nicosia did not provide sufficient capacity to meet either the national performance target, or the minimum level of performance to be consistent with the EU-wide target for 2014. Following the PRB's observation about consistently deteriorating capacity plans, the latest capacity plans show an increase in planned capacity, although still insufficient to meet the effort required to be consistent with the Union-wide targets for RP2. The inability of Nicosia to deploy existing staff to open sufficient sectors is worrying. The PRB is also worried that the Cyprus NSA considers staffing arrangements, especially rostering, to be outside the control of the ANSP.

## **Effective booking procedures**

No information regarding booking and release procedures was presented in the national monitoring report.

## **Previous recommendations**

**Annual Monitoring Report 2012**: Although specifically requested in IR 691/2010 Annex II Template for Performance Plans, paragraph 4: the Performance Plan for Cyprus did not contain any specific details of how FUA would be applied to increase capacity.

## Extract from notification letter from European Commission July 2012:

Cyprus's revised performance plan is assessed on the clear expectation that Cyprus will adopt and implement effective capacity enhancement measures in coordination with the Network Manager and the other BLUE MED FAB Member States to resolve any capacity shortfall and enable the 2014 reference value of 0.3 minute of average delay per flight to be met at the earliest possible date in the second reference period.

**Annual Monitoring Report 2013**: In light of the insufficient capacity performance in Cyprus for 2012 and 2013, and in accordance with Article 17 of EU Regulation 691/2010, Cyprus is requested to define, apply and communicate appropriate measures to achieve the targets set in the performance plan.

#### NSA report on follow-up to recommendations

**Follow up to Annual Monitoring Report 2012:** The Cyprus air navigation service provider has amended its capacity plans to enable sufficient capacity to be provided in order to meet the targets of the performance plans adopted.

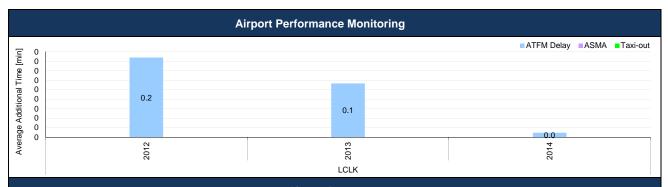
The Cyprus air navigation service provider has not delivered its planned capacity mainly due to an alteration of traffic flows and increase in airspace complexity as a consequence of political developments in the area (events in Syria). Additionally, the austerity measures imposed on the ANSP as a result of the economic crisis has reduced the willingness and ability of ATC staff to work overtime, and hence to operate the required number of ACC sectors.

The cost-efficiency target has been achieved.

Follow up to Annual Monitoring Report 2013: NIL

#### Recommendations

## **Monitoring of CAPACITY indicators for 2014**



	Airport Data									
Airport Name	ICAO Code	RP1 Year	Average of Apt. ATFM arr. Delay [min./arr.]	Total Apt. ATFM arr. delay [min.]	Additional ASMA time [min./arr.]	Total Additional ASMA time [min]	Additional taxi-out time [min./dep.]	Total Additional taxi-out time [total]	Sum of Total Additional Time [min]	
		2012	0.2	3 909	n/appl.	n/appl.	n/a	n/a	n/a	
Larnaca	LCLK	2013	0.1	2 307	n/appl.	n/appl.	n/a	n/a	n/a	
		2014	0.0	208	n/appl.	n/appl.	n/a	n/a	n/a	
		2012	0.2	3 909	n/appl.	n/appl.	n/a	n/a	n/a	
Total		2013	0.1	2 307	n/appl.	n/appl.	n/a	n/a	n/a	
		2014	0.0	208	n/appl.	n/appl.	n/a	n/a	n/a	
Absolute Differe	ence	2014-2013	-0.1	-2 099	n/appl.	n/appl.	n/a	n/a	n/a	
		2014-2012	-0.2	<b>-3 701</b>	n/appl.	n/appl.	n/a	n/a	n/a	

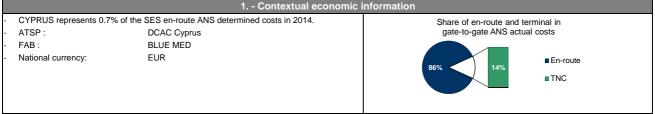
- Mandatory data items partially missing (STATUS C.R);
- DRWY data not complete.

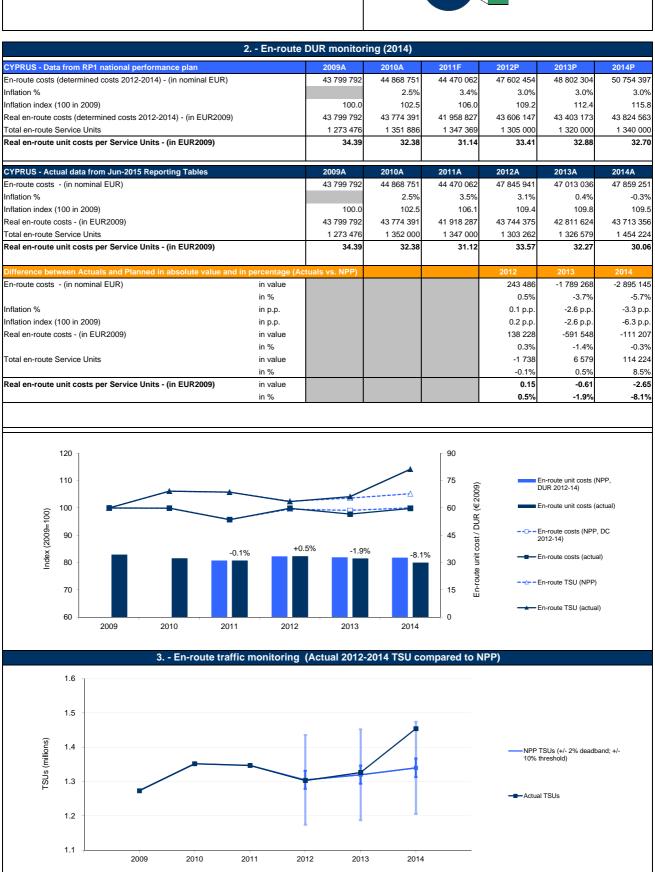
## **Specific Analysis**

**Critical Issues** 

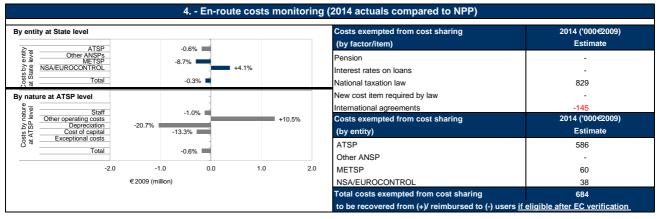
• No specific operational concern regarding RP1 performance monitoring.

#### Monitoring of en-route and terminal COST-EFFICIENCY for 2014

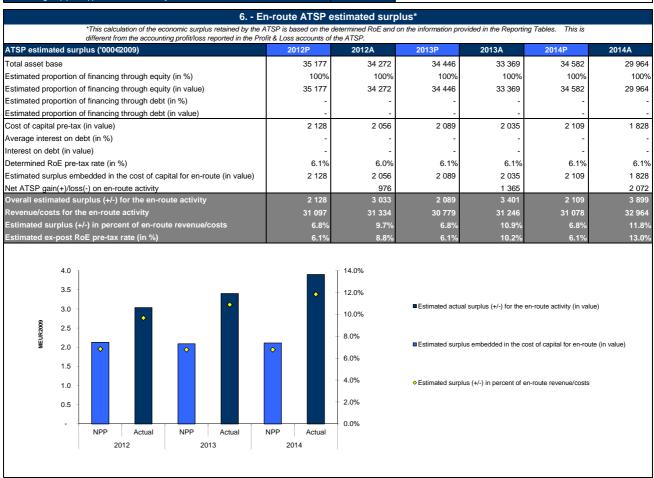




#### Monitoring of en-route and terminal COST-EFFICIENCY for 2014



O and a branch or (IOOO (TOOO))	20114		
Cost sharing (*000€2009)	2014A	Combined effect of variations in cos	ets and traffic for 2014
Determined costs for the ATSP (NPP)	31 078	('000€2009)	
Actual costs for the ATSP	30 893		1
Difference in costs: gain (+)/Loss (-) retained/borne by the ATSP	185		
Amounts excluded from cost sharing to be recovered from (+) reimbursed to (-) users	586	Gain/loss from cost sharing	
Gain (+)/Loss (-) to be retained by the ATSP in respect of cost sharing	771		
Traffic risk sharing ('000€2009)	2014A		
Difference in total service units (actual vs NPP)	8.52%	Gain/loss from traffic risk sharing	
Determined costs after deduction of costs for exempted VFR flights	32 874		
ATSP gain (traffic between 0 and +2% higher than NPP)	657		
ATSP gain (traffic between +2% and +10% higher than NPP)	643	Bonus/penalty from incentives	
ATSP loss (traffic between 0 and -2% below NPP)	-		
ATSP loss (traffic between -2% and -10% below NPP)	-		
Gain (+)/Loss (-) to be retained by the ATSP in respect of traffic risk sharing	1 301		
ncentives ('000€2009)	2014A	Net ATSP gain/loss	
ATSP bonus (+) / penalty (-)	-	-3 000 -1 500	0 1500 3000
Gain (+)/Loss (-) to be retained by the ATSP in respect of incentives	-	ATSP loss	ATSP gain
Net ATSP gain(+)/loss(-) on en-route activity	2 072	7	



#### Monitoring of en-route and terminal COST-EFFICIENCY for 2014

#### 7. - General conclusions on the monitoring of the 2014 en-route DUR

#### Notes on information provided by CYPRUS

#### Note: Return on equity (RoE)

DCAC is a Governmental Department and as such does not have any equity capital and therefore no return on equity. However, it is noted that Cyprus charges cost of capital and has reported cost of capital for 2014. For the purposes of this analysis, it is assumed that the cost of capital pre-tax rate of 6.1% is remuneration for the use of assets funded 100% by the State.

#### At State / Charging Area level

In 2014, Cyprus's real en-route unit cost (30.06 €2009) is -8.1% lower than planned in the NPP (32.70 €2009). This difference is due to the fact that 2014 actual en-route costs are -0.3% lower than the determined costs in real terms, while the actual number of total en-route service units (TSUs) is significantly higher than planned (+8.5%).

The difference between the actual and planned TSUs (+8.5%) falls outside the ±2% dead band but is still within the +10% threshold.

#### Actual 2014 costs vs. NPP

Real en-route costs for Cyprus are -0.3% lower in 2014 than planned as a combination of -5.7% lower nominal en-route costs and -6.3 percentage point lower inflation index. A detailed analysis of DCAC's 2014 costs is provided in the box below.

Costs exempt from cost sharing are reported for a total of +0.7 M€2009 to be passed on to airspace users for the en-route activity, corresponding to the combination of higher costs arising from an increased actual VAT rate (+0.8 M€2009), in accordance with the national regulation, and lower EUROCONTROL costs than planned (-0.1 M€2009).

#### Note on capacity

On the capacity side, Cyprus has not reached its planned target due to an increased traffic demand and higher airspace complexity as a consequence of political developments in the area (events in the South-East Mediterranean and Ukraine).

#### RP1 summary

When considering the whole of RP1 (2012-2014) the actual number of TSUs is +3.0% higher than planned while actual costs in real terms are -0.4% lower than the determined costs (some -0.6 M€2009). As a result, the weighted average real en-route unit cost over RP1 is -3.3% lower than the level planned in the NPP.

#### At ATSP level

#### Actual 2014 DCAC costs vs. NPP

DCAC 2014 actual en-route costs are -0.6% (or -0.2 M€2009) lower than planned in real terms. This mainly results from a combination of lower depreciation costs (-1.0 M€2009 or -20.7%) and higher other operating costs (+1.3 M€2009 or +10.5%) than planned in addition to further savings in staff costs (-0.1 M€2009 or -1.0%) and in the cost of capital (-0.3 M€2009 or -13.3%). According to the additional information provided along with the en-route reporting tables in June 2015 the savings in depreciation costs are attributable to the postponement of several projects (AMHS, VCCS Acropolis upgrade and backup system, SSR Radar Paphos/Larnaca). This is in line with the fact that the actual 2014 total asset base is -13.4% lower than planned which also affected the actual value of the cost of capital for 2014. Regarding the cost excess in other operating costs, a 4 percentage point increase in VAT rate is provided as an explanation.

#### DCAC net gain/loss and estimated surplus on en-route activity in 2014

As shown in item 5, in 2014, DCAC generated a net gain of +2.1 M€2009 for its en-route activity. This is the combination of two separate elements:

- a gain of +0.8 M€2009 as a result of the cost-sharing mechanism; and
- a gain of +1.3 M€2009 as a result of the traffic risk sharing mechanism for 2014.

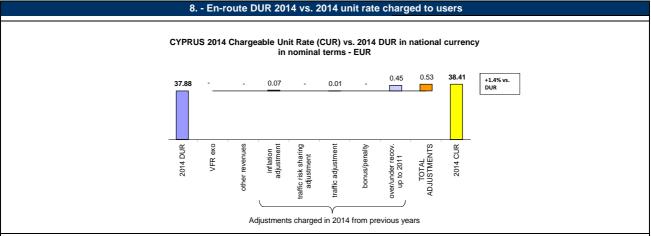
To calculate the overall economic surplus of the ATSP, it is also important to add the surplus embedded in the cost of capital through the return on equity. Based on the figures planned in the NPP, the return on equity amounted to +2.1 M€2009, corresponding to an estimated surplus of +6.8% of the en-route costs/revenues for 2014. Ex-post, the estimated surplus for the year 2014 computed by adding the surplus embedded in the cost of capital (+1.8 M€2009) and the net gain from the en-route activity in 2014 (+2.1 M€2009), gives a total of +3.9 M€2009, corresponding to +11.8% of the 2014 en-route revenue. The resulting ex-post rate of return on equity for 2014 is +13.0% (compared to +6.1% planned in the NPP).

#### Conclusions

In 2014 DCAC's actual real en-route costs are slightly lower than planned (-0.6%) while traffic is significantly higher than foreseen in the NPP (+8.5%). In 2014, DCAC generated a net gain of +2.1 M€2009 from its en-route activity which resulted in an estimated actual surplus of +3.9 M€2009 (+11.8% of the 2014 en-route revenue, up from the +6.8% planned in the RP1 PP).

When considering the whole of RP1 (2012-2014), DCAC could retain a cumulative gain in respect of cost sharing of +3.0 M€2009 as actual costs were lower than planned for every year of RP1. Similarly, DCAC retained a cumulative gain in respect of traffic risk sharing amounting to +1.4 M€2009 (mainly due to the significant traffic increase in 2014), which resulted in a cumulative net gain for the en-route activity of +4.4 M€2009 over RP1.

#### Monitoring of en-route and terminal COST-EFFICIENCY for 2014



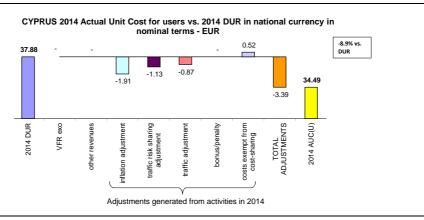
The DUR for 2014 expressed in nominal terms differs from the actual en-route unit rate charged to users in 2014 (CUR).

- the DUR, but also, a deduction of the costs for services to exempted VFR in 2014, as determined prior to the reference period and a deduction of 2014 other revenues;
- as well as adjustments relating to the activities of previous years that are carried-over to 2014. These adjustments include:
- the inflation adjustment:
- \* the adjustment resulting from the implementation of the traffic risk-sharing (ATSP);
- \* the adjustment resulting from the difference in traffic (for costs not subject to traffic risk sharing); \* the bonus/penalty from previous year(s).
- \* the legacy carry-overs incurred in the full cost recovery regime up to and including 2011.

These costs and adjustments are divided by the forecast total service units for 2014 as laid out in the performance plan.

The actual Chargeable Unit Rate (CUR) charged to users in 2014 was 38.41 € This is +1.4% higher than the nominal DUR (37.88 €). The difference observed between these two figures (+0.53 €) reflects mainly the amount of under-recovery carried over to 2014 from the legacy (+0.45 €) in addition to small adjustments for inflation (+0.07 €) and for traffic (+0.01 €).

## 9. - En-route DUR 2014 vs. 2014 actual unit cost for users



The DUR for 2014 expressed in nominal terms can also be compared to the actual en route unit cost for airspace users (AUC-U) for 2014 (also sometimes referred to the "true cost for users"), which reflects the unit cost that the users incur in respect of the activities performed in 2014. The AUC-U comprises:

- the DUR, the deduction of the costs for services to exempted VFR in 2014 and the deduction of 2014 other revenues that has already been billed to the users through the
- as well as adjustments relating to the activities of 2014 but which will be charged or reimbursed to users in future years. These adjustments include:
- the inflation adjustment;
- \* the adjustments resulting from the implementation of the traffic risk-sharing (ATSP);

  \* the adjustments resulting from the difference in traffic (for costs not subject to traffic risk sharing);
- \* the bonus/penalty for the current year;
  \* the costs exempt from cost sharing (if deemed eligible).

These costs and adjustments are divided by the actual total service units in 2014.

The unit cost that the users incurred in respect of the activities performed in 2014 was 34.49 € This is substantially lower than the nominal DUR (37.88 €). The difference observed between these two figures (-3.39 €) reflects the adjustments made for inflation (-1.91 €), traffic risk sharing (-1.13 €), traffic (-0.87 €) and for costs exempt from costsharing (+0.52 €).

#### Monitoring of en-route and terminal COST-EFFICIENCY for 2014

10	0 Terminal co	osts and unit ra	tes monitorir	ng (2014)			
		2009	2010	2011	2012	2013	2014
Terminal Service Unit Formula							
Number of airports in terminal charging zone				2	2	2	2
of which, number of airports over 50 000 movements							
CYPRUS - Data from RP1 national performance plan		2009A	2010A	2011F	2012P	2013P	2014P
Terminal ANS costs for the charging zones - (in EUR)		0	0	7 434 000	7 850 000	7 781 000	8 004 000
Inflation index (100 in 2009)		100.0	102.5	106.0	109.2	112.4	115.8
Real terminal ANS costs - (in EUR2009)		0	0	7 014 200	7 190 979	6 920 167	6 911 161
CYPRUS - Actual data from June 2015 Reporting Tables	;	2009A	2010A	2011A	2012A	2013A	2014A
Terminal ANS costs for the charging zones - (in EUR)				7 433 823	7 647 203	7 484 639	7 547 638
Inflation index (100 in 2009)		100.0	102.5	106.1	109.4	109.8	109.5
Real terminal ANS costs - (in EUR2009)				7 007 256	6 991 651	6 815 760	6 893 810
Total terminal service units				43 902	42 500	39 000	40 000
Actual real unit costs - (in EUR2009)				159.6	164.5	174.8	172.3
Unit rate applied - (in EUR)					N/appl	N/appl	N/appl
Difference between Actuals and Planned in absolute val	ue and in percent	ana (Actuale ve. NP	D)		2012	2013	2014
Terminal ANS costs for the charging zones - (in EUR)	in value	ige (Actuals Vs. N	. ,		-202 797	-296 361	-456 362
Tomas and costs for the charging condo (in cost)	in%				-2.6%	-3.8%	-5.7%
Inflation index (100 in 2009)	in p.p.				0.2 p.p.	-2.6 p.p.	-6.3 p.p.
Real terminal ANS costs - (in EUR2009)	in p.p.				-199 328	-104 407	-17 351
(=,	in%				-2.8%	-1.5%	-0.3%

## 11. - General conclusions on the Terminal ANS costs and unit rates monitoring

Cyprus does not charge terminal air navigation services through a separate terminal navigation charge (TNC), since Cyprus has not yet defined a terminal charging zone with a single terminal unit rate but the government currently fully subsidizes terminal charges.

Nevertheless, Cyprus discloses in the reporting tables the costs related to the provision of terminal air navigation services at its two international airports (Larnaca and Paphos).

The 2014 actual terminal ANS costs are -0.3% lower than the forecast provided in the NPP in real terms (-0.02 M€2009) as a result of both lower nominal terminal ANS costs (-5.7%) and inflation index (-6.3 p.p.) than planned.

## RP1 summary

When considering the whole of RP1 (2012-2014), actual terminal ANS costs are -1.5% (or some -0.3 M€2009) lower in real terms than planned in the NPP. Cyprus fully subsidized terminal ANS over RP1 therefore it did not charge airspace users through a separate terminal navigation charge (TNC).

	12 Monito	ring of gate-to	-gate costs (2	2014)			
CYPRUS - Data from RP1 national performance plan		2009A	2010A	2011F	2012P	2013P	2014P
Real en-route costs (determined costs 2012-2014) - (in El	JR2009)	43 799 792	43 774 391	41 958 827	43 606 147	43 403 173	43 824 563
Real terminal ANS costs - (in EUR2009)		0	0	7 014 200	7 190 979	6 920 167	6 911 161
Real gate-to-gate ANS costs - (in EUR2009)		43 799 792	43 774 391	48 973 027	50 797 126	50 323 339	50 735 724
Share of en-route costs in gate-to-gate ANS costs	100.0%	100.0%	85.7%	85.8%	86.2%	86.4%	
CYPRUS - Actual data from June 2015 Reporting Tabl	es	2009A	2010A	2011A	2012A	2013A	2014A
Real en-route costs - (in EUR2009)		43 799 792	43 774 391	41 918 287	43 744 375	42 811 624	43 713 356
Real terminal ANS costs - (in EUR2009)	0	0	7 007 256	6 991 651	6 815 760	6 893 810	
Real gate-to-gate ANS costs - (in EUR2009)	43 799 792	43 774 391	48 925 543	50 736 027	49 627 384	50 607 166	
Share of en-route costs in gate-to-gate ANS costs		100.0%	100.0%	85.7%	86.2%	86.3%	86.4%
Difference between Actuals and Planned in absolute v	alue and in percenta	age (Actuals vs. N	PP)		2012	2013	2014
Real en-route costs - (in EUR2009)	in value				138 228	-591 548	-111 207
	in %				0.3%	-1.4%	-0.3%
Real terminal ANS costs - (in EUR2009)	in value				-199 328	-104 407	-17 351
	in %				-2.8%	-1.5%	-0.3%
Real gate-to-gate ANS costs - (in EUR2009)	in value				-61 100	-695 955	-128 558
	in %				-0.1%	-1.4%	-0.3%
Share of en-route costs in gate-to-gate ANS costs	in p.p				0.4 p.p.	0.0 p.p.	0.0 p.p.

## 13. - General conclusions on the gate-to-gate ANS costs

In 2014, Cyprus actual gate-to-gate ANS costs (50.6 M€2009) are lower than planned in the NPP (50.7 M€2009) by -0.3% in real terms.

The relative share of en-route costs in gate-to-gate ANS costs is in line with the figure planned in the NPP for 2014 (86.4%). Since 2011, this share has been relatively stable at around 86%.





# PRB Annual Monitoring Report 2014

Czech Republic

Working Draft 2.0

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## **Monitoring of SAFETY indicators for 2014**

		E	ffectivene	ss of Safet	y Managen	nent			
		2012	2013	2014		State le	evel Obser	vations	
State lev	⁄el	38	61	67					
ANSP [A	NS CR]	81	81	82					
Number of questions	16 16  < Level C ≥ Level C  CO1		CO2		CO3		CO4	■ EASA v	sessment erification
	Applicati	ion of the s	severity cla	assification	n of the Ris	sk Analysis	Tool (RA	Γ)	
				20	12	20	13	20	)14
				No reported	Assessed (%)	No reported	Assessed (%)	No reported	Assessed (%)
-	on Minima ments (SMIs)		ATM Ground ATM Overall		100% 100%	19	100% 100%	23	100% 100%
Runway	Incursions (RIs)		Ground Overall	14	100% 100%	15	100% 100%	6	100% 100%
ATM Spe (ATM-Sp	ecific Occurences	ATM (	Overall	18	100%	20	90%	14	100%
	Source of RA	Γ data:				UZI	PLN		
				Just cultu	ire				
							ate		
Number	of questions answ	ered with \	res or No		12		13		14
	Delieus and the track			YES	NO	YES	NO 7	YES	NO
	Policy and its imple Legal/Judic			2	8	3	7	4	5
00			ation	5 2	3 0	6	0	6	0
00	Occurrence reporting and Investigation  TOTAL		9	11	11	9	12	6	
TOTAL				<u> </u>	<u>''</u>	<u>''</u>	<u> </u>	12	
					ANSP [/	ANS CR]			
Number	Number of questions answered with Yes or No			20	12		13	20	14
			YES	NO	YES	NO	YES	NO	
	Policy and its imple	ementation		7	6	11	2	11	2
	Legal/Judic	iary		2	1	2	1	2	1
Oc	currence reporting ar	nd Investiga	ation	4	4	6	2	6	2
	TOTAL			13	11	19	5	19	5

## Monitoring of CAPACITY indicators for 2014

Minutes of ATFM en-route delay									
	2012	2013	2014	Observations					
Reference value	0.15	0.16	0.15						
National Target	0.15	0.16	0.15						
Actual performance	0	0.04	0.01						

## **National capacity assessment**

The capacity target for the Czech Republic is surpassed while the cost-efficiency target is being met. In 2014 the Czech Republic has continuously improved the performance within all 4 KPAs and has successfully followed the level of performance of 2013.

## **PRB Capacity assessment**

The excellent performance in 2012 and 2013 continued through 2014, with the Czech Republic surpassing both the national target and the level of performance required to be consistent with the EU-wide target for en-route capacity.

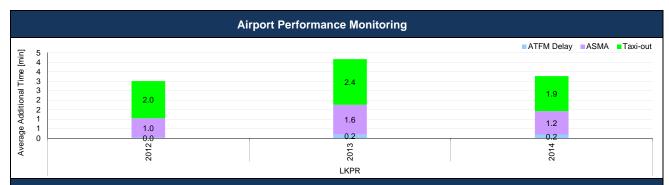
## **Effective booking procedures**

The ratio of time airspace was actually used for activity requiring segregation or restriction from GAT and the amount of time it was allocated as being restricted on the day of operations: 40%

No information was provided regarding the allocation of airspace at H-3, so it is impossible to determine how much restricted or segregated airspace, that was surplus to requirements, was released for GAT use.

## Recommendations

## **Monitoring of CAPACITY indicators for 2014**



				Airport Data	1				
Airport Name	ICAO Code	RP1 Year	Average of Apt. ATFM arr. Delay [min./arr.]	Total Apt. ATFM arr. delay [min.]	Additional ASMA time [min./arr.]	Total Additional ASMA time [min]	Additional taxi-out time [min./dep.]	Total Additional taxi-out time [total]	Sum of Total Additional Time [min]
		2012	0.0	2 436	1.0	61 960	2.0	119 242	183 637
Prague/Ruzyne	LKPR	2013	0.2	12 461	1.6	93 450	2.4	144 609	250 519
		2014	0.2	11 644	1.2	71 413	1.9	105 446	188 502
		2012	0.0	2 436	1.0	61 960	2.0	119 242	183 637
Total		2013	0.2	12 461	1.6	93 450	2.4	144 609	250 519
		2014	0.2	11 644	1.2	71 413	1.9	105 446	188 502
Absolute Difference	Absolute Difference		0.0		-0.3	22 037	-0.5	<b>△</b> -39 163	<u>-62 017</u>
		2014-2012	▼ 0.2	9 208	<b>0.2</b>	<b>9</b> 453	-0.1	<u></u> -13 796	<b>4</b> 865

**Critical Issues** 

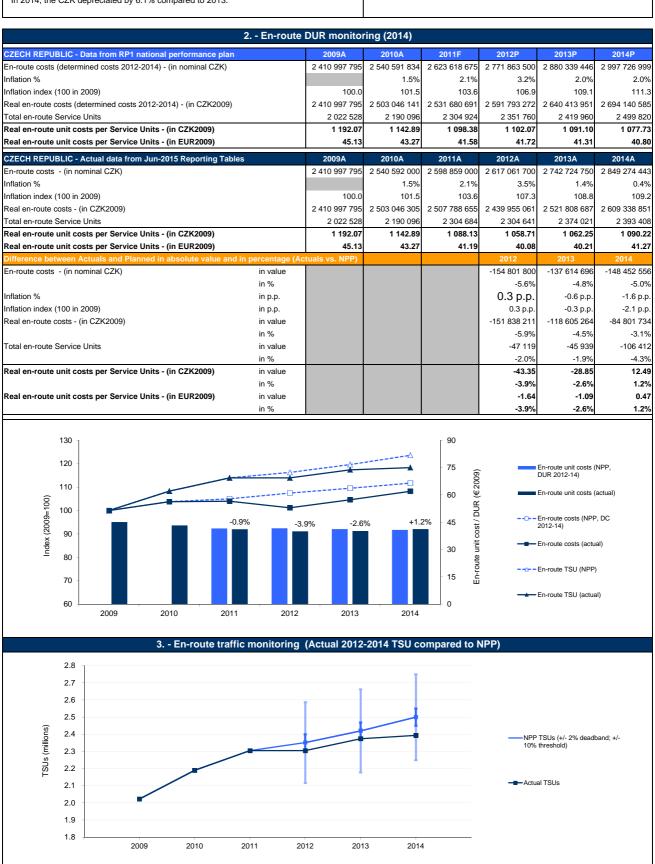
## **Specific Analysis**

• Despite a continuous decrease of traffic volume by 6% compared to 2012, total additional time increased by 3% at Prague Airport over RP1. It is believed that this decreased performance is due to the general reconstruction of main runway 06/24. Should this be the case, performance should improve again during RP2.

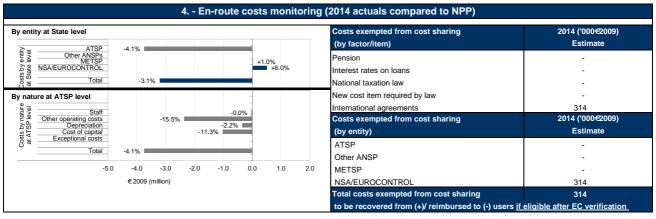
<sup>•</sup> None

#### Monitoring of en-route and terminal COST-EFFICIENCY for 2014

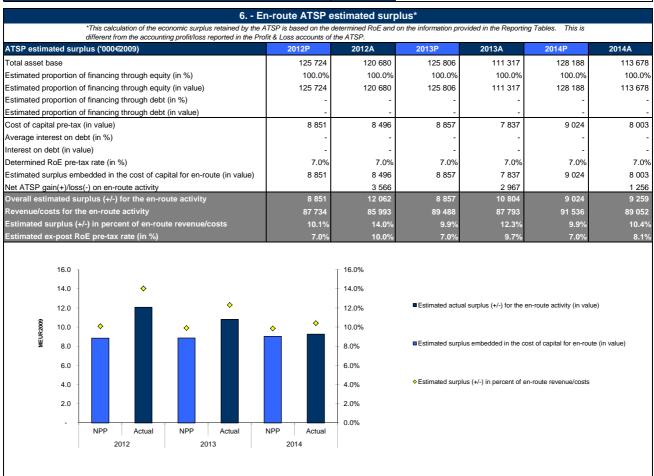




#### Monitoring of en-route and terminal COST-EFFICIENCY for 2014



Cost sharing ('000€2009)	2014A						
Determined costs for the ATSP (NPP)	91 536	Combined effect of variations in costs and traffic for 2014 ('000€2009)					
Actual costs for the ATSP	87 796	,	1				
Difference in costs: gain (+)/Loss (-) retained/borne by the ATSP	3 739						
Amounts excluded from cost sharing to be recovered from (+) reimbursed to (-) users	-	Gain/loss from cost sharing					
Gain (+)/Loss (-) to be retained by the ATSP in respect of cost sharing	3 739						
Traffic risk sharing ('000€2009)	2014A						
Difference in total service units (actual vs NPP)	-4.26%	Gain/loss from traffic risk sharing					
Determined costs after deduction of costs for exempted VFR flights	92 774						
ATSP gain (traffic between 0 and +2% higher than NPP)	-		1				
ATSP gain (traffic between +2% and +10% higher than NPP)	-	Bonus/penalty from incentives					
ATSP loss (traffic between 0 and -2% below NPP)	-1 855	,					
ATSP loss (traffic between -2% and -10% below NPP)	-628		-				
Gain (+)/Loss (-) to be retained by the ATSP in respect of traffic risk sharing	-2 484						
Incentives ('000€009)	2014A	Net ATSP gain/loss					
ATSP bonus (+) / penalty (-)		-4 000	-2000 0 2000 400				
Gain (+)/Loss (-) to be retained by the ATSP in respect of incentives	-	-4000	-2 000 0 2 000 4 00 ATSP loss ATSP gain				
Net ATSP gain(+)/loss(-) on en-route activity	1 256	7					



#### Monitoring of en-route and terminal COST-EFFICIENCY for 2014

#### 7. - General conclusions on the monitoring of the 2014 en-route DUR

Notes on information provided by CZECH REPUBLIC

#### At State / Charging Area level

In 2014, the actual real en-route unit cost for Czech Republic (41.27 €2009) is +1.2% higher than the DUR provided in the NPP for RP1 (40.80 €2009). The difference is due to the actual en-route traffic (TSUs) being -4.3% lower than the NPP, only partly offset by the actual en-route costs in real terms being -3.1% lower than the 2014 determined costs.

The number of en-route total service units (TSUs) in 2014 (2.4 million) is -4.3% lower than the figure provided in the Czech Republic's Adopted NPP, which is outside the ± 2% dead band foreseen in the traffic risk sharing mechanism. Therefore, the resulting loss of revenue is shared between the ATSP and the airspace users, with the loss borne by the ATSP amounting to some -2.5 M€2009.

#### Actual 2014 costs vs. NPP

In 2014, the total actual en-route costs for Czech Republic are -3.1% (or -3.2 M€2009) lower than planned. This mainly reflects lower en-route costs in nominal terms (-5.0%), as actual inflation index for 2014 is lower than planned in the NPP (-2.1 p.p.).

The en-route cost-base includes costs from Czech Republic's ATSP (ANS CR), the MET Service Provider (CHMI) and its NSA. The reduction in overall costs is due to ANS CR, with its en-route costs being -4.1% lower than planned (-3.7 M€2009). More details on the cost reduction initiatives of ANS CR are described below. Although the actual en-route costs for both CHMI (+1.0% or +0.02 M€2009) and the NSA (+6.0% or +0.5 M€2009) are higher, these increases are relatively small as compared to the cost reduction made by ANS CR.

For the NSA, actual costs are +6.0% higher than determined costs due to a combined rise in other operating costs and depreciation costs. In the NPP, depreciation was bundled with other operating costs, whereas in the Reporting Tables it has been presented separately. Together other operating costs and depreciation costs are +0.5 M€2009 higher than planned.

Costs exempt from cost sharing are reported for an amount of +0.3 M€2009, corresponding to the difference between the planned and actual values for EUROCONTROL costs. These costs will be eligible for carry-over to the following reference period(s), if deemed allowed by the European Commission after verification on the basis of the NSA report establishing and justifying these exemptions.

#### **RP1 summary**

When considering the whole of RP1 (2012-2014) the actual number of TSUs is -2.7% lower than planned and actual costs are -4.5% lower than planned (some -13.5 M€2009). As a result, the weighted average unit cost over RP1 is -1.8% lower than planned in the NPP.

#### At ATSP level

#### Actual 2014 ANS CR costs vs. NPP

In 2014 ANS CR actual en-route costs are some -3.7 M€2009 lower than the determined costs, due to reductions in all cost items as compared to the NPP. According to the Additional Information to the June 2015 en-route Reporting Tables, the most significant savings come from lower other operating costs (-2.4 M€2009 or -15.5%), due to savings in maintenance, services and telecommunication fees.

The actual cost of capital was also lower than planned (-1.0 M€2009 or -11.3%). Based on the information provided in Czech Republic's Additional Information to the June 2015 en-route Reporting Tables, the lower actual cost of capital mainly reflects the use of a lower asset base, resulting from lower than planned investment, to calculate ANS CR's cost of capital.

In 2014, the actual total asset base is 113.7 M€2009, or -11.3% lower than planned.

In 2014, actual capex is 518 MCZK, which is -250 MCZK or -32.5% less than planned in the NPP, noted as being due to the tendering process delays in the Additional Information to the June 2015 en-route Reporting Tables.

#### ANS CR net gain/loss and estimated surplus on en-route activity in 2014

As shown in item 5, the en-route activity for 2014 generated a net gain of +1.3 M€2009 for ANS CR. This is the result of a combination of two elements:

- a gain of +3.7 M€2009 for ANS CR as a result of the cost-sharing mechanism;
- a loss of -2.5 M€2009 as a result of the traffic risk sharing mechanism for 2014.

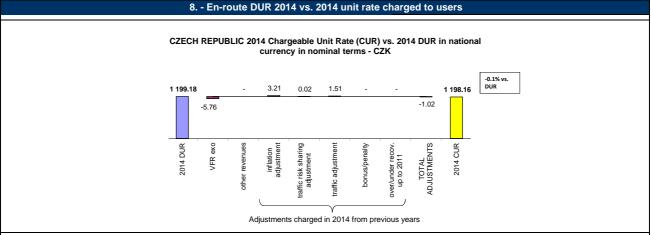
For the en-route activity, the estimated surplus embedded in the cost of capital through the return on equity planned in the NPP amounted to +9.0 M€2009, corresponding to an estimated surplus of +9.9% of the en-route revenues for 2014. Ex-post, the overall estimated surplus for the year calculated by adding the surplus embedded in the cost of capital (+8.0 M€2009) and the net gain from the en-route activity in 2014 (+1.3 M€2009), gives a total of +9.3 M€2009 for 2014, corresponding to +10.4% of the en-route revenue in 2014. The resulting ex-post rate of return on equity for 2014 is +8.1% (compared to +7.0% as initially planned in the NPP).

#### Conclusion

Whilst traffic volumes were lower than expected (-4.3%), ANS CR's actual en-route costs in 2014 were -4.1% lower than planned in the NPP, in real terms. The en-route activity for the year 2014 generated a net gain of +1.3 M€2009 for ANS CR, which results in an overall estimated surplus of +10.4% of the en-route revenue for 2014 (up from a planned +9.9% in the NPP).

When considering the whole of RP1 (2012-2014), ANS CR could retain a cumulative gain in respect of cost sharing of +13.7 M€2009 as actual costs were lower than planned for all years of RP1. However, ANS CR incurred a cumulative loss in respect of traffic risk sharing amounting to -5.9 M€2009, which resulted in a cumulative net gain for the en-route activity of +7.8 M€2009.

#### Monitoring of en-route and terminal COST-EFFICIENCY for 2014



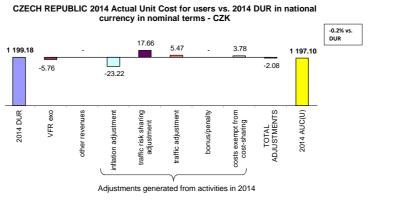
The DUR for 2014 expressed in nominal terms differs from the actual en-route unit rate charged to users in 2014 (CUR).

- the DUR, but also, a deduction of the costs for services to exempted VFR in 2014, as determined prior to the reference period and a deduction of 2014 other revenues;
- as well as adjustments relating to the activities of previous years that are carried-over to 2014. These adjustments include:
  - the inflation adjustment:
- \* the adjustment resulting from the implementation of the traffic risk-sharing (ATSP);
- \* the adjustment resulting from the difference in traffic (for costs not subject to traffic risk sharing); \* the bonus/penalty from previous year(s).
- \* the legacy carry-overs incurred in the full cost recovery regime up to and including 2011.

These costs and adjustments are divided by the forecast total service units for 2014 as laid out in the performance plan.

The CUR charged to airspace users in 2014 was 1 198.16 CZK. This is slightly lower than the DUR (1 199.18 CZK in nominal terms). The small difference between these two figures (-1.0 CZK, -0.1%) relates to costs for services to exempted VFR (-5.76 CZK, or -0.5%) and adjustments on inflation, traffic risk sharing and traffic carry-overs incurred in 2014 from previous years (+4.74 CZK, or +0.4%).

## 9. - En-route DUR 2014 vs. 2014 actual unit cost for users



The DUR for 2014 expressed in nominal terms can also be compared to the actual en-route unit cost for airspace users (AUC-U) for 2014 (also sometimes referred to the "true cost for users"), which reflects the unit cost that the users incur in respect of the activities performed in 2014. The AUC-U comprises:

- the DUR, the deduction of the costs for services to exempted VFR in 2014 and the deduction of 2014 other revenues that has already been billed to the users through the
- as well as adjustments relating to the activities of 2014 but which will be charged or reimbursed to users in future years. These adjustments include:
- the inflation adjustment;
- \* the adjustments resulting from the implementation of the traffic risk-sharing (ATSP);

  \* the adjustments resulting from the difference in traffic (for costs not subject to traffic risk sharing);
- \* the bonus/penalty for the current year;
  \* the costs exempt from cost sharing (if deemed eligible)

These costs and adjustments are divided by the actual total service units in 2014.

The AUC-U for airspace users in 2014 was 1 197.10 CZK (nominal), which is similar to (-0.2%) to the DUR of 1 199.18 CZK. This is due to adjustments generated from activities in 2014:

- -5.76 CZK, or -0.5% deduction of costs for services to exempted VFR:
- -23.22 CZK, or -1.9% deduction for the inflation adjustment;
- +17.66 CZK, or +1.5% increase for the traffic risk sharing adjustment;
- +5.47 CZK, or +0.5% increase for the traffic adjustment; and
- +3.78 CZK, or +0.3% increase for costs exempt from cost-sharing.

#### Monitoring of en-route and terminal COST-EFFICIENCY for 2014

1	0 Terminal cos	sts and unit ra	ates monitori	ng (2014)			
		2009	2010	2011	2012	2013	2014
Terminal Service Unit Formula	(MTOW/50)^	0.7	0.7	0.7	0.7	0.7	0.7
Number of airports in terminal charging zone		4	4	4	4	4	4
of which, number of airports over 50 000 movements		1	1	1	1	1	1
CZECH REPUBLIC - Data from RP1 national performance	ce plan	2009A	2010A	2011F	2012P	2013P	2014P
Terminal ANS costs for the charging zones - (in CZK)		594 226 434	611 067 517	571 246 000	589 438 400	605 512 600	622 465 700
Inflation index (100 in 2009)		100.0	101.5	103.6	106.9	109.1	111.3
Real terminal ANS costs - (in CZK2009)		594 226 434	602 036 962	551 228 150	551 146 360	555 074 826	559 427 228
Real terminal ANS costs - (in EUR2009)		22 496 051	22 791 740	20 868 234	20 865 138	21 013 861	21 178 633
CZECH REPUBLIC - Actual data from June 2015 Report	ing Tables	2009A	2010A	2011A	2012A	2013A	2014A
Terminal ANS costs for the charging zones - (in CZK)		594 226 434	611 768 000	579 482 000	530 308 000	527 267 000	533 999 000
Inflation index (100 in 2009)		100.0	101.5	103.6	107.3	108.8	109.2
Real terminal ANS costs - (in CZK2009)		594 226 434	602 727 094	559 175 540	494 420 016	484 797 645	489 031 283
Real terminal ANS costs - (in EUR2009)		22 496 051	22 817 866	21 169 104	18 717 609	18 353 328	18 513 604
Total terminal service units		87 641	83 659	85 372	76 247	73 888	73 349
Actual real unit costs - (in CZK2009)		6 780.2	7 204.6	6 549.9	6 484.5	6 561.3	6 667.2
Unit rate applied - (in CZK)					6 800.00	6 800.00	6 800.00
Difference between Actuals and Planned in absolute va	lue and in percentag	je (Actuals vs. NF	PP)		2012	2013	2014
Terminal ANS costs for the charging zones - (in CZK)	in value				-59 130 400	-78 245 600	-88 466 700
	in%				-10.0%	-12.9%	-14.2%
Inflation index (100 in 2009)	in p.p.				0.3 p.p.	-0.3 p.p.	-2.1 p.p.
Real terminal ANS costs - (in CZK2009)	in value				-56 726 344	-70 277 180	-70 395 945
	in%				-10.3%	-12.7%	-12.6%
Real terminal ANS costs - (in EUR2009)	in value				-2 147 529	-2 660 533	-2 665 029
	in%				-10.3%	-12.7%	-12.6%

#### 11. - General conclusions on the Terminal ANS costs and unit rates monitoring

The terminal charging zone of Czech Republic includes 4 airports, one of which (Praha-Ruzyne) handles over 50 000 movements. The harmonised SES formula (MTOW/50)^0.7 already applies in Czech Republic's terminal charging zone.

Actual terminal ANS costs are -12.6% lower than the forecast presented in the NPP for the year 2014 (some -2.7 M€2009). According to the additional information provided with the June 2015 terminal Reporting Tables, the main driver for this decrease is because actual traffic in 2014 was -19.9% lower than forecast, which as a result, led to ANS CR introducing cost-containment measures, that minimised the increase in staff cost, and reduced operating costs and depreciation.

#### RP1 summary

When considering the whole of RP1 (2012-2014), actual terminal ANS costs are -11.9% lower in real terms (or some -7.5M€2009) than planned in the NPP. This reflects the fact that terminal ANS costs are -10.3% to -12.7% lower than planned in real terms in each year of RP1.

	12 Monitor	ing of gate-to	-gate costs (2	2014)			
CZECH REPUBLIC - Data from RP1 national performan	ice plan	2009A	2010A	2011F	2012P	2013P	2014P
Real en-route costs (determined costs 2012-2014) - (in CZ	K2009)	2 410 997 795	2 503 046 141	2 531 680 691	2 591 793 272	2 640 413 951	2 694 140 585
Real terminal ANS costs - (in CZK2009)		594 226 434	602 036 962	551 228 150	551 146 360	555 074 826	559 427 228
Real gate-to-gate ANS costs - (in CZK2009)		3 005 224 229	3 105 083 103	3 082 908 841	3 142 939 632	3 195 488 777	3 253 567 813
Real gate-to-gate ANS costs - (in EUR2009)		113 770 901	117 551 330	116 711 863	118 984 491	120 973 881	123 172 620
Share of en-route costs in gate-to-gate ANS costs		80.2%	80.6%	82.1%	82.5%	82.6%	82.8%
CZECH REPUBLIC - Actual data from June 2015 Repor	ting Tables	2009A	2010A	2011A	2012A	2013A	2014A
Real en-route costs - (in CZK2009)		2 410 997 795	2 503 046 305	2 507 788 655	2 439 955 061	2 521 808 687	2 609 338 851
Real terminal ANS costs - (in CZK2009)		594 226 434	602 727 094	559 175 540	494 420 016	484 797 645	489 031 283
Real gate-to-gate ANS costs - (in CZK2009)		3 005 224 229	3 105 773 399	3 066 964 195	2 934 375 077	3 006 606 332	3 098 370 135
Real gate-to-gate ANS costs - (in EUR2009)		113 770 901	117 577 463	116 108 235	111 088 715	113 823 225	117 297 192
Share of en-route costs in gate-to-gate ANS costs		80.2%	80.6%	81.8%	83.2%	83.9%	84.2%
Difference between Actuals and Planned in absolute va	alue and in percentag	ge (Actuals vs. NF	PP)		2012	2013	2014
Real en-route costs - (in CZK2009)	in value				-151 838 211	-118 605 264	-84 801 734
	in %				-5.9%	-4.5%	-3.1%
Real terminal ANS costs - (in CZK2009)	in value				-56 726 344	-70 277 180	-70 395 945
	in %				-10.3%	-12.7%	-12.6%
Real gate-to-gate ANS costs - (in CZK2009)	in value				-208 564 554	-188 882 444	-155 197 678
	in %				-6.6%	-5.9%	-4.8%
Real gate-to-gate ANS costs - (in EUR2009)	in value				-7 895 776	-7 150 656	-5 875 428
	in %				-6.6%	-5.9%	-4.8%
Share of en-route costs in gate-to-gate ANS costs	in p.p.				0.7 p.p.	1.2 p.p.	1.4 p.p.

#### 13. - General conclusions on the gate-to-gate ANS costs

In 2014, Czech Republic's gate-to-gate ANS costs (117.3 M€2009) are -4.8% lower than planned in the NPP (123.2 M€2009). This difference is driven by lower actual costs than planned in both en-route and terminal ANS costs. The reduction in en-route costs is primarily from the reduction in other operating costs.

The relative share of en-route costs in gate-to-gate ANS costs in 2014 (84.2%) is slightly higher than planned (82.8%). This is due to 2014 terminal ANS costs being significantly lower than forecast (-12.6%) while actual en-route ANS costs are also lower than planned, but to a lesser extent (-3.1%).





# PRB Annual Monitoring Report 2014 DK-SE FAB

Working Draft 2.0

Edition date: 03/09/2015



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#### **DK-SE FAB**

## Monitoring of CAPACITY indicators for 2014

	Minutes of ATFM en-route delay											
	2012	2013	2014	Observations								
Reference value	0.04	0.05	0.08									
National Target	0.2	0.15	0.08									
Actual performance	0.03	0.02	0.02									

## **National capacity assessment**

The ANSPs in the Danish-Swedish FAB (LFV and Naviair) have delivered better results than expected in the Performance Plan.

## Military dimension of the plan

No specific details were provided on how the FUA concept would be applied to provide additional capacity. Sweden states that all the capacity benefits of FUA have already been achieved.

## **PRB Capacity assessment**

The Denmark-Sweden FAB surpassed the FAB target for capacity performance in 2014, as it did in 2013 and 2012. The level of capacity performance was also consistent with the level required to meet the EU-wide target of 0.5 minutes per flight in 2014.

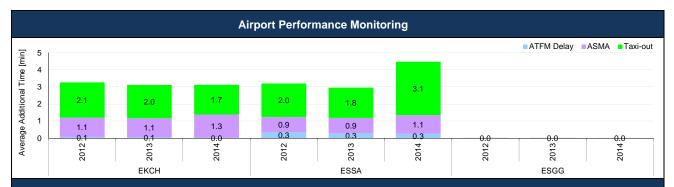
## **Effective booking procedures**

See the national reports for Sweden and Denmark.

## Recommendations

#### **DK-SE FAB**

#### Monitoring of CAPACITY indicators for 2014



#### **Airport Data** Average of Total Additional Total Sum of Total Apt. Additional **ICAO** Additional taxi-out Additional Total Apt. ATFM **Airport Name RP1 Year** ATFM arr. **ASMA** time arr. Delay Additional Code ASMA time time taxi-out delay [min.] [min./arr.] [min./arr.] time [total] Time [min] [min] [min./dep.] 375 685 2012 0.1 9 549 1.1 130 268 2.1 235 868 Copenhagen/Kastrup **EKCH** 0.1 2.0 2013 8 339 1.1 128 422 222 575 359 336 2014 0.0 4 933 160 617 202 699 368 248 1.3 1.7 2012 0.3 36 551 0.9 91 530 2.0 190 116 318 197 Stockholm/Arlanda **ESSA** 2013 0.3 32 658 0.9 95 220 1.8 175 030 302 908 2014 0.3 30 471 119 251 3.1 317 985 467 707 1.1 0.0 2012 897 n/appl. n/appl. n/a n/a n/a Gotenborg/Landvetter **ESGG** 2013 0.0 870 n/appl. n/appl. n/a n/a n/a 2014 0.0 465 n/appl. n/appl n/a n/a n/a 0.2 2012 46 997 1.0 221 799 n/a n/a n/a Total 2013 0.2 41 867 1.0 223 642 n/a n/a n/a 2014 0.1 35 869 1.2 279 868 n/a n/a n/a 2014-2013 0.0 -5 998 0.2 56 226 n/a n/a n/a Absolute Difference 2014-2012 -0.1 -11 128 0.2 58 070 n/a n/a n/a

• Missing DRWY data at Göteborg Landvetter Airport since 2012. Data required for the calculation of taxi-out time.

#### Specific Analysis

**Critical Issues** 

- Most of delay at Copenhagen and Stockholm Arlanda airports is due to adverse weather conditions.
- The averages for additional taxi-out times could not be calculated due the missing data.





# PRB Annual Monitoring Report 2014

Denmark

Working Draft 2.0

Edition date: 03/09/2015



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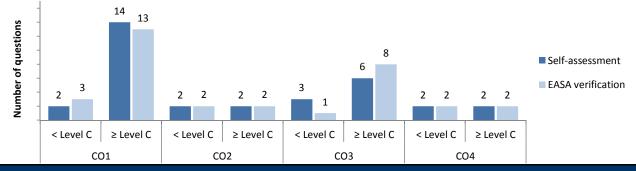
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## Monitoring of SAFETY indicators for 2014

Effectiveness of Safety Management											
	2012	2013	2014	State level Observations							
State level	45	48	49								
ANSP [NAVIAIR]	89	90	90								



## Application of the severity classification of the Risk Analysis Tool (RAT)

		2012		2013		2014			
		No reported	Assessed (%)	No reported	Assessed (%)	No reported	Assessed (%)		
Separation Minima	ATM Ground	8	0%	8	13%	17	100%		
Infringements (SMIs)	ATM Overall	0	0%		0%		0%		
Runway Incursions (RIs)	ATM Ground	38	0%	41	2%	2	100%		
Runway incursions (Ris)	ATM Overall	30	0%	41	0%	2	0%		
ATM Specific Occurences (ATM-Specific)	ATM Overall	664	0%	1067	0%	54	6%		
Source of RA	Source of RAT data:			CAA					

Preliminary results updated after coordination with the AST-FP in August 2015.

# Just culture

	State								
Number of questions answered with Yes or No	20	12	20	13	20	14			
	YES	NO	YES	NO	YES	NO			
Policy and its implementation	4	6	4	6	4	5			
Legal/Judiciary	6	2	6	2	5	2			
Occurrence reporting and Investigation	2	0	2	0	2	0			
TOTAL	12	8	12	8	11	7			

	ANSP [NAVIAIR]							
Number of questions answered with Yes or No	20	12	20	13	2014			
	YES	NO	YES	NO	YES	NO		
Policy and its implementation	9	4	9	4	9	4		
Legal/Judiciary	2	1	2	1	2	1		
Occurrence reporting and Investigation	7	1	6	2	6	2		
TOTAL	18	6	17	7	17	7		

## **Monitoring of CAPACITY indicators for 2014**

		Minutes o	of ATFM er	n-route delay
	2012	2013	2014	Observations
Reference value	0.08	0.06	0.07	
National Target				
Actual performance	0	0	0	

## National capacity assessment

The ANSP in the Danish-Swedish FAB (LFV and Naviair) have delivered better results than expected in the Performance Plan.

## **PRB Capacity assessment**

With excellent capacity performance since 2012, Denmark in 2014 has surpassed the level of performance required to be consistent with the EU-wide target.

## **Effective booking procedures**

Although the national monitoring report for 2014 did not contain any information regarding the effective booking procedures, Naviair had previously provided information on effective booking procedures for Denmark in 2014 for the Performance Review Report.

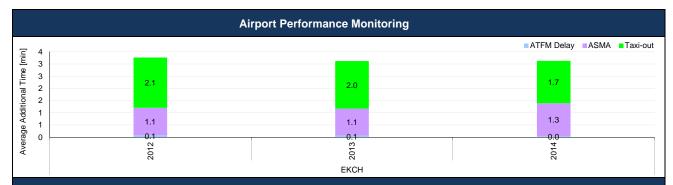
The ratio of time airspace was actually used for activity requiring segregation or restriction from GAT and the amount of time it was allocated as being restricted on the day of operations: 17%

The ratio of time airspace, that was surplus to requirement, was released with more than 3 hours' notice to the Network Manager and the amount of time it was allocated as being restricted on the day of operations: 9%

The ratio of time airspace was neither used nor released with at least 3 hours' notice to the Network Manager, but was allocated as being restricted on the day of operations: 74%

## Recommendations

## **Monitoring of CAPACITY indicators for 2014**



				Airport Data	1				
Airport Name	ICAO Code	RP1 Year	Average of Apt. ATFM arr. Delay [min./arr.]	Total Apt. ATFM arr. delay [min.]	Additional ASMA time [min./arr.]	Total Additional ASMA time [min]	Additional taxi-out time [min./dep.]	Total Additional taxi-out time [total]	Sum of Total Additional Time [min]
		2012	0.1	9 549	1.1	130 268	2.1	235 868	375 685
Copenhagen/Kastrup	EKCH	2013	0.1	8 339	1.1	128 422	2.0	222 575	359 336
		2014	0.0	4 933	1.3	160 617	1.7	202 699	368 248
		2012	0.1	9 549	1.1	130 268	2.1	235 868	375 685
Total		2013	0.1	8 339	1.1	128 422	2.0	222 575	359 336
				4 933	1.3	160 617	1.7	202 699	368 248
Absolute Differer	Absolute Difference		0.0	-3 406	<b>0.2</b>	<b>32 195</b>	-0.2	19 877	<b>8</b> 912
		2014-2012	0.0	<u>-4 616</u>	<b>0.2</b>	<b>30 348</b>	-0.3	<b>△</b> -33 169	<u></u> -7 437

• None

## **Specific Analysis**

**Critical Issues** 

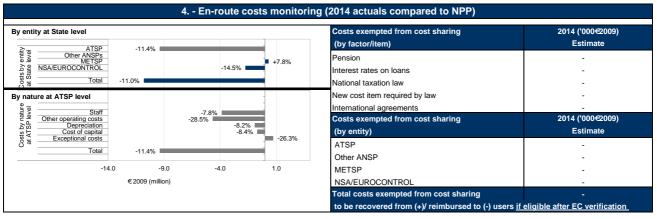
- Almost all delays at Copenhagen airport are due to weather conditions.
- No specific concern regarding RP1 performance monitoring.
  To be noted that, in average over RP1, total additional time improved by 2% at Copenhagen airport despite a traffic increase by 3%.

## Monitoring of en-route and terminal COST-EFFICIENCY for 2014



The DKK ex	change	rate to the EUI	₹ remained st	able in 2014 o	compared to 2	2013.						
				2	2 En-rout	e DUR monito	ring (2014)					
ENMARK - D	ata fror	n RP1 national	performance p	lan		2009A	2010A	2011F	2012P	2013P	2014P	
n-route costs	(determ	ined costs 2012-	2014) - (in nom	inal DKK)		765 672 826	735 661 455	738 016 565	772 363 786	799 231 596	806 319 0	
flation %							2.2%	1.5%	2.0%	2.0%	2.0	
flation index (	(100 in 2	2009)				100.0	102.2	103.7	105.8	107.9	110	
eal en-route o	costs (de	etermined costs 2	2012-2014) - (in	DKK2009)		765 672 826	719 825 299	711 457 844	729 969 631	740 551 666	732 469 3	
otal en-route	Service	Units				1 358 804	1 410 791	1 492 488	1 553 042	1 572 317	1 605 3	
eal en-route	unit co	sts per Service	Units - (in DKK	2009)		563.49	510.23	476.69	470.03	470.99	456	
eal en-route	unit co	sts per Service	Units - (in EUR	2009)		75.70	68.55	64.04	63.15	63.28	61.	
ENMARK - A	ctual da	ata from Jun-20	15 Reporting T	ables		2009A	2010A	2011A	2012A	2013A	2014A	
n-route costs	- (in no	minal DKK)				765 672 826	735 661 455	718 962 626	722 109 707	724 607 426	706 352 9	
flation %							2.2%	2.7%	2.4%	0.5%	0.	
flation index (	(100 in 2	2009)				100.0	102.2	105.0	107.5	108.0	10	
eal en-route o	costs - (i	n DKK2009)				765 672 826	719 825 299	684 991 173	671 864 798	670 834 551	651 978 7	
otal en-route	Service	Units				1 358 804	1 410 791	1 470 012	1 428 735	1 523 724	1 532 (	
eal en-route	unit co	sts per Service	Units - (in DKK	(2009)		563.49	510.23	465.98	470.25	440.26	425	
eal en-route	unit co	sts per Service	Units - (in EUR	2009)		75.70	68.55	62.60	63.18	59.15	57	
			ned in absolut	e value and in		Actuals vs. NPP)			2012	2013	2014	
n-route costs	- (in no	minal DKK)			in value				-50 254 078	-74 624 170	-99 966 1	
					in %				-6.5%	-9.3%	-12.	
flation %					in p.p.				0.4 p.p.	-1.5 p.p.	-1.7 p	
flation index (	(100 in 2	2009)			in p.p.				1.7 p.p.	0.1 p.p.	-1.7 p	
eal en-route o	costs - (i	n DKK2009)			in value				-58 104 833	-69 717 114	-80 490 5	
					in %				-8.0%	-9.4%	-11.	
otal en-route	Service	Units			in value				-124 307	-48 593	-73 3	
					in %				-8.0%	-3.1%	-4.	
eal en-route	unit co	sts per Service	Units - (in DKK	2009)	in value				0.23	-30.73	-30	
					in %				0.0%	-6.5%	-6.	
eal en-route	unit co	sts per Service	Units - (in EUR	2009)	in value				0.03	-4.13		
					in %				0.0%	-6.5%	-6.7	
Index (2009=100)	100 - 90 - 80 - 70 - 60 - 50 -	2009	2010	-2.29	6 2012	+0.0% -6.5 2 2013	6.7	120 6000 20 110 120 120 120 120 120 120 120 1		DUR 2012-14)  En-route unit costs ( En-route costs (NPP 2012-14)  En-route costs (acture TSU (NPP)  En-route TSU (acture TSU (	, DC	
	1.9		3 En-r	oute traffic	monitoring	g (Actual 2012	-2014 TSU co	ompared to I	NPP)			
	1.8						*					
us)	1.7											
illio Tillio	1.6					·				TSUs (+/- 2% deadt threshold)	oand; +/-	
TSUs (millions)	1.5											
F	1.4	-							Actua	al TSUs		
	1.3											
		i .										
	1.2				1		-					

## Monitoring of en-route and terminal COST-EFFICIENCY for 2014



5 Focus on ATSP - "Net" ATSP g	ain/loss on en-	route activity in 2014			
Cost sharing ('000€2009)	2014A				
Determined costs for the ATSP (NPP)	82 200	Combined effect of variations in costs and traffic for 2014 ('000€2009)			
Actual costs for the ATSP	72 819		1		
Difference in costs: gain (+)/Loss (-) retained/borne by the ATSP	9 381				
Amounts excluded from cost sharing to be recovered from (+) reimbursed to (-) users	-	Gain/loss from cost sharing			
Gain (+)/Loss (-) to be retained by the ATSP in respect of cost sharing	9 381				
Traffic risk sharing ('000€2009)	2014A				
Difference in total service units (actual vs NPP)	-4.57%	Gain/loss from traffic risk sharing			
Determined costs after deduction of costs for exempted VFR flights	82 500				
ATSP gain (traffic between 0 and +2% higher than NPP)	-		1		
ATSP gain (traffic between +2% and +10% higher than NPP)	-	Bonus/penalty from incentives			
ATSP loss (traffic between 0 and -2% below NPP)	-1 650				
ATSP loss (traffic between -2% and -10% below NPP)	-636				
Gain (+)/Loss (-) to be retained by the ATSP in respect of traffic risk sharing	-2 286				
Incentives ('000€2009)	2014A	Net ATSP gain/loss			
ATSP bonus (+) / penalty (-)	-	-4 0	000 -2 000 0 2 000 4 000 6 000 8 000 10 000		
Gain (+)/Loss (-) to be retained by the ATSP in respect of incentives	-	<	ATSP loss ATSP gain		
Net ATSP gain(+)/loss(-) on en-route activity	7 096		7		

ga	(1)/1005( ) 011	en-route activi	ity				7 096					
				6.	- En-ro	ute ATSP 6	estimated surp	olus*				
		alculation of the e						on the information pro	ovided in the Reportin	g Tables. This is		
ATSP estimate	d surplus ('00	00€2009)				2012P	2012A	2013P	2013A	2014P	2014A	
Total asset base	e - See note 1					184 635	175 442	185 748	174 147	186 750	170 16	
Estimated propo	ortion of financ	ing through equ	uity (in %)			32.3%	41.2%	31.4%	33.5%	30.6%	32.5	
Estimated proportion of financing through equity (in value)					59 550	72 223	58 383	58 333	57 238	55 29		
stimated proportion of financing through debt (in %)					67.7%	58.8%	68.6%	66.5%	69.4%	67.5		
stimated propo	ortion of financ	ing through deb	ot (in value)			125 085	103 219	127 365	115 814	129 512	114 8	
Cost of capital p	ore-tax (in valu	e)				8 025	7 443	8 677	7 712	8 299	7 60	
verage interes	t on debt (in %	5)				4.0%	3.7%	4.5%	4.1%	4.2%	3.9	
nterest on debt	(in value)					5 047	3 832	5 757	4 795	5 437	4 5	
Determined Ros	E pre-tax rate (	(in %)				5.0%	5.0%	5.0%	5.0%	5.0%	5.0	
Estimated surpl	us embedded	in the cost of ca	apital for en-r	route (in value	e)	2 978	3 611	2 919	2 917	2 862	2 76	
Net ATSP gain(	+)/loss(-) on e	n-route activity					2 564		6 041		7 0	
overall estimat	ted surplus (+	-/-) for the en-r	oute activity	y		2 978	6 175	2 919	8 958	2 862	9 8	
Revenue/costs	for the en-ro	ute activity				81 314	78 309	82 961	81 056	82 200	79 9	
Estimated surp	olus (+/-) in pe	ercent of en-ro	ute revenue	/costs		3.7%	7.9%	3.5%	11.1%	3.5%	12.3	
Estimated ex-p	ost RoE pre-t	tax rate (in %)				5.0%	8.6%	5.0%	15.4%	5.0%	17.8	
MEUR2009	14.0 12.0 10.0 8.0 6.0 4.0 4.0				<b>*</b>	*	14.0% 12.0% 10.0% 8.0% 6.0% 4.0% 2.0%	■ Estimated surp	■ Estimated actual surplus (+/-) for the en-route activity (in value)  ■ Estimated surplus embedded in the cost of capital for en-route (in value)  ◆ Estimated surplus (+/-) in percent of en-route revenue/costs			
	NPP	Actual 2012	NPP 2	Actual	NPP	Actual 2014						

#### Monitoring of en-route and terminal COST-EFFICIENCY for 2014

#### 7. - General conclusions on the monitoring of the 2014 en-route DUR

#### Notes on information provided by DENMARK

#### Note 1: Amended calculation of the 2014 actual Total Asset based.

Denmark has indicated in the fact validation process that, in the 2015 June Reporting Tables, the 2014 actual Total asset base (1.433.140 MDKK) was, by mistake, including financial assets not to be considered. Denmark has indicated that they will amend this error in the 2015 November Reporting Tables and that the right figure is (1.372.230 MDKK). Therefore the 2014 En-route ATSP estimated surplus has been calculated with the amended 2014 Total asset figure provided by Denmark in the fact validation process.

#### Note 2: Reporting of Terminal Service Units

Since Denmark did not report the total terminal service units in the terminal reporting tables, the number of chargeable service units is shown in item 10 and the "actual real unit costs" is calculated based on the chargeable service units.

#### At State / Charging Area level

In 2014, the actual en-route unit cost for Denmark (57.17 €2009) is -6.7% lower than planned in the Adopted NPP for RP1 (61.30 €2009). This difference is due to the fact that in 2014 actual en-route costs are -11.0% (or 80.5 MDKK2009) lower in real terms than the determined costs provided in the NPP, while the actual number of total service units (TSUs) is -4.6% lower than planned.

The actual en-route traffic (TSUs) is lower by -4.6% compared to the NPP for 2014, which falls outside of ± 2% dead band foreseen in the traffic risk sharing mechanism. Therefore, the resulting loss of revenue is shared between the ATSP and the airspace users, with the loss borne by the ATSP amounting to some -2.3

#### Actual 2014 costs vs. NPP

Total actual en-route costs for Denmark in 2014 are 652.0 MDKK2009, or -11.0% less than planned, due to a combination of lower costs in nominal terms (-12.4%, with actual costs of 706.4 MDKK compared to the determined cost of 806.3 MDKK) and the actual inflation index being -1.7 percentage points lower than forecast in the NPP.

The en-route cost-base includes costs relating to the Danish ATSP (Naviair), the Danish MET (DMI) and NSA-DK. The cost savings are mostly attributable to Naviair (-11.4% in real terms, or -9.4 M€2009). A detailed analysis of Naviair costs is provided in the box below.

For DMI, actual costs in 2014 are a small contribution to the en-route cost-base but are +0.3 M€2009 higher than planned. According to the additional information provided with the June 2015 Reporting Tables, this is due to an increase in IT costs, which includes general maintenance of facilities, updates of technical installations including observation stations, and an increased contribution to EUMETSAT. However, DMI have reduced depreciation costs for 2014 by delaying the upgrade of their supercomputer.

For NSA-DK, actual costs are -1.8 M€2009 lower than planned, due to the CAA-DK and the Danish Transport Authority merging together to cover rail, road and air transport, which has reduced staff and other operating costs.

No costs exempt from cost sharing are reported for the year 2014.

#### **RP1 summary**

When considering the whole of RP1 (2012-2014) the actual number of TSUs is -5.2% lower than planned and actual costs are -9.5% lower than planned (some -208.3 MDKK2009). As a result, the weighted average unit cost over RP1 is -4.5% lower than planned in the NPP.

## At ATSP level

#### Actual 2014 Naviair costs vs. NPP

Naviair actual en-route costs in 2014 are 72.8 M€2009, -9.4 M€2009 (or -11.4%) lower than the determined costs. This is due to decreases in all cost categories. In particular, other operating costs are -4.6 M€2009 or -28.5% lower than planned. According to the Additional Information to the June 2015 en-route Reporting Tables this is due to the implementation of several cost containment measures, for example lower maintenance costs, insurance costs and also one-off savings in 2014, such as the cost of IT installations.

Actual staff costs are -3.9 M€2009 or -7.8% lower than planned in real terms due to a reduction in FTEs to adjust to the lower levels of traffic than planned throughout RP1. Depreciation and cost of capital are lower than planned in the NPP (-0.9 M€2009 and -0.7 M€2009 respectively). An amount of -2.8 M€2009 was planned in the NPP as an exceptional cost (i.e. a revenue). Actual exceptional costs in 2014 are -2.1 M€2009, -26.3% lower than planned, resulting in actual costs in this category being +0.7 M€2009 higher than planned.

In 2014, the actual total asset base is 170.2 M€2009, or -9.8% lower than planned. According to the 2014 NSA Monitoring Report, actual capex was 46.7 MDKK, -17.3 MDKK or -27.0% less than planned in the NPP. This is due to the postponement of replacing the hardware for COOPANS, which was initially intended to take place over several years from 2013 onwards. It will now take place later, along with the replacement of other related hardware. Other delays to capex projects include contractual delays and regulatory approvals.

#### Naviair net gain/loss and estimated surplus on en-route activity in 2014

As shown in item 5, the en-route activity for the year 2014 generated a net gain of +7.1 M€2009 for Naviair. This is the result of a combination of two separate elements:

- a gain of +9.4 M€2009 as a result of the cost-sharing mechanism; and
- a loss of -2.3 M€2009 as a result of the traffic risk sharing mechanism for 2014.

For the en-route activity, the surplus embedded in the cost of capital through the return on equity planned in the NPP amounted to +2.9 M€2009, corresponding to an estimated surplus of +3.5% of en-route revenues for 2014. Ex-post, the overall estimated surplus for the year calculated by adding the surplus embedded in the cost of capital (+2.8 M€2009) and the net gain from the en-route activity in 2014 (+7.1 M€2009), gives a total of +9.9 M€2009 for 2014, corresponding to +12.3% of the enroute revenue in 2014. The resulting ex-post rate of return on equity for 2014 is +17.8% (compared to +5.0% as initially planned in the NPP).

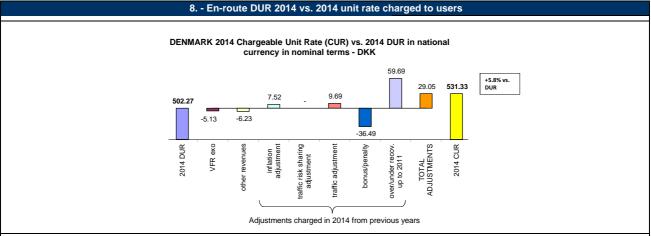
#### Conclusion

In a context of actual traffic in 2014 that was -4.6% lower than planned, Naviair reduced its en-route costs by -11.4% compared to planned (in real terms). Despite the loss under the traffic risk sharing mechanism, this resulted in a net gain (+7.1 M€2009) on the en-route activity compared to the NPP. Naviair's overall estimated surplus in respect of 2014 en-route activity amounts to +9.9 M€2009, corresponding to 12.3% of en-route revenue.

This indicates that in 2014, Naviair was in a position to retain the part of surplus embedded in the cost of capital and to generate extra gains arising from the lower costs than planned in 2014. This adds to the overall positive estimated surplus for the en-route activity generated by Naviair in 2013 of +9.0 M€2009 (or +11.1% of enroute revenues leading to an ex-post rate of return on equity of +15.4%) and in 2012 of +6.2 M€2009 (or +7.9% of en-route revenues in 2012 leading to an ex-post rate of return on equity of +8.6%).

When considering the whole of RP1 (2012-2014), Naviair could retain a cumulative gain in respect of cost sharing of +22.9 M€2009 as actual costs were lower than planned for all years of RP1. However, Naviair incurred a cumulative loss in respect of traffic risk sharing amounting to -7.2 M€2009, which resulted in a cumulative net gain for the en-route activity of +15.7 M€2009.

#### Monitoring of en-route and terminal COST-EFFICIENCY for 2014



The DUR for 2014 expressed in nominal terms differs from the actual en-route unit rate charged to users in 2014 (CUR).

- the DUR, but also, a deduction of the costs for services to exempted VFR in 2014, as determined prior to the reference period and a deduction of 2014 other revenues;
- as well as adjustments relating to the activities of previous years that are carried-over to 2014. These adjustments include:
- the inflation adjustment:
- \* the adjustment resulting from the implementation of the traffic risk-sharing (ATSP);
- \* the adjustment resulting from the difference in traffic (for costs not subject to traffic risk sharing); \* the bonus/penalty from previous year(s).
- \* the legacy carry-overs incurred in the full cost recovery regime up to and including 2011.

These costs and adjustments are divided by the forecast total service units for 2014 as laid out in the performance plan

The CUR charged to airspace users in 2014 is 531.33 DKK in nominal terms, which is +5.8% more than the DUR of 502.27 DKK. The difference is due to:

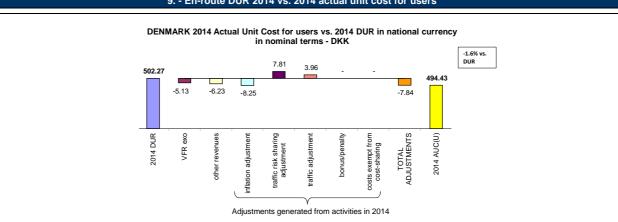
-5.13 DKK, or -1.0% to deduct costs for services exempt from VFR;

-6.23 DKK, or -1.2% of other revenues;

- +7.52 DKK, or +1.5% to adjust for inflation;
- +9.69 DKK, or +1.9% to adjust for traffic;
- -36.49 DKK, or -7.3% recorded as a penalty\*.; and
- +59.69 DKK, or +11.9% for legacy carry-overs incurred up to and including 2011.

It is important to note that this amount does not relate to a performance incentive mechanism, since no such mechanism applied in Denmark during RP1. The amount recorded by Denmark under this item is to adjust for a Naviair initiative to write-off amounts related to under-recoveries from before RP1, as part of Naviair's commitment to decrease the CUR.

## 9. - En-route DUR 2014 vs. 2014 actual unit cost for users



The DUR for 2014 expressed in nominal terms can also be compared to the actual en-route unit cost for airspace users (AUC-U) for 2014 (also sometimes referred to the "true cost for users"), which reflects the unit cost that the users incur in respect of the activities performed in 2014. The AUC-U comprises:

- the DUR, the deduction of the costs for services to exempted VFR in 2014 and the deduction of 2014 other revenues that has already been billed to the users through the
- as well as adjustments relating to the activities of 2014 but which will be charged or reimbursed to users in future years. These adjustments include:
- the inflation adjustment;
- \* the adjustments resulting from the implementation of the traffic risk-sharing (ATSP);

  \* the adjustments resulting from the difference in traffic (for costs not subject to traffic risk sharing);
- \* the bonus/penalty for the current year;
  \* the costs exempt from cost sharing (if deemed eligible)

These costs and adjustments are divided by the actual total service units in 2014.

The AUC-U for airspace users in 2014 is 494.43 DKK, which is -1.6% less than the DUR of 502.27 DKK. This is due to the deduction of costs for services to exempted VFR (-5.13 DKK, or -1.0%) and other revenues (-6.23 DKK, or-1.2%), and some adjustments generated from activities in 2014:

- -8.25 DKK, or -1.6% decrease for the inflation adjustment:
- +7.81 DKK, or +1.6% increase for traffic risk sharing adjustment; and
- +3.96 DKK, or +0.8% increase for the difference in traffic for costs not subject to traffic risk sharing

#### Monitoring of en-route and terminal COST-EFFICIENCY for 2014

10 Terminal costs and unit rates monitoring (2014)									
		2009	2010	2011	2012	2013	2014		
Terminal Service Unit Formula	(MTOW/50)^	0.7	0.7	0.7	0.7	0.7	0.7		
Number of airports in terminal charging zone		1	1	1	1	1	1		
of which, number of airports over 50 000 movements		1	1	1	1	1	1		
DENMARK - Data from RP1 national performance plan		2009A	2010A	2011F	2012P	2013P	2014P		
Terminal ANS costs for the charging zones - (in DKK)		185 064 000	165 750 502	198 980 121	200 894 015	204 035 711	207 053 900		
Inflation index (100 in 2009)		100.0	103 730 302	190 900 121	105.8	107.9	110.1		
Real terminal ANS costs - (in DKK2009)		185 064 000	162 182 487	191 819 500	189 867 175	189 055 321	188 090 111		
Real terminal ANS costs - (in EUR2009)		24 862 932	21 788 852	25 770 518	25 508 227	25 399 157	25 269 483		
` ′									
DENMARK - Actual data from June 2015 Reporting Tab	les	2009A	2010A	2011A	2012A	2013A	2014A		
Terminal ANS costs for the charging zones - (in DKK)		185 064 000	166 550 502	197 620 000	196 482 414	172 723 143	169 986 150		
Inflation index (100 in 2009)		100.0	102.2	105.0	107.5	108.0	108.3		
Real terminal ANS costs - (in DKK2009)		185 064 000	162 965 266	188 282 326	182 811 027	159 905 416	156 900 832		
Real terminal ANS costs - (in EUR2009)		24 862 932	21 894 017	25 295 307	24 560 250	21 482 933	21 079 273		
Total terminal service units - See Note 2		133 215	138 576	145 828	144 110	148 264	154 763		
Actual real unit costs - (in DKK2009)		1 389.2	1 176.0	1 291.1	1 268.6	1 078.5	1 013.8		
Unit rate applied - (in DKK)					1 361.00	1 361.00	1 305.00		
Difference between Actuals and Planned in absolute va	lue and in percentag	e (Actuals vs. NF	PP)		2012	2013	2014		
Terminal ANS costs for the charging zones - (in DKK)	in value				-4 411 601	-31 312 568	-37 067 750		
	in%				-2.2%	-15.3%	-17.9%		
Inflation index (100 in 2009)	in p.p.				1.7 p.p.	0.1 p.p.	-1.7 p.p.		
Real terminal ANS costs - (in DKK2009)	in value				-7 056 148	-29 149 904	-31 189 279		
	in%				-3.7%	-15.4%	-16.6%		
Real terminal ANS costs - (in EUR2009)	in value				-947 978	-3 916 224	-4 190 209		
	in%				-3.7%	-15.4%	-16.6%		

## 11. - General conclusions on the Terminal ANS costs and unit rates monitoring

The terminal charging zone in Denmark comprises one airport (Copenhagen), which has more than 50,000 airport movements per year. Denmark uses the harmonised SES formula (MTOW/50)^0.7 throughout RP1.

Actual terminal ANS costs in 2014 are 21.1 M€2009, which is -16.6%, or -4.2 M€2009 lower than planned in the NPP (25.3 M€2009). This difference is of a larger magnitude to that seen in the en-route costs (actual en-route costs were -11.0% lower than planned in real terms). Overall the reduction in total costs is due to lower costs at Naviair. According to the additional information provided with the June 2015 terminal Reporting Tables, there were lower staff costs (-10.6 MDKK) in order to adjust to the lower traffic volumes than initially forecast, lower other operating costs (-4.4 MDKK) by reducing utilities, and a reduction of -12.4 MDKK in cost of capital.

#### RP1 summary

When considering the whole of RP1 (2012-2014), actual terminal ANS costs are -11.9% lower in real terms (or some -67.4 MDKK2009) than planned in the NPP. This reflects the fact that terminal ANS costs are -3.7% to -16.6% lower than planned in real terms in each year of RP1.

	12 Monito	ring of gate-to	-gate costs (2	2014)			
DENMARK - Data from RP1 national performance plan		2009A	2010A	2011F	2012P	2013P	2014P
Real en-route costs (determined costs 2012-2014) - (in DKK2	2009)	765 672 826	719 825 299	711 457 844	729 969 631	740 551 666	732 469 353
Real terminal ANS costs - (in DKK2009)		185 064 000	162 182 487	191 819 500	189 867 175	189 055 321	188 090 111
Real gate-to-gate ANS costs - (in DKK2009)		950 736 826	882 007 785	903 277 344	919 836 807	929 606 986	920 559 464
Real gate-to-gate ANS costs - (in EUR2009)		127 729 352	118 495 760	121 353 277	123 578 004	124 890 605	123 675 091
Share of en-route costs in gate-to-gate ANS costs		80.5%	81.6%	78.8%	79.4%	79.7%	79.6%
DENMARK - Actual data from June 2015 Reporting Table	s	2009A	2010A	2011A	2012A	2013A	2014A
Real en-route costs - (in DKK2009)		765 672 826	719 825 299	684 991 173	671 864 798	670 834 551	651 978 779
Real terminal ANS costs - (in DKK2009)	185 064 000	162 965 266	188 282 326	182 811 027	159 905 416	156 900 832	
Real gate-to-gate ANS costs - (in DKK2009)		950 736 826	882 790 564	873 273 500	854 675 826	830 739 968	808 879 611
Real gate-to-gate ANS costs - (in EUR2009)		127 729 352	118 600 925	117 322 328	114 823 773	111 608 044	108 671 154
Share of en-route costs in gate-to-gate ANS costs		80.5%	81.5%	78.4%	78.6%	80.8%	80.6%
Difference between Actuals and Planned in absolute value	e and in percenta	ige (Actuals vs. Ni	PP)		2012	2013	2014
Real en-route costs - (in DKK2009)	in value				-58 104 833	-69 717 114	-80 490 575
	in %				-8.0%	-9.4%	-11.0%
Real terminal ANS costs - (in DKK2009)	in value				-7 056 148	-29 149 904	-31 189 279
	in %				-3.7%	-15.4%	-16.6%
Real gate-to-gate ANS costs - (in DKK2009)	in value				-65 160 981	-98 867 018	-111 679 853
	in %				-7.1%	-10.6%	-12.1%
Real gate-to-gate ANS costs - (in EUR2009)	in value				-8 754 231	-13 282 561	-15 003 937
	in %				-7.1%	-10.6%	-12.1%
Share of en-route costs in gate-to-gate ANS costs	in p.p.				-0.7 p.p.	1.1 p.p.	1.0 p.p.

## 13. - General conclusions on the gate-to-gate ANS costs

In 2014, Denmark's actual gate-to-gate ANS costs (108.7 M€2009) are -12.1% lower than planned in the NPP (123.7 M€2009). This difference is driven by lower traffic volumes than planned and therefore lower actual costs than planned, primarily in Naviair staff costs and other operating costs.

The allocation of gate-to-gate costs between en-route ANS and terminal ANS appears quite stable over RP1 (approximately 80% share to en-route) and did not change significantly with respect to the NPP.





# PRB Annual Monitoring Report 2014

Sweden

Working Draft 2.0

Edition date: 03/09/2015



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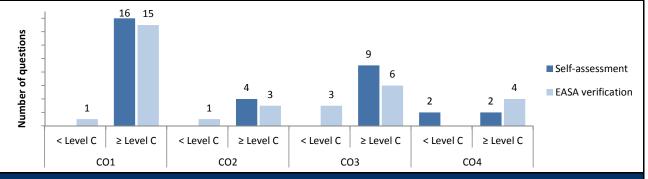
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# **Monitoring of SAFETY indicators for 2014**

Effectiveness of Safety Management										
	2012	2013	2014	State level Observations						
State level	51	58	57							
ANSP [LFV]	76	72	73							
ANSP [ACR]	67	72	52							
ANSP [ESNX]	65	62	64							



#### Application of the severity classification of the Risk Analysis Tool (RAT) 2012 2013 2014 No Assessed Assessed No Assessed No reported reported (%) (%) reported (%) **ATM Ground** 100% 47% 100% **Separation Minima** 2 34 41 Infringements (SMIs) **ATM Overall** 0% 0% 0% ATM Ground 12% 5% 100% Runway Incursions (RIs) 99 95 104 **ATM Overall** 0% 0% 0% ATM Specific Occurences **ATM Overall** 2264 1% 2396 1% 0% 2246 (ATM-Specific) Source of RAT data: STA

Preliminary results updated after coordination with the AST-FP in August 2015.

Just culture									
	State								
Number of questions answered with Yes or No	2012		2013		2014				
	YES	NO	YES	NO	YES	NO			
Policy and its implementation	2	8	5	5	5	4			
Legal/Judiciary	1	7	4	4	5	2			
Occurrence reporting and Investigation	2	0	2	0	2	0			
TOTAL	5	15	11	9	12	6			

	ANSP [LFV]							
Number of questions answered with Yes or No	2012		2013		2014			
	YES	NO	YES	NO	YES	NO		
Policy and its implementation	7	6	8	5	9	4		
Legal/Judiciary	2	1	2	1	2	1		
Occurrence reporting and Investigation	5	3	5	3	6	2		
TOTAL	14	10	15	9	17	7		

	ANSP [ACR]							
Number of questions answered with Yes or No	2012		2013		2014			
	YES	NO	YES	NO	YES	NO		
Policy and its implementation	7	6	9	4	13	0		
Legal/Judiciary	1	2	1	2	2	1		
Occurrence reporting and Investigation	5	3	6	2	7	1		
TOTAL	13	11	16	8	22	2		

	ANSP [ESNX]							
Number of questions answered with Yes or No	2012		2013		2014			
	YES	NO	YES	NO	YES	NO		
Policy and its implementation	8	5	8	5	8	5		
Legal/Judiciary	2	1	2	1	2	1		
Occurrence reporting and Investigation	4	4	4	4	4	4		
TOTAL	14	10	14	10	14	10		

#### **Monitoring of CAPACITY indicators for 2014**

Minutes of ATFM en-route delay									
	2012	2013	2014	Observations					
Reference value	0.02	0.03	0.06						
National Target									
Actual performance	0.04	0.03	0.03						

# **National capacity assessment**

The ANSPs in the Danish-Swedish FAB (LFV and Naviair) have delivered better results than expected in the Performance Plan.

# Military dimension of the plan (Opt.)

Although requested by IR 691/2010, the Performance Plan for Denmark-Sweden FAB, in the part relating to FUA implementation in Sweden, did not contain details of how FUA would be applied to increase capacity. Sweden states all FUA capacity benefits have been achieved in the implementation since 1978.

# **PRB Capacity assessment**

The level of capacity performance in Sweden surpassed the effort required to be consistent with the EU-wide target for capacity in 2014.

# **Effective booking procedures**

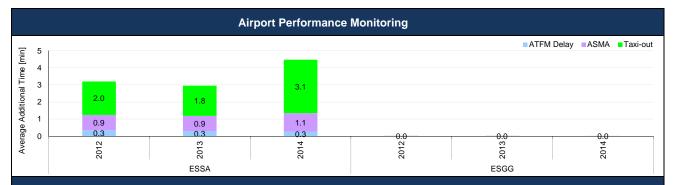
The ratio of time airspace was actually used for activity requiring segregation or restriction from GAT and the amount of time it was allocated as being restricted on the day of operations: 42%

The ratio of time airspace, that was surplus to requirement, was released with more than 3 hours' notice to the Network Manager and the amount of time it was allocated as being restricted on the day of operations:9%

The ratio of time airspace was neither used nor released with at least 3 hours' notice to the Network Manager, but was allocated as being restricted on the day of operations: 49%

#### Recommendations

# Monitoring of CAPACITY indicators for 2014



#### **Airport Data** Average of Total Additional Total Sum of Additional Total Apt. **ICAO** Apt. ATFM Additional taxi-out Additional Total **Airport Name RP1 Year** ATFM arr. **ASMA** time arr. Delay Additional Code ASMA time time taxi-out delay [min.] [min./arr.] [min./arr.] [min./dep.] time [total] Time [min] [min] 318 197 36 551 0.9 91 530 2012 0.3 2.0 190 116 Stockholm/Arlanda **ESSA** 0.3 0.9 95 220 2013 32 658 1.8 175 030 302 908 2014 0.3 30 471 1.1 119 251 3.1 317 985 467 707 2012 0.0 897 n/appl. n/appl. n/a n/a n/a Gotenborg/Landvetter **ESGG** 2013 0.0 870 n/appl. n/appl. n/a n/a n/a 2014 0.0 465 n/a n/a n/appl. n/appl. n/a 2012 0.3 37 448 0.9 91 530 n/a n/a n/a Total 2013 0.2 33 528 0.9 95 220 n/a n/a n/a 2014 30 936 119 251 0.2 n/a n/a n/a 1.1 2014-2013 0.0 -2 592 0.2 24 031 n/a n/a n/a **Absolute Difference** 2014-2012 -6 512 -0.1 0.2 27 721 n/a n/a n/a

• Missing DRWY data at Göteborg Landvetter Airport since 2012. Data required for the calculation of taxi-out time.

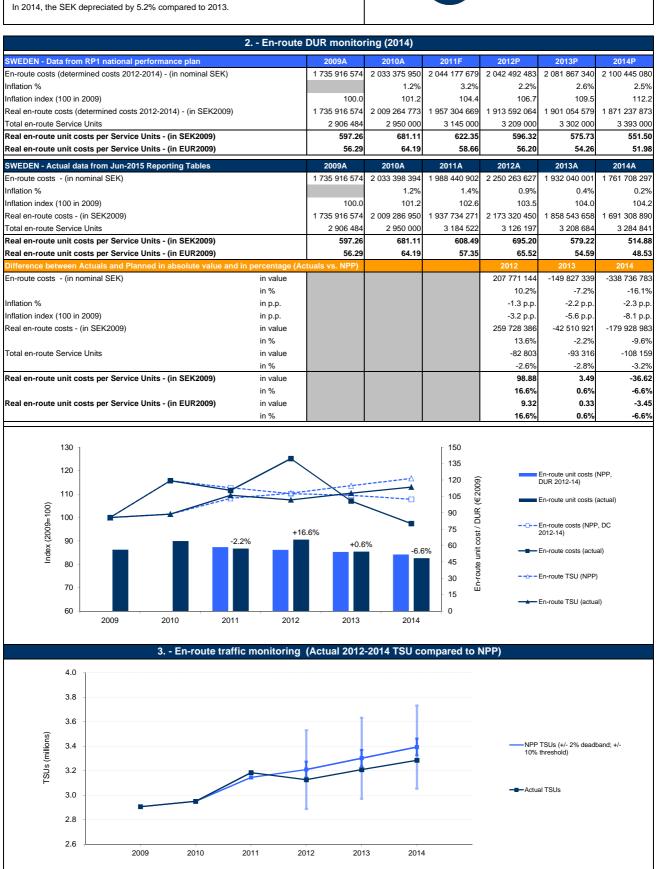
#### **Specific Analysis**

**Critical Issues** 

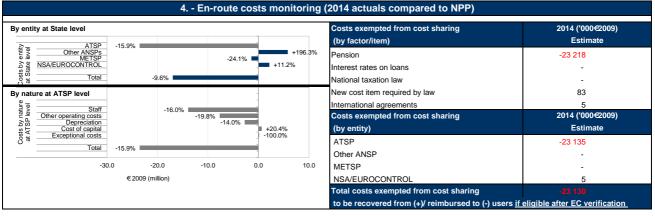
• The averages for additional taxi-out times could not be calculated due the missing data.

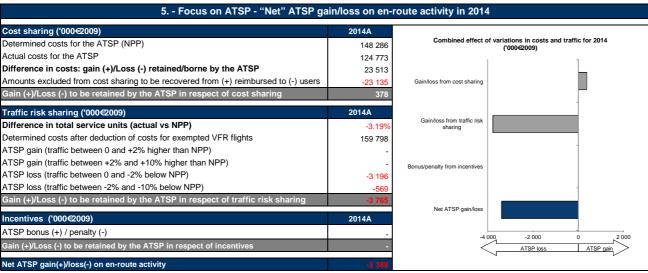
#### Monitoring of en-route and terminal COST-EFFICIENCY for 2014

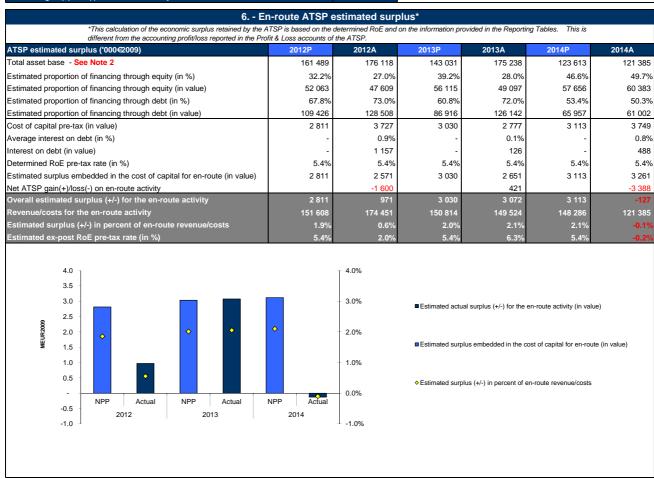




#### Monitoring of en-route and terminal COST-EFFICIENCY for 2014







#### Monitoring of en-route and terminal COST-EFFICIENCY for 2014

#### 7. - General conclusions on the monitoring of the 2014 en-route DUR

#### Notes on information provided by SWEDEN

Note 1: Data in the 2014 NSA Monitoring Report and the Terminal June 2015 Reporting Tables are not consistent in the following areas:

- Actual 2014 terminal costs reported in the Reporting Tables are slightly below (-0.1%) those published in the 2014 NSA Monitoring Report. Sweden indicated during the "fact validation" process that the figures from the Reporting Tables were not correct since the Transport Agency supervision costs had been omitted. The figure used in this report for the actual 2014 terminal costs is therefore the one consistent with the NSA Monitoring Report.

- Total terminal service units are consistent for Sweden Arlanda but inconsistent for Sweden Landvetter. Sweden Landvetter - Reporting Tables 33 844, 2014 NSA Monitoring report 33 079.

#### Note 2: Total Asset Base for 2014

The planned total asset base presented by Sweden for its ATSP LFV in 2014, is significantly lower than that shown in previous years' monitoring analysis. In its June 2015 Reporting Tables Sweden has reported the planned asset base for LFV in a manner coherent to that used for reporting the actual asset base. Under this approach, only the asset base relevant for calculating the cost of capital is given, excluding the pensions liability that was previously included. The value of the planned Return on Equity has remained unchanged.

#### At State / Charging Area level

In 2014, the real en-route unit cost for Sweden (48.53 €2009) is -6.6% lower than planned in the Adopted NPP for RP1 (51.98 €2009). This difference is mainly due to actual en-route costs in real terms being -9.6% lower than the determined costs, with en-route Service Units -3.2% lower than planned. According to the Additional Information to the June 2015 en-route Reporting Tables, the decrease in costs is due to lower costs in administration and other areas, and benefits associated with increased cooperation with the Danish Meteorological Institute.

The number of en-route total service units (TSUs) in 2014 (3.28 million) is -3.2% lower than the figure provided in the Adopted NPP (3.39 million), which falls outside the  $\pm 2\%$  deadband, but is below the -10% threshold foreseen in the traffic risk sharing mechanism. The resulting loss of en-route revenues is therefore shared between the ATSP and the airspace users, with the loss borne by the ATSP amounting to some -3.8 M€2009.

#### Actual 2014 costs vs. NPP

Total actual en-route costs for Sweden in 2014 (1 691.3 MSEK2009) are -9.6% lower than planned in the NPP (1 871.2 MSEK2009). This mainly reflects lower en-route costs in nominal terms (-16.1%) while the actual inflation index was significantly lower than planned in the NPP (-8.1 p.p.).

The en-route cost-base includes costs relating to Sweden's ANSPs (LFV and ACR), the MET Service Provider (SMHI), and the NSA (Swedish Transport Agency), which includes EUROCONTROL costs. While for LFV and SMHI, 2014 en-route costs are lower than planned (-15.9%, and -24.1% respectively), the costs of ACR and the NSA/EUROCONTROL are higher than the amount reported in the NPP (+196.3%, and +11.2% respectively). A detailed analysis of LFV's costs is provided in the box below.

Costs exempt from cost sharing are reported for an amount of -23.1 M€2009, related to pension costs (-23.2 M€2009) and EUROCONTROL costs (+0.05 M€2009), as well as a new cost item required by law (+0.8 M€2009). These costs will be eligible for carry-over to the following reference period(s), if deemed allowed by the European Commission after verification on the basis of the NSA report establishing and justifying these exemptions.

#### RP1 summary

When considering the whole of RP1 (2012-2014) the actual number of TSUs is -2.9% lower than planned and actual en-route costs in real terms are +0.7% higher than planned (some +3.5 M€2009). As a result, the weighted average unit cost over RP1 is +3.6% higher than the level planned in the NPP.

#### At ATSP level

# Actual 2014 LFV costs vs. NPP

LFV actual en-route costs are some -23.5 M€2009 (-15.9%) lower than the determined costs planned for 2014. Staff costs are -16.0% lower than planned, noted in the Additional Information to the June 2015 en-route Reporting Tables as being mainly due to the fewer employees than planned. Other operating costs were -19.8% lower than planned, due to the cost cutting program, and lower training costs. Depreciation was also lower than planned, -14.0%, whereas cost of capital was significantly higher than planned in relative terms (+20.4%), though not in value (+0.6 M€2009).

In 2014, the actual total asset base was 121.4 M€2009, or -18.0% lower than planned as a result of delayed or cancelled investments due to cost saving measures (see **Note 2**). Sweden states in the Additional Information to the June 2015 en-route Reporting Tables that "one important reason for why the investments are lower than earlier plans is that LFV has been restrictive in starting new investments and have looked deep into different alternatives due to the limitation in resources which is a consequence of saving costs". Some IT investments have also been transferred to operating costs, as LFV has sought to buy services from external suppliers rather than insource.

#### LFV net gain/loss and estimated surplus on en-route activity in 2014

As shown in item 5, the en-route activity for the year 2014 generated a net loss of -3.4 M€2009 for LFV. This is the result of a combination of two separate elements:

- a gain of +0.4 M€2009 as a result of the cost-sharing mechanism; and
- a loss of -3.8 M€2009 as a result of the traffic risk sharing mechanism for 2014.

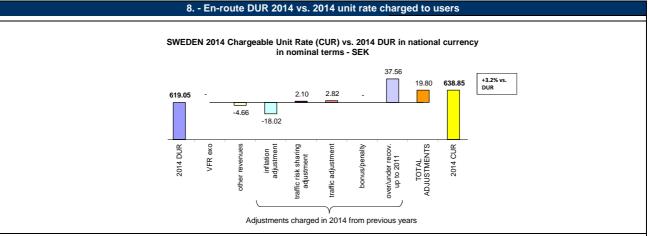
For the en-route activity, the estimated surplus embedded in the cost of capital through the return on equity planned in the NPP amounted to +3.1 M€2009, corresponding to an estimated surplus of +2.1% of the en-route revenues for 2014. Ex-post, the overall estimated surplus for the year is calculated by adding the surplus embedded in the cost of capital (+3.3 M€2009) and the net loss from the en-route activity in 2014 (-3.4 M€2009), giving a total of -0.1 M€2009 for 2014, corresponding to -0.1% of the en-route revenue in 2014. The resulting ex-post rate of return on equity for 2014 is -0.2% (compared to +5.4% as initially planned in the NPP).

# Conclusion

Traffic volumes were slightly lower than expected (-3.2%), and LFV's actual en-route costs in 2014 were -15.9% lower than planned in the NPP. The en-route activity for the year 2014 generated a net loss of -3.4 M€2009 for LFV, which results in an overall estimated surplus of -0.1% of the en-route revenue for 2014 (down from a planned +2.1% in the NPP).

When considering the whole of RP1 (2012-2014), LFV could retain a cumulative gain in respect of cost sharing of +6.2 M€2009 as actual costs were lower than planned in 2012, 2013 and 2014 of RP1. However, as the traffic was consistently lower than planned for each year of the RP1, LFV incurred a cumulative loss in respect of traffic risk sharing amounting to -10.7 M€2009, which resulted in a cumulative net loss for the en-route activity of -4.6M€2009.

#### Monitoring of en-route and terminal COST-EFFICIENCY for 2014



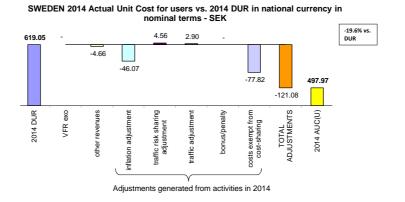
The DUR for 2014 expressed in nominal terms differs from the actual en-route unit rate charged to users in 2014 (CUR).

- the DUR, but also, a deduction of the costs for services to exempted VFR in 2014, as determined prior to the reference period and a deduction of 2014 other revenues;
- as well as adjustments relating to the activities of previous years that are carried-over to 2014. These adjustments include:
- the inflation adjustment:
- \* the adjustment resulting from the implementation of the traffic risk-sharing (ATSP);
- \* the adjustment resulting from the difference in traffic (for costs not subject to traffic risk sharing); \* the bonus/penalty from previous year(s).
- \* the legacy carry-overs incurred in the full cost recovery regime up to and including 2011.

These costs and adjustments are divided by the forecast total service units for 2014 as laid out in the performance plan

The CUR charged to airspace users in 2014 is 638.85 SEK, which is +3.2% more than the DUR of 619.05 SEK. The CUR is higher due to an increase of legacy carry-overs incurred up to and including 2011 (+37.56 SEK, or +6.1%) and traffic adjustment and traffic risk sharing adjustment (+2.82 SEK and +2.10 SEK respectively). Deductions were made to reflect the inflation adjustment (-18.02 SEK) and other revenues (-4.66 SEK).

# 9. - En-route DUR 2014 vs. 2014 actual unit cost for users



The DUR for 2014 expressed in nominal terms can also be compared to the actual en-route unit cost for airspace users (AUC-U) for 2014 (also sometimes referred to the "true cost for users"), which reflects the unit cost that the users incur in respect of the activities performed in 2014. The AUC-U comprises:

- the DUR, the deduction of the costs for services to exempted VFR in 2014 and the deduction of 2014 other revenues that has already been billed to the users through the
- as well as adjustments relating to the activities of 2014 but which will be charged or reimbursed to users in future years. These adjustments include:
- the inflation adjustment;
- \* the adjustments resulting from the implementation of the traffic risk-sharing (ATSP);

  \* the adjustments resulting from the difference in traffic (for costs not subject to traffic risk sharing);
- \* the bonus/penalty for the current year;
  \* the costs exempt from cost sharing (if deemed eligible)

These costs and adjustments are divided by the actual total service units in 2014.

The AUC-U for airspace users in 2014 is 497.97 SEK, which is -19.6% less than the DUR of 619.05 SEK. This is due to adjustments generated from activities in 2014:

- -77.82 SEK, or -12.6% decrease for costs exempt from cost sharing:
- -46.07 SEK, or -7.4% deduction due to inflation adjustment:
- -4.66 SEK, or -0.8% deduction due to other revenues;
- +2.90 SEK, or +0.5% increase of costs for traffic risk adjustment; and
- +4.56 SEK, or +0.7% reflecting the difference in traffic for costs subject to traffic risk sharing

#### Monitoring of en-route and terminal COST-EFFICIENCY for 2014

	10 Terminal cos	sts and unit ra	ates monitori	ng (2014)			
		2009	2010	2011	2012	2013	2014
Terminal Service Unit Formula	(MTOW/50)^		0.7	0.7	0.7	0.7	0.7
Number of airports in terminal charging zones Arlanda			1	1	1	1	1
of which, number of airports over 50 000 movements			1	1	1	1	1
Number of airports in terminal charging zones Landvette	r		1	1	1	1	1
of which, number of airports over 50 000 movements			1	1	1	1	1
SWEDEN - Data from RP1 national performance plan		2009A	2010A	2011F	2012P	2013P	2014P
Terminal ANS costs for the charging zones - (in SEK)		202 043 813	222 209 064	212 883 782	219 860 656	226 192 945	231 619 470
Inflation index (100 in 2009)		100.0	101.2	104.4	106.7	109.5	112.2
Real terminal ANS costs - (in SEK2009)		202 043 813	219 574 173	203 836 694	205 985 388	206 547 807	206 344 421
Real terminal ANS costs - (in EUR2009)		19 042 413	20 694 631	19 211 390	19 413 902	19 466 910	19 447 741
SWEDEN - Actual data from June 2015 Reporting Tal	bles	2009A	2010A	2011A	2012A	2013A	2014A
Terminal ANS costs for the charging zones - (in SEK) - S	See Note 1	202 043 813	222 209 064	200 976 100	234 971 052	201 641 118	156 914 401
Inflation index (100 in 2009)		100.0	101.2	102.6	103.5	104.0	104.2
Real terminal ANS costs - (in SEK2009)		202 043 813	219 574 173	195 851 069	226 936 696	193 970 529	150 643 964
Real terminal ANS costs - (in EUR2009)		19 042 413	20 694 631	18 458 754	21 388 541	18 281 515	14 198 032
Total terminal service units - See Note 1		133 935	136 580	155 208	151 900	156 300	168 918
Actual real unit costs - (in SEK2009)		1 508.52	1 607.66	1 261.86	1 493.99	1 241.01	891.82
Unit rate applied - (in SEK) - Charging zone Arlanda					1 847.13	1 214.86	1 375.22
Unit rate applied - (in SEK) - Charging zone Landvett	er				913.91	629.88	794.60
Difference between Actuals and Planned in absolute	value and in percentag	je (Actuals vs. Ni	PP)		2012	2013	2014
Terminal ANS costs for the charging zones - (in SEK) - S	See Not(in value				15 110 396	-24 551 827	-74 705 069
	in%				6.9%	-10.9%	-32.3%
Inflation index (100 in 2009)	in p.p.				-3.2 p.p.	-5.6 p.p.	-8.1 p.p.
Real terminal ANS costs - (in SEK2009)	in value				20 951 308	-12 577 279	-55 700 457
	in%				10.2%	-6.1%	-27.0%
Real terminal ANS costs - (in EUR2009)	in value				1 974 638	-1 185 395	-5 249 708
	in%				10.2%	-6.1%	-27.0%

# 11. - General conclusions on the Terminal ANS costs and unit rates monitoring

There are two terminal charging zones in Sweden – Arlanda and Sweden – Landvetter. Both charging zones comprise one airport (Stockholm Arlanda and Göteborg Landvetter respectively), each with more than 50,000 airport movements per year. There has been no change to the terminal charging zone as compared to the NPP. The harmonised SES formula (MTOW/50)^0.7 is applied by Sweden.

Actual terminal ANS costs in 2014 are -27.0%, or -5.2 M€2009 lower than planned in the NPP. This difference is larger than that for en-route costs (-9.6% in real terms lower than planned). Actual costs were lower than planned in the NPP in both of Sweden's terminal charging zones.

# RP1 summary

When considering the whole of RP1 (2012-2014), actual terminal ANS costs are -7.6% lower in real terms (or some -47.3 MSEK2009) than planned in the NPP. This reflects the fact that terminal ANS costs were lower than planned in the 2013 and 2014 despite being higher in 2012.

	12 Monitor	ing of gate-to	-gate costs (2	2014)			
SWEDEN - Data from RP1 national performance plan		2009A	2010A	2011F	2012P	2013P	2014P
Real en-route costs (determined costs 2012-2014) - (in SEI	(2009)	1 735 916 574	2 009 264 773	1 957 304 669	1 913 592 064	1 901 054 579	1 871 237 87
Real terminal ANS costs - (in SEK2009)		202 043 813	219 574 173	203 836 694	205 985 388	206 547 807	206 344 42
Real gate-to-gate ANS costs - (in SEK2009)		1 937 960 388	2 228 838 946	2 161 141 363	2 119 577 452	2 107 602 387	2 077 582 29
Real gate-to-gate ANS costs - (in EUR2009)		182 650 693	210 065 686	203 685 262	199 767 908	198 639 270	195 809 90
Share of en-route costs in gate-to-gate ANS costs		89.6%	90.1%	90.6%	90.3%	90.2%	90.1%
SWEDEN - Actual data from June 2015 Reporting Table	s	2009A	2010A	2011A	2012A	2013A	2014A
Real en-route costs - (in SEK2009)		1 735 916 574	2 009 286 950	1 937 734 271	2 173 320 450	1 858 543 658	1 691 308 89
Real terminal ANS costs - (in SEK2009)		202 043 813	219 574 173	195 851 069	226 936 696	193 970 529	150 643 96
Real gate-to-gate ANS costs - (in SEK2009)		1 937 960 388	2 228 861 124	2 133 585 341	2 400 257 147	2 052 514 186	1 841 952 85
Real gate-to-gate ANS costs - (in EUR2009)		182 650 693	210 067 777	201 088 136	226 221 668	193 447 266	173 602 08
Share of en-route costs in gate-to-gate ANS costs		89.6%	90.1%	90.8%	90.5%	90.5%	91.8%
Difference between Actuals and Planned in absolute va	lue and in percenta	ge (Actuals vs. Ni	PP)		2012	2013	2014
Real en-route costs - (in SEK2009)	in value				259 728 386	-42 510 921	-179 928 98
	in %				13.6%	-2.2%	-9.6%
Real terminal ANS costs - (in SEK2009)	in value				20 951 308	-12 577 279	-55 700 45
	in %				10.2%	-6.1%	-27.0%
Real gate-to-gate ANS costs - (in SEK2009)	in value				280 679 695	-55 088 200	-235 629 44
	in %				13.2%	-2.6%	-11.3%
Real gate-to-gate ANS costs - (in EUR2009)	in value				26 453 761	-5 192 004	-22 207 82
	in %				13.2%	-2.6%	-11.3%
Share of en-route costs in gate-to-gate ANS costs	in p.p.				0.3 p.p.	0.3 p.p.	1.8 p.p

#### 13. - General conclusions on the gate-to-gate ANS costs

In 2014, Sweden's actual gate-to-gate ANS costs (173.6 M€2009) are -11.3% lower than planned in the NPP (195.8 M€2009). The major driver of this difference is lower actual en-route costs than planned, but lower than planned actual terminal costs also contribute.

The relative share of en-route costs in gate-to-gate ANS costs (91.8%) is slightly higher than planned in the NPP (90.1%), due to the relatively greater reductions seen in en-route costs compared to terminal costs. The allocation of gate-to-gate costs between en-route ANS and terminal ANS is stable in 2012 and 2013, but increases from 90.5% to 91.8% in 2014.





# PRB Annual Monitoring Report 2014

Estonia

Working Draft 2.0

Edition date: 03/09/2015



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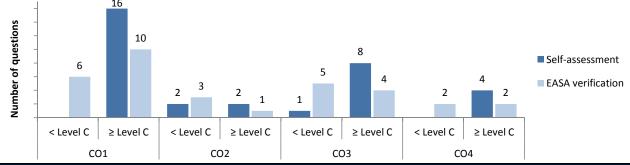
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# Monitoring of SAFETY indicators for 2014

Effectiveness of Safety Management									
2012 2013 2014 State level Observations									
State level	50	51	57						
ANSP [EANS]	64	67	70						
16	-								



# Application of the severity classification of the Risk Analysis Tool (RAT)

		2012		2013		2014	
		No reported	Assessed (%)	No reported	Assessed (%)	No reported	Assessed (%)
Separation Minima Infringements (SMIs)	ATM Ground	14	21%	27	96%	17	100%
	ATM Overall	14	0%		96%		100%
Punway Incursions (Pls)	ATM Ground	0	N/A	2	100%	4	75%
Runway Incursions (RIs)	ATM Overall		N/A		100%		75%
ATM Specific Occurences (ATM-Specific)	ATM Overall	3	0%	1	100%	10	10%

**ANSP** 

Source of RAT data:

Just culture									
	State								
Number of questions answered with Yes or No	2012		2013		2014				
	YES	NO	YES	NO	YES	NO			
Policy and its implementation	2	8	1	9	2	7			
Legal/Judiciary	2	6	2	6	4	3			
Occurrence reporting and Investigation	1	1	1	1	1	1			
TOTAL	5	15	4	16	7	11			

	ANSP [EANS]							
Number of questions answered with Yes or No	2012		2013		2014			
	YES	NO	YES	NO	YES	NO		
Policy and its implementation	9	4	11	2	13	0		
Legal/Judiciary	2	1	3	0	3	0		
Occurrence reporting and Investigation	5	3	7	1	8	0		
TOTAL	16	8	21	3	24	0		

# **Monitoring of CAPACITY indicators for 2014**

Minutes of ATFM en-route delay									
	2012	2013	2014	Observations					
Reference value	0.11	0.16	0.22						
National Target	0.11	0.16	0.22						
Actual performance	0.11	0.02	0.03						

# **National capacity assessment**

Estonia was able to provide excellent results in capacity KPI. Target for 2014 was 0.22 min per flight. However, Estonia was able to perform better by reaching 0.03 min delay per flight.

# **PRB Capacity assessment**

Continuing the excellent capacity performance of 2013, in 2014 Estonia surpassed both the national target and the effort required to be consistent with the EU-wide target for capacity.

# **Effective booking procedures**

No information was provided about effective booking procedures in the national monitoring report.

#### **Previous recommendations**

**Annual Monitoring Report 2012:** Estonia is invited to ensure that information on the allocation and actual use of airspace structures is made available to the Commission in accordance with IR 691/2010, and IR 2150/2005.

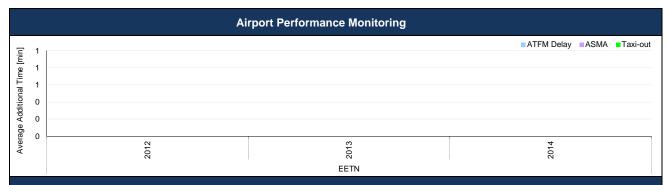
**Annual Monitoring Report 2013:** The PRB reminds Estonia of the obligation to provide information on the allocation and use of civil/military airspace structures in accordance with EU regulation 691/2010 and EC Regulation 2150/2005.

# NSA report on follow-up to recommendations

No information was provided about the follow-up to previous recommendations.

# Recommendations

# **Monitoring of CAPACITY indicators for 2014**



#### **Airport Data** Average of Total Additional Total Sum of Total Apt. Additional **ICAO** Apt. ATFM Additional taxi-out Additional Total RP1 Year **Airport Name** ATFM arr. **ASMA** time arr. Delay ASMA time Additional Code time taxi-out delay [min.] [min./arr.] [min./arr.] [min] [min./dep.] time [total] Time [min] 0 2012 0.0 n/appl. n/appl. n/a n/a n/a Tallinn **EETN** 0 0.0 2013 n/appl. n/appl. n/a n/a n/a 0 2014 0.0 n/appl n/appl n/a n/a n/a 2012 0.0 0 n/appl. n/appl. n/a n/a n/a Total 2013 0.0 0 n/appl. n/appl n/a n/a n/a 2014 0.0 0 n/a n/a n/a n/appl. n/appl. 2014-2013 0.0 0 n/appl. n/a n/a n/appl. n/a **Absolute Difference** 2014-2012 0 0.0 n/appl. n/appl. n/a n/a n/a

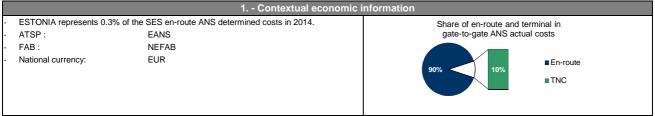
# **Critical Issues**

• Mandatory data items partially missing (departure runway).

# Specific Analysis

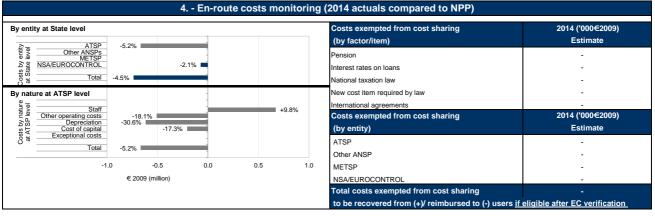
• The average additional taxi-out time could not be calculated for Estonia due to missing data at Tallinn (missing departure runway). PRU coordinates a Remedial Action Plan with the aforementioned airport.

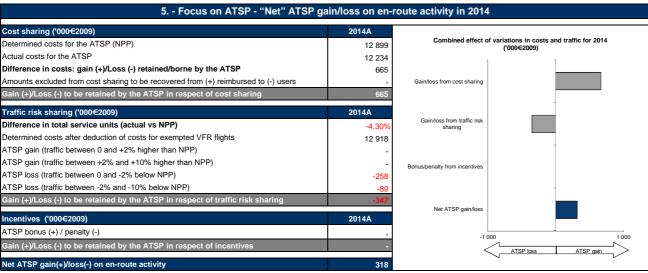
# Monitoring of en-route and terminal COST-EFFICIENCY for 2014

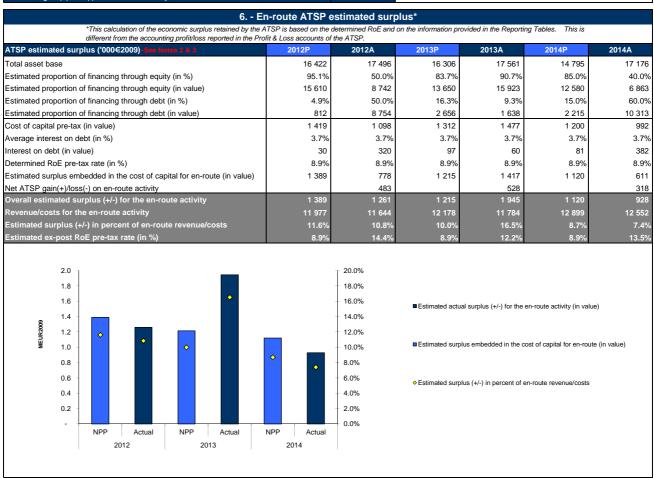


					En-route	DUR monitori	ng (2014)				
			erformance plan			2009A 13 715 440	2010A	2011F	2012P	2013P	2014P
n-route costs iflation %	s (determin	ied costs 2012-	2014) - (in nomii	iai EUK)		13 / 15 440	15 383 534 3.0%	15 410 276 4.5%	17 099 491 2.8%	17 834 818 3.0%	19 181 8 2.5
flation index	(100 in 20	009)				100.0	103.0	107.6	110.6	114.0	11
			2012-2014) - (in	EUR2009)		13 715 440	14 935 470	14 317 161	15 453 845	15 648 936	16 372 4
otal en-route Service Units eal en-route unit costs per Service Units - (in EUR2009)				632 129 <b>21.70</b>	626 875 <b>23.83</b>	719 000 <b>19.91</b>	760 800 <b>20.31</b>	791 232 <b>19.78</b>	825 2 19		
STONIA - Ac	ctual data	from Jun-201	5 Reporting Tab	oles		2009A	2010A	2011A	2012A	2013A	2014A
n-route costs			- See Note 1			13 715 440	14 316 461	14 919 300	16 689 400	17 094 076	18 292 0
iflation %							3.0%	5.1%	4.2%	3.2%	0.
iflation index eal en-route						100.0 13 715 440	103.0 13 899 477	108.3 13 781 881	112.8 14 795 616	116.4 14 684 470	11 15 635 3
otal en-route		•				632 129	626 898	704 211	724 536	740 986	789 8
eal en-route	unit cost	ts per Service	Units - (in EUR2	2009)		21.70	22.17	19.57	20.42	19.82	19
			ned in absolute	value and in		etuals vs. NPP)			2012	2013	2014
n-route costs	s - (in nom	ninal EUR)			in value in %				-410 091 -2.4%	-740 742 -4.2%	-889 8 -4.6
nflation %					in p.p.				1.4 p.p.	0.2 p.p.	-2.3 p
nflation index					in p.p.				2.2 p.p.	2.4 p.p.	-0.2 p
eal en-route	costs - (in	EUR2009)			in value				-658 229	-964 466	-737 (
otal en-route	Service U	Inits			in % in value				-4.3% -36 264	-6.2% -50 246	-4. -35 4
					in %				-4.8%	-6.4%	-4.:
	Real en-route unit costs per Service Units - (in EUR2009) in value			in value				0.11	0.04	-0	
eal en-route					in %				0.5%	0.2%	-0.
teal en-route	140 -		· · · · · · · · · · · · · · · · · · ·		in %			70 60	E	n-route unit costs (N	
			· · · · · · · · · · · · · · · · · · ·		in %			- 60	E		PP,
	130 -		- I		in %			- 60	— E	n-route unit costs (N UR 2012-14)	PP, ctual)
	130 - 1 <u>2</u> 0 -				in %	Δ		- 60	E E	n-route unit costs (N UR 2012-14) n-route unit costs (ad	PP, ctual)
	130 - 120 - 110 - 100 -			-1.7%		5% +0.29	6 -0.29	- 60	= E	n-route unit costs (N UR 2012-14) n-route unit costs (ac	PP, ctual)
Index (2009=100)	130 - 120 - 110 -			-1.7%		5% +0.29	6 -0.29	- 60	E E - 21	n-route unit costs (N UR 2012-14) n-route unit costs (ac n-route costs (NPP, 012-14)	PP, ctual)
	130 - 120 - 110 - 100 -			-1.7%		5% +0.29	6 -0.29	. 00 00 00 00 00 00 00 00 00 00 00 00 00	E E E E E E E E E E E E E E E E E E E	n-route unit costs (N UR 2012-14) n-route unit costs (ad n-route costs (NPP, 012-14) n-route costs (actual	DC
	130 - 120 - 110 - 100 - 90 -	2009	2010	-1.7%		5% +0.29 2013	6 -0.29	9 00 00 00 00 00 00 00 00 00 00 00 00 00	E E E E E E E E E E E E E E E E E E E	n-route unit costs (N UR 2012-14) n-route unit costs (ad n-route costs (NPP, 012-14) n-route costs (actual n-route TSU (NPP)	PP, ctual) DC
	130 - 120 - 110 - 100 - 90 -			2011	+0.	2013	2014	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	— E 20	n-route unit costs (N UR 2012-14) n-route unit costs (ad n-route costs (NPP, 012-14) n-route costs (actual n-route TSU (NPP)	PP, ctual) DC
	130 - 120 - 110 - 100 - 90 -			2011	+0.		2014	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	— E 20	n-route unit costs (N UR 2012-14) n-route unit costs (ad n-route costs (NPP, 012-14) n-route costs (actual n-route TSU (NPP)	PP, ctual) DC
	130 - 120 - 110 - 100 - 90 - 80 - 70			2011	+0.	2013	2014	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	— E 20	n-route unit costs (N UR 2012-14) n-route unit costs (ad n-route costs (NPP, 012-14) n-route costs (actual n-route TSU (NPP)	PP, ctual) DC
	130 - 120 - 110 - 100 - 80 - 70 -			2011	+0.	2013	2014	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	— E 20	n-route unit costs (N UR 2012-14) n-route unit costs (ad n-route costs (NPP, 012-14) n-route costs (actual n-route TSU (NPP)	PP, ctual) DC
Index (2009=100)	130 - 120 - 110 - 100 - 90 - 80 - 70 - 0.95 - 0.90 -			2011	+0.	2013	2014	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	— E D D D D D D D D D D D D D D D D D D	n-route unit costs (N UR 2012-14) n-route unit costs (ac n-route costs (NPP, 012-14) n-route costs (actual) n-route TSU (NPP)	PP, ctual) DC
Index (2009=100)	130 - 120 - 110 - 100 - 90 - 80 - 70 - 0.95 - 0.90 - 0.85 -			2011	+0.	2013	2014	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	E D D E 22 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	n-route unit costs (N UR 2012-14) n-route unit costs (ad n-route costs (NPP, 012-14) n-route costs (actual n-route TSU (NPP)	PP, ctual) DC
	130 - 120 - 110 - 100 - 90 - 80 - 70 - 0.95 - 0.90 - 0.85 - 0.80 - 0.80			2011	+0.	2013	2014	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	—————————————————————————————————————	n-route unit costs (N UR 2012-14) n-route unit costs (ac n-route costs (NPP, 012-14) n-route costs (actual n-route TSU (NPP) n-route TSU (actual)	PP, ctual) DC
Index (2009=100)	130 - 120 - 110 - 100 - 90 - 80 - 70 10.85 - 0.80 - 0.75 - 0.75 - 10.75 -			2011	+0.	2013	2014	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	E D D E 22 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	n-route unit costs (N UR 2012-14) n-route unit costs (ac n-route costs (NPP, 012-14) n-route costs (actual n-route TSU (NPP) n-route TSU (actual)	PP, ctual) DC
Index (2009=100)	130 - 120 - 110 -			2011	+0.	2013	2014	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	—————————————————————————————————————	n-route unit costs (N UR 2012-14) n-route unit costs (ac n-route costs (NPP, 012-14) n-route costs (actual n-route TSU (NPP) n-route TSU (actual)	PP, ctual) DC

#### Monitoring of en-route and terminal COST-EFFICIENCY for 2014







#### Monitoring of en-route and terminal COST-EFFICIENCY for 2014

#### 7. - General conclusions on the monitoring of the 2014 en-route DUR

# Notes on information provided by ESTONIA

#### Note 1: 2012 and 2013 NSA costs

Estonia has updated the 2012 and 2013 en-route actual costs in the June 2015 en-route Reporting Tables. The updated data reports higher NSA costs (+254 K€ in 2012 and +42 K€ in 2013) due to a combination of higher other operating costs and lower staff and depreciation costs. This increase does not have an impact on the surplus analysis for 2012 or 2013 since it relates to the NSA, not the ATSP. However, the data update has increased the real unit cost for 2012 from 20.11 €2009 to 20.42 €2009 and for 2013 from 19.77 €2009 to 19.82 €2009.

#### Note 2: 2013 NBV of fixed assets

Estonia has updated the 2013 NBV of fixed assets reported for 2013 in the June 2015 en-route Reporting Tables. The updated data reports a lower NBV of fixed assets leading to a lower total asset base (17.6 M€2009 compared to 17.7 M€2009 reported in the 2013 Monitoring Report). This has an impact on the surplus analysis in item 6, increasing the estimated surplus for the year (16.5% of en-route revenues, compared to 16.4% estimated in the 2013 Monitoring Report).

#### Note 3: ATSP cost of capital calculation

Following a note made in the context of the 2013 monitoring analysis Estonia has not provided clarification on the calculation of its cost of capital. The figures shown in item 6 for the estimated proportion of financing through equity and debt are the values implied by the data submitted in the reporting tables.

The planned gearing of 0.71 for all years of RP1, as stated in the Estonian NPP, is inconsistent with the data provided in the reporting tables regarding the cost of capital, return on equity (RoE) and rate of interest on debt. The figure for the 2012 estimated surplus embedded in the cost of capital is therefore different from the value stated in the 2012 Monitoring Report, which applied the planned gearing of 0.71.

#### At State / Charging Area level

In 2014, Estonia's real en-route unit cost (19.80 €2009) is -0.2% lower than planned in the NPP (19.84 €2009). This difference is due to the fact that actual en-route costs are -4.5% (-0.7 M€2009) lower than planned in real terms, while the actual number of total service units (TSUs) is -4.3% lower than planned.

The difference between the actual and the planned TSUs for the year 2014 falls outside the ± 2% dead band foreseen in the traffic risk sharing mechanism, although it does not exceed the -10% threshold. The related loss is therefore shared between the airspace users and the ATSP.

#### Actual 2014 costs vs. NPP

The Estonian en-route cost-base includes costs relating to: the en-route ATSP (EANS), the MET service provider (EMHI) and the Estonian NSA. Although the MET services are provided by the Estonian Meteorological and Hydrological Institute, the MET provider is not considered as a separate reporting entity and the MET costs are reported together with the EANS costs under "other operating costs".

In 2014, actual en-route costs for Estonia are -4.5% lower than planned in real terms, resulting from a combination of lower en-route costs in nominal terms (-4.6%) and a lower inflation index (-0.2 p.p.). The cost savings are mostly attributable to EANS (-5.2% in real terms, -0.7 M€2009). A detailed analysis of EANS's costs is provided in the box below. NSA costs are also lower than planned (-2.1% in real terms, -0.1 M€2009) due to lower than planned staff costs, offset by the addition of depreciation costs, for which no values were reported in the NPP.

Estonia do not report any costs for exemption from cost sharing for 2014.

#### RP1 summary

When considering the whole of RP1 (2012-2014) the actual number of TSUs is -5.1% lower than planned while actual costs in real terms are -5.0% lower than the determined costs (some -2.4 M€2009). As a result, the weighted average real en-route unit cost over RP1 (20.00 €2009) is +0.2% higher than planned.

#### At ATSP level

#### Actual 2014 EANS costs vs. NPP

EANS 2014 actual en-route costs are -5.2% (-0.7 M€2009) lower than planned in real terms, as a result of lower than planned costs in all categories, with the exception of staff costs. These are +9.8% above the level planned in the NPP (+0.7 M€2009 in absolute terms). According to the 2014 NSA Monitoring Report this is due to cost pressures arising from strong employment growth within the Estonian economy.

Other operating costs are -18.1% (-0.5 M€2009) lower than planned mainly due to cost containment measures implemented by EANS. Depreciation costs are -30.6% lower than planned, or -0.6 M€2009 in absolute terms, due to longer than planned operational lifetimes for assets.

The actual cost of capital is also significantly lower than planned in real terms (-17.3%, or -0.2 M€2009 in absolute terms). According to the information provided in the Estonian NSA Monitoring Report the actual capex spent by EANS over RP1 was -51.6% (-8.9 M€) lower than planned, mainly due to lower expenditures related to the ATM system. On the other hand, based on the information provided in the June 2015 Reporting Tables, the asset base used to calculate the actual cost of capital is +16.1% higher than planned in real terms, mainly due to higher net current assets. This is not fully intuitive considering the lower actual cost of capital in 2014 (-17.3%) and would imply a significant change in the gearing. This issue deserves clarification from Estonia, in particular to confirm whether the net current assets are taken into account to calculate the actual cost of capital.

#### EANS net gain/loss and estimated surplus on en-route activity in 2014

As shown in item 5, the en-route activity for the year 2014 generated a net gain of +0.3 M€2009 for EANS. This is due to the combination of two separate elements:

- a gain of +0.7 M€2009 as a result of the cost-sharing mechanism; and
- a loss of -0.3 M€2009 as a result of the traffic risk sharing mechanism for 2014.

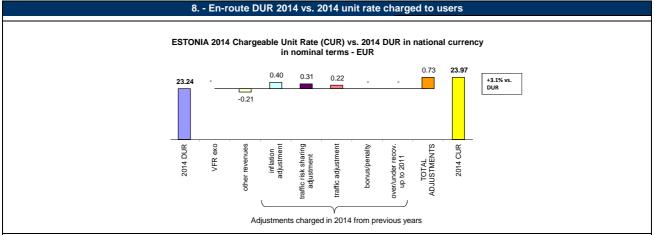
To calculate the overall economic surplus of the ATSP, it is also important to add the surplus embedded in the cost of capital through the return on equity. Based on the figures planned in the NPP, the return on equity amounted to +1.1 M€2009 corresponding to an estimated surplus of 8.7% of the en-route costs/revenues for 2014. Ex-post, the estimated surplus for the year computed by adding the surplus embedded in the cost of capital (+0.6 M€2009) and the net gain from the en-route activity in 2014 (+0.3 M€2009), gives a total of +0.9 M€2009, corresponding to 7.4% of the 2014 en-route revenue. The resulting ex-post rate of return on equity for 2014 is 13.5% (compared to 8.9% planned in the NPP). Note that the outcome of the surplus analysis is impacted by the methodology used to estimate the proportion of financing through equity and the value of the asset base used to calculate the cost of capital. See also Note 3.

#### Conclusions

In 2014 EANS's actual en-route costs are lower than planned (-5.2%, or -0.7 M€2009 in absolute terms) while traffic is -4.3% lower than foreseen in the NPP. The en-route activity for the year 2014 generated a net gain of +0.3 M€2009 for EANS which results in an estimated actual surplus of 0.9 M€2009 (7.4% of the en-route revenue for 2014, down from the 8.7% planned in the RP1 PP).

When considering the whole of RP1 (2012-2014), EANS could retain a cumulative gain in respect of cost sharing of +2.4 M€2009, following lower than planned costs in all years of RP1. EANS also incurred a cumulative loss in respect of traffic risk sharing amounting to -1.1 M€2009, due to lower than planned traffic in all years of RP1. These two effects resulted in a cumulative net gain for the en-route activity of +1.3 M€2009.

# Monitoring of en-route and terminal COST-EFFICIENCY for 2014



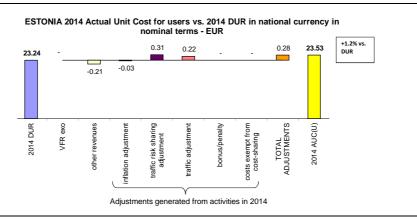
The DUR for 2014 expressed in nominal terms differs from the actual en-route unit rate charged to users in 2014 (CUR).

- the DUR, but also, a deduction of the costs for services to exempted VFR in 2014, as determined prior to the reference period and a deduction of 2014 other revenues;
- as well as adjustments relating to the activities of previous years that are carried-over to 2014. These adjustments include:
- \* the adjustment resulting from the implementation of the traffic risk-sharing (ATSP);
- \* the adjustment resulting from the difference in traffic (for costs not subject to traffic risk sharing); \* the bonus/penalty from previous year(s).
- \* the legacy carry-overs incurred in the full cost recovery regime up to and including 2011.

These costs and adjustments are divided by the forecast total service units for 2014 as laid out in the performance plan.

The actual Chargeable Unit Rate (CUR) charged to users in 2014 is 23.97 €. This is +3.1% higher than the nominal DUR (23.24 €). The difference observed between these two figures (+0.73 €) reflects a combination of a positive adjustments from 2012 due to higher inflation than planned (+0.40 €) and lower traffic than planned: traffic risk sharing adjustment (+0.31 €) and the traffic adjustment for costs exempt from traffic risk sharing (+0.22 €). There is also a negative adjustment for other revenues (-0.21 €). According to the Additional Information provided with the June 2015 en-route Reporting Tables this is related to revenues from government grants received by EANS.

# 9. - En-route DUR 2014 vs. 2014 actual unit cost for users



The DUR for 2014 expressed in nominal terms can also be compared to the actual en route unit cost for airspace users (AUC-U) for 2014 (also sometimes referred to the "true cost for users"), which reflects the unit cost that the users incur in respect of the activities performed in 2014. The AUC-U comprises:

- the DUR, the deduction of the costs for services to exempted VFR in 2014 and the deduction of 2014 other revenues that has already been billed to the users through the
- as well as adjustments relating to the activities of 2014 but which will be charged or reimbursed to users in future years. These adjustments include:
- the inflation adjustment;
- \* the adjustments resulting from the implementation of the traffic risk-sharing (ATSP);

  \* the adjustments resulting from the difference in traffic (for costs not subject to traffic risk sharing);
- \* the bonus/penalty for the current year;
  \* the costs exempt from cost sharing (if deemed eligible).

These costs and adjustments are divided by the actual total service units in 2014.

The unit cost that the users incurred in respect of the activities performed in 2014 is 23.53 €. This is +1.2% higher than the nominal DUR (23.24 €). The difference observed between these two figures (+0.28 €) is due to positive adjustments for lower traffic than planned in 2014: traffic risk sharing adjustment (+0.31 €) and the traffic adjustment for costs exempt from traffic risk sharing (+0.22 €). These are offset by negative adjustments for other revenues (-0.21 €) and lower inflation than planned (-0.03 €).

#### Monitoring of en-route and terminal COST-EFFICIENCY for 2014

10 Terminal costs and unit rates monitoring (2014)								
		2009	2010	2011	2012	2013	2014	
Terminal Service Unit Formula	(MTOW/50)^		0.5	0.5	0.5	0.7	0.7	
Number of airports in terminal charging zone			2	2	2	2	2	
of which, number of airports over 50 000 movements								
ESTONIA - Data from RP1 national performance plan		2009A	2010A	2011F	2012P	2013P	2014P	
Terminal ANS costs for the charging zones - (in EUR)			1 382 080	1 741 900	1 864 537	1 917 758	2 050 763	
Inflation index (100 in 2009)		100.0	103.0	107.6	110.6	114.0	117.2	
Real terminal ANS costs - (in EUR2009)			1 341 825	1 618 340	1 685 095	1 682 713	1 750 40	
ESTONIA - Actual data from June 2015 Reporting Table	s	2009A	2010A	2011A	2012A	2013A	2014A	
Terminal ANS costs for the charging zones - (in EUR)					1 987 200	2 067 000	2 052 10	
Inflation index (100 in 2009)		100.0	103.0	108.3	112.8	116.4	117.0	
Real terminal ANS costs - (in EUR2009)					1 761 708	1 775 633	1 754 063	
Total terminal service units		12 000	13 000	15 726	19 717	14 337	15 341	
Actual real unit costs - (in EUR2009)					89.4	123.8	114.3	
Unit rate applied - (in EUR)					77.97	77.97	93.67	
Difference between Actuals and Planned in absolute va	lue and in percentag	e (Actuals vs. NP	P)		2012	2013	2014	
Terminal ANS costs for the charging zones - (in EUR)	in value				122 663	149 242	1 337	
	in%				6.6%	7.8%	0.1%	
Inflation index (100 in 2009)	in p.p.				2.2 p.p.	2.4 p.p.	-0.2 p.p	
Real terminal ANS costs - (in EUR2009)	in value				76 613	92 920	3 658	
	in%				4.5%	5.5%	0.2%	

# 11. - General conclusions on the Terminal ANS costs and unit rates monitoring

The terminal charging zone of Estonia comprises 2 airports neither of which handles over 50 000 movements. The harmonised SES formula (MTOW/50)^0.7 applies from 2013 onwards.

Actual terminal ANS costs are slightly higher in real terms than planned in the Estonian NPP (+0.2%, +0.004 M€2009 in absolute terms). No Additional Information has been provided by Estonia with the terminal Reporting Tables.

The real unit cost for terminal services is 114.3 €2009, -7.7% compared to the real unit cost for 2013. The Unit Rate applied in 2014 is 93.67€, which is +20.1% higher than the rate applied in 2012 and 2013 (77.97 €2009).

# RP1 summary

When considering the whole of RP1 (2012-2014), actual terminal ANS costs are +3.4% higher in real terms (or some +0.2 M€2009) than planned in the NPP. This reflects the fact that terminal ANS costs were higher than planned in 2012 (+4.5%) and 2013 (+5.5%) and almost in line with the plan in 2014 (+0.2%).

	12 Moni	toring of gate-to-g	gate costs (201	4)			
FOTONIA Des from DD4 of the land		00004	00404		00400	00400	00440
ESTONIA - Data from RP1 national performance plan		2009A	2010A	2011F	2012P	2013P	2014P
Real en-route costs (determined costs 2012-2014) - (in EUR2009)		13 715 440	14 935 470		15 453 845	15 648 936	16 372 402
Real terminal ANS costs - (in EUR2009)			1 341 825	1 618 340	1 685 095	1 682 713	1 750 405
Real gate-to-gate ANS costs - (in EUR2009)		13 715 440	16 277 295	15 935 501	17 138 940	17 331 649	18 122 807
Share of en-route costs in gate-to-gate ANS costs		N/A	91.8%	89.8%	90.2%	90.3%	90.3%
ESTONIA - Actual data from June 2015 Reporting Tables		2009A	2010A	2011A	2012A	2013A	2014A
Real en-route costs - (in EUR2009)	13 715 440	13 899 477	13 781 881	14 795 616	14 684 470	15 635 356	
Real terminal ANS costs - (in EUR2009)				1 761 708	1 775 633	1 754 063	
Real gate-to-gate ANS costs - (in EUR2009)		13 715 440	13 899 477	13 781 881	16 557 324	16 460 103	17 389 419
Share of en-route costs in gate-to-gate ANS costs		N/A	N/A	N/A	89.4%	89.2%	89.9%
Difference between Actuals and Planned in absolute v	alue and in percenta	ige (Actuals vs. NP	PP)		2012	2013	2014
Real en-route costs - (in EUR2009)	in value				-658 229	-964 466	-737 046
	in %				-4.3%	-6.2%	-4.5%
Real terminal ANS costs - (in EUR2009)	in value				76 613	92 920	3 658
·	in %				4.5%	5.5%	0.2%
Real gate-to-gate ANS costs - (in EUR2009)	in value				-581 616	-871 547	-733 388
	in %				-3.4%	-5.0%	-4.0%
Share of en-route costs in gate-to-gate ANS costs	in p.p				-0.8 p.p.	-1.1 p.p.	-0.4 p.p.

#### 13. - General conclusions on the gate-to-gate ANS costs

Actual 2014 gate-to-gate costs are -4.0% lower than planned in real terms due to lower than planned en-route ANS costs (-0.7 M $\in$ 2009, -4.5%) while terminal ANS costs are almost in line with the NPP (+0.004 M $\in$ 2009, +0.2%).

The allocation of gate-to-gate costs between en-route ANS and terminal ANS appears quite stable over RP1 (approximately 90% share to en-route) and did not change significantly with respect to the NPP.





# PRB Annual Monitoring Report 2014 FABEC

Working Draft 2.0

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#### **FABEC**

# **Monitoring of CAPACITY indicators for 2014**

Minutes of ATFM en-route delay									
	2012	2013	Observations						
Reference value	0.52	0.47	0.4						
FAB Target	0.77	0.68	0.5						
Actual performance	0.6	0.47	0.56						

#### **FABEC's capacity assessment**

In 2014, FABEC achieved the second best result ever recorded regarding En route ATFM delays, but the ambitious objective of an average 0.5 minutes of en-route air traffic flow management (ATFM) delay per controlled flight was slightly exceeded by 0.06 minutes or 3.6 seconds per flight. In total, delay minutes dropped from 4.13 million to 3.08 million – generating annual savings of EUR 85 million. Today, more than 97 per cent of all flights are on time, meaning that they have suffered no delay at all from ATM.

A first analysis of the root causes of the remaining delay shows that most of them are local causes or, like weather, cannot be influenced (the breakdown of the 2014 achievements is given per FABEC ACC here after). Based on this FABEC has already taken actions to further improve its capacity performance in RP2 (see RP2 FABEC Performance Plan and justifications regarding target setting by NSA).

# **ANSP** capacity plan

See national capacity plans for Belgium and Luxembourg, France, Germany, the Netherlands and Switzerland.

# **PRB Capacity assessment**

Both the European Commission and the PRB had highlighted concerns that FABEC needed to improve capacity planning in some ACCs, if the binding target for en-route capacity was to be met in RP1. Despite these warnings, the FABEC did not implement remedial measures to improve capacity and the en route capacity target was not met.

The assessment of capacity performance by the FABEC authorities refers to annual savings of €85 million for airspace users. However, when compared to the required reference value of 0.4 minutes per flight, the 2014 capacity performance of the FABEC (0.56 minutes per flight) represents an additional cost to the airspace users of €73 million. Using the FABEC adopted target shows a net cost to the airspace users of €27 million instead of the reported benefit.

The FABEC authorities have presented no evidence of the actions they have taken to improve capacity planning and implementation. The reference to the improved capacity performance in RP2 is subjective since the PRB and the European Commission considered that the FABEC Performance Plan for RP2 was not consistent with the Union-wide targets for en-route capacity, and the FABEC was invited to review the capacity targets.

# **Effective booking procedures**

See national reports for Belgium and Luxembourg, France, Germany, the Netherlands and Switzerland.

#### **Previous recommendations**

Annual Monitoring Report 2012: Extract from the EC Notification letter to FABEC States 19/07/2012:

The Commission considers that ...the capacity target of FABEC could have been further improved.

- ... FABEC's capacity target for the first reference period 2012-2014 is assessed on the clear expectation that:
- a) the FABEC Member States (Belgium, Germany, France, Luxembourg, the Netherlands and Switzerland) will require their air navigation service providers to develop and implement capacity plans that allow meet the FABEC 2014 reference value of 0.4 minute of average delay per flight at the earliest possible date in the second reference period, with the assistance of the Network Manager;
- b) where these revised capacity plans shall also improve the 2014 national or functional airspace block capacity targets, the States concerned will adopt and communicate to the Commission, either directly or through FABEC institutions, revised capacity targets by the end of June 2013 at the latest.

**Annual Monitoring Report 2013:** The PRB requests the FABEC Member States to provide information on how the capacity planning of the FABEC ANSPs, is consistent with the existing recommendation of the European Commission that FABEC Member States require their ANSPs to develop and implement capacity plans that meet the FABEC reference value of 0.4 minutes per flight in 2014.

# **NSA** report on follow-up to recommendations

See FABEC's capacity assessment above.

#### Recommendations

#### Monitoring of CAPACITY indicators for 2014



Airport Name	ICAO Code	RP1 Year	Average of Apt. ATFM arr. Delay [min./arr.]	Total Apt. ATFM arr. delay [min.]	Additional ASMA time [min./arr.]	Total Additional ASMA time [min]	Additional taxi-out time [min./dep.]	Total Additional taxi-out time [total]	Sum of Total Additional Time [min]
		2012	0.0	0	n/appl.	n/appl.	2.3	67 498	67 498
Leipzig/Halle	EDDP	2013	0.0	111	n/appl.	n/appl.	2.6	76 523	76 634
		2014	0.0	0	n/appl.	n/appl.	1.5	44 465	44 465
		2012	0.0	633	n/appl.	n/appl.	1.8	62 355	62 988
Berlin-Schoenefeld	EDDB	2013	0.0	423	n/appl.	n/appl.	1.9	59 835	60 258
		2014	0.0	250	n/appl.	n/appl.	1.0	32 735	32 985
		2012	0.0	0	n/appl.	n/appl.	1.0	32 959	32 959
Hanover	EDDV	2013	0.0	0	n/appl.	n/appl.	1.5	42 890	42 890
		2014	0.0	0	n/appl.	n/appl.	0.8	23 769	23 769
		2012	0.3	18 783	n/a	n/a	n/a	n/a	n/a
Nice	LFMN	2013	0.5	33 185	n/a	n/a	n/a	n/a	n/a
		2014	0.3	22 200	n/a	n/a	n/a	n/a	n/a
		2012	0.0	1 805	n/a	n/a	n/a	n/a	n/a
Stuttgart	EDDS	2013	0.0	782	0.6	29 258	n/a	n/a	n/a
		2014	0.1	4 531	0.7	35 906	n/a	n/a	n/a
		2012	0.0	0	n/appl.	n/appl.	0.7	18 023	18 023
Nurenberg	EDDN	2013	0.0	415	n/appl.	n/appl.	0.6	14 605	15 020
		2014	0.0	414	n/appl.	n/appl.	n/a	17 843	18 257
		2012	0.1	3 710	n/appl.	n/appl.	n/a	n/a	n/a
Luxembourg	ELLX	2013	0.1	2 426	n/appl.	n/appl.	n/a	n/a	n/a
		2014	0.1	2 279	n/appl.	n/appl.	n/a	n/a	n/a
		2012	1.0	1 929 352	n/a	n/a	n/a	n/a	n/a
Total		2013	0.8	1 607 466	n/a	n/a	n/a	n/a	n/a
		2014	0.9	1 680 223	n/a	n/a	n/a	n/a	n/a
Absolute Differe	ence	2014-2013	<b>0.0</b>	72 757	n/a	n/a	n/a	n/a	n/a
		2014-2012		249 129	n/a	n/a	n/a	n/a	n/a

#### **Critical Issues**

• Mandatory data missing and poor data quality at Stuttgart, Nice and Luxembourg airports prohibited additional ASMA and taxi-out times from being fully calculated.

# **Specific Analysis**

- In average over RP1, ATFM arrival delay decreased by 13% in FABEC, with Zurich (2.7 min/arr), Amsterdam (1.9), Geneva (1.5), and Frankfurt (1.3) which remain above the average. No average could be calculated for both additional ASMA and taxiout times due to missing data at a few airports. To be noted that weather remains the predominant factor affecting Airport Arrival ATFM Delay in general.
- Zurich accumulated additional ASMA time (3.2 minutes per arrival) greater than the European average.
- Over RP1, the total additional time decreased by 20% at Frankfurt airport. The operations of the 4th runway were favourable to performance for inbound traffic, resulting in a decrease of both additional ASMA time and ATFM delay. The increase of additional taxi-out time observed in 2013 was recovered in 2014 to a level below 2012.





# PRB Annual Monitoring Report 2014

Belgium / Luxembourg

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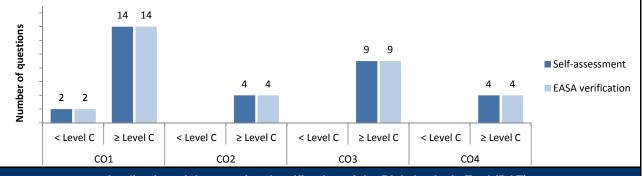
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# Monitoring of SAFETY indicators for 2014

Effectiveness of Safety Management										
	2012	2013	2014	State level Observations						
State level	62	64	65							
ANSP [Belgocontrol]	73	72	72							
ANSP [MUAC]	86	86	81							



# Application of the severity classification of the Risk Analysis Tool (RAT)

		20	2012		2013		2014	
		No reported	Assessed (%)	No reported	Assessed (%)	No reported	Assessed (%)	
Separation Minima	ATM Ground	52	58%	45	71%	45	100%	
Infringements (SMIs)	ATM Overall	52	0%		31%	70	100%	
Runway Incursions (RIs)	ATM Ground	9	33%	13	100%	44	100%	
Rullway ilicul siolis (Ris)	ATM Overall	9	0%		100%		100%	
ATM Specific Occurences (ATM-Specific)	ATM Overall	78	100%	107	100%	115	100%	
Source of RAT data:		BCAA						

Preliminary results updated after coordination with the AST-FP in August 2015.

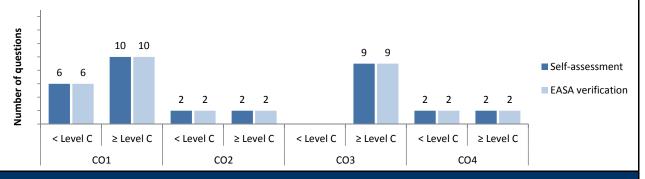
Just culture							
			Sta	ate			
Number of questions answered with Yes or No	2012		20	13	2014		
	YES	NO	YES	NO	YES	NO	
Policy and its implementation	3	7	3	7	3	6	
Legal/Judiciary	3	5	3	5	3	4	
Occurrence reporting and Investigation	2	0	2	0	2	0	
TOTAL	8	12	8	12	8	10	

	ANSP [Belgocontrol]							
Number of questions answered with Yes or No	2012		20	13	2014			
	YES	NO	YES	NO	YES	NO		
Policy and its implementation	10	3	10	3	10	3		
Legal/Judiciary	1	2	2	1	2	1		
Occurrence reporting and Investigation	4	4	4	4	4	4		
TOTAL	15	9	16	8	16	8		

	ANSP [MUAC]							
Number of questions answered with Yes or No	2012		20	13	2014			
	YES	NO	YES	NO	YES	NO		
Policy and its implementation	7	6	7	6	8	5		
Legal/Judiciary	1	2	1	2	1	2		
Occurrence reporting and Investigation	5	3	5	3	5	3		
TOTAL	13	11	13	11	14	10		

# Monitoring of SAFETY indicators for 2014

Effectiveness of Safety Management									
	2012	2013	2014	State level Observations					
State level	29	35	49						
ANSP [ANA LUX]	43	59	61						
ANSP [MUAC]	86	86	81						



# Application of the severity classification of the Risk Analysis Tool (RAT)

		20	2012		2013		2014	
		No reported	Assessed (%)	No reported	Assessed (%)	No reported	Assessed (%)	
Separation Minima Infringements (SMIs)	ATM Ground	1	0%	1	100%	7	43%	
	ATM Overall	'	0%		100%		29%	
Runway Incursions (RIs)	ATM Ground	1	0%	5	20%	2	100%	
	ATM Overall	'	0%		20%		100%	
ATM Specific Occurences (ATM-Specific)	ATM Overall	3	67%	9	0%	52	100%	
Source of RAT data:		DAC						

Preliminary results updated after coordination with the AST-FP in August 2015.

TOTAL

#### Just culture State Number of questions answered with Yes or No **YES** NO YES NO YES NO Policy and its implementation Legal/Judiciary Occurrence reporting and Investigation

	ANSP [ANA LUX]						
Number of questions answered with Yes or No	2012		2013		2014		
	YES	NO	YES	NO	YES	NO	
Policy and its implementation	11	2	9	4	12	1	
Legal/Judiciary	2	1	2	1	2	1	
Occurrence reporting and Investigation	4	4	4	4	6	2	
TOTAL	17	7	15	9	20	4	

	ANSP [MUAC]						
Number of questions answered with Yes or No	2012		2013		2014		
	YES	NO	YES	NO	YES	NO	
Policy and its implementation	7	6	7	6	8	5	
Legal/Judiciary	1	2	1	2	1	2	
Occurrence reporting and Investigation	5	3	5	3	5	3	
TOTAL	13	11	13	11	14	10	

#### **BELGIUM / LUXEMBOURG**

# Monitoring of CAPACITY indicators for 2014

Minutes of ATFM en-route delay								
	2012	2013	2014	Observations				
Reference value	0.25	0.27	0.21					
National Target								
Actual performance	0.03	0.08	0.02					

#### National capacity assessment

The operational performances of both Belgocontrol and MUAC remain at a high level not only due to a lower traffic but also because of operational improvements in all domains.

# PRB Capacity assessment

Belgium did not set a national target for capacity in RP1. Despite this, the provided level of capacity for 2014 was above the minimum requirement to be consistent with the EU-wide value for 2014.

#### **Effective booking procedures**

The ratio of time airspace was actually used for activity requiring segregation or restriction from GAT and the amount of time it was notified as being restricted on the day of operations: 69%

The ratio of time airspace, that was surplus to requirement, was released with more than 3 hours' notice to the Network Manager and the amount of time it was notified as being restricted on the day of operations: ≈0%

The ratio of time airspace was neither used nor released with at least 3 hours' notice to the Network Manager, but was notified as being restricted on the day of operations: 31%

# **Previous recommendations**

**Annual Monitoring Report 2012**: As a FABEC State, Belgium was requested to develop and implement capacity plans to meet the FABEC 2014 reference value of 0.4 minutes average delay per flight at the earliest possible date in RP2, with the assistance of the Network Manager. As the graphic above shows, the capacity plans for Belgium have been dis-improving rather than improving over the last two years.

**Annual Monitoring Report 2013**: The PRB request Belgium to provide information on how the capacity planning of the ANSP, combined with the other FABEC ANSPs, is consistent with the existing recommendation of the European Commission that FABEC Member States require their ANSPs to develop and implement capacity plans that meet the FABEC reference value of 0.4 minutes per flight in 2014.

#### NSA report on follow-up to recommendations

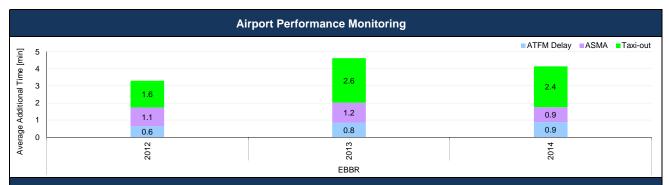
**Annual Monitoring Report 2012:** Capacity plans are adapted yearly following the capacity planning process established by EUROCONTROL in view of LSSIP reporting. The Brussels ACC Capacity Plan is part of the LSSIP publication, and shows that the capacity planned to be delivered meets the reference capacity profile [for Brussels ACC]. Belgocontrol has provided in 2013 the necessary capacity to achieve its required contribution towards the achievement of the FABEC target, and intends to commit with its 2014 contribution.

**Annual Monitoring Report 2013:** The Belgian NSA did not provide any additional information in follow-up to the recommendation stemming from the 2013 Annual Monitoring Report.

#### Recommendations

# **BELGIUM**

# **Monitoring of CAPACITY indicators for 2014**



Airport Data										
Airport Name	ICAO Code	RP1 Year	Average of Apt. ATFM arr. Delay [min./arr.]	Total Apt. ATFM arr. delay [min.]	Additional ASMA time [min./arr.]	Total Additional ASMA time [min]	Additional taxi-out time [min./dep.]	Total Additional taxi-out time [total]	Sum of Total Additional Time [min]	
Brussels EBBR	2012	0.6	70 692	1.1	116 249	1.6	161 736	348 677		
	2013	0.8	88 623	1.2	120 543	2.6	253 370	462 536		
		2014	0.9	99 321	0.9	94 862	2.4	251 017	445 199	
		2012	0.6	70 692	1.1	116 249	1.6	161 736	348 677	
Total	2013	0.8	88 623	1.2	120 543	2.6	253 370	462 536		
		2014	0.9	99 321	0.9	94 862	2.4	251 017	445 199	
Absolute Difference		2014-2013	<b>O.0</b>	<b>10 698</b>	0.3	25 681	-0.2	<u>-2 353</u>	<u>-17 336</u>	
		2014-2012	<b>0.2</b>	<b>28 629</b>	0.2	<u> </u>	0.8	<b>▽</b> 89 281	96 522	

# **Critical Issues**

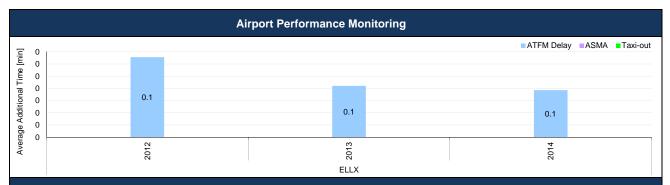
• None

# **Specific Analysis**

• In average over RP1, total additional time increased by 28% at Brussels Airport for a traffic volume that is relatively constant. Additional taxi-out time, in particular, increased by 55%.

#### **LUXEMBOURG**

# Monitoring of CAPACITY indicators for 2014



#### **Airport Data** Average of Total Additional Total Sum of Total Apt. Additional **ICAO** Apt. ATFM Additional taxi-out Additional Total RP1 Year **Airport Name** ATFM arr. **ASMA** time arr. Delay ASMA time Additional Code time taxi-out delay [min.] [min./arr.] [min./arr.] [min] [min./dep.] time [total] Time [min] 3 710 2012 0.1 n/appl. n/appl. n/a n/a n/a Luxembourg **ELLX** 0.1 2 426 2013 n/appl. n/appl. n/a n/a n/a 2014 0.1 2 2 7 9 n/appl. n/appl n/a n/a n/a 2012 0.1 3 710 n/appl. n/appl. n/a n/a n/a Total 2013 0.1 2 426 n/appl. n/appl. n/a n/a n/a 2014 0.1 2 279 n/a n/a n/a n/appl. n/appl. 2014-2013 0.0 -147 n/appl. n/a n/a n/appl. n/a **Absolute Difference** 2014-2012 -0.1 -1 431 n/appl. n/appl. n/a n/a n/a

• Data quality issues (missing runway and stand information) prohibit taxi-out time to be calculated.

# Specific Analysis

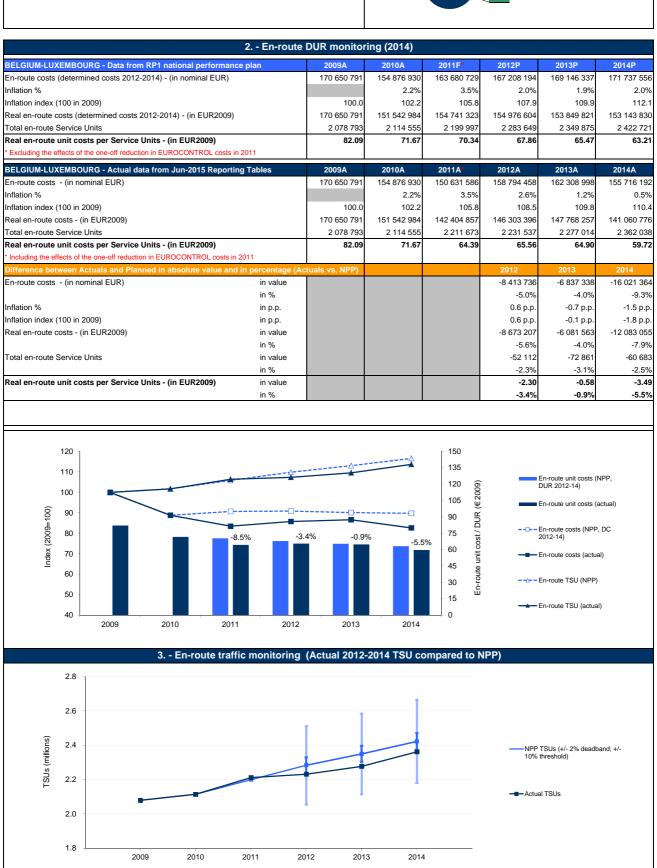
**Critical Issues** 

• The average additional taxi-out time could not be calculated for Luxembourg due to missing data (missing departure stnad).

#### **BELGIUM-LUXEMBOURG**

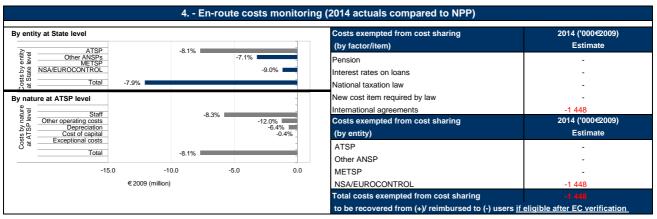
#### Monitoring of en-route and terminal COST-EFFICIENCY for 2014

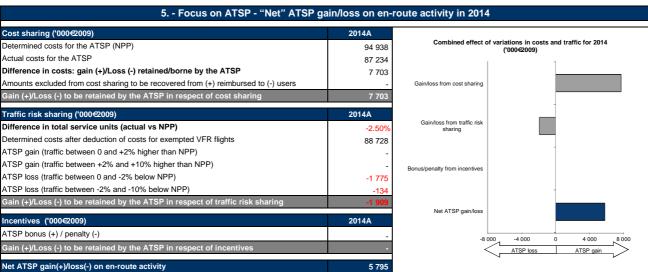


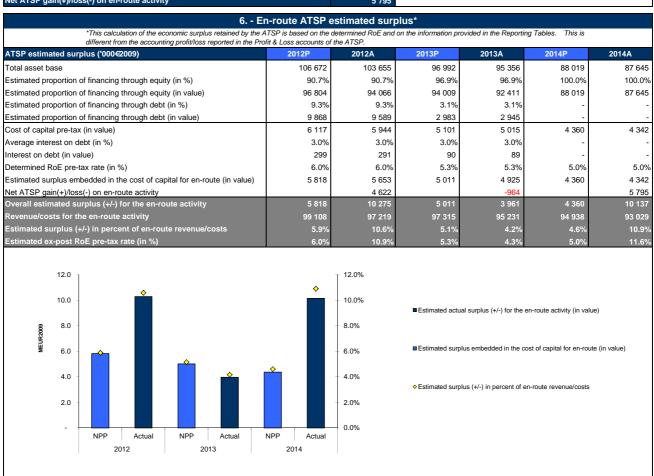


### **BELGIUM-LUXEMBOURG**

#### Monitoring of en-route and terminal COST-EFFICIENCY for 2014







#### **BELGIUM-LUXEMBOURG**

#### Monitoring of en-route and terminal COST-EFFICIENCY for 2014

### 7. - General conclusions on the monitoring of the 2014 en-route DUR

### Notes on information provided by BELGIUM-LUXEMBOURG

Note 1: One-off reduction in EUROCONTROL costs in 2011

The actual en-route costs for 2011 (i.e. 150.6 M€) differ from the figure published in the 2012 Monitoring Report (i.e. 156.6 M€). This is due to the fact that in the 2012 Monitoring Report, the actual en-route costs for 2011 were adjusted (some +6 M€) to exclude the effects of the one-off reduction in EUROCONTROL costs (implementation of IFRS in EUROCONTROL Agency and MUAC). Excluding the effects of this exceptional reduction, the Belgium actual real en-route unit cost for 2011 are 66.93 €2009 instead of 64.39 €2009 (cf. Table in Item 2), which is -4.8% below the forecast (instead of -8.5%, cf. Graph in Item 2).

### At State / Charging Area level

In 2014, Belgium-Luxembourg actual en-route unit cost (59.72 €2009) is -5.5% lower than the DUR planned in the Belgium-Luxembourg National Performance Plan (NPP) for RP1 (63.21 €2009). This difference is due to the fact that in 2014 actual en-route costs are -7.9% lower than the determined costs provided in the NPP (some -12.1 M€2009) while the actual number of total service units (TSUs) is -2.5% lower than planned.

In 2014, the difference between actual and planned traffic (-2.5%) falls outside of ±2% dead band foreseen in the traffic risk sharing mechanism. Therefore, the loss of revenues is shared between the ATSP and airspace users, with the loss retained by the ATSP amounting to some -1.9 M€2009. It should be noted that MUAC costs, which are part of the Belgium and Luxembourg en-route cost-base, are not subject to traffic risk sharing in RP1.

#### Actual 2014 costs vs. NPP

For Belgium-Luxembourg, real en-route costs are substantially lower (-7.9% or some -12.1 M€2009) than planned. This mainly reflects lower en-route costs in nominal terms (-9.3%) while the actual inflation index was lower than planned in the NPP (-1.8 p.p.). All the entities which are part of the Belgium-Luxembourg en-route cost-base have reported significantly lower than planned en-route costs for 2014: Belgocontrol (-8.1%), MUAC (-7.1%) and NSA/EUROCONTROL (-9.0%). A detailed analysis of the deviation between Belgocontrol actual and planned en-route costs is provided in the box below.

For MUAC, the significantly lower actual costs than planned in the NPP for the year 2014 (i.e. -7.1% or -3.2 M€2009) reflect lower staff costs (-1.7% or some -0.6 M€2009), other operating costs (-25.6% or some -1.2 M€2009), depreciation costs (-27.2% or some -1.0 M€2009) and cost of capital (-72.2% or some -0.4 M€2009).

In 2014, costs exempt from cost sharing are reported for a total of -1.4 M€2009 to be reimbursed to the users for the en-route activity. This results from lower EUROCONTROL Agency costs than planned in the NPP. These costs will be eligible for carry-over to the following reference period(s), if deemed allowed by the European Commission after verification on the basis of the NSA report establishing and justifying these exemptions.

### RP1 summary

When considering the whole of RP1 (2012-2014), for the Belgium-Luxembourg charging zone, actual en-route TSUs are -2.6% lower than planned, while actual costs in real terms are -5.8% lower than determined costs (some -26.8 M€2009). As a result, over RP1 the actual weighted average unit cost (63.33 €2009) is -3.3% lower than planned in the NPP (65.47 €2009).

### At ATSP level

### Actual 2014 Belgocontrol costs vs. NPP

In 2014, the difference between Belgocontrol actual and determined costs (-8.1% or some -7.7 M€2009) mainly reflects significantly lower staff costs (-8.3% or some -5.8 M€2009), other operating expenses (-12.0% or some -1.2 M€2009) and depreciation costs (-6.4% or some -0.7 M€2009). In the meantime, the cost of capital remained fairly in line (-0.4%) with the information provided in the NPP. According to the information disclosed in the Belgium NSA 2014 Monitoring report, the substantially lower actual staff costs (-8.3%) in 2014 mainly reflect the impact of a staff reduction programme (a reduction of 132 FTEs over RP1). Similarly, the lower other operating costs (-12.0%) are mainly due to the implementation of cost containment measures. The lower depreciation costs (-6.4%) mainly results from the postponement of capex to future years (i.e. the actual capex for 2014 was some -1.3 M€ lower than foreseen in the NPP).

### Belgocontrol net gain/loss and estimated surplus on en-route activity in 2014

Belgocontrol generated a net gain of 5.8 M€2009 for the en-route activity for the year 2014. This result is a combination of two contrasting elements:

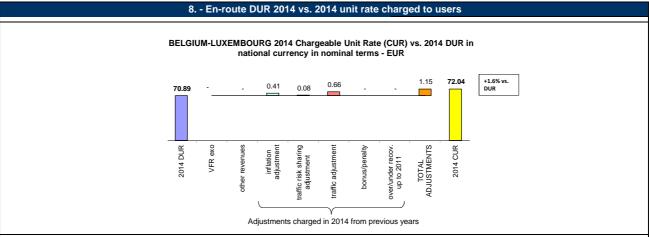
- a gain of +7.7 M€2009, mainly reflecting the fact that actual 2014 en-route costs were lower than planned; and,
- a loss of -1.9 M€2009 in revenues since actual 2014 traffic was significantly lower than expected.

Ex-post, the overall estimated economic surplus for the year is computed by adding the surplus embedded in the cost of capital (+4.3 M€2009) to the net gain for the en-route activity in 2014 (+5.8 M€2009). As a result, the overall estimated economic surplus for the en-route activity in 2014 amounts to +10.1 M€2009, which corresponds to 10.9% of 2014 en-route revenues (compared to +4.6% as planned in the NPP).

### Conclusion

In the context of lower actual traffic than planned in 2014 (-2.5%), Belgocontrol was able to significantly revise downwards its en-route costs (-8.1%) compared to the determined costs provided in the NPP and generated a net gain of +5.8 M€2009 for the en-route activity. When considering the surplus embedded in the cost of capital through the return on equity, the overall estimated surplus generated in 2014 amounts to +10.1 M€2009 (or 10.9% of total en-route revenues).

When considering the whole of RP1 (2012-2014), Belgocontrol generated cumulative gains of +15.3 M€2009 as actual costs were significantly lower than planned for all the years of RP1 following the cost containment measures that were implemented during this period. These gains more than compensated for the cumulative loss of -5.9 M€2009 in terms of revenues which reflects the fact that actual traffic was consistently lower than planned during RP1 (-2.3% in 2012, -3.1% in 2013 and -2.5% in 2014). As a result, cumulative gains of some +9.5 M€2009 could be retained by Belgocontrol on the en-route activity over RP1.



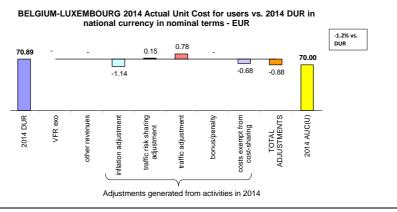
The DUR for 2014 expressed in nominal terms differs from the actual en-route unit rate charged to users in 2014 (CUR).

- the DUR, but also, a deduction of the costs for services to exempted VFR in 2014, as determined prior to the reference period and a deduction of 2014 other revenues;
- as well as adjustments relating to the activities of previous years that are carried-over to 2014. These adjustments include:
- the inflation adjustment:
- \* the adjustment resulting from the implementation of the traffic risk-sharing (ATSP);
- \* the adjustment resulting from the difference in traffic (for costs not subject to traffic risk sharing); \* the bonus/penalty from previous year(s).
- \* the legacy carry-overs incurred in the full cost recovery regime up to and including 2011.

These costs and adjustments are divided by the forecast total service units for 2014 as laid out in the performance plan.

In 2014, the actual chargeable unit rate (CUR) charged to airspace users (72.04 €) is +1.6% higher than the determined unit rate (70.89 €). The difference (+1.15 €) mainly reflects the adjustment related to traffic (+0.66 €) and to inflation (+0.41 €).

### 9. - En-route DUR 2014 vs. 2014 actual unit cost for users



The DUR for 2014 expressed in nominal terms can also be compared to the actual en route unit cost for airspace users (AUC-U) for 2014 (also sometimes referred to the "true cost for users"), which reflects the unit cost that the users incur in respect of the activities performed in 2014. The AUC-U comprises:

- the DUR, the deduction of the costs for services to exempted VFR in 2014 and the deduction of 2014 other revenues that has already been billed to the users through the
- as well as adjustments relating to the activities of 2014 but which will be charged or reimbursed to users in future years. These adjustments include:
- the inflation adjustment;
- \* the adjustments resulting from the implementation of the traffic risk-sharing (ATSP);

  \* the adjustments resulting from the difference in traffic (for costs not subject to traffic risk sharing);
- \* the bonus/penalty for the current year;
  \* the costs exempt from cost sharing (if deemed eligible).

These costs and adjustments are divided by the actual total service units in 2014.

The unit cost that the users incur in respect to the activities performed in 2014 is 70.00 €, which is -1.2% lower than the DUR (70.89 €). The difference observed between these two figures (-0.88 €) reflects the combination of the inflation adjustment (-1.14 €), the traffic adjustment (+0.78 €), the traffic risk-sharing adjustment (+0.15 €) and the amount related to costs exempted from cost-sharing (-0.68 €).

### **BELGIUM-LUXEMBOURG**

### Monitoring of en-route and terminal COST-EFFICIENCY for 2014

1	0 Terminal cos	sts and unit ra	ites monitori	ng (2014)			
		2009	2010	2011	2012	2013	2014
Terminal Service Unit Formula	(MTOW/50)^			0.9			
Number of airports in terminal charging zone				1	1	1	
of which, number of airports over 50 000 movements				1	1	1	1
BELGIUM - Data from RP1 national performance plan")		2009A	2010A	2011F	2012P	2013P	2014P
Terminal ANS costs for the charging zones - (in EUR)		35 552 346	34 481 353	36 832 379	39 255 539	37 501 825	37 027 975
Inflation index (100 in 2009)		100.0	102.2	105.8	107.9	109.9	112.1
Real terminal ANS costs - (in EUR2009)		35 552 346	33 739 093	34 820 783	36 383 924	34 110 399	33 019 021
BELGIUM - Actual data from June 2015 Reporting Table	s	2009A	2010A	2011A	2012A	2013A	2014A
Terminal ANS costs for the charging zones - (in EUR)		35 552 346	34 481 353	37 007 173	35 195 273	33 527 449	33 680 594
Inflation index (100 in 2009)		100.0	102.2	105.8	108.5	109.8	110.4
Real terminal ANS costs - (in EUR2009)		35 552 346	33 739 093	34 986 030	32 426 748	30 523 833	30 510 704
Total terminal service units							
Actual real unit costs - (in EUR2009)							
Unit rate applied - (in EUR)					N/A	N/A	N/A
Difference between Actuals and Planned in absolute va	lue and in percentag	e (Actuals vs. NP	PP)		2012	2013	2014
Terminal ANS costs for the charging zones - (in EUR)	in value				-4 060 267	-3 974 377	-3 347 381
	in%				-10.3%	-10.6%	-9.0%
Inflation index (100 in 2009)	in p.p.				0.6 p.p.	-0.1 p.p.	-1.8 p.p
Real terminal ANS costs - (in EUR2009)	in value				-3 957 175	-3 586 567	-2 508 317
	in%				-10.9%	-10.5%	-7.6%

### 11. - General conclusions on the Terminal ANS costs and unit rates monitoring

The terminal charging zones for Belgium and Luxembourg each comprise one airport above 50 000 movements per year (i.e. Brussels-EBBR and Luxembourg-ELLX). The harmonised SES TNSU formula (MTOW/50)^0.7 was not used in neither Belgium nor Luxembourg Charging Zone during RP1.

The information on planned and actual terminal costs above only relates to Belgium since Luxembourg is subject to reduced reporting requirements during RP1 due to the exemptions based on Article 1(6) and Annex I of Regulation (EC) No 1794/2006. The actual terminal ANS 2014 costs for Belgium are -7.6% lower in real terms (or some -2.5 Me2009) than planned in the NPP. This mainly reflects the fact that higher other operating costs than planned (+14.1% or +0.5 Me2009) were more than compensated by lower staff costs (-7.2% or -1.7 Me2009), depreciation costs (-15.5% or -0.6 Me2009) and cost of capital (-45.6% or -0.7 Me2009).

### RP1 summary

When considering the whole of RP1 (2012-2014), actual terminal ANS costs in real terms were consistently lower than planned in the NPP for each year of RP1 (-10.9% in 2012, -10.5% in 2013 and -7.6% in 2014). As a result, the cumulative actual terminal ANS costs are -9.7% (some -10.1 M€2009) lower than planned in the NPP for RP1.

	12 Monitor	ing of gate-to-	-gate costs (2	2014)			
BELGIUM-LUXEMBOURG - Data from RP1 national pe	rformance plan	2009A	2010A	2011F	2012P	2013P	2014P
Real en-route costs (determined costs 2012-2014) - (in El	JR2009)	170 650 791	151 542 984	154 741 323	154 976 604	153 849 821	153 143 830
Real terminal ANS costs - (in EUR2009)		35 552 346	33 739 093	34 820 783	36 383 924	34 110 399	33 019 021
Real gate-to-gate ANS costs - (in EUR2009)		206 203 137	185 282 077	189 562 106	191 360 527	187 960 220	186 162 851
Share of en-route costs in gate-to-gate ANS costs		82.8%	81.8%	81.6%	81.0%	81.9%	82.3%
BELGIUM-LUXEMBOURG - Actual data from June 201	5 Reporting Tables	2009A	2010A	2011A	2012A	2013A	2014A
Real en-route costs - (in EUR2009)		170 650 791	151 542 984	142 404 857	146 303 396	147 768 257	141 060 776
Real terminal ANS costs - (in EUR2009)		35 552 346	33 739 093	34 986 030	32 426 748	30 523 833	30 510 704
Real gate-to-gate ANS costs - (in EUR2009)		206 203 137	185 282 077	177 390 887	178 730 145	178 292 090	171 571 480
Share of en-route costs in gate-to-gate ANS costs		82.8%	81.8%	80.3%	81.9%	82.9%	82.2%
Difference between Actuals and Planned in absolute v	alue and in percenta	ge (Actuals vs. NF	PP)		2012	2013	2014
Real en-route costs - (in EUR2009)	in value				-8 673 207	-6 081 563	-12 083 055
	in %				-5.6%	-4.0%	-7.9%
Real terminal ANS costs - (in EUR2009)	in value				-3 957 175	-3 586 567	-2 508 317
	in %				-10.9%	-10.5%	-7.6%
Real gate-to-gate ANS costs - (in EUR2009)	in value				-12 630 383	-9 668 130	-14 591 371
	in %				-6.6%	-5.1%	-7.8%
Share of an youte costs in gets to gets ANS costs	innn				0000	1000	0.0 p.p
Share of en-route costs in gate-to-gate ANS costs	in p.p				0.9 p.p.	1.0 p.p.	0

### 13 - General conclusions on the gate-to-gate ANS costs

The real 2014 gate-to-gate ANS costs (171.6 M€2009) are -7.8% (or some -14.6 M€2009) lower than planned in the NPP. This results from the combination of significantly lower actual en-route costs (-7.9% or some -12.1 M€2009) and terminal ANS costs (-7.6% or some -2.5 M€2009) in real terms for the year 2014.

The relative share of en-route costs in gate-to-gate ANS costs (82.2%) is in line with the proportion planned in the NPP for 2014 (82.3%).





# PRB Annual Monitoring Report 2014

France

Working Draft 2.0

Edition date: 03/09/2015



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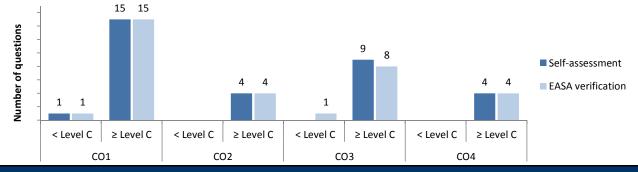
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### Monitoring of SAFETY indicators for 2014

Effectiveness of Safety Management											
	2012	2013	2014	State level Observations							
State level	72	74	71								
ANSP [DSNA]	80	87	88								



## Application of the severity classification of the Risk Analysis Tool (RAT)

				20	13	2014	
		No reported	Assessed (%)	No reported	Assessed (%)	No reported	Assessed (%)
Separation Minima	ATM Ground	737	96%	724	97%	706	93%
Infringements (SMIs)	ATM Overall	131	96%		97%	700	93%
Punway Incursions (Pls)	ATM Ground	120	98%	231	99%	238	92%
Runway Incursions (RIs)	ATM Overall	120	98%	231	99%	230	92%
ATM Specific Occurences (ATM-Specific)	ATM Overall	2454	98%	1655	46%	1816	84%
Source of RA	Source of RAT data:			DS	AC		

Preliminary results updated after coordination with the AST-FP in August 2015.

**TOTAL** 

#### Just culture State 2012 2013 2014 Number of questions answered with Yes or No **YES** NO YES NO YES NO Policy and its implementation 7 3 7 3 6 3 Legal/Judiciary 3 3 4 5 5 Occurrence reporting and Investigation 2 2 2 0 0 0

12

8

12

8

11

7

	ANSP [DSNA]								
Number of questions answered with Yes or No	20	12	20	13	2014				
	YES	NO	YES	NO	YES	NO			
Policy and its implementation	8	5	11	2	11	2			
Legal/Judiciary	2	1	3	0	3	0			
Occurrence reporting and Investigation	6	2	8	0	8	0			
TOTAL	16	8	22	2	22	2			

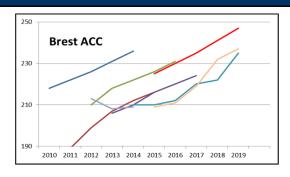
### **Monitoring of CAPACITY indicators for 2014**

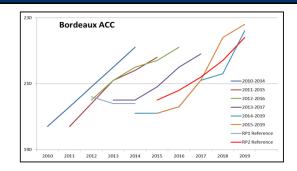
Minutes of ATFM en-route delay											
	2012	2013	2014	Observations							
Reference value	0.34	0.3	0.24								
National Target											
Actual performance	0.54	0.53	0.66								

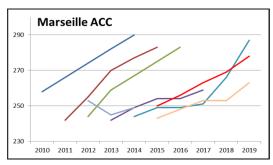
### **National capacity assessment**

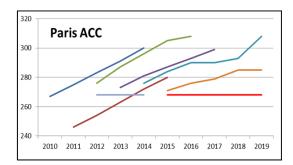
No assessment of national performance on capacity was provided in the national monitoring report.

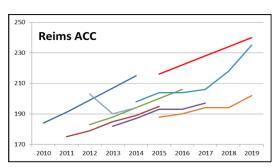
### **ANSP** capacity plan











### **PRB Capacity assessment**

France did not set a national target for capacity in RP1. The capacity performance in France for 2014, and for each year in RP1, was not consistent with the performance effort required to meet the EU-wide target. The PRB notes that the 2015-2019 capacity plans in three of the ACCs are continously below the required level of capacity to meet the Union-wide target. In Marseille and Reims ACC, the latest capacity plans are even downgraded from the previous ones, which themselves were insufficient.

### Effective booking procedures

The ratio of time airspace was actually used for activity requiring segregation or restriction from GAT and the amount of time it was allocated as being restricted on the day of operations: 63%

The ratio of time airspace, that was surplus to requirement, was released with more than 3 hours' notice to the Network Manager and the amount of time it was allocated as being restricted on the day of operations: 5%

The ratio of time airspace was neither used nor released with at least 3 hours' notice to the Network Manager, but was allocated as being restricted on the day of operations: 32%

[Note: the FABEC report contained inconsistent data in several instances, where the hours allocated at H-3 was greater than the hours initially allocated, and where the UUP process was not applicable.]

### **Previous recommendations**

**Annual Monitoring Report 2012:** France is requested to implement remedial capacity measures at ACCs where capacity problems are expected, either due to a lack of existing capacity or an inability to deploy existing capacity according to traffic demand, to ensure that a suitable contribution can be made to network performance within the timeframe of RP1.

France is requested to provide evidence of how it is increasing capacity plans in response to the EC recommendation contained in the notification letter.

**Annual Monitoring Report 2013:** The PRB requests France to provide information on how the capacity planning of the ANSP, combined with the other FABEC ANSPs, is consistent with the existing recommendation of the European Commission that FABEC Member States require their ANSPs to develop and implement capacity plans that meet the FABEC reference value of 0.4 minutes per flight in 2014.

### NSA report on follow-up to recommendations

No information was provided by the NSA about the previous recommendations.

### Recommendations

### Monitoring of CAPACITY indicators for 2014



#### Average of Total Additional Total Sum of Total Apt. Additional taxi-out Additional **ICAO** Apt. ATFM Additional Total Airport Name **RP1 Year** ATFM arr. **ASMA** time Code arr. Delay ASMA time time taxi-out Additional delay [min.] [min./arr.] time [total] [min./arr.] [min./dep.] Time [min] [min] 1 480 748 2012 8.0 208 023 1.0 208 891 1 063 835 4.4 Paris/Charles-De-**LFPG** 2013 0.7 158 869 0.9 182 273 4.5 1 029 716 1 370 858 Gaulle 2014 0.3 66 898 8.0 169 087 873 568 1 109 553 3.9 2012 8.0 90 123 1.1 80 094 2.2 253 679 423 896 Paris/Orly LFPO 2013 8.0 91 029 1.1 119 125 2.2 248 320 458 474 0.9 100 929 428 784 2014 1.0 111 741 2.0 216 114 2012 0.4 22 614 1.4 77 996 1.6 97 745 198 355 LFLL Lyon/Sartolas 2013 0.7 41 581 46 681 1.6 89 055 177 317 1.1 2014 0.1 3 287 0.7 32 667 1.0 50 435 86 389 2012 0.3 11 484 2.0 75 512 86 996 n/appl. n/appl. Basle/Mulhouse **LFSB** 2013 0.5 17 830 73 742 91 572 n/appl. n/appl 1.9 0.2 8 812 70 571 79 383 2014 n/appl n/appl 1.8 0.3 18 783 2012 n/a n/a n/a n/a n/a Nice **LFMN** 2013 0.5 33 185 n/a n/a n/a n/a n/a 2014 0.3 22 200 n/a n/a n/a n/a n/a 2012 0.7 351 027 n/a n/a n/a n/a n/a Total 2013 342 494 0.7 n/a n/a n/a n/a n/a 2014 0.4 202 126 n/a n/a n/a n/a n/a 2014-2013 -140 368 n/a n/a -0.3 n/a n/a n/a **Absolute Difference** 2014-2012 -148 901 -0.3 n/a n/a n/a n/a n/a

### Critical Issues

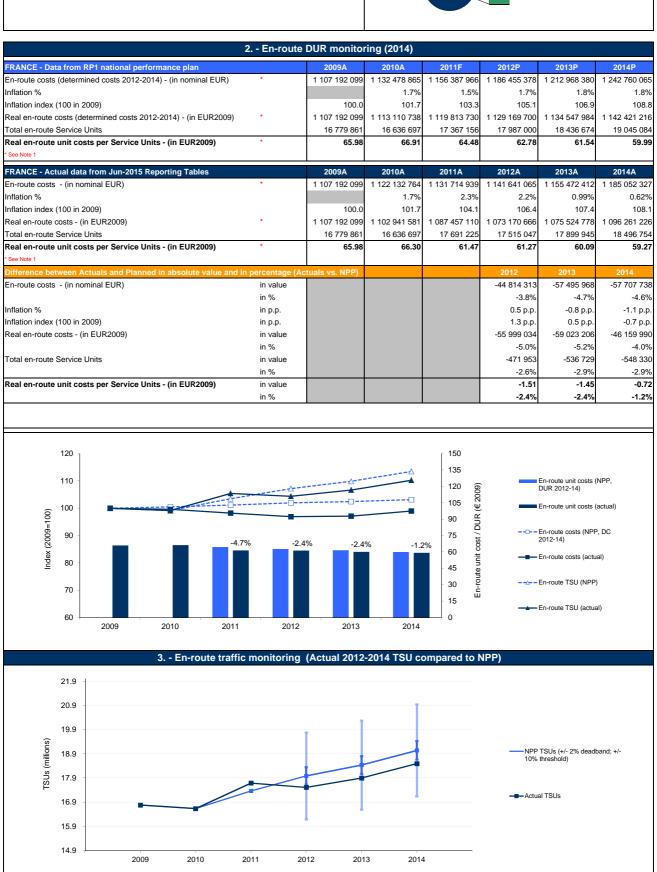
• Mandatory data missing (ARWY, DRWY) and poor data quality (AOBT) at Nice airport.

### **Specific Analysis**

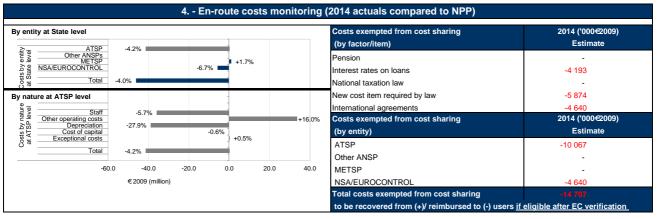
- The national average performance cannot be assessed in France for RP1 due to missing data at Nice airport.
- It is however to be noted that the performance significantly improved at Paris Charles-de-Gaulle which is from far the biggest airport in France. This performance improvement is due to the reduction of ATFM arrival delay (-68%), additional taxiout time (-18%) and additional ASMA time (-19%) over RP1.

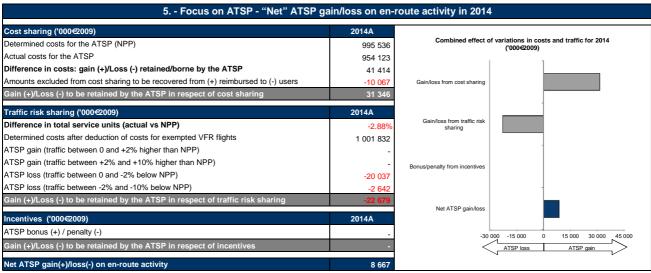
### Monitoring of en-route and terminal COST-EFFICIENCY for 2014

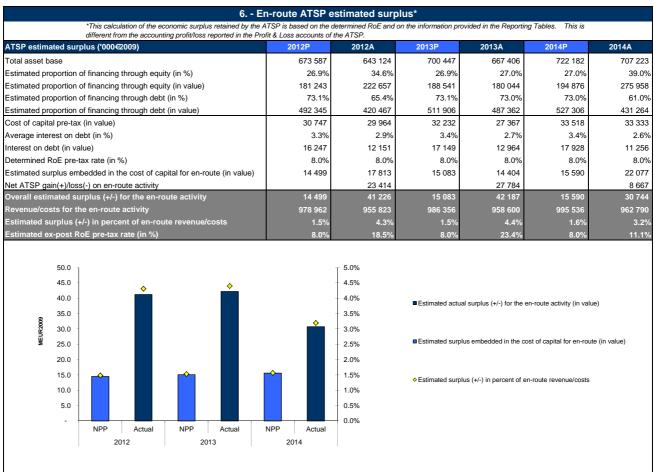




### Monitoring of en-route and terminal COST-EFFICIENCY for 2014







### Monitoring of en-route and terminal COST-EFFICIENCY for 2014

### 7. - General conclusions on the monitoring of the 2014 en-route DUR

### Notes on information provided by FRANCE

### Note 1: Determined and actual costs for France

The determined and actual costs for France are considered after deduction of the costs for exempted VFR flights and after deduction of other income in order to ensure consistency with the NPP. The breakdown shown in item 4 presents these deductions as (negative) exceptional costs for the ATSP.

### Note 2: Actual 2013 en-route and terminal costs

Actual 2013 en-route and terminal costs have been updated since the 2013 PRB Monitoring Report, as a result of the revision of the costs exempt from cost sharing submitted by France in respect of 2012 and 2013 and an update of the actual 2013 costs made after the June 2014 submission that served as a basis for the 2013 monitoring. For these reasons, the net ATSP gain/loss for the en-route activity reported in this document for 2012 and 2013 also differs from the information published in the PRB 2013 Monitoring Report.

#### At State / Charging Area level

In 2014, France's actual real en-route unit cost (59.27 €2009) was -1.2% lower than planned in the NPP for RP1 (59.99 €2009). This difference is resulting from lower actual real en-route costs (-4.0%) than planned in the RP1 NPP for 2014 and lower actual number of en-route TSUs in 2014 (-2.9%).

The difference in actual traffic compared to the NPP for 2014 (-2.9%) falls outside the ±2% dead band foreseen in the traffic risk sharing mechanism, although it does not exceed the -10% threshold. As a result, the related loss of en-route revenues is shared between the ATSP and airspace users, with the loss borne by DSNA amounting to some -22.7 M€2009.

#### Actual 2014 costs vs. NPP

Real en-route costs for France were -4.0% lower in 2014 than planned, resulting from a combination of -4.6% lower nominal en-route costs and -0.7 percentage points lower inflation index.

DSNA and NSA/EUROCONTROL actual real en-route costs were lower than planned (by -4.2% and -6.7%, respectively), while the MET SP costs were slightly higher than the amounts planned in the NPP (+1.7%).

Costs exempt from cost sharing are reported for a total of -14.7 M€2009 to be reimbursed to the users for the en-route activity, corresponding to the sum of negative amounts in respect of changes in interest rates on loans, new costs required by law and differences linked to EUROCONTROL costs. These costs will be eligible for carry-over to the following reference period(s), if deemed allowed by the European Commission after verification on the basis of the NSA report establishing and justifying these exemptions.

#### **RP1 summary**

When considering the whole of RP1 (2012-2014), actual en-route TSUs are, for the French charging zone, -2.8% lower than planned, while actual costs in real terms are -4.7% lower than the determined costs (some -161.2 M€2009). As a result, the actual weighted average unit cost over RP1 (60.19 €2009) is -2.0% lower than planned in the NPP (61.41 €2009)

### At ATSP level

### Actual 2014 DSNA costs vs. NPP

In 2014, actual en-route costs were overall lower than planned (by -4.2%), as a result of:

- Lower staff costs (-35.9 M€2009, or -5.7%). The additional information to June 2015 en-route reporting tables states: "While a part of this difference actually stems from a presentation issue, for the most part this difference results from the containment of staff costs, materialized by the under-consumption of DGAC staff cost budget."
- Higher other operating costs (+33.5 M€2009, or +16.0%). The additional information to June 2015 en-route reporting tables states: "In addition to the presentation of the "Grand ENAC" costs mentioned above, one should mention the impact of a change in accounting rules that happened: some expenses that were until mid-2010 recorded as CAPEX are now recorded as operating expenses. This change in accounting policy has led to a massive under-consumption of the investment budget and a correlated over-consumption in other operating expenses. In terms of costs, this change translates into a gap in other operating expenses and, to a lesser extent, into a decrease in depreciation".
- Lower depreciation costs (-38.9 M€2009, or -27.9%) resulting from a lower actual capex than planned in 2014 and the change in accounting policy as described above
- Lower cost of capital (-0.2 M€2009, or -0.6%). "For the most part, due to the difference in the average interest on loans".
- Higher exceptional costs: this corresponds to slightly higher other revenues and lower costs for exempted VFR flights than planned.

### DSNA net gain/loss and estimated surplus on en-route activity in 2014

As shown in item 5, the en-route activity for the year 2014 generated a net gain of +8.7 M€2009 for DSNA overall. This is the combination of two separate elements:

- a gain of +31.3 M€2009 for DSNA resulting from the cost-sharing mechanism;
- a loss of -22.7 M€2009 resulting from the traffic risk sharing mechanism for 2014.

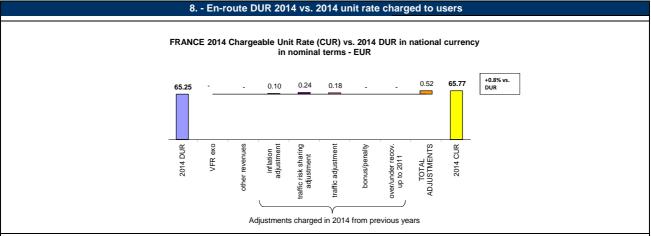
On the economic surplus side for the en-route activity, the ex-ante estimated surplus embedded in the cost of capital through the return on equity planned in the NPP amounted to +15.6 M€2009, corresponding to an estimated surplus of +1.6% of the en-route costs/revenues for 2014. Ex-post, the estimated surplus for the year computed by adding the surplus embedded in the cost of capital (+22.1 M€2009) and the net gain from the en-route activity in 2014 (+8.7 M€2009), gives a total of +30.7 M€2009 for 2014, corresponding to +3.2% of the en-route revenue in 2014. The resulting ex-post rate of return on equity for 2014 is +11.1% (compared to +8.0% as initially planned in the NPP).

### Conclusions

In spite of lower than expected traffic volumes (-2.9%), the en-route activity for the year 2014 generated an overall economic surplus of +30.7 M€2009, which results in an estimated actual surplus of +3.2% of the en-route revenue for 2014 (up from the +1.6% in the NPP).

When considering the whole RP1 (2012-2014), DSNA could retain a cumulative gain of +59.9 M€2009 (i.e. a gain of +126.0 M€2009 in respect of cost-sharing and a loss of -66.1 M€2009 in respect of traffic risk-sharing).

### Monitoring of en-route and terminal COST-EFFICIENCY for 2014



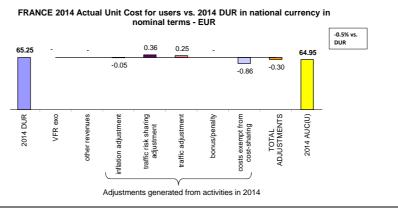
The DUR for 2014 expressed in nominal terms differs from the actual en-route unit rate charged to users in 2014 (CUR).

- the DUR, but also, a deduction of the costs for services to exempted VFR in 2014, as determined prior to the reference period and a deduction of 2014 other revenues;
- as well as adjustments relating to the activities of previous years that are carried-over to 2014. These adjustments include:
- the inflation adjustment:
- \* the adjustment resulting from the implementation of the traffic risk-sharing (ATSP);
- \* the adjustment resulting from the difference in traffic (for costs not subject to traffic risk sharing); \* the bonus/penalty from previous year(s).
- \* the legacy carry-overs incurred in the full cost recovery regime up to and including 2011.

These costs and adjustments are divided by the forecast total service units for 2014 as laid out in the performance plan

The CUR charged to airspace users in 2014 was  $65.77 \in$  This is higher than the DUR expressed in nominal terms  $(65.25 \in$ ). The difference between these two figures  $(+0.52 \in$  +0.8%) relates to traffic risk sharing adjustment  $(+0.24 \in)$ , traffic adjustment for costs not subject to traffic risk sharing  $(+0.18 \in)$  and inflation adjustment  $(+0.10 \in)$ .

### 9. - En-route DUR 2014 vs. 2014 actual unit cost for users



The DUR for 2014 expressed in nominal terms can also be compared to the actual en-route unit cost for airspace users (AUC-U) for 2014 (also sometimes referred to the "true cost for users"), which reflects the unit cost that the users incur in respect of the activities performed in 2014. The AUC-U comprises:

- the DUR, the deduction of the costs for services to exempted VFR in 2014 and the deduction of 2014 other revenues that has already been billed to the users through the
- as well as adjustments relating to the activities of 2014 but which will be charged or reimbursed to users in future years. These adjustments include:
- the inflation adjustment;
- \* the adjustments resulting from the implementation of the traffic risk-sharing (ATSP);

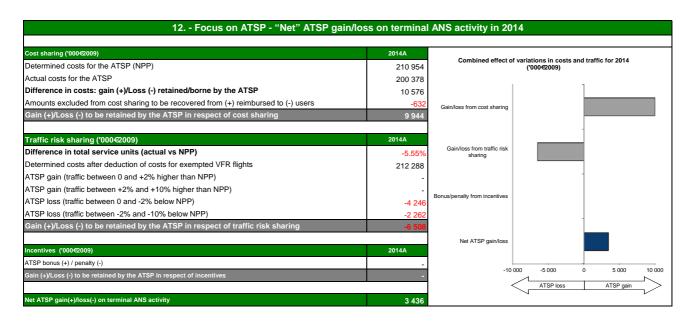
  \* the adjustments resulting from the difference in traffic (for costs not subject to traffic risk sharing);
- \* the bonus/penalty for the current year;
  \* the costs exempt from cost sharing (if deemed eligible)

These costs and adjustments are divided by the actual total service units in 2014.

The actual unit cost incurred by airspace users in respect of activities performed in 2014 (64.95 €) was lower than the DUR expressed in nominal terms (65.25 €) due to adjustments (mainly relating to the negative amount related to costs exempted from cost-sharing in 2014).

### Monitoring of en-route and terminal cost-efficiency for 2014

			2000	2040	2044	2012	2012	2014
Francisco I Oran in a Hair Francisco			2009	2010	2011	2012	2013	2014
erminal Service Unit Formula		(MTOW/50)^	0.9	0.9	0.9	0.8	0.8	C
lumber of airports in terminal char of which, number of airports over			64	64	61	61	60	
or which, number of all ports over	30 000 movements		9	9	9	9	9	
RANCE - Data from RP1 nation			2009A	2010A	2011F	2012P	2013P	2014P
erminal ANS costs for the charging	ng zones - (in EUR)	*	227 649 904	233 081 583	237 569 586	242 632 818	248 209 170	254 048 2
nflation index (100 in 2009)			100.0	101.7	103.3	105.1	106.9	108
Real terminal ANS costs (deterr	mined costs 2012-2014) - (in E	UR2009)*	227 649 904	229 095 324	230 055 735	230 917 767	232 162 040	233 536 70
otal terminal Service Units				1 093 649	1 136 301	1 104 710	1 126 697	1 092 0
Real en-route unit costs per Ser	vice Units - (in 2009)	*		209.48	202.46	209.03	206.06	213.8
See note 1								
RANCE - Actual data from June	e 2015 Reporting Tables		2009A	2010A	2011A	2012A	2013A	2014A
Terminal ANS costs for the charging	ng zones - (in EUR)	┐	227 649 904	233 081 583	230 604 194	231 135 251	232 286 863	239 364 92
nflation index (100 in 2009)			100.0	101.7	104.1	106.4	107.4	108
Real terminal ANS costs - (in EU	JR2009)	*	227 649 904	229 095 324	221 585 986	217 272 818	216 214 835	221 430 29
Total terminal service units				1 093 649	1 147 108	1 093 192	1 091 822	1 031 42
Actual real unit costs - (in EUR2	2009)	*		209.48	193.17	198.75	198.03	214
Init rate applied - (in EUR)						219.63	220.30	233.
See note 1								
ifference between Actuals and	Planned in absolute value an	d in percentage (	(Actuals vs. NPP)			2012	2013	2014
erminal ANS costs for the chargir	ng zones - (in EUR)	in value				-11 497 567	-15 922 307	-14 683 3°
	;	in%				-4.7%	-6.4%	-5.8
nflation index (100 in 2009)	;	in p.p.				1.3 p.p.	0.5 p.p.	-0.7 p.
Real terminal ANS costs - (in EU	JR2009)	in value				-13 644 949	-15 947 205	-12 106 41
	i	in%				-5.9%	-6.9%	-5.2
						L		
	11 Termina	I ANS costs r	nonitoring (20	014 actuals co	mpared to NF	PP)		
By entity at State level	11 Termina	I ANS costs r		014 actuals co		PP)	2014 ('0004 Estima	
By entity at State level	11 Termina	I ANS costs r		Costs exempted from		PP)		
		I ANS costs r	F	Costs exempted from (by factor/item) Pension nterest rates on loa	cost sharing	PP)	Estima	
ATSP Other ANSPs		I ANS costs r	F	Costs exempted from (by factor/item) Pension nterest rates on loan	cost sharing ans	PP)	Estima 333	
ATSP Other ANSPs  At 199 METSP			, , , , , , , , , , , , , , , , , , ,	Costs exempted from (by factor/item) Pension nterest rates on loa	cost sharing ans w ired by law	PP)	Estima 333	
Other ANSPs  ATSP  Other ANSPs  At 190 METSP		-7.6%	F I I	Costs exempted from (by factor/item) Pension Interest rates on loa National taxation la New cost item requ International agreer Costs exempted fr	cost sharing ans w ired by law ments		Estima 333 -965 2013 ('0004	vite , , , , , , , , , , , , , , , , , , ,
Other ANSPs Other ANSPs At 1999 METSP At 1999 NSA NSA	-5.0%	-7.6%	F I I	Costs exempted from (by factor/item) Pension Interest rates on loa National taxation lat New cost item requenternational agreer Costs exempted from the costs exempted from th	cost sharing ans w ired by law ments		Estima 333 -965 2013 ('0004 Estima	vite
Other ANSPs Other ANSPs Agrange of the form of the for		-7.6%	F 1 1 1 1 1	Costs exempted from (by factor/item) Pension Interest rates on loa National taxation la New cost item requ International agreer Costs exempted fr	cost sharing ans w ired by law ments		Estima 333 -965 2013 ('0004	vite , , , , , , , , , , , , , , , , , , ,
Other ANSPs Other ANSPs At 30 me 16 me 16 me 16 me 17	-5.0%	-7.6%	F I I P P P P P P P P P P P P P P P P P	Costs exempted from (by factor/item) Pension National taxation land National taxation land tempted from the cost item requiremational agreer Costs exempted from the costs exe	cost sharing ans w ired by law ments		Estima 333 -965 2013 ('0004 Estima	vite
Other ANSPs Other ANSPs At 30 me 16 me 16 me 16 me 17	-5.0% -5.2%	-7.6%	5.0	Costs exempted from (by factor/item) Pension Interest rates on loa National taxation la New cost item requ International agreer Costs exempted from (by entity) ATSP	cost sharing ans w ired by law ments		Estima 333 -965 2013 ('0004 Estima	ez009)



### Monitoring of en-route and terminal cost-efficiency for 2014

							13	Ter	minal	ATS	P estin	nated	surplus (20	14)				
TSP estimat	ted surpl	us ('000€2	009)								2012P		2012A	2013P		2013A	2014P	2014A
otal asset ba	se										188	3 028	177 751	182 4	30	168 992	178 124	168 07
stimated pro	portion of	financing t	through e	equity (in	%)						2	27.1%	34.6%	26.	8%	27.0%	27.0%	39.0
Estimated proportion of financing through equity (in value)					51	029	61 540	48 9	62	45 588	48 062	65 58						
Estimated proportion of financing through debt (in %)				7	2.9%	65.4%	73.	2%	73.0%	73.0%	61.0							
Estimated proportion of financing through debt (in value)				136	999	116 212	133 4	68	123 403	130 062	102 4							
ost of capital	l pre-tax (	in value)										542	4 589	6 9	19	5 562	9 709	9 8
verage intere	est on del	ot (in %)										3.3%	2.9%	3.	4%	2.7%	3.4%	2.
iterest on del	bt (in valu	ie)									4	1 521	3 359	4 4	71	3 283	4 422	2 6
x-ante RoE p	ore-tax ra	te (in %)										2.0%	2.0%	5.	0%	5.0%	11.0%	11.
stimated surp	plus emb	edded in th	e cost of	capital for	or termin	al ANS	S (in valu	ae)			1	021	1 231	2 4	48	2 279	5 287	7 2
et ATSP gair													11 927			9 574		3 4
verall estim					NS acti	vity						021	13 158	2 4		11 853	5 287	10 6
evenue/cos												402	205 146	209 0		204 661	210 954	203 8
stimated su stimated ex-					NS reven	iue/co	sts					0.5% 2.0%	6.4% 21.4%		2% 0%	5.8% 26.0%	2.5% 11.0%	5. 16.
	14.0			•								7.0%		■Estimated actu	al surpl	lus (+/-) for the termin	al ANS activity (in val	ue)
8	10.0						•				•	5.0%		■Estimated surp	lus emi	bedded in the cost of	capital for terminal Al	NS(in value)
MEUR 2009	8.0											4.0%	•					
-	6.0								<b>\Q</b>			3.0%	•	♦ Estimated surp	lus (+/-	) in percent of termina	al ANS revenue/costs	
	4.0											2.0%	•					
	2.0	<b>~</b>			<b>♦</b>							1.0%	,					
	- 7	NPP	Act	ctual	NPP		Actual		NPP		Actual	0.0%	•					
		2012	(	0	2013		0		2014		0							

### 14. - General conclusions on the Terminal ANS costs and unit rates monitoring

France has one terminal charging zone comprising 61 airports of which 9 are above 50 000 movements per year. The harmonised SES formula (MTOW/50)^0.7 was

France is the only State applying the determined costs method to the terminal ANS already in RP1. The total actual real terminal ANS 2014 costs for France terminal charging zone were -5.2% lower than planned in the NPP (-5.0% for DSNA, -7.6% for the METSP and +0.3% for the NSA.

As shown in item 12, the terminal activity for the year 2014 generated a net gain of +3.4 M€2009 for DSNA overall. This is the combination of two separate elements:
- a gain of +9.9 M€2009 for DSNA resulting from the cost-sharing mechanism;
- a loss of -6.5 M€2009 resulting from the traffic risk sharing mechanism for 2014.

On the economic surplus side for the terminal activity, the ex-ante estimated surplus embedded in the cost of capital through the return on equity planned in the NPP amounted to +5.3 M€2009, corresponding to an estimated surplus of +2.5% of the terminal costs/revenues for 2014. Ex-post, the estimated surplus for the year computed by adding the surplus embedded in the cost of capital (+7.2 M€2009) and the net gain from the terminal activity in 2014 (+3.4 M€2009), gives a total of +10.7 M€2009 for 2014, corresponding to +5.2% of the terminal revenue in 2014. The resulting ex-post rate of return on equity for 2014 is +16.2% (compared to +11.0% as initially planned in the NPP).

### **RP1 summary**

When considering the whole of RP1 (2012-2014), DSNA could retain a cumulative gain of +24.9 M€2009 (i.e. a gain of +38.4 M€2009 in respect of cost-sharing and a loss of -13.5 M€2009 in respect of traffic risk-sharing).

	15 Monitor	ing of gate-to-ga	te costs (201	4)			
FRANCE - Data from RP1 national performance plan		2009A	2010A	2011F	2012P	2013P	2014P
Real en-route costs (determined costs 2012-2014) - (in EUR2	009)	1 107 192 099	1 113 110 738	1 119 813 730	1 129 169 700	1 134 547 984	1 142 421 21
Real terminal ANS costs (determined costs 2012-2014) - (in	EUR2009)	227 649 904	229 095 324	230 055 735	230 917 767	232 162 040	233 536 70
Real gate-to-gate ANS costs - (in EUR2009)		1 334 842 004	1 342 206 062	1 349 869 465	1 360 087 467	1 366 710 024	1 375 957 92
Share of en-route costs in gate-to-gate ANS costs		82.9%	82.9%	83.0%	83.0%	83.0%	83.09
FRANCE - Actual data from June 2015 Reporting Tables		2009A	2010A	2011A	2012A	2013A	2014A
Real en-route costs - (in EUR2009)		1 107 192 099	1 102 941 581	1 087 457 110	1 073 170 666	1 075 524 778	1 096 261 22
Real terminal ANS costs - (in EUR2009)		227 649 904	229 095 324	221 585 986	217 272 818	216 214 835	221 430 29
Real gate-to-gate ANS costs - (in EUR2009)		1 334 842 004	1 332 036 905	1 309 043 096	1 290 443 484	1 291 739 613	1 317 691 52
Share of en-route costs in gate-to-gate ANS costs		82.9%	82.8%	83.1%	83.2%	83.3%	83.29
Difference between Actuals and Planned in absolute valu	e and in percentage (Ac	tuals vs. NPP)			2012	2013	2014
Real en-route costs - (in EUR2009)	in value				-55 999 034	-59 023 206	-46 159 99
	in %				-5.0%	-5.2%	-4.09
Real terminal ANS costs - (in EUR2009)	in value				-13 644 949	-15 947 205	-12 106 41
	in %				-5.9%	-6.9%	-5.29
Real gate-to-gate ANS costs - (in EUR2009)	in value				-69 643 982	-74 970 411	-58 266 40
	in %				-5.1%	-5.5%	-4.29
Share of en-route costs in gate-to-gate ANS costs	in p.p.				0.1 p.p.	0.2 p.p.	0.2 p. <sub>l</sub>

### 16. - General conclusions on the gate-to-gate ANS costs

In 2014, France's gate-to-gate ANS costs (1 317.7 M€2009) were -4.2% lower than planned in the NPP (1 376.0 M€2009)

The relative share of en-route costs in gate-to-gate ANS costs in 2014 (83.2%) was fairly in line with the planned share (83.0%).





# PRB Annual Monitoring Report 2014

Germany

Working Draft 2.0

Edition date: 03/09/2015



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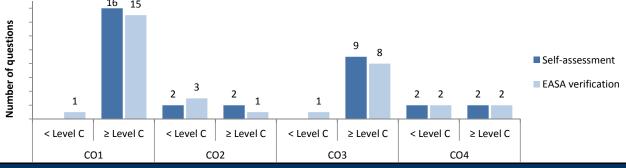
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## Monitoring of SAFETY indicators for 2014

Effectiveness of Safety Management											
2012 2013 2014 State level Observations											
State level	51	55	59								
ANSP [DFS]	85	90	92								
ANSP [MUAC]	86	86	81								
_ 16 15											



## Application of the severity classification of the Risk Analysis Tool (RAT)

		20	12	20	13	2014	
		No reported	Assessed (%)	No reported	Assessed (%)	No reported	Assessed (%)
Separation Minima	ATM Ground	192	85%	201	76%	237	100%
Infringements (SMIs)	ATM Overall	192	0%	201	0%	231	100%
Runway Incursions (RIs)	ATM Ground	114	11%	85	33%	73	100%
Rullway Illculsions (Ris)	ATM Overall	114	0%	3	0%	2	100%
ATM Specific Occurences (ATM-Specific)	ATM Overall	299	100%	264	100%	266	100%
Source of RA	Γ data·		<u>-</u>	B/	ΔF		

Preliminary results updated after coordination with the AST-FP in August 2015.

Just culture										
	State									
Number of questions answered with Yes or No	20	12	20	13	2014					
	YES	NO	YES	NO	YES	NO				
Policy and its implementation	8	2	4	6	4	5				
Legal/Judiciary	4	4	3	5	4	3				
Occurrence reporting and Investigation	1	1	1	1	1	1				
TOTAL	13	7	8	12	9	9				

	ANSP [DFS]							
Number of questions answered with Yes or No	2012		2013		2014			
	YES	NO	YES	NO	YES	NO		
Policy and its implementation	11	2	11	2	12	1		
Legal/Judiciary	2	1	2	1	2	1		
Occurrence reporting and Investigation	6	2	6	2	4	4		
TOTAL	19	5	19	5	18	6		

Number of questions answered with Yes or No		ANSP [MUAC]							
		2012		2013		14			
	YES	NO	YES	NO	YES	NO			
Policy and its implementation	7	6	7	6	8	5			
Legal/Judiciary	1	2	1	2	1	2			
Occurrence reporting and Investigation	5	3	5	3	5	3			
TOTAL	13	11	13	11	14	10			

### **Monitoring of CAPACITY indicators for 2014**

Minutes of ATFM en-route delay									
	2012	2013	2014	Observations					
Reference value	0.35	0.32	0.29						
National Target									
Actual performance	0.51	0.24	0.26						

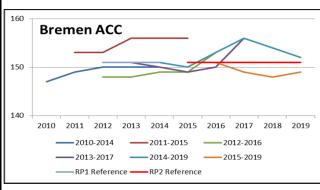
### **National capacity assessment**

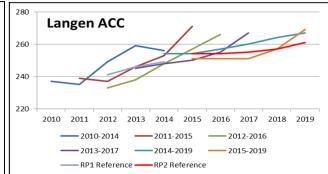
Whereas FABEC slightly missed the target in 2014, DFS stayed at a very good ADM level with a value of 0.26 min./fl., i.e. far below its target of 0.43 min./fl.

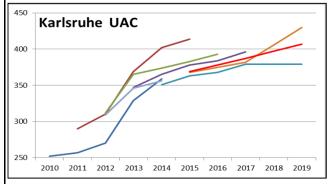
The main reasons for this positive evolution are related to the reduction of staff shortages and the increased capacity of the new ATC system (VAFORIT) in the upper airspace. "

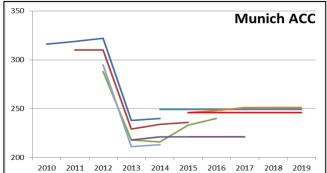
The capacity developments in Germany in 2014 reflect a sustainable enhancement of capacity measures in the ACC Langen and UAC Karlsruhe.

### **ANSP** capacity plan









### **PRB Capacity assessment**

Germany did not set a national target for capacity in RP1. A good en-route capacity performance in 2014, has resulted in Germany meeting, and indeed surpassing, the performance required to be consistent with the EU-wide target for 2014, as it did also in 2013. However, the PRB notes that the latest capacity plans in Bremen ACC and Langen ACC have been downgraded to a level below the reference profile for RP2, which does not bode well for future capacity performance.

### Effective booking procedures

The ratio of time airspace was actually used for activity requiring segregation or restriction from GAT and the amount of time it was allocated as being restricted on the day of operations: 52%

The ratio of time airspace, that was surplus to requirement, was released with more than 3 hours' notice to the Network Manager and the amount of time it was allocated as being restricted on the day of operations: 2%

The ratio of time airspace was neither used nor released with at least 3 hours' notice to the Network Manager, but was allocated as being restricted on the day of operations: 46%

When the use of 'Procedure 3' in Germany is analysed, (where airspace can be allocated on the day of operations using the UUP process), the ratio of time that airspace is actually used for activity requiring segregation or restriction from GAT and the amount of time it was allocated rises to 58%.

### **Previous recommendations**

### Extract from notification letter from EC July 2012:

FABEC's capacity target for the first reference period 2012-2014 is assessed on the clear expectation that:

- a) the FABEC Member States (Belgium, Germany, France, Luxembourg, the Netherlands and Switzerland) will require their air navigation service providers to develop and implement capacity plans that allow meet the FABEC 2014 reference value of 0.4 minute of average delay per flight at the earliest possible date in the second reference period, with the assistance of the Network Manager;
- b) where these revised capacity plans shall also improve the 2014 national or functional airspace block capacity targets, the States concerned will adopt and communicate to the Commission, either directly or through FABEC institutions, revised capacity targets by the end of June 2013 at the latest;

**Annual Monitoring Report 2012:** Germany is requested to implement remedial capacity measures at ACCs where capacity problems are expected, either due to a lack of existing capacity or an inability to deploy existing capacity according to traffic demand, to ensure that a suitable contribution can be made to network performance within the timeframe of RP1.

Germany is requested to provide evidence of how it is increasing capacity plans in response to the EC recommendation contained in the notification letter.

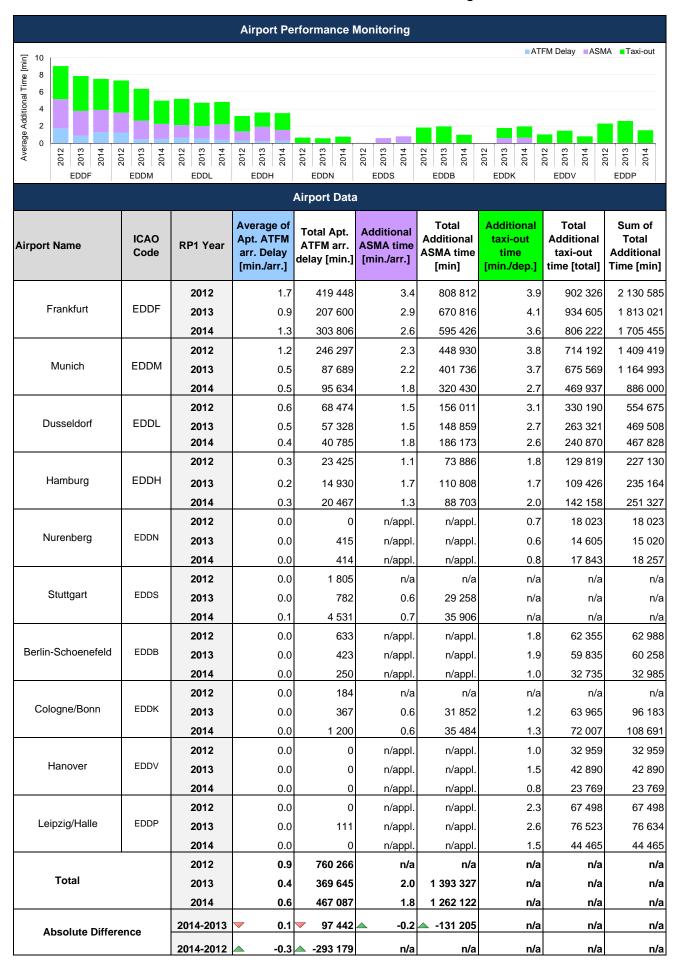
**Annual Monitoring Report 2013** The PRB requests Germany to provide information on how the capacity planning of the ANSP, combined with the other FABEC ANSPs, is consistent with the existing recommendation of the European Commission that FABEC Member States require their ANSPs to develop and implement capacity plans that meet the FABEC reference value of 0.4 minutes per flight in 2014.

### **NSA** report on follow-up to recommendations

Each year DFS updates its Capacity Enhancement Plan (CEP) based on traffic forecast, transition plans and expert judgement. This is done in close cooperation with the FABEC partners and the Network Manager. The results of the capacity planning process are published in the annual LSSIP Germany.

### Recommendations

### Monitoring of CAPACITY indicators for 2014



### **Critical Issues**

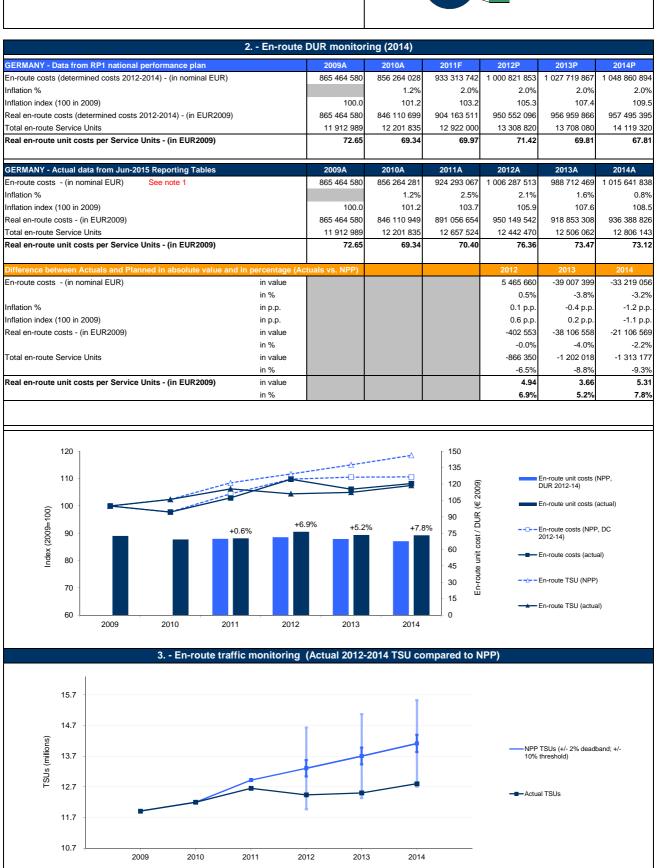
• The average additional taxi-out time could not be calculated for Germany due to missing data at Stuttgart (missing departure stand). PRU coordinates a Remedial Action Plan with the aforementioned airport.

### Specific Analysis

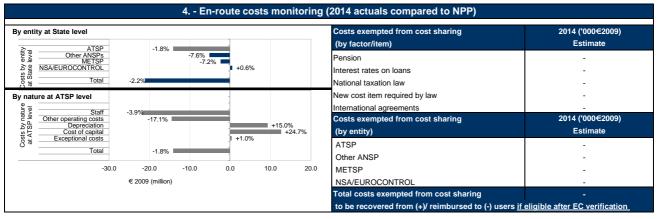
- Over RP1, the total ATFM arrival delay decreased by 39% in Germany. The national averages for additional ASMA and taxiout times cannot however be assessed for RP1 due to missing data.
- It is however to be noted that the performance significantly improved at the two major airports in German: Frankfurt and Munich airports. Over RP1,
  - The total additional time decreased by 20% at Frankfurt airport. The operations of the 4th runway were favourable to performance for inbound traffic, resulting in a decrease of additional ASMA time and ATFM delay. The increase of additional taxi-out time observed in 2013 was recovered in 2014 to a level below 2012.
  - The total additional time decreased by 37% at Munich airport, whilst the ATFM delay and additional taxi-out times were reduced by 61% and 34% respectively.
- 381,903 movements were recorded through the MUN airport data flow in 2012 vs 356,035 in 2014, what represents a
  decrease of 7%. These data are available on the dashboard. However, this is to be noted that these figures are filtered
  based on additional ASMA and taxi-out time calculation, and therefore might slightly differ from the records available in
  NM.

### Monitoring of en-route and terminal COST-EFFICIENCY for 2014

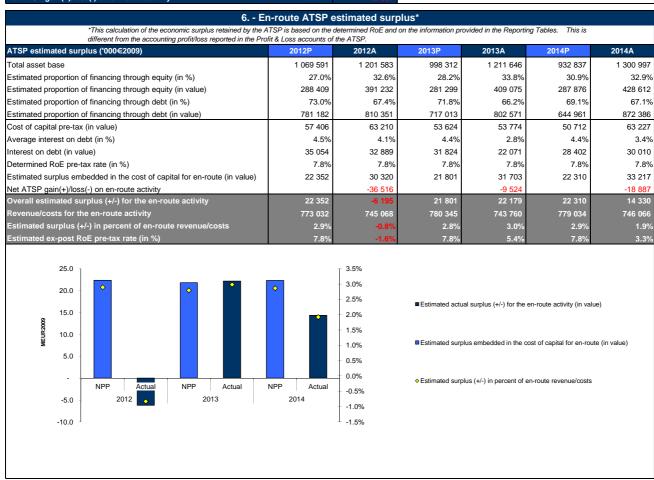




### Monitoring of en-route and terminal COST-EFFICIENCY for 2014



Cost sharing ('000€2009)	2014A			
Determined costs for the ATSP (NPP)	779 034	(000€2009)		
Actual costs for the ATSP	764 953			
Difference in costs: gain (+)/Loss (-) retained/borne by the ATSP	14 080			
Amounts excluded from cost sharing to be recovered from (+) reimbursed to (-) users	-	Gain/loss from cost sharing		
Gain (+)/Loss (-) to be retained by the ATSP in respect of cost sharing	14 080			
Traffic risk sharing ('000€2009)	2014A			
Difference in total service units (actual vs NPP)	-9.30%	Gain/loss from traffic risk sharing		
Determined costs after deduction of costs for exempted VFR flights	786 780			
ATSP gain (traffic between 0 and +2% higher than NPP)	-		-	
ATSP gain (traffic between +2% and +10% higher than NPP)	-	Bonus/penalty from incentives		
ATSP loss (traffic between 0 and -2% below NPP)	-15 736			
ATSP loss (traffic between -2% and -10% below NPP)	-17 232		-	
Gain (+)/Loss (-) to be retained by the ATSP in respect of traffic risk sharing	-32 967			
Incentives ('000€2009)	2014A	Net ATSP gain/loss		
ATSP bonus (+) / penalty (-)	_	-40 000 -30 000 -2	0 000 -10 000 0 10 000 20 0	
Gain (+)/Loss (-) to be retained by the ATSP in respect of incentives	-		TSP loss ATSP gain	
Net ATSP gain(+)/loss(-) on en-route activity	-18 887	7		



### Monitoring of en-route and terminal COST-EFFICIENCY for 2014

### 7. - General conclusions on the monitoring of the 2014 en-route DUR

### Notes on information provided by GERMANY

### Note 1: Revision of German NSA supervision costs for 2013

Germany slightly revised downwards the NSA actual supervision costs for 2013 after the 2014 June session of the enlarged Committee (-160 217 € for en-route and -10 454 € for terminal). The PRB 2013 monitoring analysis used the figures disclosed in the June 2014 Reporting Tables and therefore did not reflect this revision. The PRB 2014 monitoring analysis reflects the revised NSA supervision costs and as consequence the real en-route unit costs per service units reported in box 2 for 2013 (73.47 €2009) slightly differs from the figure disclosed in last year monitoring report (73.48 €2009).

#### At State / Charging Area level

The actual 2014 traffic measured in total Service Units (TSUs) is significantly lower (-9.3%) than the traffic planned in Germany's National Performance Plan for RP1 (NPP). On the other hand, the actual real en-route costs at State level for the year 2014 are -2.2% below the determined costs published in the NPP. As a result, Germany's actual real en-route unit cost (73.12 €2009) is +7.8% higher than the Determined Unit Rate (DUR) (67.81 €2009) for 2014.

The difference in actual traffic compared to the NPP plans for 2014 (i.e. -9.3%) falls outside the +/- 2% dead band foreseen in the traffic risk sharing mechanism, but it does not exceed the -10% threshold foreseen in the traffic risk sharing mechanism. The loss of en-route revenues is shared between the ATSP and airspace users, with the loss borne by the ATSP amounting to some -33.0 M€2009.

#### Actual 2014 costs vs. NPP

The German en-route cost-base includes costs relating to: the German ATSP (DFS), Maastricht UAC (MUAC), the METSP (DWD), the German NSA and the EUROCONTROL Agency. The actual 2014 en-route costs are -2.2% lower in real terms than planned in the NPP, or some -21.1 M€2009. This reflects the combination of lower en-route costs in nominal terms (-3.2%) and lower than planned inflation index (-1.1 p.p.).

In 2014, among the different entities, only the NSA/EUROCONTROL shows higher actual costs than planned (i.e. +0.6% or +0.5 M€2009). The other entities have lower en-route cost than planned in the NPP. The main contributions are observed for DFS (i.e. -1.8% or -14.1 M€2009) as described in the section below and to MUAC (-7.6% or -5.2 M€2009) which represents 6.7% of Germany en-route cost-base. Actual costs are also lower than planned for the METSP (i.e. -7.2% or -2.4 M€2009) mainly reflecting lower staff (-12.4%) and depreciation costs (-22.0%) in real terms than planned in the NPP for RP1.

At the time of writing this report, Germany did not report any costs exempt from cost-sharing for the year 2014.

#### **RP1 summary**

When considering the whole of RP1 (2012-2014) for the German charging zone, actual en-route TSUs are -8.2% lower than planned, while actual costs in real terms are -2.1% lower than the determined costs (some -59.6 M€2009). As a result, the weighted average actual unit cost over RP1 (74.31 €2009) is +6.7% higher than planned in the NPP (69.65 €2009).

### At ATSP level

### Actual 2014 DFS costs vs. NPP

For DFS, actual 2014 costs are -1.8% lower in real terms (or some -14.1 M€2009) than planned in the NPP for the same year. This mainly results from significantly lower staff costs (i.e. -3.9% or -21.7 M€2009), but also from lower other operating costs (i.e. -17.1% or -14.4 M€2009). On the other hand, actual depreciation costs (+15.0% higher or +9.2 M€2009) and cost of capital (i.e. +24.7% or 12.5 M€2009) are substantially higher that the figures provided in the NPP. Details are provided below.

In October 2011, after the submission of the NPP, a new collective agreement has been signed between the DFS and trade unions. Germany elected to absorb these additional costs within the determined costs envelope from the NPP. In 2012, the additional costs arising from the implementation of this new collective agreement led to an increase in DFS staff costs which was not reflected in the NPP for RP1. Actual 2012 staff costs were overall +2.5% (+13.3 M€2009) higher than planned. The situation was different in 2013 and 2014. Indeed, actual staff costs were substantially lower in 2013 (-22.5 M€2009 or -4.1%) and in 2014 (-21.7 M€2009 or -3.9%). Germany has reported in June 2015 that this significant deviation mainly reflects a reduction of staff (full time equivalents) and therefore lower remuneration and social security expenses than planned.

Germany has also reported that lower other operating costs in 2014 (-17.1%) mainly reflects the impact of cost containment measure initiated by DFS in 2012 and 2013.

The higher actual depreciation costs in 2014 (+15.0%) are mainly due to the fact that (a) for some investment projects, the actual capex is significantly higher than planned in the NPP and, (b) that some investment projects carried out in 2014 where not foreseen in the NPP for the year 2014. The German 2014 NSA Monitoring Report indicates that DFS actual capex for 2014 (119.7 M€) is +33% higher than the amount planned in the NPP for that year (90.0 M€).

The 2014 actual cost of capital is +24.7% higher than planned in the NPP. This arises from the combination of two opposite factors: (a) the use of a significantly higher asset base to compute the cost of capital (+39.5% or some +368.2 Me2009) and (b) a lower actual WACC rate (i.e. 4.9%) than planned (i.e. 5.4%) since the actual interest rate on debt (3.4%) is lower than expected (4.4%). These two factors impact the computation of the estimated surplus as explained below.

### DFS net gain/loss and estimated surplus on en-route activity in 2014

As shown in item 5, DFS generated a net loss of -18.9 M€2009 on the en-route activity in 2014. This is the combination of two contrasting elements:

- a gain of +14.1 M€2009 as a result of the cost-sharing mechanism (due to lower actual costs than planned in the NPP for 2014), and
- a loss of -33.0 M€2009 in terms of revenues as a result of the traffic risk sharing mechanism for 2014 since actual traffic is significantly lower than planned.

The estimated surplus embedded in the cost of capital through the return on equity planned in the NPP amounted to 22.3 M€2009, corresponding to 2.9% of the en-route revenues for 2014. Ex-post, the estimated surplus for the year taking into account the net loss for the en-route activity in 2014 (-18.9 M€2009) and the surplus embedded in the cost of capital (33.2 M€2009) amounts to 14.3 M€2009 (1.9% of the en-route revenue). The resulting ex-post rate of return on equity for 2014 is 3.3% (compared to 7.8% as initially planned in the NPP).

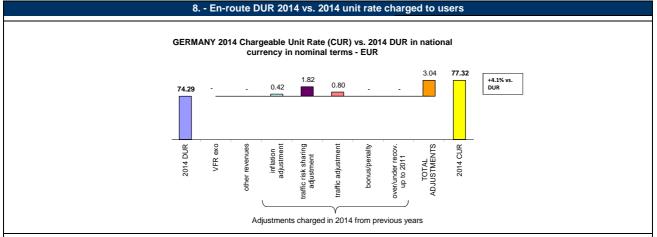
The level of the surplus embedded in the cost of capital (33.2 M€2009) is affected by the fact that DFS asset base is in 2014 substantially higher (+39.5% or some +368.2 M€2009) than planned in the NPP. Germany indicates that the higher actual asset base in 2014 does not reflect higher fixed assets but is rather due to both higher net current assets (+180.9 M€2009) and higher "adjustments total assets" (+173.8 M€) which include pension-related assets. As a result, the cost of capital reported for DFS in 2014 includes an element related to the costs of DFS future pension obligations which cannot be directly interpreted as a genuine surplus retained by DFS for its en-route activity. The PRB reckons that if the original determined surplus embedded in the cost of capital as planned in the NPP was retained as a basis for computation (22.3 M€2009), then the DFS estimated surplus for the en-route activity in 2014 would be much lower and amount to 3.4 M€2009 (0.5% of the en-route revenue) instead of 14.3 M€2009.

### Conclusion

In a context of lower actual traffic than planned in 2014 (-9.3%), DFS was able to reduce actual en-route costs compared to plans and to generate an overall economic surplus (+14.3 M€2009 or 1.9% of the en-route revenue). This implies an ex-post rate of return on equity of 3.3% (compared to 7.8% as initially planned in the NPP).

When considering the whole of RP1 (2012-2014), DFS generated cumulative gains in respect of cost sharing of +25.2 M€2009, as actual costs were lower than planned for all the years of RP1 except 2012. These gains are not enough to compensate for the cumulative loss of -90.1 M€2009 in respect of the traffic risk sharing, which reflects the fact that actual traffic was consistently lower than planned during RP1 (-6.5% in 2012, -8.8% in 2013 and -9.3% in 2014). Adding the estimated surplus embedded in the en-route cost of capital (95.2 M€2009 over RP1) leads to an overall estimated surplus of 30.3 M€2009, which corresponds to an average ex-post return on equity of 2.5% (compared to 7.8% as initially planned in the NPP).

### Monitoring of en-route and terminal COST-EFFICIENCY for 2014



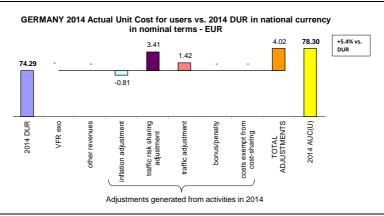
The DUR for 2014 expressed in nominal terms differs from the actual en-route unit rate charged to users in 2014 (CUR). The CUR takes account of:

- the DUR, but also, a deduction of the costs for services to exempted VFR in 2014, as determined prior to the reference period and a deduction of 2014 other revenues;
- as well as adjustments relating to the activities of previous years that are carried-over to 2014. These adjustments include:
- the inflation adjustment:
- \* the adjustment resulting from the implementation of the traffic risk-sharing (ATSP);
- \* the adjustment resulting from the difference in traffic (for costs not subject to traffic risk sharing);
  \* the bonus/penalty from previous year(s).
- \* the legacy carry-overs incurred in the full cost recovery regime up to and including 2011.

These costs and adjustments are divided by the forecast total service units for 2014 as laid out in the performance plan.

The unit rate charged to airspace users (CUR) in 2014 is 77.32 €. This is +4.1% higher than the DUR expressed in nominal terms (74.29 €). The difference observed between these two figures (+3.04 €) reflects the traffic risk-sharing adjustment (+1.82 €), the traffic adjustment related to the costs not subject to traffic risk sharing (+0.80 €), and the inflation adjustment (+0.42 €).

### 9. - En-route DUR 2014 vs. 2014 actual unit cost for users



The DUR for 2014 expressed in nominal terms can also be compared to the actual en route unit cost for airspace users (AUC-U) for 2014 (also sometimes referred to the "true cost for users"), which reflects the unit cost that the users incur in respect of the activities performed in 2014. The AUC-U comprises

- the DUR, the deduction of the costs for services to exempted VFR in 2014 and the deduction of 2014 other revenues that has already been billed to the users through
- as well as adjustments relating to the activities of 2014 but which will be charged or reimbursed to users in future years. These adjustments include:
- the inflation adjustment;
- \* the adjustments resulting from the implementation of the traffic risk-sharing (ATSP);
  \* the adjustments resulting from the difference in traffic (for costs not subject to traffic risk sharing);
- \* the bonus/penalty for the current year;
- \* the costs exempt from cost sharing (if deemed eligible).

The actual en route unit cost for airspace users in 2014 is 78.30 €. This is +5.4% or +4.02 € higher than the DUR expressed in nominal terms (74.29 €). This difference reflects the traffic risk-sharing adjustment (+3.41 €), the traffic adjustment related to the costs not subject to traffic risk sharing (+1.42 €), and the inflation adjustment (-0.81 €).

### Monitoring of en-route and terminal COST-EFFICIENCY for 2014

10 Terminal costs and unit rates monitoring (2014)								
		2009	2010	2011	2012	2013	2014	
Terminal Service Unit Formula	(MTOW/50)^	0.5	0.7	0.7	0.7	0.7	0.7	
Number of airports in terminal charging zone		16	16	16	16	16	16	
of which, number of airports over 50 000 movements		11	11	11	11	11	11	
GERMANY - Data from RP1 national performance plan		2009A	2010A	2011F	2012P	2013P	2014P	
Terminal ANS costs for the charging zones - (in EUR)		208 967 510	222 598 151	221 953 226	231 313 525	233 663 196	241 148 746	
Inflation index (100 in 2009)		100.0	101.2	103.2	105.3	107.4	109.5	
Real terminal ANS costs - (in EUR2009)		208 967 510	219 958 647	215 020 950	219 694 999	217 575 147	220 142 456	
GERMANY - Actual data from June 2015 Reporting Tab	les	2009A	2010A	2011A	2012A	2013A	2014A	
Terminal ANS costs for the charging zones - (in EUR)		208 967 510	222 128 938	225 935 662	236 279 260	218 161 946	224 950 288	
Inflation index (100 in 2009)		100.0	101.2	103.7	105.9	107.6	108.5	
Real terminal ANS costs - (in EUR2009)		208 967 510	219 494 998	217 811 301	223 097 900	202 747 343	207 396 868	
Total terminal service units		1 122 291	1 272 339	1 327 797	1 310 562	1 287 989	1 316 131	
Actual real unit costs - (in EUR2009)		186.2	172.5	164.0	170.2	157.4	157.6	
Unit rate applied - (in EUR)					171.29	181.99	183.87	
Difference between Actuals and Planned in absolute va	lue and in percentag	je (Actuals vs. NF	PP)		2012	2013	2014	
Terminal ANS costs for the charging zones - (in EUR)	in value				4 965 735	-15 501 250	-16 198 458	
	in%				2.1%	-6.6%	-6.7%	
Inflation index (100 in 2009)	in p.p.				0.6 p.p.	0.2 p.p.	-1.1 p.p.	
Real terminal ANS costs - (in EUR2009)	in value				3 402 901	-14 827 804	-12 745 588	
	in%				1.5%	-6.8%	-5.8%	

## 11. - General conclusions on the Terminal ANS costs and unit rates monitoring

In 2014, the German Terminal Charging Zone comprises 16 airports, of which 11 above 50 000 movements per year. The harmonised SES formula (MTOW/50)^0.7 already applies in the German Terminal Charging Zone.

Actual terminal ANS costs in 2014 are -5.8% lower in real terms (or some -12.7 M€2009) than planned in the German NPP. This mainly reflects significantly lower staff costs (-7.7% or some-11.4 M€2009) and operating cost (-13.6% or some -3.6 M€2009) than planned for DFS.

### RP1 summary

When considering the whole of RP1 (2012-2014), actual terminal ANS costs in real terms were lower than planned in the NPP for every year except 2012 (+1.5% in 2012, -6.8% in 2013 and -5.8% in 2014). As a result, the cumulative actual terminal ANS costs are -3.7% (some -24.2 M€2009) lower than planned in the NPP for RP1.

	12 Monitor	ring of gate-to	-gate costs (2	2014)			
GERMANY - Data from RP1 national performance plan		2009A	2010A	2011F	2012P	2013P	2014P
Real en-route costs (determined costs 2012-2014) - (in EU	R2009)	865 464 580	846 110 699	904 163 511	950 552 096	956 959 866	957 495 395
Real terminal ANS costs - (in EUR2009)		208 967 510	219 958 647	215 020 950	219 694 999	217 575 147	220 142 456
Real gate-to-gate ANS costs - (in EUR2009)		1 074 432 090	1 066 069 347	1 119 184 461	1 170 247 095	1 174 535 013	1 177 637 851
Share of en-route costs in gate-to-gate ANS costs		80.6%	79.4%	80.8%	81.2%	81.5%	81.3%
GERMANY - Actual data from June 2015 Reporting Tab	oles	2009A	2010A	2011A	2012A	2013A	2014A
Real en-route costs - (in EUR2009)		865 464 580	846 110 949	891 056 654	950 149 542	918 853 308	936 388 826
Real terminal ANS costs - (in EUR2009)		208 967 510	219 494 998	217 811 301	223 097 900	202 747 343	207 396 868
Real gate-to-gate ANS costs - (in EUR2009)		1 074 432 090	1 065 605 948	1 108 867 954	1 173 247 442	1 121 600 651	1 143 785 694
Share of en-route costs in gate-to-gate ANS costs		80.6%	79.4%	80.4%	81.0%	81.9%	81.9%
Difference between Actuals and Planned in absolute va	alue and in percenta	ge (Actuals vs. Ni	PP)		2012	2013	2014
Real en-route costs - (in EUR2009)	in value				-402 553	-38 106 558	-21 106 569
	in %				0.0%	-4.0%	-2.2%
Real terminal ANS costs - (in EUR2009)	in value				3 402 901	-14 827 804	-12 745 588
	in %				1.5%	-6.8%	-5.8%
Real gate-to-gate ANS costs - (in EUR2009)	in value				3 000 347	-52 934 362	-33 852 157
	in %				0.3%	-4.5%	-2.9%
Share of en-route costs in gate-to-gate ANS costs	in p.p				-0.2 p.p.	0.4 p.p.	0.6 p.p.

### 13. - General conclusions on the gate-to-gate ANS costs

Actual 2014 gate-to-gate costs are, in real terms, -2.9% (or some -33.9 M€2009) lower than planned, as a result of lower en-route and terminal ANS costs.

The allocation of gate-to-gate costs between en-route and terminal ANS appears quite stable over RP1 and did not change significantly with respect to the information provided in the NPP.





# PRB Annual Monitoring Report 2014

The Netherlands

Working Draft 2.0

Edition date: 03/09/2015



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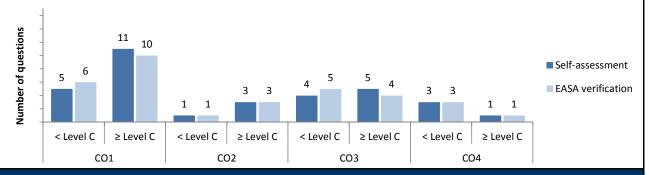
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### THE NETHERLANDS

### Monitoring of SAFETY indicators for 2014

Effectiveness of Safety Management								
	2012	2013	2014	State level Observations				
State level	41	65	50					
ANSP [LVNL]	76	82	87					
ANSP [MUAC]	86	86	81					



#### Application of the severity classification of the Risk Analysis Tool (RAT) 2012 2013 2014 Assessed No Assessed No Assessed No (%) reported (%) reported (%)reported **ATM Ground** 18% 4% 8% **Separation Minima** 34 90 86 Infringements (SMIs) **ATM Overall** 0% 0% 0% ATM Ground 0% 0% 0% Runway Incursions (RIs) 75 52 56 **ATM Overall** 0% 0% 0% **ATM Specific Occurences ATM Overall** 1119 2005 0% 2259 0% 0% (ATM-Specific) Source of RAT data: ILT

Preliminary results updated after coordination with the AST-FP in August 2015.

Just culture									
	State								
Number of questions answered with Yes or No	2012		2013		2014				
	YES	NO	YES	NO	YES	NO			
Policy and its implementation	6	4	7	3	6	3			
Legal/Judiciary	7	1	7	1	7	0			
Occurrence reporting and Investigation	1	1	2	0	2	0			
TOTAL	14	6	16	4	15	3			

	ANSP [LVNL]							
Number of questions answered with Yes or No	2012		2013		2014			
	YES	NO	YES	NO	YES	NO		
Policy and its implementation	10	3	10	3	10	3		
Legal/Judiciary	3	0	3	0	3	0		
Occurrence reporting and Investigation	6	2	6	2	7	1		
TOTAL	19	5	19	5	20	4		

		ANSP [MUAC]							
Number of questions answered with Yes or No	2012		2013		2014				
	YES	NO	YES	NO	YES	NO			
Policy and its implementation	7	6	7	6	8	5			
Legal/Judiciary	1	2	1	2	1	2			
Occurrence reporting and Investigation	5	3	5	3	5	3			
TOTAL	13	11	13	11	14	10			

### THE NETHERLANDS

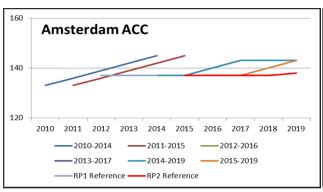
### **Monitoring of CAPACITY indicators for 2014**

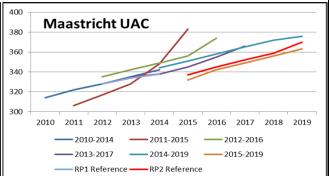
Minutes of ATFM en-route delay									
	2012	2013	2014	Observations					
Reference value	0.12	0.14	0.18						
National Target									
Actual performance	0.17	0.11	0.12						

### **National capacity assessment**

The major part of the environment and the capacity performance is covered in the FABEC report. LVNL has performed well on its national environment and capacity targets. It even over performed. [No assessment made of MUAC performance]

### **ANSP** capacity plan





### **PRB Capacity assessment**

No national target for en-route capacity performance was established for the Netherlands for RP1. However, a good capacity performance has resulted in the Netherlands surpassing the effort required to be consistent with the EU-wide target for capacity in 2014. The PRB notes that there have been downgrades in the latest capacity plans for both Amsterdam ACC and Maastricht UAC, which for the latter predicts a capacity performance below what is required to meet the RP2 reference profile.

### **Effective booking procedures**

The ratio of time airspace was actually used for activity requiring segregation or restriction from GAT and the amount of time it was allocated as being restricted on the day of operations: 88%

The ratio of time airspace, that was surplus to requirement, was released with more than 3 hours' notice to the Network Manager and the amount of time it was allocated as being restricted on the day of operations: 0%

The ratio of time airspace was neither used nor released with at least 3 hours' notice to the Network Manager, but was allocated as being restricted on the day of operations: 12%

### **Previous recommendations**

### Extract from notification letter from EC July 2012:

FABEC's capacity target for the first reference period 2012-2014 is assessed on the clear expectation that:

- a) the FABEC Member States (Belgium, Germany, France, Luxembourg, the Netherlands and Switzerland) will require their air navigation service providers to develop and implement capacity plans that allow meet the FABEC 2014 reference value of 0.4 minute of average delay per flight at the earliest possible date in the second reference period, with the assistance of the Network Manager;
- b) where these revised capacity plans shall also improve the 2014 national or functional airspace block capacity targets, the States concerned will adopt and communicate to the Commission, either directly or through FABEC institutions, revised capacity targets by the end of June 2013 at the latest;

Annual Monitoring Report 2013: The PRB requests the Netherlands to provide information on how the capacity planning of the ANSPs, combined with the other FABEC ANSPs, is consistent with the existing recommendation of the European Commission that the FABEC Member States require their ANSPs to develop and implement capacity plans that meet the FABEC reference value of 0.4 minutes per flight in 2014.

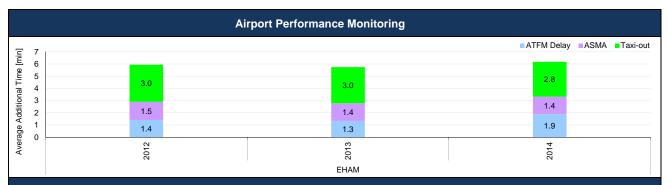
### NSA report on follow-up to recommendations

No information on follow up of existing recommendations was provided in the national monitoring report.

# Recommendations

#### THE NETHERLANDS

#### Monitoring of CAPACITY indicators for 2014



#### **Airport Data** Average of Total Additional Total Sum of Total Apt. Additional **ICAO** Apt. ATFM Additional taxi-out Additional Total **Airport Name RP1 Year** ATFM arr. **ASMA** time arr. Delay ASMA time Additional Code time taxi-out delay [min.] [min./arr.] [min./arr.] time [total] Time [min] [min] [min./dep.] 1.5 317 130 651 006 1 274 602 2012 1.4 306 466 3.0 Amsterdam **EHAM** 307 194 3.0 2013 1.3 292 065 617 934 1 217 192 1.4 581 772 2014 1.9 425 135 315 521 2.8 1 322 428 1.4 2012 1.4 306 466 1.5 317 130 3.0 651 006 1 274 602 Total 2013 1.3 292 065 1.4 307 194 3.0 617 934 1 217 192 2014 1.9 425 135 315 521 2.8 1 322 428 1.4 581 772 2014-2013 133 070 -0.1 105 236 0.6 0.0 8 328 -36 162 **Absolute Difference** 2014-2012 0.5 118 669 -0.0 -1 609 -0.2 -69 234 47 827

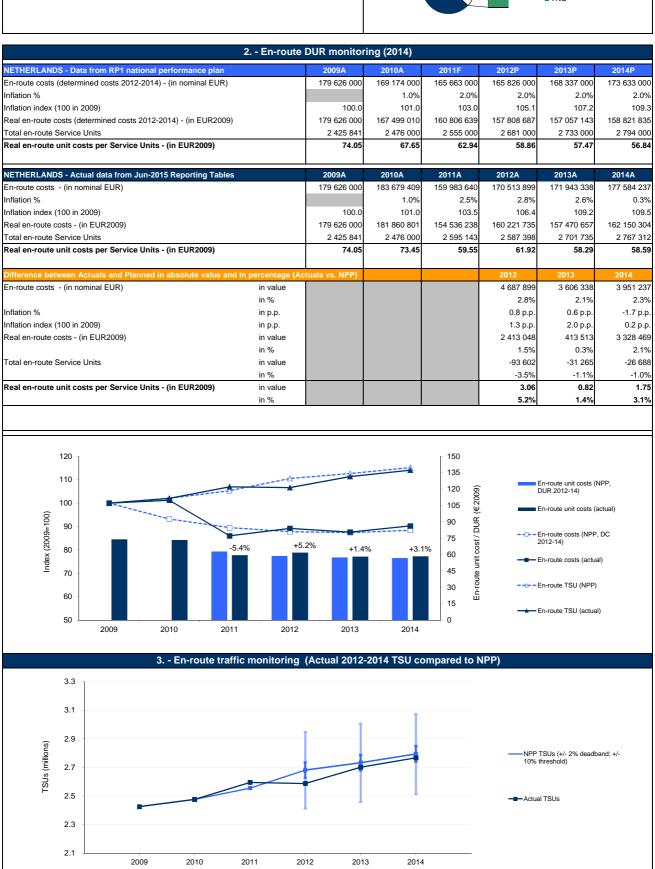
#### **Specific Analysis**

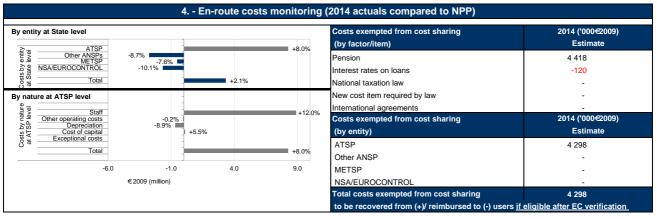
**Critical Issues** 

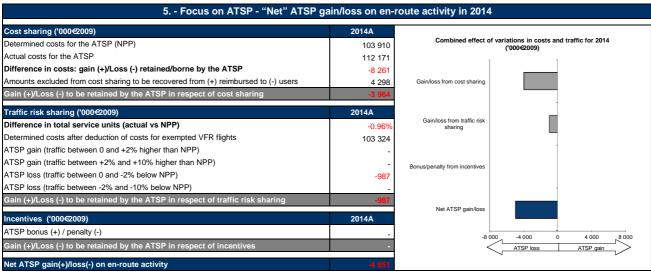
• Additional time performance improved by 4% at Amsterdam airport, despite a slight 1% traffic increase.

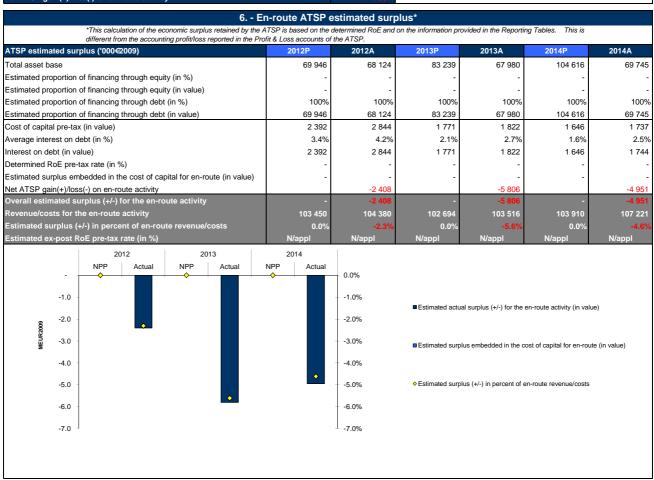
<sup>•</sup> As already recommended, The Netherlands should review the meta data available on the PRB dashboard, which provides the calculation methodologies.











#### Monitoring of en-route and terminal COST-EFFICIENCY for 2014

#### 7. - General conclusions on the monitoring of the 2014 en-route DUR

#### Notes on information provided by NETHERLANDS

#### Note 1: Costs exempted from cost sharing

The Netherlands have adjusted the costs exempt from cost sharing (former "uncontrollable costs") for the years 2012 and 2013 following the EC recommendation communicated during the Single Sky Committee 55 meeting held on 14-15 January 2015. For this reason, the net ATSP gain/loss for the en-route activity reported in this document for 2012 and 2013 differs from the information published in the PRB 2013 Monitoring Report. During the "fact validation" process The Netherlands further explained that the data adjustments were of a technical nature and aligned with LVNL's Financial Accounts.

In addition, the information provided for the costs exempt from cost sharing relating to the year 2014 in the NSA Monitoring Report differs from the data provided in the en-route Reporting Tables (i.e. differences in the allocation of the costs exempt from cost sharing into the different categories).

#### Note 2: Discrepancies between NSA Monitoring Report and the en-route Reporting Tables

The actual en-route costs for 2014 provided by the Netherlands in the en-route Reporting Tables submitted in June 2015 marginally differ from the information reported in the NSA Monitoring Report (less than 0.1%). These marginal differences do not affect the result of this monitoring analysis.

#### Note 3: Discrepancies between NSA Monitoring Report and the terminal Reporting Tables

The actual terminal costs for 2014 provided by the Netherlands in the terminal Reporting Tables submitted in June 2015 slightly differ from the information reported in

#### At State / Charging Area level

In 2014, the Netherlands' actual en-route unit cost (58.59 €2009) were +3.1% higher than planned in the National Performance Plan (NPP) for RP1 (56.84 €2009). This difference is due to the fact that in 2014 actual en-route costs were +2.1% (or +3.3 M€2009) higher than the determined costs provided in the NPP, while the actual number of total service units (TSUs) was -1.0% lower than planned.

In 2014, the difference between the actual and planned TSUs (-1.0%) lied within the ±2% dead band foreseen in the traffic risk sharing mechanism. As a result, the loss in en-route revenues amounting to some -1.0 M€2009 was borne by the ATSP. It should be noted that the part of MUAC costs allocated to the Dutch en-route cost-base are not subject to traffic risk sharing in RP1.

#### Actual 2014 costs vs. NPP

For the Netherlands, actual en-route costs when expressed in real terms were higher (+2.1% or some +3.3 M€2009) than planned in the NPP for 2014. Among the different entities, only LVNL shows higher actual costs than planned (+8.0%). For MUAC (-8.7%), the MET provider (KNMI, -7.6%) and for the NSA/EUROCONTROL (-10.1%), actual 2014 en-route costs were significantly lower than planned in the NPP. A detailed analysis of the deviation between LVNL actual and planned en-route costs is provided in the box below.

For MUAC, the significantly lower actual en-route costs for the year 2014 (i.e. -8.7% or -2.7 M€2009) reflect lower staff costs (-3.4% or -0.9 M€2009), other operating costs (-26.9% or -0.9 M€2009), depreciation costs (-28.9% or -0.7 M€2009) and cost of capital (-71.3% or -0.3 M€2009).

In 2014, costs exempted from cost sharing were reported for a total of 4.3 M€2009 to be passed on to users for the en-route activity (see Note 1 and Note 2 above). Of these, 4.4 M€2009 are associated to pensions and an amount of -0.1 M€2009 is linked to changes in interest rates on loans. These costs will be eligible for carry-over to the following reference period(s), if deemed allowed by the European Commission after verification on the basis of the NSA report establishing and justifying these exemptions.

#### RP1 summary

When considering the whole of RP1 (2012-2014), for the Dutch en-route charging zone, actual costs were +1.3% higher than planned (some 6.2 M€2009), while the number of actual en-route TSUs was -1.8% lower than the amount provided in the NPP. As a result, over RP1 the actual weighted average en-route unit cost (59.56 €2009) is +3.2% higher than that planned in the NPP (57.71 €2009).

#### At ATSP level

## Actual 2014 LVNL costs vs. NPP

In 2014, the difference between LVNL actual and determined costs (+8.0% or +8.3 M€2009) mainly reflects substantially higher staff costs (+12.0% or +8.9 M€2009) and cost of capital (+5.5% or some +0.1 M€2009). According to the additional information enclosed to the Netherlands June 2015 en-route Reporting Tables, the higher staff costs are primarily associated to higher pension costs than expected and to costs linked to new tax requirements. In the meantime, other operating costs remained fairly in line (-0.2%) with the information provided in the NPP, while depreciation costs were significantly lower (-8.9% or -0.7 M€2009) than planned. Based on the information provided in the NSA 2014 Monitoring Report, the latter mainly reflects the postponement of capex projects to future years (i.e. the actual capex for 2014 was some -36.8 M€ lower than that planned in the RP1 NPP).

#### LVNL net gain/loss and estimated surplus on en-route activity in 2014

LVNL generated a net loss of -5.0 M€2009 for the en-route activity for the year 2014. This loss results from a combination of two separate elements:

— a loss of -4.0 M€2009, mainly reflecting the fact that actual 2014 en-route costs were significantly higher than planned; and,

- a loss of -1.0 M€2009 in revenues since actual 2014 traffic was lower than expected.

Note that if the costs exempted from cost sharing reported by the Netherlands for the year 2014 (4.3 M€2009) are not deemed eligible by the European Commission, the net loss generated by LVNL on its en-route activity would amount to -9.2 M€2009.

On the economic surplus side, LVNL did not have any equity at the start of RP1 to properly cope with the traffic risk sharing. This has been the rationale for establishing a mechanism to build up an equity capital over RP1 (i.e. some 22 M€). It is understood from the NPP that a corresponding amount has been added to the 2010 en-route cost base, under "exceptional costs". This amount contributed to generate an under-recovery for the year 2010 that will be recovered though the 2012-2014 unit rates and recorded as equity in the LVNL balance sheet.

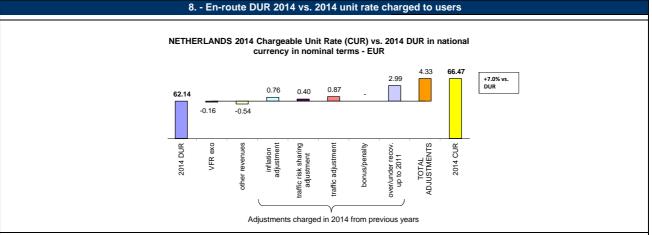
Because LVNL has no equity and hence no return on equity, no ex-ante estimated surplus was embedded in the cost of capital provided the NPP for RP1.

#### Conclusions

In the context of lower actual traffic than planned in 2014 (-1.0%), LVNL actual en-route costs were +8.0% higher than planned in the NPP. As a result, LVNL incurred a net loss of -5.0 M€2009 on the en-route activity. This is the third consecutive year in which LVNL has incurred a loss (following the losses recorded in 2012 (-2.4 M€2009) and 2013 (-5.8 M€2009)).

When considering the whole of RP1 (2012-2014), LVNL has incurred cumulative losses of -13.2 M€2009 since actual en-route costs were consistently higher than planned for all years of RP1 (+1.3% in real terms) while traffic volumes were consistently lower than expected (i.e. -1.8% for the whole RP1). It will be important in future years to monitor this situation and understand the impact of these consecutive losses on LVNL financial strength.

#### Monitoring of en-route and terminal COST-EFFICIENCY for 2014



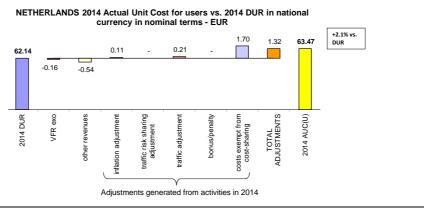
The DUR for 2014 expressed in nominal terms differs from the actual en-route unit rate charged to users in 2014 (CUR).

- the DUR, but also, a deduction of the costs for services to exempted VFR in 2014, as determined prior to the reference period and a deduction of 2014 other revenues;
- as well as adjustments relating to the activities of previous years that are carried-over to 2014. These adjustments include:
- the inflation adjustment:
- \* the adjustment resulting from the implementation of the traffic risk-sharing (ATSP);
- \* the adjustment resulting from the difference in traffic (for costs not subject to traffic risk sharing); \* the bonus/penalty from previous year(s).
- \* the legacy carry-overs incurred in the full cost recovery regime up to and including 2011.

These costs and adjustments are divided by the forecast total service units for 2014 as laid out in the performance plan.

In 2014, the actual chargeable unit rate (CUR) charged to airspace users (66.47 €) was +7.0% higher than the determined unit rate (62.14 €). The difference (+4.33 €) mainly reflects the under-recoveries incurred until 2011 under the full cost-recovery regime (+2.99 €).

## 9. - En-route DUR 2014 vs. 2014 actual unit cost for users



The DUR for 2014 expressed in nominal terms can also be compared to the actual en route unit cost for airspace users (AUC-U) for 2014 (also sometimes referred to the "true cost for users"), which reflects the unit cost that the users incur in respect of the activities performed in 2014. The AUC-U comprises:

- the DUR, the deduction of the costs for services to exempted VFR in 2014 and the deduction of 2014 other revenues that has already been billed to the users through the
- as well as adjustments relating to the activities of 2014 but which will be charged or reimbursed to users in future years. These adjustments include:
- the inflation adjustment;
- \* the adjustments resulting from the implementation of the traffic risk-sharing (ATSP);

  \* the adjustments resulting from the difference in traffic (for costs not subject to traffic risk sharing);
- \* the bonus/penalty for the current year;
  \* the costs exempt from cost sharing (if deemed eligible).

These costs and adjustments are divided by the actual total service units in 2014.

The unit cost that the users incurred in respect to the activities performed in 2014 was 63.47 € which is +2.1% higher than the nominal DUR (62.14 €). The difference observed between the two figures (+1.32 €) reflects the combination of adjustments related to the exempted VFR flights (-0.16 €), other revenues (-0.54 €), the inflation (+0.11 €), the traffic (+0.21 €) and an amount related to costs exempted from cost-sharing (+1.70 €).

#### Monitoring of en-route and terminal COST-EFFICIENCY for 2014

1	0 Terminal cos	sts and unit ra	ites monitori	ng (2014)			
		2009	2010	2011	2012	2013	2014
Terminal Service Unit Formula	(MTOW/50)^	0.7	0.7	0.7	0.7	0.7	0.7
Number of airports in terminal charging zone		4	4	4	4	4	4
of which, number of airports over 50 000 movements		1	1	1	1	1	1
NETHERLANDS - Data from RP1 national performance	plan	2009A	2010A	2011F	2012P	2013P	2014P
Terminal ANS costs for the charging zones - (in EUR)		62 603 512	55 908 000	53 780 000	56 195 000	56 532 000	58 165 000
Inflation index (100 in 2009)		100.0	101.0	103.0	105.1	107.2	109.3
Real terminal ANS costs - (in EUR2009)		62 603 512	55 354 455	52 203 456	53 478 099	52 743 927	53 203 435
NETHERLANDS - Actual data from June 2015 Reporting	g Tables	2009A	2010A	2011A	2012A	2013A	2014A
Terminal ANS costs for the charging zones - (in EUR)		62 603 512	55 908 000	55 545 000	51 422 996	53 727 775	55 967 115
Inflation index (100 in 2009)		100.0	101.0	103.5	106.4	109.2	109.5
Real terminal ANS costs - (in EUR2009)		62 603 512	55 354 455	53 653 707	48 319 121	49 205 442	51 102 985
Total terminal service units		311 000	315 000	339 680	339 000	345 000	356 941
Actual real unit costs - (in EUR2009)		201.3	175.7	158.0	142.5	142.6	143.2
Unit rate applied - (in EUR)					163.12	162.50	162.51
Difference between Actuals and Planned in absolute va	lue and in percentag	e (Actuals vs. NP	PP)		2012	2013	2014
Terminal ANS costs for the charging zones - (in EUR)	in value				-4 772 004	-2 804 225	-2 197 885
	in%				-8.5%	-5.0%	-3.8%
Inflation index (100 in 2009)	in p.p.				1.3 p.p.	2.0 p.p.	0.2 p.p.
Real terminal ANS costs - (in EUR2009)	in value				-5 158 978	-3 538 485	-2 100 449
	in%				-9.6%	-6.7%	-3.9%

## 11. - General conclusions on the Terminal ANS costs and unit rates monitoring

The terminal charging zone in the Netherlands comprises 4 airports of which one is above the 50 000 commercial air transport movements threshold (i.e. Schiphol-EHAM). The harmonised SES formula (MTOW/50)^0.7 applies in the TCZ.

The actual terminal ANS costs in 2014 are -3.9% lower in real terms (or -2.1 M€2009) than planned in the NPP. Higher than planned staff costs (+1.4% or +0.5 M€2009) were more than compensated by lower other operating costs (-9.9% or -1.1 M€2009), depreciation costs (-19.4% or -0.7 M€2009) and cost of capital (-51.2% or -0.8 M€2009).

#### **Terminal Unit rate**

The terminal ANS unit rate applied in 2014 in the terminal charging zone was 162.51 €

## RP1 summary

When considering the whole of RP1 (2012-2014), actual terminal ANS costs in real terms were consistently lower than planned in the NPP for each year of RP1 (-9.6% in 2012, -6.7% in 2013 and -3.9% in 2014). As a result, the cumulative actual terminal ANS costs are -6.8% (some -10.8 M€2009) lower than foreseen in the NPP for RP1.

	12 Monitoring of gate-to-gate costs (2014)										
NETHERLANDS - Data from RP1 national performance	plan	2009A	2010A	2011F	2012P	2013P	2014P				
Real en-route costs (determined costs 2012-2014) - (in EU	R2009)	179 626 000	167 499 010	160 806 639	157 808 687	157 057 143	158 821 835				
Real terminal ANS costs - (in EUR2009)		62 603 512	55 354 455	52 203 456	53 478 099	52 743 927	53 203 435				
Real gate-to-gate ANS costs - (in EUR2009)		242 229 512	222 853 465	213 010 095	211 286 786	209 801 070	212 025 269				
Share of en-route costs in gate-to-gate ANS costs		74.2%	75.2%	75.5%	74.7%	74.9%	74.9%				
NETHERLANDS - Actual data from June 2015 Reporting	g Tables	2009A	2010A	2011A	2012A	2013A	2014A				
Real en-route costs - (in EUR2009)		179 626 000	181 860 801	154 536 238	160 221 735	157 470 657	162 150 304				
Real terminal ANS costs - (in EUR2009)		62 603 512	55 354 455	53 653 707	48 319 121	49 205 442	51 102 985				
Real gate-to-gate ANS costs - (in EUR2009)	Real gate-to-gate ANS costs - (in EUR2009)		237 215 256	208 189 945	208 540 856	206 676 099	213 253 289				
Share of en-route costs in gate-to-gate ANS costs		74.2%	76.7%	74.2%	76.8%	76.2%	76.0%				
Difference between Actuals and Planned in absolute va	alue and in percenta	ige (Actuals vs. NF	PP)		2012	2013	2014				
Real en-route costs - (in EUR2009)	in value				2 413 048	413 513	3 328 469				
	in %				1.5%	0.3%	2.1%				
Real terminal ANS costs - (in EUR2009)	in value				-5 158 978	-3 538 485	-2 100 449				
	in %				-9.6%	-6.7%	-3.9%				
Real gate-to-gate ANS costs - (in EUR2009)	in value				-2 745 930	-3 124 971	1 228 020				
	in %				-1.3%	-1.5%	0.6%				
Share of en-route costs in gate-to-gate ANS costs	in p.p				2.1 p.p.	1.3 p.p.	1.1 p.p				

## 13. - General conclusions on the gate-to-gate ANS costs

The real 2014 gate-to-gate ANS costs (213.3 M€2009) were fairly in line (+0.6% or some +1.2 M€2009) with the information provided in the NPP. This results from the combination of higher actual en-route costs (+2.1% or some +3.3 M€2009) and significantly lower terminal ANS costs (-3.9% or some -2.1 M€2009) in real terms for the year 2014.

The actual share of en-route costs in gate-to-gate ANS costs (76.0%) is slightly higher (+1.1 p.p) than what was planned in the NPP for 2014 (74.9%).





# PRB Annual Monitoring Report 2014

Switzerland

Working Draft 2.0

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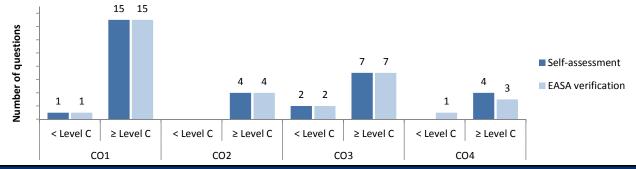
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## Monitoring of SAFETY indicators for 2014

Effectiveness of Safety Management										
	2012	2013	2014	State level Observations						
State level	60	69	73							
ANSP [Skyguide]	82	86	81							



## Application of the severity classification of the Risk Analysis Tool (RAT)

			2012		2013		14
		No reported	Assessed (%)	No reported	Assessed (%)	No reported	Assessed (%)
Separation Minima	ATM Ground	90	3%	07	74%	140	30%
Infringements (SMIs)	ATM Overall		3%	97	74%		30%
Burnway Incursions (Bla)	ATM Ground		0%	14	29%	6	50%
Runway Incursions (RIs)	ATM Overall	50	0%	14	29%	U	50%
ATM Specific Occurences (ATM-Specific)	ATM Overall	36	0%	30	20%	98	5%

**FOCA** 

Source of RAT data:

Just culture										
			Sta	ate						
Number of questions answered with Yes or No	20	12	2013		2014					
	YES	NO	YES	NO	YES	NO				
Policy and its implementation	7	3	7	3	7	2				
Legal/Judiciary	5	3	5	3	5	2				
Occurrence reporting and Investigation	2	0	2	0	2	0				
TOTAL	14	6	14	6	14	4				

	ANSP [Skyguide]							
Number of questions answered with Yes or No	20	12	2013		2014			
	YES	NO	YES	NO	YES	NO		
Policy and its implementation	12	1	12	1	12	1		
Legal/Judiciary	2	1	2	1	2	1		
Occurrence reporting and Investigation	7	1	7	1	8	0		
TOTAL	21	3	21	3	22	2		

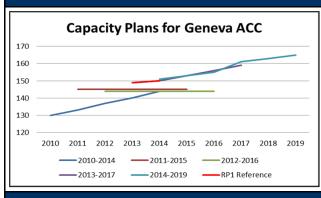
## Monitoring of CAPACITY indicators for 2014

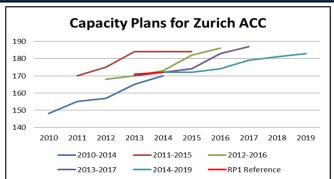
	Minutes of ATFM en-route delay											
	2012	2013	2014	Observations								
Reference value	0.22	0.18	0.14									
National Target												
Actual performance	0.15	0.14	0.1									

#### National capacity assessment

This KPI is managed at FABEC level. Please refer to FABEC report.

## **ANSP** capacity plan





## Military dimension of the plan

Although specifically requested in IR 691/2010 Annex II Template for Performance Plans, paragraph 4: neither the Performance Plan for Switzerland, nor Annex D of the FABEC performance contained any specific details of how FUA would be applied in Switzerland to increase capacity.

## PRB Capacity assessment

From a national perspective, the en-route capacity performance in Switzerland for 2014 surpassed the effort required to be consistent with the union-wide target of 0.5 minutes per flight. This is consistent with the achieved national performance in 2012 and 2013.

## **Effective booking procedures**

The ratio of time airspace was actually used for activity requiring segregation or restriction from GAT and the amount of time it was allocated as being restricted on the day of operations: 59%

The ratio of time airspace, that was surplus to requirement, was released with more than 3 hours' notice to the Network Manager and the amount of time it was allocated as being restricted on the day of operations: 0%

The ratio of time airspace was neither used nor released with at least 3 hours' notice to the Network Manager, but was allocated as being restricted on the day of operations: 41%

## **Previous recommendations**

Annual Monitoring Report 2012: Extract from notification letter from EC July 2012:

FABEC's capacity target for the first reference period 2012-2014 is assessed on the clear expectation that:

- a) the FABEC Member States (Belgium, Germany, France, Luxembourg, the Netherlands and Switzerland) will require their air navigation service providers to develop and implement capacity plans that allow meet the FABEC 2014 reference value of 0.4 minute of average delay per flight at the earliest possible date in the second reference period, with the assistance of the Network Manager;
- b) where these revised capacity plans shall also improve the 2014 national or functional airspace block capacity targets, the States concerned will adopt and communicate to the Commission, either directly or through FABEC institutions, revised capacity targets by the end of June 2013 at the latest;

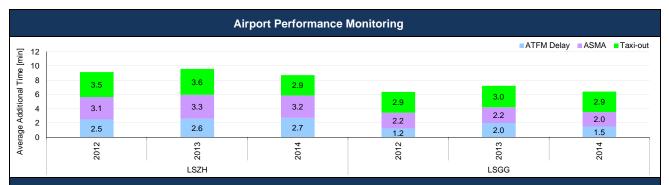
**Annual Monitoring Report 2013:** The PRB requests Switzerland to provide information on how the capacity planning of the ANSP, combined with the other FABEC ANSPs, is consistent with the existing recommendation of the European Commission that FABEC Member States require their ANSPs to develop and implement capacity plans that meet the FABEC reference value of 0.4 minutes per flight in 2014.

## NSA report on follow-up to recommendations

No comments in national report on follow up to existing recommendations.

#### Recommendations

## **Monitoring of CAPACITY indicators for 2014**



	Airport Data											
Airport Name	ICAO Code	RP1 Year	Average of Apt. ATFM arr. Delay [min./arr.]	Total Apt. ATFM arr. delay [min.]	Additional ASMA time [min./arr.]	Total Additional ASMA time [min]	Additional taxi-out time [min./dep.]	Total Additional taxi-out time [total]	Sum of Total Additional Time [min]			
		2012	2.5	325 850	3.1	384 848	3.5	443 106	1 153 804			
Zurich	LSZH	2013	2.6	333 518	3.3	395 373	3.6	447 226	1 176 118			
		2014	2.7	348 635	3.2	380 148	2.9	349 692	1 078 475			
		2012	1.2	111 341	2.2	192 128	2.9	249 320	552 789			
Geneva	LSGG	2013	2.0	178 695	2.2	186 313	3.0	257 556	622 565			
		2014	1.5	135 640	2.0	179 508	2.9	249 755	564 903			
		2012	2.0	437 191	2.8	576 976	3.3	692 426	1 706 593			
Total		2013	2.4	512 213	2.9	581 687	3.4	704 783	1 798 682			
		2014	2.2	484 275	2.7	559 656	2.9	599 447	1 643 378			
Absolute Differ	onco	2014-2013	-0.2	<b>-27 938</b>	-0.2	<b>-22 031</b>	-0.5	<b>△</b> -105 335	<b>△</b> -155 304			
Absolute Diller	CIICE	2014-2012	<b>0.2</b>	<b>47 084</b>	-0.1	<u> </u>	-0.4	<u> </u>	<b>△</b> -63 215			

## **Critical Issues**

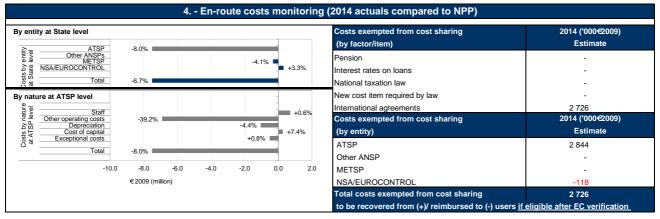
• None

## **Specific Analysis**

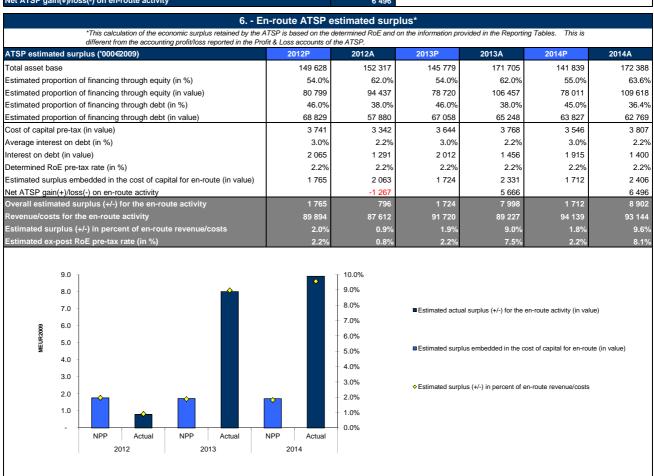
- In average over RP1, total additional delay decreased by 4% in Switzerland. This improvement is broken down into a decrease of additional taxi-out time by 13% and a reduction of additional ASMA time by 3%. ATFM arrival delay however increased by 11%. To be noted that weather remains the predominant factor affecting Airport Arrival ATFM Delay in general.
- Zurich remains close to two and half minutes ATFM delay per arrival, what is the highest record in Europe. Zurich also accumulated additional ASMA time (3.2 minutes per arrival) greater than the European average. Delay at Zurich airport is both capacity and weather related.



flation % 0.4% 0.7% 0.7% 0.7% 10.0.8 100.5 110.0 100.4 101.1 101.8 102.5 11			inge rate 2014 iated by 1.3% compare	ed to 2013.						
*** Control of the Co										
Interior includes control (determined costs) 2012-2014) - (in rominal CHF)  Islation in Ske (100 in 2009)  Islation in Ske (				2 En-route	DUR monitor	ing (2014)				
Black in 154	WITZERLAN	ID - Data from	RP1 national performa	nce plan	2009A	2010A	2011F	2012P	2013P	2014P
Table   Tabl	n-route costs	(determined o	osts 2012-2014) - (in non	ninal CHF)	188 135 299	198 786 732	172 099 050	164 351 664	168 083 853	173 182 9
and amm round coacts (elementwed coacts (classiff file of the coacts) (17-2014) - (in CH2006)  1 184 135 289 1 997 891 307 71 244 052 1 140 274 1 140 29 20 309 805 1 140 274 1 140 29 20 1 150 4 150 309 805 1 140 274 1 140 20 1 140 20 1 140 20 1 150 20 20 1 150 20 20 1 150 20 20 20 20 20 20 20 20 20 20 20 20 20	flation %					0.4%	0.7%	0.7%	0.7%	0.
228 en reconsissences Unites  1 399 C42	flation index (	(100 in 2009)			100.0	100.4	101.1	101.8	102.5	10
228 en reconsissences Unites  1 399 C42			ned costs 2012-2014) - (ir	n CHF2009)	188 135 299	197 981 307	170 244 052	161 412 115	163 926 965	167 717 1
all envirous unit costs per Service Units (- (in CHF2009)   134.74   140.46   116.81   106.77   107.28   170.40   170.71   177.28   170.40   170.71   177.40   170.72		•	, ,	,						1 564 5
all en-route unit costs per Service Units - (in EUR2009)  198 (35 20)  198 (35 20)  198 (35 20)  198 (35 20)  198 (35 20)  198 (35 20)  199 (30 20)			r Service Units - (in CHI	F2009)	1			108.17		107
Internation (CNF)   188 135 280   198 787 900   100 446 633   100 73 800   151 670 618   156 755 618 180 197 619 619 619 619 619 619 619 619 619 619		-	,	•						71
Tablon (% (1) in 2009)  189 135 299 197 602 338 159 328 379 160 379 783 151 526 261 156 460 138 261 154 400 289 143 100 27 130	WITZERLAN	ID - Actual da	ta from Jun-2015 Repor	ting Tables	2009A	2010A	2011A	2012A	2013A	2014A
Teleson index (100 in 2000)	n-route costs	- (in nominal	CHF)		188 135 299	198 787 950	160 444 633	160 372 890	151 670 618	156 554
all enhance costs - (in CHE2009) 18 335 200 197 602 330 150 328 376 160 379 785 151 526 262 156 440 180 enhanced costs per Service Units - (in CHE2009) 18 38 243 14.09 209 143 100 20 138 114.67 1384 957 1 247 1284 enhanced costs per Service Units - (in CHE2009) 18 32 32 32 14.09 209 14.09 209 17.370 75.99 72.90 77 150 14.09 209 14.09 209 17.370 75.99 72.90 7	nflation %					0.6%	0.1%	-0.7%	0.1%	0.
1	nflation index (	(100 in 2009)			100.0	100.6	100.7	100.0	100.1	10
1.89 C42    1.490 28    1.39 674    1.39	Real en-route o	costs - (in CHF	2009)		188 135 299	197 602 336	159 328 378	160 379 793	151 525 621	156 404 6
all envirous unit costs per Service Units - (in CHF2009)  134.74 140.21 111.33 114.67 170.94 170.94 170.94 170.95			,							
all en-route unit costs per Service Units - (in EUR2009)  In you all en-route unit costs per Service Units - (in EUR2009)  In you all en-route unit costs per Service Units - (in EUR2009)  In you all en-route unit costs per Service Units - (in EUR2009)  In you all en-route unit costs per Service Units - (in EUR2009)  In you all en-route unit costs per Service Units - (in EUR2009)  In you all en-route unit costs per Service Units - (in EUR2009)  In you all en-route unit costs per Service Units - (in EUR2009)  In you all en-route unit costs per Service Units - (in EUR2009)  In you all en-route unit costs per Service Units - (in EUR2009)  In you all en-route unit costs per Service Units - (in EUR2009)  In you all en-route unit costs per Service Units - (in EUR2009)  In you all en-route unit costs per Service Units - (in EUR2009)  In you all en-route unit costs per Service Units - (in EUR2009)  In you all en-route unit costs per Service Units - (in EUR2009)  In you all en-route unit costs per Service Units - (in EUR2009)  In you all en-route unit costs per Service Units - (in EUR2009)  In you all en-route unit costs per Service Units - (in EUR2009)  In you all en-route unit costs per Service Units - (in EUR2009)  In you all en-route unit costs per Service Units - (in EUR2009)  In you all en-route unit costs per Service Units - (in EUR2009)  In you all en-route unit costs per Service Units - (in EUR2009)  In you all en-route unit costs per Service Units - (in EUR2009)  In you all en-route unit costs per Service Units - (in EUR2009)  In you all en-route unit costs per Service Units - (in EUR2009)  In you all en-route unit costs per Service Units - (in EUR2009)  In you all en-route unit costs per Service Units - (in EUR2009)  In you all en-route unit costs per Service Units - (in EUR2009)  In you all en-route unit costs per Service Units - (in EUR2009)  In you all en-route unit costs per Service Units - (in EUR2009)  In you all en-route unit costs per Service Units - (in EUR2009)  In you all en-route unit costs per Ser			r Service Units - (in CHI	2009)	1					
		-	,	•						72
## 1.50   ## 1.5						32.32	13.18			
fisition % in p.p. fisition index (100 in 2000) in p.p. 1-1,4 p.p2,6 p.p3,7 g.m. fisition index (100 in 2000) in p.p. 1-1,8 p.p2,4 p.p3,2 all en-route costs (in CHF2009) in value 1-1032 322 -12 401 344 -11 312 all en-route service Units in value 1-3,3 700 -1-13,9 p.p1-7,6% -6,5% -6,5% -9,44% -8				<u> </u>	stuais vs. NPP)					
Table   1.4 p.p.   -0.6 p.p.   -0.7    -0.5 p.p.   -0.5    -0.5 p.p.   -0.5 p.p.    -0.5 p.p.   -0.5    -0.5 p.p.   -0.5    -0.5 p.p.   -0.5 p.p.    -0.5 p.p.   -0.5    -0.5 p.p.   -0.	n-route costs	- (iii nominal	OI IF)							
Table in (100 in 2009)   In yalue   In yal										-9.
all en-route service Units in value in % -1,032,322 -12,401,344 -11,312 or 7,6% -6,6% -7,6% -6,6% -7,6% -6,6% -7,6% -6,6% -7,6% -6,6% -7,6% -6,6% -7,6% -6,6% -7,6% -6,6% -7,6% -6,6% -7,6% -8,6% -7,6% -8,6% -7,6% -8,6% -7,6% -8,6% -7,6% -8,6% -7,6% -8,6% -7,6% -8,6% -7,6% -8,6% -7,6% -8,6% -7,6% -8,6% -7,6% -8,6% -7,6% -8,6% -7,6% -8,6% -7,6% -8,6% -7,6% -8,6% -7,6% -8,6% -7,6% -7,6% -8,6% -7,6% -7,6% -8,6% -7,6% -7,6% -8,6% -7,6	nflation %									-0.7 p
180   180	`	,								-3.2 p
Stal en-route Service Units in value in	Real en-route o	costs - (in CHF	F2009)	in value				-1 032 322	-12 401 344	-11 312 4
in % in value				in %				-0.6%	-7.6%	-6.
in % in value	otal en-route	Service Units		in value				-93 700	-143 022	-137 4
ael en-route unit costs per Service Units - (in EUR2009) in value in % 4.31 1.41 6.09 2.0% 4.31 1.41 6.09 2.09 4.31 1.41 6.09 2.09 2.09 2.09 2.09 2.09 2.09 2.09 2				in %					-9.4%	-8.8
aeal en-route unit costs per Service Units - (in EUR2009) in % in % in value in % 6,0% 2,0% 4,31 1,41 6,0% 2,0% 2 2    180   160   160   100   1	leal en-route	unit costs ne	r Service Units - (in CHI							2
all en-route unit costs per Service Units - (in EUR2009) in value in %										2.:
120 110 180 180 180 180 180 180 180 180 18	Real en-route	unit costs no	r Service Units - (in FIII							1.
120 110 100 100 100 100 100 100 100 100	u. Jii i Oule	000to pe	(III EUI							2.:
3 En-route traffic monitoring (Actual 2012-2014 TSU compared to NPP)  1.8  1.7  1.6  1.7  1.7  1.8  1.7  1.8  1.7  1.8  1.7  1.8  1.7  1.8  1.8	Index (2009=100)	90 - 80 - 70 - 60 - 50 -	2010		12.0		- 20 <sup>Ш</sup>		En-route unit costs (a En-route costs (NPP 2012-14) En-route costs (actua En-route TSU (NPP)	actual) , DC
			3 En-I	oute traffic monitoring	(Actual 2012-	2014 150 co	ompared to N	IPP)		
	TSUs (millions)	1.5						10% 1	threshold)	eand; +/-
2000 2010 2011 2012 2010 2017	TSUs (millions)	1.6						10% 1	threshold)	vand; +/-



5 Focus on ATSP - "Net" ATSP of	gain/loss on en-	route activity in 2014	
Cost sharing ('000€009)	2014A		
Determined costs for the ATSP (NPP)	94 139	Combined effect of	variations in costs and traffic for 2014 ('000€2009)
Actual costs for the ATSP	86 648	1	1
Difference in costs: gain (+)/Loss (-) retained/borne by the ATSP	7 490		
Amounts excluded from cost sharing to be recovered from (+) reimbursed to (-) users	2 844	Gain/loss from cost sharing	
Gain (+)/Loss (-) to be retained by the ATSP in respect of cost sharing	10 335		
Traffic risk sharing ('000€2009)	2014A		]
Difference in total service units (actual vs NPP)	-8.79%	Gain/loss from traffic risk sharing	
Determined costs after deduction of costs for exempted VFR flights	95 119	-	
ATSP gain (traffic between 0 and +2% higher than NPP)	-		1
ATSP gain (traffic between +2% and +10% higher than NPP)	-	Bonus/penalty from incentives	
ATSP loss (traffic between 0 and -2% below NPP)	-1 902		
ATSP loss (traffic between -2% and -10% below NPP)	-1 937		-
Gain (+)/Loss (-) to be retained by the ATSP in respect of traffic risk sharing	-3 839		
ncentives ('000€2009)	2014A	Net ATSP gain/loss	
ATSP bonus (+) / penalty (-)		12.0	00 -8 000 -4 000 0 4 000 8 000 12 000
Gain (+)/Loss (-) to be retained by the ATSP in respect of incentives		<	ATSP loss ATSP gain
Net ATSP gain(+)/loss(-) on en-route activity	6 496		•



#### Monitoring of en-route and terminal COST-EFFICIENCY for 2014

#### 7. - General conclusions on the monitoring of the 2014 en-route DUR

#### Notes on information provided by SWITZERLAND

#### Note 1: Costs exempted from cost sharing

Switzerland has adjusted the costs exempt from cost sharing (former "uncontrollable costs") for the years 2012 and 2013 following the EC recommendation communicated during the Single Sky Committee 55 held on 14/15 January 2015. For this reason, the net ATSP gain/loss for the en-route activity reported in this document for 2012 and 2013 differs from the information published in the PRB 2013 Monitoring Report.

#### Note 2: Planned and actual inflation index

According to Switzerland Performance Plan (NPP) for RP1, different inflation assumptions (and inflation indexes) were used by the different entities as part of Switzerland en-route cost base, resulting in the calculation of a weighted forecast inflation rate for Switzerland. In addition, Switzerland indicates in the additional information to the reporting tables that in the RP1 NPP Skyguide only applied inflation to staff costs. On the other hand, following the European Commission advice that the actual inflation rate/index should be applied to actual costs for all entities, Switzerland used Eurostat HICP to report actual inflation rates in the en-route reporting tables for all entities, and this inflation rate was applied to all the cost categories (i.e. not only staff costs). The use of a different methodology to report inflation rates contributes to the difference observed between the planned and actual inflation indexes for Switzerland.

Note 3: Cost breakdowns for the ATSP entity (Skyguide) over RP1
In the Switzerland NPP for RP1, it is stated that "as relates to the cost efficiency target, the calculations included in the Performance Plan are based on the FIR only and do not include the delegated airspace outside the FIR". However, the data provided for Skyguide present the total en-route costs for Skyguide detailed by nature, i.e. including the costs for delegated services provided outside the Swiss FIR, while a deduction (corresponding to the sum of the compensation received from the State to cover part of revenue losses linked to cross-border services and the revenues from France) is recorded in the exceptional costs and amounting to some 40% of the total en-route costs for Skyguide. This reporting has an impact on the analysis of the ATSP costs by nature in Item 4 below.

#### At State / Charging Area level

In 2014, Switzerland's real en-route unit cost (72.63 €2009) is +2.2% higher than the DUR planned in the Switzerland NPP for RP1 (71.04 €2009). This difference is due to the fact that the actual number of total service units (TSUs) in 2014 is -8.8% lower than planned in the NPP, while actual en-route costs are -6.7% lower than determined costs (some -11.3 MCHF).

The difference between actual and planned traffic (-8.8%) falls outside of ±2% dead band foreseen in the traffic risk sharing mechanism. Therefore, the loss of revenues is shared between the ATSP and airspace users, with the loss retained by the ATSP amounting to some -3.8 M€2009.

#### Actual 2014 costs vs. NPP

For Switzerland, real en-route costs are substantially lower (-6.7% or some 11.3 MCHF2009) than planned. This reflects the combination of lower en-route costs in nominal terms (-9.6%) and lower than planned inflation index (-3.2 p.p.). As identified in Note 2 above, the discrepancy between actual and planned inflation index for 2014 might be partly due to the use of a different methodology to report actual and planned inflation rates. Among the different entities, only the NSA/EUROCONTROL shows higher actual costs than planned (+3.3% in real terms). For Skyguide (-8.0%) and the MET provider (-4.1%) actual en-route costs are significantly lower than planned in the NPP for RP1.

A detailed analysis of the deviation between Skyguide actual and planned en-route costs is provided in the box below.

In 2014, costs exempt from cost sharing are reported for a total of +2.7 M€2009 to be passed on to users for the en-route activity (see Note 1 above). Of these, +2.8 M€2009 is related to the provision of cross-border services (and linked to exchange rate differences) while an amount of -0.1 M€2009 relates to EUROCONTROL costs. These costs will be eligible for carry-over to the following reference period(s), if deemed allowed by the European Commission after verification on the basis of the NSA report establishing and justifying these exemptions.

#### RP1 summary

When considering the whole of RP1 (2012-2014), actual en-route TSUs are, for the Swiss charging zone, -8.2% lower than planned, while actual costs in real terms are -5.0% lower than the determined costs (some -24.7 MCHF2009). As a result, the actual weighted average unit cost over RP1 (111.22 CHF2009) is +3.4% higher than planned in the NPP (107.54 CHF2009).

#### At ATSP level

#### Actual 2014 Skyguide costs vs. NPP

In 2014, the difference between Skyguide actual and determined costs (-8.0% or some 7.5 M€2009) mainly reflects lower other operating costs (-39.2% or some -6.9 M€2009). According to the information provided in the Switzerland NSA 2014 Monitoring Report and in the additional information enclosed to the June 2015 en-route data submission, the lower other operating costs reflect "one-off savings mostly in the area of outsourcing" implemented to compensate for the loss in revenue due to lower traffic. In addition, actual depreciation costs are -4.4% lower (some 1.03 M€2009) than planned in the NPP.

On the other hand, the actual staff costs (+0.6% or some 0.7 M€2009) and the cost of capital (+7.4% or some 0.3 M€2009) are higher than planned in the NPP. We understand that the latter mainly reflects the use of an higher asset base to compute the cost of capital (+21.5% compared to the figure provided in the NPP) however, the NSA Monitoring Report does not provide detailed information on the drivers for this difference.

The actual capex for 2014 (i.e. 59.9 MCHF) is in line with the NPP (59.5 MCHF).

#### Skyguide net gain/loss and estimated surplus on en-route activity in 2014

Skyguide generated a net gain of +6.5 M€2009 for en-route activity for the year 2014. This overall gain results from the combination of two contrasting elements:

- a gain of +10.3 M€2009 mainly reflecting the fact that actual 2014 en-route costs are lower than planned; and,
- a loss of -3.8 M€2009 in revenues since actual 2014 traffic was significantly lower than planned.

Note that is the costs exempted from cost sharing reported by Switzerland (+2.8 M€2009) are not deemed eligible by the European Commission, the net gain generated by Skyguide on its en-route activity would amount to +3.7 M€2009.

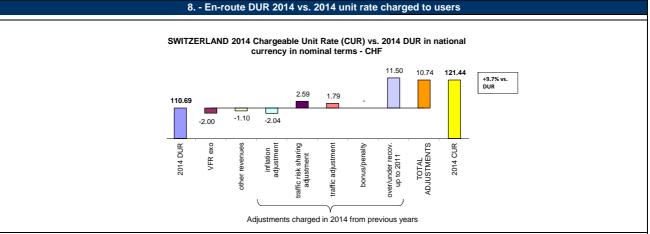
Ex-post, the overall estimated economic surplus for the year is computed by adding the surplus embedded in the cost of capital (+2.4 M€2009) to the net gain for the en-route activity in 2014 (+6.5 M€2009). As a result, the overall estimated economic surplus for the en-route activity in 2014 amounts to +8.9 M€2009 which corresponds to 9.6% of 2014 en-route revenues (compared to 1.8% as planned in the NPP).

#### Conclusions

In the context of substantially lower actual traffic than planned in 2014 (-8.8%), Skyguide was able to significantly revise downwards en-route costs (-8.0%) compared to the information provided in the NPP and generate a net gain of +6.5 M€2009 for the en-route activity. When considering the surplus embedded in the cost of capital through the return on equity, the overall estimated surplus generated in 2014 amounts to +8.9 M€2009 (or 9.6% of total en-route revenues).

When considering the whole of RP1 (2012-2014), Skyguide generated cumulative gains of +21.5 M€2009 as actual costs were lower than planned for all years of RP1 (due to significant cost saving primarily in the area of other operating expenses). However, Skyguide incurred a cumulative loss of -10.6 Me2009 in terms of revenues since actual traffic was consistently lower than planned during RP1 (-6.3% in 2012, -9.4% in 2013 and -8.8% in 2014). As a result, on the en-route activity, cumulative gains of some +10.9 M€2009 could be retained by Skyguide over RP1, mainly reflecting gains generated in 2013 and 2014.

#### Monitoring of en-route and terminal COST-EFFICIENCY for 2014



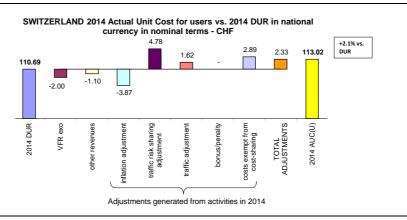
The DUR for 2014 expressed in nominal terms differs from the actual en-route unit rate charged to users in 2014 (CUR).

- the DUR, but also, a deduction of the costs for services to exempted VFR in 2014, as determined prior to the reference period and a deduction of 2014 other revenues;
- as well as adjustments relating to the activities of previous years that are carried-over to 2014. These adjustments include:
  - the inflation adjustment:
- \* the adjustment resulting from the implementation of the traffic risk-sharing (ATSP);
- \* the adjustment resulting from the difference in traffic (for costs not subject to traffic risk sharing); \* the bonus/penalty from previous year(s).
- \* the legacy carry-overs incurred in the full cost recovery regime up to and including 2011.

These costs and adjustments are divided by the forecast total service units for 2014 as laid out in the performance plan.

In 2014, the actual chargeable unit rate (CUR) charged to airspace users (121.44 CHF) is +9.7% higher than the determined unit rate (110.69 CHF). The difference (+10.74 CHF) mainly reflects the under-recoveries incurred until 2011 under the full cost-recovery regime (+11.50 CHF)

## 9. - En-route DUR 2014 vs. 2014 actual unit cost for users



The DUR for 2014 expressed in nominal terms can also be compared to the actual en-route unit cost for airspace users (AUC-U) for 2014 (also sometimes referred to the "true cost for users"), which reflects the unit cost that the users incur in respect of the activities performed in 2014. The AUC-U comprises:

- the DUR, the deduction of the costs for services to exempted VFR in 2014 and the deduction of 2014 other revenues that has already been billed to the users through the
- as well as adjustments relating to the activities of 2014 but which will be charged or reimbursed to users in future years. These adjustments include:
- the inflation adjustment;
- \* the adjustments resulting from the implementation of the traffic risk-sharing (ATSP);
  \* the adjustments resulting from the difference in traffic (for costs not subject to traffic risk sharing);
- \* the bonus/penalty for the current year;
  \* the costs exempt from cost sharing (if deemed eligible).

These costs and adjustments are divided by the actual total service units in 2014.

The unit cost that the users incur in respect to the activities performed in 2014 is 113.02 CHF, which is +2.1% higher than the nominal DUR (110.69 CHF). The difference observed between the two figures (+2.33 CHF) mainly reflects the traffic risk sharing adjustment (+4.78 CHF), the traffic adjustment (+1.62 CHF) and an amount related to costs exempted from cost-sharing (+2.89 CHF). Deductions are observed for the adjustment associated to exempted VFR flights (-2.00 CHF), other revenues (-1.10 CHF) and the inflation adjustment (-3.87 CHF).

#### Monitoring of en-route and terminal COST-EFFICIENCY for 2014

10	0 Terminal cos	sts and unit ra	ates monitori	ng (2014)			
		2009	2010	2011	2012	2013	2014
Terminal Service Unit Formula	(MTOW/50)^	0.65	0.65	0.65	0.65	0.65	0.65
Number of airports in terminal charging zone		2	2	2	2	2	2
of which, number of airports over 50 000 movements		2	2	2	2	2	2
OWITTED AND Date (see DD4 of the Lord	1	00004	00404	00445	0040D	00400	004 4 D
SWITZERLAND - Data from RP1 national performance p	lan	2009A	2010A	2011F	2012P	2013P	2014P
Terminal ANS costs for the charging zones - (in CHF)		98 530 979	101 115 151	96 719 058	95 611 321	97 513 657	99 122 799
Inflation index (100 in 2009)		100.0	100.4	101.1	101.8	102.5	103.3
Real terminal ANS costs - (in CHF2009)		98 530 979	100 705 462	95 676 555	93 901 243	95 102 043	95 994 371
Real terminal ANS costs - (in EUR2009)		65 296 411	66 737 440	63 404 787	62 228 289	63 024 058	63 615 403
SWITZERLAND - Actual data from June 2015 Reporting	Tables	2009A	2010A	2011A	2012A	2013A	2014A
Terminal ANS costs for the charging zones - (in CHF)		98 530 979	101 115 151	96 165 176	91 940 956	94 723 933	98 972 275
Inflation index (100 in 2009)		100.0	100.6	100.7	100.0	100.1	100.1
Real terminal ANS costs - (in CHF2009)		98 530 979	100 512 078	95 496 130	91 944 913	94 633 377	98 877 658
Real terminal ANS costs - (in EUR2009)		65 296 411	66 609 285	63 285 219	60 931 830	62 713 473	65 526 155
Total terminal service units				255 896	256 502	252 856	256 884
Actual real unit costs - (in CHF2009)				373.2	358.5	374.3	384.9
Unit rate applied - (in CHF)					372.10	372.10	364.66
Difference between Actuals and Planned in absolute va	lue and in percentag	e (Actuals vs. NP	PP)		2012	2013	2014
Terminal ANS costs for the charging zones - (in CHF)	in value				-3 670 365	-2 789 724	-150 524
	in%				-3.8%	-2.9%	-0.2%
Inflation index (100 in 2009)	in p.p.				-1.8 p.p.	-2.4 p.p.	-3.2 p.p.
Real terminal ANS costs - (in CHF2009)	in value				-1 956 330	-468 666	2 883 287
	in%				-2.1%	-0.5%	3.0%
Real terminal ANS costs - (in EUR2009)	in value				-1 296 458	-310 585	1 910 752
	in%				-2.1%	-0.5%	3.0%

## 11. - General conclusions on the Terminal ANS costs and unit rates monitoring

The terminal charging zone in Switzerland comprises two airports (Zurich and Geneva), which both handle more than 50 000 airport movements per year. The terminal service unit formula applied is (MTOW/50)^0.65. The formula differs from the harmonised SES formula (MTOW/50)^0.7, which will be mandatory for all SES terminal charging zones from 2015 onwards.

The actual real terminal ANS costs in 2014 are +3.0% (some +2.9 MCHF2009) higher than planned in the NPP. While in nominal terms actual terminal ANS costs are fairly in line with the information provided in the NPP (-0.2%), the inflation index is substantially lower than planned (-3.2 p.p.). As identified in **Note 2** above, the discrepancy between actual and planned inflation index for 2014 might be partly due to the use of a different methodology to report actual and planned inflation rates.

The terminal ANS unit rate applied in 2014 is 364.66 CHF.

#### RP1 summary

When considering the whole of RP1 (2012-2014), actual terminal ANS costs are fairly in line (+0.2% in real terms) with the information provided in the NPP. While in 2012 (-2.1%) and 2013 (-0.5%), actual terminal ANS costs were lower than planned, they are +3.0% higher in real terms than expected in 2014.

	12 Monito	ring of gate-to-	gate costs (2	2014)			
SWITZERLAND - Data from RP1 national performance	plan	2009A	2010A	2011F	2012P	2013P	2014P
Real en-route costs (determined costs 2012-2014) - (in CF	IF2009)	188 135 299	197 981 307	170 244 052	161 412 115	163 926 965	167 717 106
Real terminal ANS costs - (in CHF2009)		98 530 979	100 705 462	95 676 555	93 901 243	95 102 043	95 994 371
Real gate-to-gate ANS costs - (in CHF2009)		286 666 278	298 686 769	265 920 607	255 313 358	259 029 008	263 711 477
Real gate-to-gate ANS costs - (in EUR2009)		189 973 544	197 939 515	176 225 402	169 195 985	171 658 344	174 761 413
Share of en-route costs in gate-to-gate ANS costs		65.6%	66.3%	64.0%	63.2%	63.3%	63.6%
SWITZERLAND - Actual data from June 2015 Reporting	g Tables	2009A	2010A	2011A	2012A	2013A	2014A
Real en-route costs - (in CHF2009)		188 135 299	197 602 336	159 328 378	160 379 793	151 525 621	156 404 695
Real terminal ANS costs - (in CHF2009)		98 530 979	100 512 078	95 496 130	91 944 913	94 633 377	98 877 658
Real gate-to-gate ANS costs - (in CHF2009)	286 666 278	298 114 414	254 824 508	252 324 707	246 158 998	255 282 353	
Real gate-to-gate ANS costs - (in EUR2009)		189 973 544	197 560 216	168 872 025	167 215 408	163 129 397	169 175 438
Share of en-route costs in gate-to-gate ANS costs		65.6%	66.3%	62.5%	63.6%	61.6%	61.3%
Difference between Actuals and Planned in absolute v.	alue and in percenta	age (Actuals vs. NF	PP)		2012	2013	2014
Real en-route costs - (in CHF2009)	in value				-1 032 322	-12 401 344	-11 312 411
	in %				-0.6%	-7.6%	-6.7%
Real terminal ANS costs - (in CHF2009)	in value				-1 956 330	-468 666	2 883 287
	in %				-2.1%	-0.5%	3.0%
Real gate-to-gate ANS costs - (in CHF2009)	in value				-2 988 651	-12 870 010	-8 429 124
	in %				-1.2%	-5.0%	-3.2%
Real gate-to-gate ANS costs - (in EUR2009)	in value				-1 980 577	-8 528 947	-5 585 974
	in %				-1.2%	-5.0%	-3.2%
Share of en-route costs in gate-to-gate ANS costs	in p.p.				0.3 p.p.	-1.7 p.p.	-2.3 p.p.

## 13. - General conclusions on the gate-to-gate ANS costs

The real 2014 gate-to-gate ANS costs (255.3 MCHF2009) are -3.2% (or some -8.4 MCHF2009) lower than planned in the NPP, as a result of significantly lower enroute costs (-6.7% or some 11.3 MCHF2009).

The relative share of en-route costs in gate-to-gate ANS costs is slightly lower (61.3%) than the proportion planned in the NPP for 2014 (63.6%).





# PRB Annual Monitoring Report 2014

**Finland** 

Working Draft 2.0

Edition date: 03/09/2015



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## **Monitoring of SAFETY indicators for 2014**

			E	ffectivene	ss of Safet	y Managen	nent			
			2012	2013	2014		State I	evel Obser	vations	
State le	vel		45	59	62					
<b>ANSP [Finavia]</b> 78 73			73	79						
Number of questions   Second		< Level C	4 4 ≥ Level C	< Level (	9 9 S	C < Level	4 4 C ≥ Level 0	EASA	assessment A verification	
	CO1 CO2					CO3		CO4		
	Ар	plicati	on of the s	severity cla	ssification	n of the Ris	k Analysi	s Tool (RA	Τ)	
				20	112	20	)13	20	)14	
					No reported	Assessed (%)	No reported	Assessed (%)	No reported	Assesse (%)
	ion Minima ments (SMIs)		ATM C		16	100% 100%	27	100% 100%	11	100% 100%
Runway	/ Incursions (R	ls)	ATM C		5	100% 100%	2	100% 100%	0	N/A N/A
ATM Sp (ATM-S	ecific Occurer pecific)	nces	ATM C	Overall	163	1%	230	8%	159	72%
	Source	of RAT	Γ data:		FTSA					
Prelim	inary results u	pdate	d after coo	rdination v	vith the AS	ST-FP in A	ugust 201	5.		
					Just cultu	ıre				
Number of questions answered with Yes or No						ate				
				12		)13		)14		
	Dalla				YES	NO	YES	NO	YES	NO
	Policy and it				7	3	7	3	7	2
0	ccurrence repo	l/Judici		ation	6	2	6	2	5	2
U	ccarrence repor	rung ar	id irivestiga	HIOH	2	0	2	0	2	0

	ANSP [Finavia]							
Number of questions answered with Yes or No	2012		2013		2014			
	YES	NO	YES	NO	YES	NO		
Policy and its implementation	11	2	9	4	13	0		
Legal/Judiciary	2	1	2	1	2	1		
Occurrence reporting and Investigation	4	4	4	4	6	2		
TOTAL	17	7	15	9	21	3		

TOTAL

## **Monitoring of CAPACITY indicators for 2014**

Minutes of ATFM en-route delay									
	2012	2013	2014	Observations					
Reference value	0.1	0.13	0.16						
National Target	0.05	0.03	0.02						
Actual performance	0.01	0	0.12						

## National capacity assessment

The capacity target for 2014 was not met. Major airspace changes implemented in November 2014 explain such negative trend in performance. A significant number of airspace restrictions implemented in November 2014, highly contributed to an increase on the average delay for the whole year 2014.

#### **PRB Capacity assessment**

Although unable to maintain the excellent capacity performance from 2012 and 2013, and missing the national target in 2014, Finland still provided a positive contribution to the EU-wide capacity targets for each year of RP1.

## **Effective booking procedures**

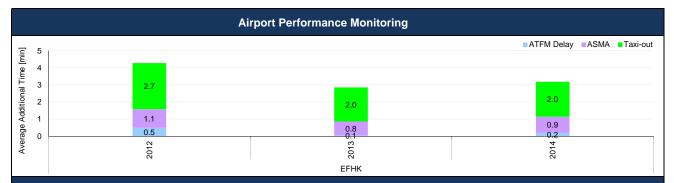
The ratio of time airspace was actually used for activity requiring segregation or restriction from GAT and the amount of time it was allocated as being restricted on the day of operations: 27%

The ratio of time airspace, that was surplus to requirement, was released with more than 3 hours' notice to the Network Manager and the amount of time it was allocated as being restricted on the day of operations: 0%

The ratio of time airspace was neither used nor released with at least 3 hours' notice to the Network Manager, but was allocated as being restricted on the day of operations: 73%

## Recommendations

## **Monitoring of CAPACITY indicators for 2014**



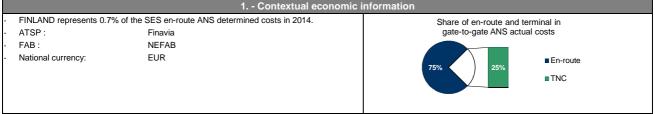
	Airport Data									
Airport Name	ICAO Code	RP1 Year	Average of Apt. ATFM arr. Delay [min./arr.]	Total Apt. ATFM arr. delay [min.]	Additional ASMA time [min./arr.]	Total Additional ASMA time [min]	Additional taxi-out time [min./dep.]	Total Additional taxi-out time [total]	Sum of Total Additional Time [min]	
		2012	0.5	42 870	1.1	86 174	2.7	212 970	342 015	
Helsinki-Vantaa	EFHK	2013	0.1	4 839	0.8	63 094	2.0	157 322	225 255	
		2014	0.2	16 277	0.9	73 739	2.0	160 301	250 317	
		2012	0.5	42 870	1.1	86 174	2.7	212 970	342 015	
Total		2013	0.1	4 839	0.8	63 094	2.0	157 322	225 255	
		2014	0.2	16 277	0.9	73 739	2.0	160 301	250 317	
Absolute Difference		2014-2013	<b>0.1</b>	<b>11 438</b>	<b>0.1</b>	<b>10 646</b>	<b>O.0</b>	<b>2</b> 979	<b>25 062</b>	
		2014-2012	-0.3	<b>△</b> -26 593	-0.1	12 435	-0.7	<b>△</b> -52 669	<b>-91 698</b>	

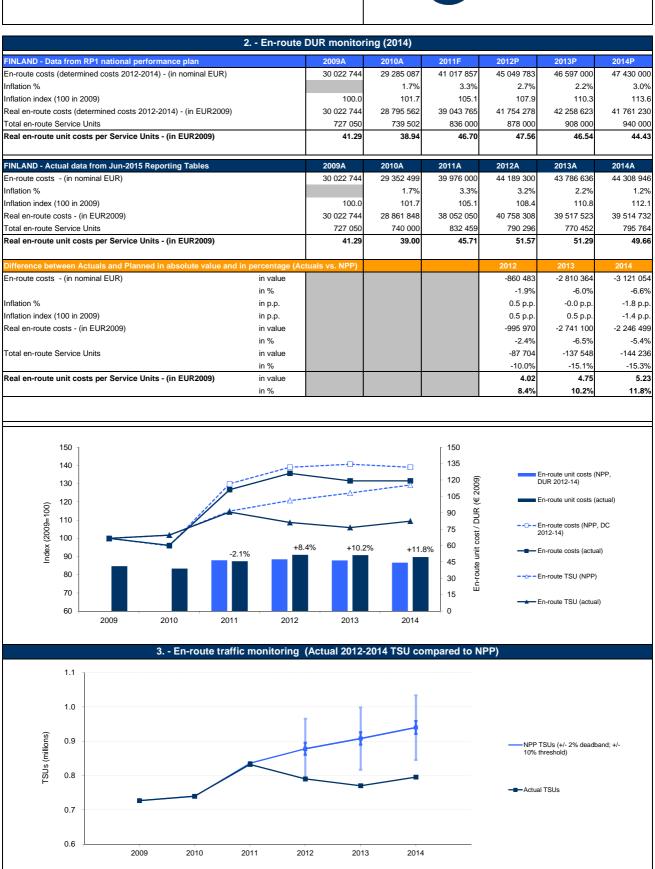
• None

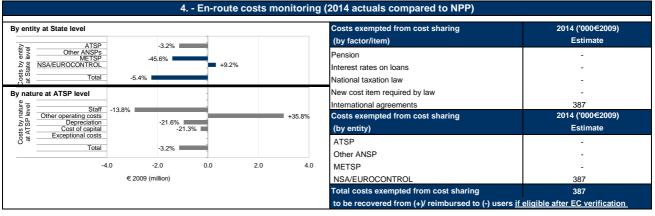
## **Specific Analysis**

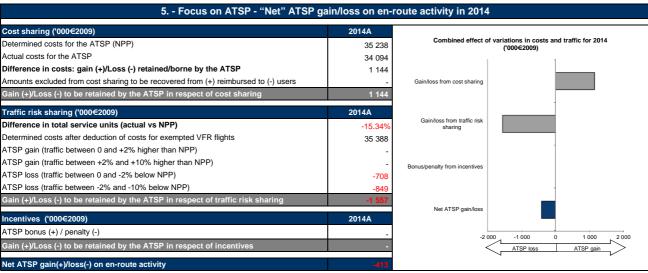
**Critical Issues** 

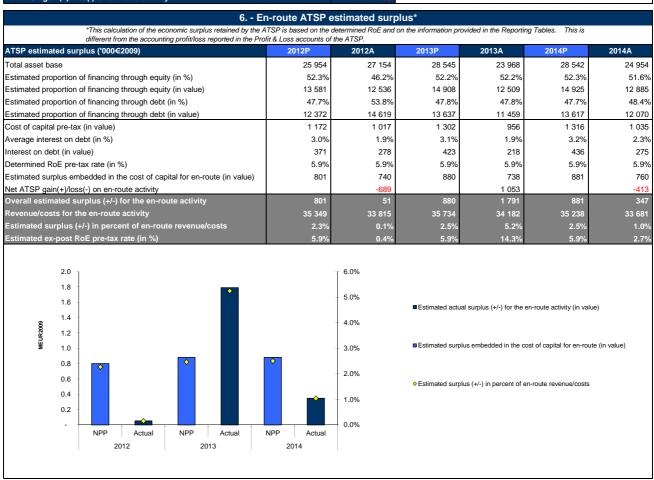
• In average over RP1, total additional time decreased by 27% at Helsinki-Vantaa Airport for a traffic volume that is relatively constant. This improvement is likely to be due to a significant decrease of additional taxi-out time.











#### Monitoring of en-route and terminal COST-EFFICIENCY for 2014

7 General conclusions on the monitoring of the 2014 en-route DUR
Notes on information provided by FINLAND
At State / Charging Area level
In 2014, the real en-route unit cost for Finland (49.66 €2009) is +11.8% higher than planned in the NPP for RP1 (44.43 €2009). This difference is primarily due to en-route Service Units being -15.3% lower than planned, as actual en-route costs in real terms are -5.4% lower than the determined costs.

#### Actual 2014 costs vs. NPP

Total actual en-route costs for Finland in 2014 (39.5 M€2009) are -5.4% less than planned in the NPP (41.8 M€2009). This mainly reflects lower en-route costs in nominal terms (-6.6%), as the actual inflation index was lower than planned in the NPP (-1.4 p.p.).

The number of total service units (TSUs) in 2014 (795 764) is significantly lower (-15.3%) than the forecast provided in Finland's Adopted NPP (940 000), which is outside the ±2% deadband, and exceeds the -10% threshold foreseen in the traffic risk sharing mechanism. The resulting loss of en-route revenues is therefore shared between the ATSP and the airspace users, with the loss borne by Finavia amounting to some -1.6 M€2009, similar to the level experienced in 2012 and 2013.

The en-route cost-base includes costs relating to Finland's ATSP (Finavia), the METSP (Finnish Meteorological Institute), and Finland's NSA. Whilst for Finavia and FMI, 2014 en-route costs in real terms are lower than planned (-3.2% and -45.6% respectively), the costs of NSA are higher than the amount forecast in the NPP (+9.2%). A detailed analysis of Finavia costs is provided in the box below.

Costs exempt from cost sharing are reported for an amount of +0.39 M€2009, corresponding to the difference between the planned and actual values for EUROCONTROL costs. These costs will be eligible for carry-over to the following reference period(s), if deemed allowed by the European Commission after verification on the basis of the NSA report establishing and justifying these exemptions.

#### RP1 summary

When considering the whole of RP1 (2012-2014) the actual number of TSUs is -13.6% lower than planned and actual en-route costs are -4.8% lower than planned in real terms (-6.0 M€2009). As a result, the weighted average unit cost over RP1 is +10.2% higher than the level planned in the NPP.

#### At ATSP level

#### Actual 2014 Finavia costs vs. NPP

Finavia actual en-route costs are some -3.2% lower than the determined costs reported for 2014. Other operating costs are +35.8% higher than planned due to changes in cost allocation between staff costs and other operating costs. Staff costs were -13.8% lower than planned. According to the Additional Information to the June 2015 Reporting Tables this is due to cost cutting measures relating to lower than expected traffic growth and changes in costs allocation between staff costs and other operating costs. Depreciation and cost of capital were also lower than planned, by -21.6% and -21.3% respectively, due to delay to investments and a lower than planned interest rate, as indicated in the Additional Information to the June 2015 Reporting Tables.

In 2014, the actual total asset base was 25.0 M€2009, or -12.6% lower than planned. This is the result of delay to investments and is reflected in the lower than planned depreciation and cost of capital.

#### Finavia net gain/loss and estimated surplus on en-route activity in 2014

As shown in item 5, the en-route activity for the year 2014 generated a net loss of -0.4 M€2009 for Finavia overall. This is the result of a combination of two elements:

- a gain of +1.1 M€2009 for Finavia as a result of the cost-sharing mechanism; and
- a loss of -1.6 M€2009 as a result of the traffic risk sharing mechanism for 2014.

For the en-route activity, the estimated surplus embedded in the cost of capital through the return on equity planned in the NPP amounted to +0.9 M€2009, corresponding to an estimated surplus of +2.5% of the en-route 2014 revenues. Ex-post, the overall estimated surplus for the year calculated by adding the surplus embedded in the cost of capital (+0.8 M€2009) and the net loss from the en-route activity in 2014 (-0.4 M€2009), gives a total of +0.3 M€2009 for 2014, corresponding to +1.0% of the en-route 2014 revenue. The resulting ex-post rate of return on equity for 2014 is +2.7% (compared to +5.9% as initially planned in the NPP).

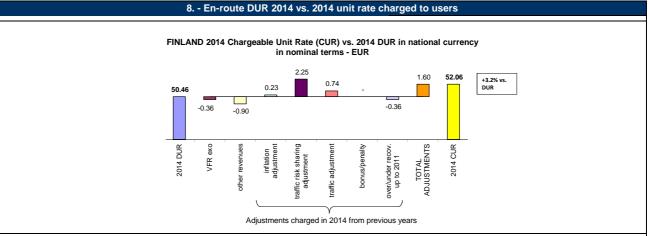
#### Conclusion

Traffic volumes are lower than expected (-15.3%), and Finavia's actual en-route costs in 2014 are -3.2%) lower than planned in the NPP, in real terms. The en-route activity for 2014 generated a net gain of +0.3 M€2009 for Finavia, which results in an overall estimated surplus of +1.0% of the en-route revenue for 2014 (down from a planned +2.5% in the NPP).

This indicates that in 2014, Finavia was in a position to retain only part of the surplus embedded in the cost of capital in 2014. This adds to the overall positive estimated surplus for the en-route activity generated by Finavia in 2013 of +1.8 M€2009 (or +5.2% of en-route revenues leading to an ex-post rate of return on equity of +14.3%) and in 2012 of +0.1 M€2009 (or +0.1% of en-route revenues in 2012 leading to an ex-post rate of return on equity of +0.4%).

When considering the whole of RP1 (2012-2014), Finavia will retain a cumulative gain in respect of cost sharing of +4.6 M€2009 as actual costs are lower than planned in each year of RP1. However, Finavia incurred a cumulative loss in respect of traffic risk sharing amounting to -4.6 M€2009, as traffic was lower than planned in each year of RP1 (-13.6% lower across the RP as a whole) which resulted in a cumulative net loss for the en-route activity of -0.05 M€2009.

#### Monitoring of en-route and terminal COST-EFFICIENCY for 2014



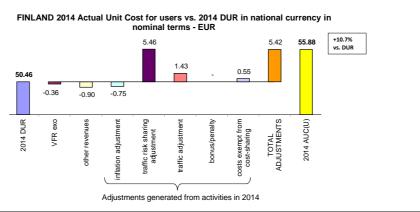
The DUR for 2014 expressed in nominal terms differs from the actual en-route unit rate charged to users in 2014 (CUR).

- the DUR, but also, a deduction of the costs for services to exempted VFR in 2014, as determined prior to the reference period and a deduction of 2014 other revenues;
- as well as adjustments relating to the activities of previous years that are carried-over to 2014. These adjustments include:
- the inflation adjustment:
- \* the adjustment resulting from the implementation of the traffic risk-sharing (ATSP);
- \* the adjustment resulting from the difference in traffic (for costs not subject to traffic risk sharing); \* the bonus/penalty from previous year(s).
- \* the legacy carry-overs incurred in the full cost recovery regime up to and including 2011.

These costs and adjustments are divided by the forecast total service units for 2014 as laid out in the performance plan.

The CUR charged to airspace users in 2014 is 52.06 €, which is +3.2% more than the DUR of 50.46 €. The CUR is higher due to an increase due to traffic risk sharing from Finavia (+2.25 €, or +4.5%) and traffic adjustment (+0.74 €, or +1.5%). Minor adjustments were made to reflect the deduction of costs for services exempt from VFR (-0.36 €) differences in inflation (+0.23 €), other revenues (-0.90 €) and legacy carry-overs incurred up to and including 2011 (-0.36 €).

## 9. - En-route DUR 2014 vs. 2014 actual unit cost for users



The DUR for 2014 expressed in nominal terms can also be compared to the actual en-route unit cost for airspace users (AUC-U) for 2014 (also sometimes referred to the "true cost for users"), which reflects the unit cost that the users incur in respect of the activities performed in 2014. The AUC-U comprises:

- the DUR, the deduction of the costs for services to exempted VFR in 2014 and the deduction of 2014 other revenues that has already been billed to the users through the
- as well as adjustments relating to the activities of 2014 but which will be charged or reimbursed to users in future years. These adjustments include:
- the inflation adjustment;
- \* the adjustments resulting from the implementation of the traffic risk-sharing (ATSP);

  \* the adjustments resulting from the difference in traffic (for costs not subject to traffic risk sharing);
- \* the bonus/penalty for the current year;
  \* the costs exempt from cost sharing (if deemed eligible)

These costs and adjustments are divided by the actual total service units in 2014.

The AUC-U for airspace users in 2014 is 55.88 €, which is +10.7% more than the DUR of 50.46 €. This is due to adjustments generated from activities in 2014:

- -0.90 €, or -1.8% deduction due to other revenues;
- -0.75 €. or -1.5% deduction due to inflation adjustment:
- -0.36 €, or -0.7% deduction of costs for services to exempted VFR:
- +0.55 €, or +1.1% increase for costs exempt from cost sharing;
- +1.47 €, or +2.9% reflecting the difference in traffic for costs not subject to traffic risk sharing; and
- +5.46. or +10.8% increase for traffic risk sharing adjustment.

#### Monitoring of en-route and terminal COST-EFFICIENCY for 2014

10	) Terminal cos	sts and unit ra	ites monitori	ng (2014)			
		2009	2010	2011	2012	2013	2014
Terminal Service Unit Formula	(MTOW/50)^	0.7	0.7	0.7	0.7	0.7	0.7
Number of airports in terminal charging zone		1	1	1	1	1	1
of which, number of airports over 50 000 movements		1	1	1	1	1	1
FINLAND - Data from RP1 national performance plan		2009A	2010A	2011F	2012P	2013P	2014P
Terminal ANS costs for the charging zones - (in EUR)		19 218 793	21 756 834	13 966 000	14 907 700	15 367 835	15 754 062
Inflation index (100 in 2009)		100.0	101.7	105.1	107.9	110.3	113.6
Real terminal ANS costs - (in EUR2009)		19 218 793	21 393 150	13 293 850	13 817 164	13 937 025	13 871 158
FINLAND - Actual data from June 2015 Reporting Tables		2009A	2010A	2011A	2012A	2013A	2014A
Terminal ANS costs for the charging zones - (in EUR)		19 218 793	21 756 834	14 102 000	14 654 000	14 082 100	14 555 500
Inflation index (100 in 2009)		100.0	101.7	105.1	108.4	110.8	112.1
Real terminal ANS costs - (in EUR2009)		19 218 793	21 393 150	13 423 304	13 516 219	12 709 122	12 980 599
Total terminal service units		93 636	94 540	107 768	97 600	97 900	99 973
Actual real unit costs - (in EUR2009)		205.3	226.3	124.6	138.5	129.8	129.8
Unit rate applied - (in EUR)					128.45	134.87	138.24
Difference between Actuals and Planned in absolute val	ue and in percentag	ie (Actuals vs. NF	PP)		2012	2013	2014
Terminal ANS costs for the charging zones - (in EUR)	in value				-253 700	-1 285 735	-1 198 562
3 3 3 4 4 7	in%				-1.7%	-8.4%	-7.6%
Inflation index (100 in 2009)	in p.p.				0.5 p.p.	0.5 p.p.	-1.4 p.p
Real terminal ANS costs - (in EUR2009)	in value				-300 946	-1 227 902	-890 559
	in%				-2.2%	-8.8%	-6.4%

## 11. - General conclusions on the Terminal ANS costs and unit rates monitoring

The terminal charging zone of Finland comprises one airport (Helsinki-Vantaa). Helsinki-Vantaa has over 50,000 airport movements per year. There has been no change to the terminal charging zone as compared to the NPP. The harmonised SES formula (MTOW/50)^0.7 has been applied in the Finland Terminal Charging Zone since 2009.

Actual terminal ANS costs in 2014 are -6.4%, or -0.9 M€2009, lower than planned in the NPP. This difference is similar to that for en-route costs (-5.4% in real terms lower than planned). According to the additional information provided with the June 2015 terminal Reporting Tables, Finavia, FMI and the Finnish Transport Safety Agency all reported lower actual costs than planned in 2014. At Finavia only staff costs were lower, however other operating costs, depreciation and cost of capital were higher. At the METSP, FMI actual costs were lower than planned because "aviation observation costs are no longer allocated to civil aviation". Actual Finnish Transport Safety Agency costs were lower than planned due to a change in the charging scheme.

#### RP1 summary

When considering the whole of RP1 (2012-2014), actual terminal ANS costs are -5.8% lower in real terms (or some -2.4 M€2009) than planned in the NPP. This reflects the fact that terminal ANS costs were lower than planned in the all three years of RP1.

	12 Monito	ring of gate-to-	-gate costs (2	2014)			
FINLAND - Data from RP1 national performance plan		2009A	2010A	2011F	2012P	2013P	2014P
Real en-route costs (determined costs 2012-2014) - (in El	JR2009)	30 022 744	28 795 562	39 043 765	41 754 278	42 258 623	41 761 230
Real terminal ANS costs - (in EUR2009)		19 218 793	21 393 150	13 293 850	13 817 164	13 937 025	13 871 158
Real gate-to-gate ANS costs - (in EUR2009)		49 241 537	50 188 713	52 337 615	55 571 443	56 195 648	55 632 388
Share of en-route costs in gate-to-gate ANS costs		61.0%	57.4%	74.6%	75.1%	75.2%	75.1%
FINLAND - Actual data from June 2015 Reporting Table	es	2009A	2010A	2011A	2012A	2013A	2014A
Real en-route costs - (in EUR2009)		30 022 744	28 861 848	38 052 050	40 758 308	39 517 523	39 514 732
Real terminal ANS costs - (in EUR2009)		19 218 793	21 393 150	13 423 304	13 516 219	12 709 122	12 980 599
Real gate-to-gate ANS costs - (in EUR2009)		49 241 537	50 254 998	51 475 355	54 274 527	52 226 645	52 495 331
Share of en-route costs in gate-to-gate ANS costs		61.0%	57.4%	73.9%	75.1%	75.7%	75.3%
Difference between Actuals and Planned in absolute v	alue and in percenta	age (Actuals vs. NF	PP)		2012	2013	2014
Real en-route costs - (in EUR2009)	in value				-995 970	-2 741 100	-2 246 499
	in %				-2.4%	-6.5%	-5.4%
Real terminal ANS costs - (in EUR2009)	in value				-300 946	-1 227 902	-890 559
	in %				-2.2%	-8.8%	-6.4%
Real gate-to-gate ANS costs - (in EUR2009)	in value				-1 296 916	-3 969 003	-3 137 057
	in %				-2.3%	-7.1%	-5.6%
Share of en-route costs in gate-to-gate ANS costs	in p.p.				-0.0 p.p.	0.5 p.p.	0.2 p.p.

#### 13. - General conclusions on the gate-to-gate ANS costs

In 2014, Finland's actual gate-to-gate ANS costs (52.5 M€2009) are -5.6% lower than planned in the NPP (55.6 M€2009). The major driver of this difference is actual en-route costs, but actual terminal costs also contribute to the decrease in the actual gate-to-gate ANS costs.

The relative share of en-route in gate-to-gate ANS costs (75.3%) is marginally higher than planned in the NPP (75.1%). Since 2011, the share of en-route costs in gate-to-gate ANS costs has not varied significantly, increasing from 73.9% in 2011 to 75.7% in 2013.





# PRB Annual Monitoring Report 2014

Greece

Working Draft 2.0

Edition date: 03/09/2015



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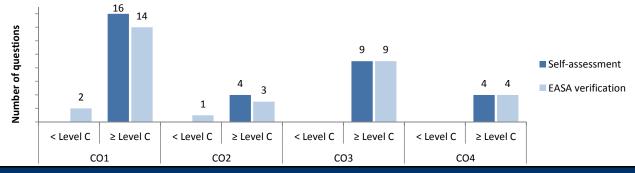
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## Monitoring of SAFETY indicators for 2014

Effectiveness of Safety Management									
	2012	2013	2014	State level Observations					
State level	40	59	71						
ANSP [HANSP]	42	56	71						



## Application of the severity classification of the Risk Analysis Tool (RAT)

		20	12	20	13	2014	
		No reported	Assessed (%)	No reported	Assessed (%)	No reported	Assessed (%)
Separation Minima	ATM Ground	20	95%	22	100%	17	100%
Infringements (SMIs)	ATM Overall	20	95%		100%		100%
Runway Incursions (RIs)	ATM Ground	17	100%	10	100%	11	91%
Runway incursions (Ris)	ATM Overall	l ''	76%	10	100%	11	91%
ATM Specific Occurences (ATM-Specific)	ATM Overall	120	87%	44	100%	45	98%

Source of RAT data: HCAA

Just culture								
	State							
Number of questions answered with Yes or No	2012		2013		2014			
	YES	NO	YES	NO	YES	NO		
Policy and its implementation	5	5	8	2	7	2		
Legal/Judiciary	4	4	5	3	3	4		
Occurrence reporting and Investigation	0	2	0	2	0	2		
TOTAL	9	11	13	7	10	8		

	ANSP [HANSP]							
Number of questions answered with Yes or No	20	2012		2013		2014		
	YES	NO	YES	NO	YES	NO		
Policy and its implementation	7	6	7	6	10	3		
Legal/Judiciary	3	0	2	1	2	1		
Occurrence reporting and Investigation	4	4	5	3	5	3		
TOTAL	14	10	14	10	17	7		

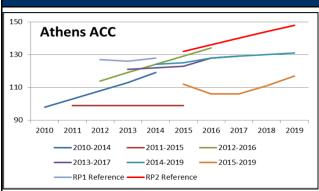
#### Monitoring of CAPACITY indicators for 2014

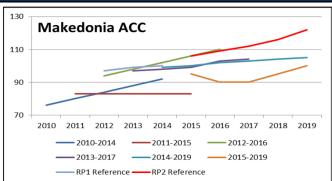
Minutes of ATFM en-route delay									
	2012	2013	2014	Observations					
Reference value	0.37	0.32	0.26						
National Target	1.1	1	0.95						
Actual performance	0.15	0.06	0.41						

#### **National capacity assessment**

The capacity achieved, for a third consecutive year, remained below the capacity targets originally anticipated in the Performance Plan of Greece.

## ANSP capacity plan (Opt.)





#### Military dimension of the plan

Although specifically requested in IR 691/2010 Annex II Template for Performance Plans, paragraph 4: the Performance Plan for Greece did not contain any specific details of how FUA would be applied to increase capacity.

### PRB Capacity assessment

For the third year running, Greece has significantly surpassed the national target for en-route capacity performance. Unfortunately, in 2014, the en-route capacity performance was not consistent with the effort required to meet the Union-wide target of 0.5 minutes per flight. The PRB is concerned by the downgrading of existing capacity plans and the problems that this foretells for capacity performance in Greece during the entire second Reference Period.

#### Effective booking procedures

The calculation on effective booking procedures could not be performed since Greece did not provide any information on the allocation, release and actual use of civil military airspace structures.

#### **Previous recommendations**

#### Extract from notification letter from EC July 2012:

Greece's revised performance plan is assessed on the understanding that Greece will require its air navigation service provider to develop and implement capacity plans that will enable the 2014 reference value of 0.26 minute of average delay per flight to be met at the earliest possible date in the second reference period, with the assistance of the Network Manager.

Annual Monitoring Report 2012 Recommendation: Greece is invited to ensure that information on the allocation and use of airspace structures is made available to the Commission in accordance with IR 691/2010, and IR 2150/2005.

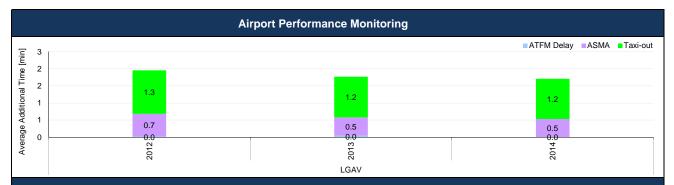
**Annual Monitoring Report 2013 Recommendation:** Greece is requested to provide information on how it intends to meet the mandatory reporting requirements on the allocation and use of civil military airspace structures in accordance with EU Regulation 691/2010 (Annex IV 1.1.(h)) and EC Regulation 2150/2005 (Article 4 (m) & (n)).

## NSA report on follow-up to recommendations

The national monitoring report contained no information regarding the previous recommendations about mandatory reporting requirements on the allocation and use of civil military airspace structures.

## Recommendations

## **Monitoring of CAPACITY indicators for 2014**



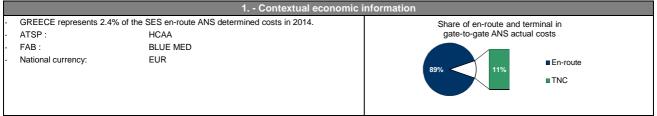
Airport Data											
Airport Name	ICAO Code	RP1 Year	Average of Apt. ATFM arr. Delay [min./arr.]	Total Apt. ATFM arr. delay [min.]	Additional ASMA time [min./arr.]	Total Additional ASMA time [min]	Additional taxi-out time [min./dep.]	Total Additional taxi-out time [total]	Sum of Total Additional Time [min]		
Athens	LGAV	2012	0.0	1 788	0.7	45 336	1.3	91 615	138 739		
		2013	0.0	2 735	0.5	33 266	1.2	76 517	112 517		
		2014	0.0	8	0.5	35 985	1.2	83 399	119 392		
Total		2012	0.0	1 788	0.7	45 336	1.3	91 615	138 739		
		2013	0.0	2 735	0.5	33 266	1.2	76 517	112 517		
		2014	0.0	8	0.5	35 985	1.2	83 399	119 392		
Absolute Difference		2014-2013	0.0	2 727	-0.0	<b>2</b> 719	0.0	<b>▼</b> 6 882	<b>▽</b> 6 875		
		2014-2012	0.0	1 780	<b>-0.1</b>	<b>△</b> -9 351	-0.1	<b>△</b> -8 216	<u> </u>		

• None

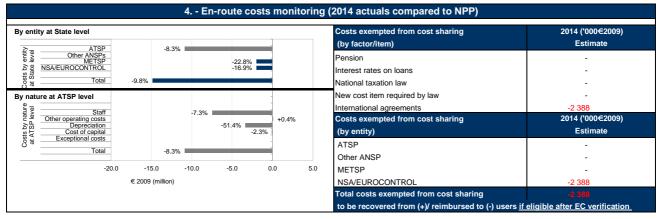
## **Specific Analysis**

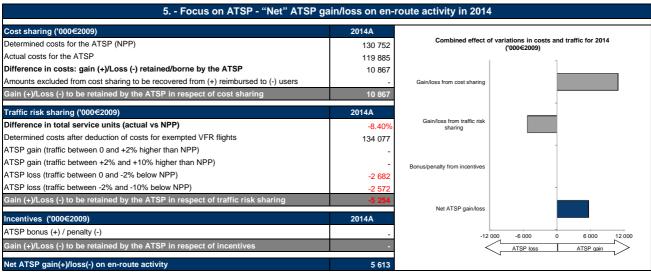
**Critical Issues** 

• In average over RP1, total additional time decreased by 14% at Athens Airport for a traffic volume that is relatively constant. ATFM arrival delay is insignificant at Athens Airport. However, outbound traffic seems to be more penalised than inbound traffic.



										■TNC		
				2	2 En-route	DUR monitor	ing (2014)					
REECE - Dat	a from RP1	national pe	erformance plan	1		2009A	2010A	2011F	2012P	2013P	2014P	
n-route costs	(determined	d costs 2012-	-2014) - (in nomii	nal EUR)		179 113 311	165 386 000	163 624 903	165 004 188	165 541 828	165 909 8	
flation %							4.7%	2.5%	0.5%	0.7%	1.0	
flation index (		•				100.0	104.7	107.4	107.9	108.6	109	
			2012-2014) - (in	EUR2009)		179 113 311	157 961 796	152 408 576	152 928 670	152 420 985 4 860 000	151 322 2	
otal en-route s eal en-route			Units - (in EUR2	2009)		4 138 832 43.28	4 454 155 <b>35.46</b>	4 507 000 33.82	4 698 000 <b>32.55</b>	31.36	5 041 0 <b>30.</b>	
REECE - Act	ual data fro	om Jun-2015	Reporting Tab	oles		2009A	2010A	2011A	2012A	2013A	2014A	
n-route costs	- (in nomin	al EUR)				179 113 311	165 386 000	156 350 081	155 483 966	150 313 114	145 365 6	
nflation %							4.7%	3.1%	1.0%	-0.9%	-1.4	
flation index (		•				100.0	104.7	107.9	109.0	108.0	106	
eal en-route c	,					179 113 311	157 961 796	144 841 416	142 612 925	139 122 219	136 453 4	
otal en-route S eal en-route (			Units - (in EUR2	2009)		4 138 832 43.28	4 454 000 <b>35.47</b>	4 546 412 <b>31.86</b>	4 357 569 <b>32.73</b>	4 215 705 <b>33.00</b>	4 617 7 <b>29</b> .	
ifference bet	ween Actu	als and Plan	ned in absolute	e value and in	percentage (Ad	ctuals vs. NPP)			2012	2013	2014	
n-route costs					in value				-9 520 222	-15 228 714	-20 544 1	
					in %				-5.8%	-9.2%	-12.4	
nflation %					in p.p.				0.5 p.p.	-1.6 p.p.	-2.4 p.	
nflation index (		•			in p.p.				1.1 p.p.	-0.6 p.p.	-3.1 p	
eal en-route c	osts - (in E	JR2009)			in value				-10 315 744	-13 298 766	-14 868 8	
-1-1					in %				-6.7%	-8.7%	-9.8	
otal en-route S	Service Unit	S			in value in %				-340 431 -7.2%	-644 295 -13.3%	-423 2 -8.4	
eal en-route	unit costs	ner Service I	Units - (in EUR2	2009)	in value				0.18	1.64	-0.4	
ear en-route t	unit costs	per dervice (	Omis - (m EON)	2003)	in %				0.5%	5.2%	-1.6	
	130						∆	120				
	110 -	_		-	·			100 (500)	_	En-route unit costs (I DUR 2012-14)		
100)	100		_					- 80 ⊕		En-route unit costs (a	actual)	
00000000000000000000000000000000000000							- 60 /so	DUR 2012-14)  Ben-route unit costs (actual)  Fin-route costs (NPP, DC 2012-14)  En-route costs (NPP, DC 2012-14)  En-route costs (actual)				
) xəpu	70 -			-5.8%	_ _ +0	.5% +5.29	%	40 nit o		En-route costs (actua	al)	
_	60 -			0.0%			-1.6	% S		En-route TSU (NPP)		
	50 -							- 20 点		En-route TSU (actua	ıl)	
	40	2009	2010	2011	2012	2013	2014	0				
			3 - En-re	outo traffic	monitoring	(Actual 2012-	2014 TSU co	mpared to N	IDD\			
	6.0		O. LIITO	Jule traine	monitoring	(Aotual 2012	2014 100 00	impared to N	,			
	5.5					<b>1</b>						
lions)	5.0									TSUs (+/- 2% deadb	pand; +/-	
TSUs (millions)	4.5								10%	threshold)		
TS	4.5						/		<b></b> Actua	al TSUs		
	4.0	•	r			_						
	10											
	3.5	-			1	1						





		5 613				
*This calculation of the economic surplus retaine	6 En-route ATSP end by the ATSP is based on the			ovided in the Reporting	n Tahles This is	
different from the accounting profit/loss reported	in the Profit & Loss accounts of	the ATSP.	•	,		
TSP estimated surplus ('000€2009)	2012P	2012A	2013P	2013A	2014P	2014A
otal asset base	97 318	97 734	96 680	96 293	95 770	93 9
stimated proportion of financing through equity (in %) See Note		100.0%	100.0%	100.0%	100.0%	100.
stimated proportion of financing through equity (in value)	97 318	97 734	96 680	96 293	95 770	93 9
stimated proportion of financing through debt (in %)	-	-	-	-	-	
stimated proportion of financing through debt (in value)	-	-	-	-	-	
ost of capital pre-tax (in value)	3 132	3 127	3 158	3 145	3 174	3 1
verage interest on debt (in %)	-	-	-	-	-	
terest on debt (in value)	-	-	-	-	-	
etermined RoE pre-tax rate (in %)	3.2%	3.2%	3.3%	3.3%	3.3%	3.
stimated surplus embedded in the cost of capital for en-route (in v	value) 3 132	3 127	3 158	3 145	3 174	3 1
et ATSP gain(+)/loss(-) on en-route activity		3 738		4 118		5 6
verall estimated surplus (+/-) for the en-route activity	3 132	6 865	3 158	7 263	3 174	8 7
evenue/costs for the en-route activity	132 330	127 667	131 902	126 090	130 752	125 4
stimated surplus (+/-) in percent of en-route revenue/costs	2.4%	5.4%	2.4%	5.8%	2.4%	6.
stimated ex-post RoE pre-tax rate (in %)	3.2%	7.0%	3.3%	7.5%	3.3%	9.
10.0 8.0 - 6.0 - 4.0 - 2.0 - NPP Actual NPP Actual	al NPP Actual	10.0% - 8.0% - 6.0% - 4.0% - 2.0%	■ Estimated surpl	al surplus (+/-) for the e lus embedded in the co lus (+/-) in percent of er	st of capital for en-rout	

#### **GREECE**

#### Monitoring of en-route and terminal COST-EFFICIENCY for 2014

#### 7. - General conclusions on the monitoring of the 2014 en-route DUR

#### Notes on information provided by GREECE

#### Note 1: ATSP gearing

Additional information on the sources of financing for the HCAA asset base has been provided since the 2012 Monitoring Report, indicating that HCAA is financed 100% through equity and has no debt. The determined Return on Equity (RoE) reported in item 6 is adjusted from the en-route reporting tables to ensure consistency of the cost of capital with the asset base.

#### At State / Charging Area level

In 2014, Greece's real en-route unit cost (29.55 €2009) is -1.6% lower than planned in the NPP (30.02 €2009). This difference is due to the fact that 2014 actual real en-route costs are -9.8% lower than the determined costs, while the actual number of total en-route service units (TSUs) is also lower than planned (by -8.4%).

The difference between the actual and planned total en-route service units (-8.4%) falls outside the ±2% dead band (but stays inside the -10% threshold) and is therefore partially borne by the airspace users.

#### Actual 2014 costs vs. NPP

The 2014 real en-route costs for Greece are -9.8% lower than planned as a combination of both a -12.4% lower nominal en-route costs and -3.1 percentage point lower inflation index. The cost savings in volume are mostly attributable to HCAA (-8.3% in real terms, -10.9 M€2009) but the savings in percentage terms is higher for both NSA/EUROCONTROL (-16.9% or -2.0 M€2009) and for the MET provider (-22.8% or -2.0 M€2009). NSA/EUROCONTROL costs are affected by the lower EUROCONTROL costs than planned (-2.4 M€2009) while based on the additional information provided with the RP2 Terminal Reporting tables the MET provider (HNMS) has significant savings in staff costs following staff retirements and wage reductions . A detailed analysis of HCAA's costs is provided in

Costs exempt from cost sharing are reported for a total of -2.4 M€2009 to be reimbursed to users for the en-route activity, corresponding to the difference between the planned and actual EUROCONTROL costs.

#### RP1 summary

When considering the whole of RP1 (2012-2014) the actual number of TSUs is -9.6% lower than planned while actual costs in real terms are -8.4% lower than the determined costs (some -38.5 M€2009). As a result, the weighted average unit costs over RP1 are +1.3% higher in real terms than the level planned in the NPP

#### At ATSP level

#### Actual 2014 HCAA costs vs. NPP

HCAA 2014 actual en-route costs are -8.3% lower than planned in real terms. This mainly results from lower than planned staff costs (-7.5 M€2009 or -7.3%) and depreciation (-3.4 M€2009 or -51.4%).

As it was the case for the years 2012 and 2013, staff costs are fairly in line with the actual 2011 figures, reflecting the continuous application of the First and Second Economic Adjustment Programs and staff retirements.

Depreciation costs are significantly below planned levels (-51.4%, or -3.4 M€2009), due to the postponement of the main capex projects (especially Athinai/Makedonia ACC main VCS/RCS and upgrade of the PALLAS System). According to the NSA monitoring report, Greece had no capital expenditure at all, and over the whole RP1 period the total actual capex are only +2.0 M€. As a reference, the NPP for RP1 included a total capex of 26.4 M€, with planned commissioning dates between 2012 and 2016.

#### HCAA net gain/loss and estimated surplus on en-route activity in 2014

As shown in item 5, the en-route activity generated a net gain of +5.6 M€2009 for HCAA overall in 2014. This is the combination of two separate elements:

- a gain of +10.9 M€2009 for HCAA as a result of the cost-sharing mechanism; and
- a loss of -5.3 M€2009 as a result of the traffic risk sharing mechanism for 2014.

To calculate the overall economic surplus of the ATSP, it is also important to add the surplus embedded in the cost of capital through the return on equity. Based on the figures planned in the NPP, the return on equity amounted to +3.2 M€2009, corresponding to an estimated surplus of +2.4% of the en-route costs/revenues for 2014. Ex-post, the estimated surplus for the year computed by adding the surplus embedded in the cost of capital (+3.1 M€2009) and the net gain from the en-route activity in 2014 (+5.6 M€2009), gives a total of +8.7 M€2009, corresponding to +6.9% of the 2014 en-route revenue. The resulting ex-post rate of return on equity for 2014 is +9.3% (compared to +3.3% planned in the NPP).

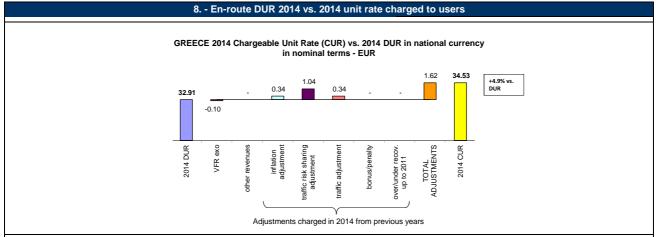
#### Conclusions

Despite significantly lower than expected traffic levels (-8.4%), HCAA reduced its costs sufficiently (-8.3%) to compensate for the loss from traffic risk sharing. When also accounting for the profit embedded in the cost of capital through the return on equity, the en-route activity for the year 2014 generated a net gain of +8.7 M€2009 for HCAA, which implies an ex-post rate of return on equity of +9.3% (compared to +3.3% as initially planned in the NPP).

When considering the whole of RP1 (2012-2014), HCAA could retain a cumulative gain in respect of cost sharing of +29.2 M€2009 as actual costs were lower than planned for all years of RP1. However, HCAA incurred a cumulative loss in respect of traffic risk sharing amounting to -15.7M€2009, and therefore the resulting cumulative net gain for the en-route activity amounts to some +13.5 M€2009.

#### **GREECE**

#### Monitoring of en-route and terminal COST-EFFICIENCY for 2014



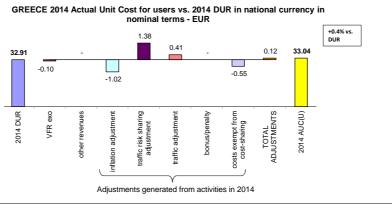
The DUR for 2014 expressed in nominal terms differs from the actual en-route unit rate charged to users in 2014 (CUR).

- the DUR, but also, a deduction of the costs for services to exempted VFR in 2014, as determined prior to the reference period and a deduction of 2014 other revenues;
- as well as adjustments relating to the activities of previous years that are carried-over to 2014. These adjustments include:
- the inflation adjustment:
- \* the adjustment resulting from the implementation of the traffic risk-sharing (ATSP);
- \* the adjustment resulting from the difference in traffic (for costs not subject to traffic risk sharing); \* the bonus/penalty from previous year(s).
- \* the legacy carry-overs incurred in the full cost recovery regime up to and including 2011.

These costs and adjustments are divided by the forecast total service units for 2014 as laid out in the performance plan.

The actual Chargeable Unit Rate (CUR) charged to users in 2014 was 34.53 €. This is +4.9% higher than the nominal DUR (32.91 €). The difference observed between these two figures (+1.62 €) reflects the traffic risk sharing adjustment (+1.04 €), the inflation adjustment carried over from previous years (+0.34 €), adjustments for traffic (+0.34 €) and fo exempted VFR flights (-0.10 €).

#### 9. - En-route DUR 2014 vs. 2014 actual unit cost for users



The DUR for 2014 expressed in nominal terms can also be compared to the actual en-route unit cost for airspace users (AUC-U) for 2014 (also sometimes referred to the "true cost for users"), which reflects the unit cost that the users incur in respect of the activities performed in 2014. The AUC-U comprises:

- the DUR, the deduction of the costs for services to exempted VFR in 2014 and the deduction of 2014 other revenues that has already been billed to the users through the
- as well as adjustments relating to the activities of 2014 but which will be charged or reimbursed to users in future years. These adjustments include:
- the inflation adjustment;
- \* the adjustments resulting from the implementation of the traffic risk-sharing (ATSP);

  \* the adjustments resulting from the difference in traffic (for costs not subject to traffic risk sharing);
- \* the bonus/penalty for the current year;
  \* the costs exempt from cost sharing (if deemed eligible).

These costs and adjustments are divided by the actual total service units in 2014.

The unit cost that the users incurred in respect of the activities performed in 2014 was 33.04 €. This is slightly higher (+0.4%) than the nominal DUR (32.91 €). The small difference observed between these two figures (+0.12 €) reflects the traffic risk sharing adjustment (+1.38 €), the inflation adjustment (-1.02 €), the deduction related to the costs exempt from cost-sharing (-0.55 €), the traffic adjustment (+0.41 €) and the deduction of the costs for services to exempted VFR flights (-0.10 €).

#### **GREECE**

#### Monitoring of en-route and terminal COST-EFFICIENCY for 2014

1	0 Terminal cos	sts and unit ra	tes monitorii	ng (2014)			
		2009	2010	2011	2012	2013	2014
Terminal Service Unit Formula	(MTOW/50)^		0.7	0.7	0.7	0.7	0.7
Number of airports in terminal charging zone			1	1	1	1	1
of which, number of airports over 50 000 movements			1	1	1	1	1
GREECE - Data from RP1 national performance plan		2009A	2010A	2011F	2012P	2013P	2014P
Terminal ANS costs for the charging zones - (in EUR)		27 324 000	25 614 190	25 636 200	25 674 170	25 585 170	25 585 170
Inflation index (100 in 2009)		100.0	104.7	107.4	107.9	108.6	109.6
Real terminal ANS costs - (in EUR2009)		27 324 000	24 464 365	23 878 864	23 795 255	23 557 290	23 335 602
GREECE - Actual data from June 2015 Reporting Tables	S	2009A	2010A	2011A	2012A	2013A	2014A
Terminal ANS costs for the charging zones - (in EUR)		27 324 000	25 613 999	25 636 001	21 002 810	18 265 974	17 248 106
Inflation index (100 in 2009)		100.0	104.7	107.9	109.0	108.0	106.5
Real terminal ANS costs - (in EUR2009)		27 324 000	24 464 182	23 748 978	19 264 187	16 906 062	16 190 644
Total terminal service units			103 899	96 513	83 095	74 587	85 921
Actual real unit costs - (in EUR2009)			235.5	246.1	231.8	226.7	188.4
Unit rate applied - (in EUR)	See Note 2				107.32	137.94	157.33
Difference between Actuals and Planned in absolute va	lue and in percentag	je (Actuals vs. NP	PP)		2012	2013	2014
Terminal ANS costs for the charging zones - (in EUR)	in value				-4 671 360	-7 319 196	-8 337 064
	in%				-18.2%	-28.6%	-32.6%
Inflation index (100 in 2009)	in p.p.				1.1 p.p.	-0.6 p.p.	-3.1 p.p.
Real terminal ANS costs - (in EUR2009)	in value				-4 531 068	-6 651 228	-7 144 958
	in%				-19.0%	-28.2%	-30.6%

#### 11. - General conclusions on the Terminal ANS costs and unit rates monitoring

Greece reports one terminal charging zone comprising one airport (i.e. Athens airport, LGAV), which is the only airport in Greece recording more than 50 000 movements per year. The harmonised SES formula (MTOW/50)^0.7 is already applied for the Greek Terminal Charging Zone/terminal unit rate. The actual 2014 terminal ANS costs are -30.6% (-7.1 M€2009) lower in real terms than planned in the Greek NPP. This difference is mainly driven by lower staff costs (-2.5 M€2009) and non-staff operating costs (-4.0 M€2009). Greece provides no drivers for the change in other operating costs, while it is inferred that the lower staff costs are relating to the adoption of the Government austerity plan, as was the case for en-route. Note 2: The additional information provided with the RP1 terminal reporting tables indicates that in 2014 the Greek Government decided to subsidize 50% of the Terminal Navigation Charge applicable to TANS at Athens airport for the months August to December. From January to September 2014, a rate of 224.10€ was applied. A discounted rate of 42.79€ was applied for Q4 2014. Regarding the 2012-2013 period the subsidies decided were as follows: For the first trimester of 2012, the unit rate applicable was 228,37€ and as from the 1st of April 2012, the discounted unit rate applicable to Greece TCZ was 74,68€. Regarding 2013, the unit rate applicable for the first trimester was 230,50€ and for the period of the 1st of April 2013 until the 31st of December 2013 was 115,25€.

RP1 summary: When considering the whole of RP1 (2012-2014), actual terminal ANS costs are -25.9% lower in real terms (or some -18.3 M€2009) than planned in the NPP. This reflects the fact that terminal ANS costs are lower than planned for every year of RP1.

	12 Monito	ring of gate-to	gate costs (2	2014)			
GREECE - Data from RP1 national performance plan		2009A	2010A	2011F	2012P	2013P	2014P
Real en-route costs (determined costs 2012-2014) - (in EUR2009)		179 113 311	157 961 796	152 408 576	152 928 670	152 420 985	151 322 256
Real terminal ANS costs - (in EUR2009)		27 324 000	24 464 365	23 878 864	23 795 255	23 557 290	23 335 602
Real gate-to-gate ANS costs - (in EUR2009)		206 437 311	182 426 160	176 287 440	176 723 925	175 978 275	174 657 858
Share of en-route costs in gate-to-gate ANS costs		86.8%	86.6%	86.5%	86.5%	86.6%	86.6%
GREECE - Actual data from June 2015 Reporting Table	es	2009A	2010A	2011A	2012A	2013A	2014A
Real en-route costs - (in EUR2009)		179 113 311	157 961 796	144 841 416	142 612 925	139 122 219	136 453 451
Real terminal ANS costs - (in EUR2009)		27 324 000	24 464 182	23 748 978	19 264 187	16 906 062	16 190 644
Real gate-to-gate ANS costs - (in EUR2009)		206 437 311	182 425 978	168 590 395	161 877 112	156 028 282	152 644 095
Share of en-route costs in gate-to-gate ANS costs		86.8%	86.6%	85.9%	88.1%	89.2%	89.4%
Difference between Actuals and Planned in absolute v	alue and in percenta	ge (Actuals vs. NF	PP)		2012	2013	2014
Real en-route costs - (in EUR2009)	in value				-10 315 744	-13 298 766	-14 868 805
	in %				-6.7%	-8.7%	-9.8%
Real terminal ANS costs - (in EUR2009)	in value				-4 531 068	-6 651 228	-7 144 958
	in %				-19.0%	-28.2%	-30.6%
Real gate-to-gate ANS costs - (in EUR2009)	in value				-14 846 812	-19 949 993	-22 013 763
	in %				-8.4%	-11.3%	-12.6%
Share of en-route costs in gate-to-gate ANS costs	in p.p.				1.6 p.p.	2.6 p.p.	2.8 p.p

#### 13. - General conclusions on the gate-to-gate ANS costs

Real 2014 gate-to-gate costs are -12.6% lower than planned following reductions both in en-route (-14.9 M€2009, -9.8%) and terminal (-7.1 M€2009, -30.6%) ANS costs compared to planned costs.

As a result of these trends, the share of en-route in total gate-to-gate costs reaches 89.4% in 2014 (compared to 86.6% in the NPP). It should be noted that only one airport (Athens airport) is reported as subject to the SES regulations.





# PRB Annual Monitoring Report 2014

Hungary

Working Draft 2.0

Edition date: 03/09/2015



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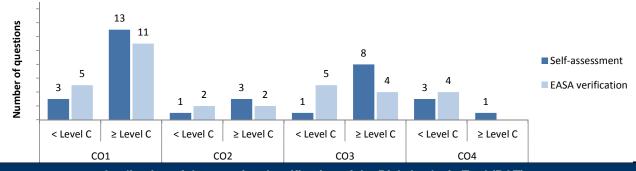
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# Monitoring of SAFETY indicators for 2014

Effectiveness of Safety Management										
	2012	2013	2014	State level Observations						
State level	47	47	42							
ANSP [HungaroControl]	84	84	77							
ANSP [Budapest Airport]	44	41	77							



# Application of the severity classification of the Risk Analysis Tool (RAT)

		20	2012		2013		2014	
		No reported	Assessed (%)	No reported	Assessed (%)	No reported	Assessed (%)	
Separation Minima Infringements (SMIs)	ATM Ground	0	N/A	13	100%	28	100%	
	ATM Overall	U	N/A		85%		100%	
Runway Incursions (RIs)	ATM Ground	1	0%	3	33%	3	100%	
Runway incursions (Ris)	ATM Overall	'	0%		0%		100%	
ATM Specific Occurences (ATM-Specific)	ATM Overall	302	100%	392	100%	266	100%	
Source of RAT data:		KBS7						

Preliminary results updated after coordination with the AST-FP in August 2015.

Just culture									
	State								
Number of questions answered with Yes or No	20	12	20	13	2014				
	YES	NO	YES	NO	YES	NO			
Policy and its implementation	2	8	2	8	2	7			
Legal/Judiciary	3	5	3	5	3	4			
Occurrence reporting and Investigation	1	1	1	1	1	1			
TOTAL	6	14	6	14	6	12			

	ANSP [HungaroControl]							
Number of questions answered with Yes or No	2012		2013		2014			
	YES	NO	YES	NO	YES	NO		
Policy and its implementation	7	6	12	1	13	0		
Legal/Judiciary	1	2	2	1	2	1		
Occurrence reporting and Investigation	4	4	6	2	7	1		
TOTAL	12	12	20	4	22	2		

	ANSP [Budapest Airport]								
Number of questions answered with Yes or No	2012		2013		2014				
	YES	NO	YES	NO	YES	NO			
Policy and its implementation	4	9	3	10	5	8			
Legal/Judiciary	2	1	2	1	2	1			
Occurrence reporting and Investigation	5	3	4	4	6	2			
TOTAL	11	13	9	15	13	11			

#### Monitoring of CAPACITY indicators for 2014

Minutes of ATFM en-route delay											
	2012	2013	2014	Observations							
Reference value	0.03	0.07	0.07								
National Target	0.3	0.07	0.03								
Actual performance	0	0	0								

#### National capacity assessment

The Hungarian ANSP has outstanding performance in capacity terms, considering the reference value provided by EUROCONTROL and the contribution of Hungary to capacity targets at FAB and European level.

#### Military dimension of the plan

Although specifically requested in IR 691/2010 Annex II Template for Performance Plans, paragraph 4: the Performance Plan for Hungary did not contain any specific details of how FUA would be applied to increase capacity.

#### **PRB Capacity assessment**

With the excellent capacity performance since 2012, Hungary has exceeded the national target and the level of performance required to be consistent with the EU-wide target. The political crisis in Ukraine led to an increase in traffic in Hungary despite this adverse effect Hungary handled in a most effective manner the demand with a minimum delay to airspace users. The PRB welcomes the commitment from Hungary to provide good capacity performance and is confident that such situation positive contribution will prevail in future.

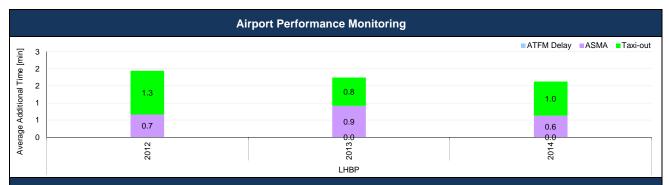
#### Effective booking procedures

The ratio of time airspace was actually used for activity requiring segregation or restriction from GAT and the amount of time it was allocated as being restricted on the day of operations: 30%

No information was provided regarding the allocation of airspace at H-3, so it is impossible to determine how much restricted or segregated airspace, that was surplus to requirements, was released for GAT use.

#### Recommendations

#### Monitoring of CAPACITY indicators for 2014



#### **Airport Data** Average of Total Additional Total Sum of Total Apt. Additional ICAO Apt. ATFM Additional taxi-out Additional Total **Airport Name RP1 Year** ATFM arr. **ASMA** time arr. Delay ASMA time Additional Code time taxi-out delay [min.] [min./arr.] [min./arr.] time [total] Time [min] [min] [min./dep.] 0.7 0 28 418 1.3 49 334 77 752 2012 0.0 Budapest/Ferihegy LHBP 0.0 0.9 37 126 8.0 32 912 2013 124 70 162 2014 0.0 41 0.6 26 478 1.0 40 854 67 373 2012 0.0 0 0.7 28 418 1.3 49 334 77 752 Total 2013 0.0 124 0.9 37 126 0.8 32 912 70 162 2014 0.0 41 0.6 26 478 1.0 40 854 67 373 2014-2013 0.0 -83 -0.3 -2 790 -10 648 0.2 7 942 **Absolute Difference** 2014-2012 0.0 41 -0.0 -1 940 -0.3 -8 480 -10 379

#### **Critical Issues**

• None

#### Specific Analysis

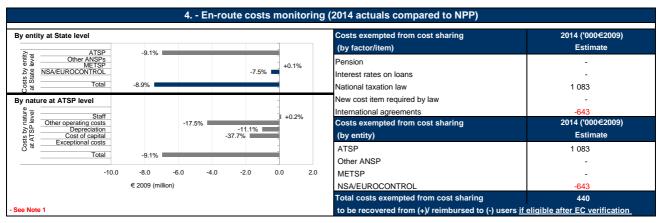
- In average over RP1, total additional time decreased by 13% at Budapest Airport for a traffic volume that remained relatively constant (+1%). ATFM arrival delay is insignificant. It is believed that the introduction of Continuous Descent Operations enabled additional ASMA time to be reduced.
- Additional ASMA time decreased at Budapest airport in 2014. The introduction of continuous descent operations at Budapest airport in 2013 is a potential cause of this improvement.

#### Monitoring of en-route and terminal COST-EFFICIENCY for 2014

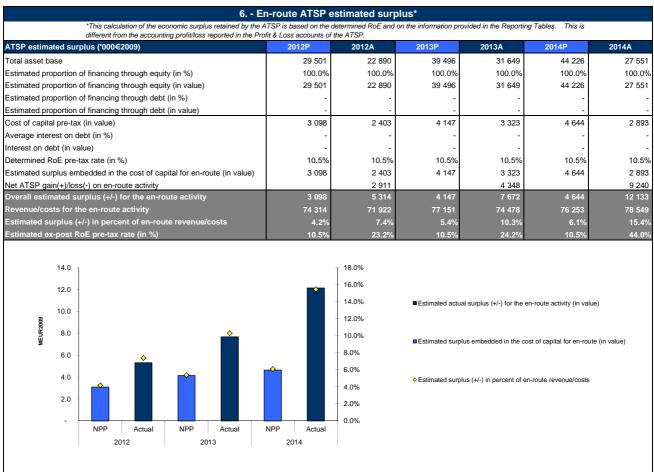


		exchange rate 2014								• TNC	
In 2014, the	HUF o	depreciated by 4.1%	compared to	2013.							
							<u>l</u>				
				2	En-route	DUR monito	ring (2014)				
UNGARY - D	ata fro	m RP1 national perf	ormance plar	1		2009A	2010A	2011F	2012P	2013P	2014P
n-route costs	(detern	nined costs 2012-201	4) - (in nomina	al HUF)		18 270 090 911	22 847 491 091	24 913 550 640	25 989 958 427	27 665 785 366	28 157 420 1
flation %							4.9%	4.1%	3.5%	3.0%	3.0
flation index						100.0	104.9	109.2		116.4	
	,	etermined costs 2012	2-2014) - (in H	UF2009)			21 780 258 428				
otal en-route						2 038 443	2 091 322	2 139 950	2 122 692	2 154 532	2 186 8
		ests per Service Unit	•	-		8 962.77	10 414.59	10 662.52		11 031.65	
		sts per Service Uni	•			32.04	37.23	38.12		39.44	
UNGARY - A n-route costs		ata from Jun-2015 F	Reporting Tab	oles	t Con Note 4	2009A	2010A	2011A	2012A	2013A	2014A
n-route costs Iflation %	- (in ne	ominai HUF)			* See Note 1	18 270 090 911	22 847 491 091			1.7%	
nflation %	(100 in	2000)				100.0	4.9% 104.9	3.9% 109.0	5.7% 115.2	117.2	0.0
teal en-route		•			* See Note 1		21 780 258 428				
		,			See Note 1		2 091 322				
otal en-route			4- (in IIIIF20	100)	* See Note 1	2 038 443		2 067 028	2 023 649	2 101 186	
		ests per Service Unit	•	•	See Note 1	8 962.77 32.04	10 414.59 37.23	10 536.12 37.67	10 567.69 37.78	10 288.47 36.78	8 890 31
		Actuals and Planned			percentage (A	1	37.23	37.67	2012	2013	2014
n-route costs			,-m-assorate	varue anu III	in value	Madio Vo. NIT)			-1 353 330 709		
	(41.71)				in %				-5.2%	-8.4%	
nflation %					in p.p.				2.2 p.p.	-1.3 p.p.	-3.0 p
nflation index	(100 in	2009)			in p.p.				2.2 p.p.	0.8 p.p.	-2.7 p
Real en-route of					in p.p.					-2 150 056 699	-
todi on rodio t	,000	(111101 2000)			in %				-7.0%	-9.0%	-8.9
otal en-route	Service	Units			in value				-99 043	-53 346	
otal cir routo	0011100	Onito			in %				-4.7%	-2.5%	10.
eal en-route	unit co	sts per Service Uni	ts - (in HUF20	109)	in value				-266.74	-743.18	
			(	,	in %				-2.5%	-6.7%	
teal en-route	unit co	sts per Service Uni	ts - (in EUR20	009)	in value				-0.95		
			(	,	in %				-2.5%	-6.7%	
Index (2009=100)	120 - 110 - 100 - 90 - 80 - 70 -			-1.2%	-2.	5% -6.7		- 70 6000 - 60 9810 - 50 70 70 - 20 - 20 10 10 10 10 10 10 10 10 10 10 10 10 10	1	En-route unit costs  En-route costs (NP 2012-14)  En-route costs (act  En-route TSU (NPF  En-route TSU (actu	P, DC ual)
TSUs (millons)	2.5 2.4 2.3 2.2 2.1 2.0		3 En-rot	ute traffic	monitoring	(Actual 2012	-2014 TSU co	ompared to N	NPP	r TSUs (+/- 2% dead threshold) all TSUs	fband; +/-
	1.9	2009	2010	) 20	011 20	012 20	13 201	4			

#### Monitoring of en-route and terminal COST-EFFICIENCY for 2014



Cost sharing ('000€2009)	2014A					
Determined costs for the ATSP (NPP)	76 253	Combined effect of variations in costs and traffic for 2014 ('000€2009)				
Actual costs for the ATSP - See Note 1	69 309	, ,				
Difference in costs: gain (+)/Loss (-) retained/borne by the ATSP	6 944					
Amounts excluded from cost sharing to be recovered from (+) reimbursed to (-) users	1 083	Gain/loss from cost sharing				
Gain (+)/Loss (-) to be retained by the ATSP in respect of cost sharing	8 027					
Fraffic risk sharing ('000€2009)	2014A					
Difference in total service units (actual vs NPP)	10.10%	Gain/loss from traffic risk sharing				
Determined costs after deduction of costs for exempted VFR flights	76 775					
ATSP gain (traffic between 0 and +2% higher than NPP)	1 536		1			
ATSP gain (traffic between +2% and +10% higher than NPP)	1 843	Bonus/penalty from incentives				
ATSP loss (traffic between 0 and -2% below NPP)	-					
ATSP loss (traffic between -2% and -10% below NPP)	-		_			
Gain (+)/Loss (-) to be retained by the ATSP in respect of traffic risk sharing	3 378					
ncentives ('000€2009)	2014A	Net ATSP gain/loss				
ATSP bonus (+) / penalty (-) - See Note 2	-2 165	-8.00	0 -4 000 0 4 000 8 000 12 000			
Gain (+)/Loss (-) to be retained by the ATSP in respect of incentives	-2 165	<	ATSP loss ATSP gain			
Net ATSP gain(+)/loss(-) on en-route activity	9 240		7			



#### Monitoring of en-route and terminal COST-EFFICIENCY for 2014

#### 7. - General conclusions on the monitoring of the 2014 en-route DUR

#### Notes on information provided by HUNGARY

#### Note 1: ATS provision in Kosovo (KFOR sector)

HungaroControl has been designated for the provision of air traffic services in the upper airspace over Kosovo (KFOR sector) for 5 years, starting from 3 April 2014. The actual costs for 2014 for Hungary en-route charging zone include cost for these services (e.g. ATCO staff cost), which are recovered through the charges of Serbia-Montenegro-KFOR en-route charging zone (outside the SES area). In agreement with the European Commission, Hungary committed to deduct the income received for the services provided to the KFOR sector as 'other revenues' in the Hungarian cost base to avoid double charging.

#### Note 2: The net gain for HungaroControl's en-route activity in 2014

The net gain for HungaroControl's enroute activity in 2014 has been reduced by an amount of -709.5 million HUF (2.2 M€2009) corresponding to a decrease in the "asset management fee" agreed with the users and reimbursed through "other revenues" deducted for the calculation of the 2014 unit rate (the determined costs have not been revised). For transparency purposes, this amount is presented as a penalty in the table and graph of item 5 in this report.

#### Note 3: Costs exempt from cost sharing

Hungary has adjusted the costs exempt from cost sharing (former "uncontrollable costs") for the years 2012 and 2013 following the EC recommendation communicated during the Single Sky Committee 55 meeting held on 14-15 January 2015. For this reason, the net ATSP gain/loss for the en-route activity reported in this report for 2012 and 2013 differ slightly from the information published in the PRB 2013 Monitoring Report.

#### At State / Charging Area level

In 2014, Hungary's actual real en-route unit cost (31.79 €2009) was -17.2% lower than planned in the NPP for RP1 (38.40 €2009). This difference is due to the fact that in 2014 the actual total service units (TSUs) were higher than planned by +10.1%, while real en-route costs were lower (-8.9%) compared to the Hungary's National Performance Plan for RP1 (NPP). Note that the actual real en-route unit cost for 2014 after deduction of the costs for services provided in the K-FOR sector (see Note 1) is 31.10 €2009, i.e. -19.0% lower than planned in the NPP for RP1.

The actual 2014 en-route traffic (TSU) is significantly higher (+10.1%) than the traffic planned in the NPP and it shows a significant increase of +14.6% compared to the level of 2013. The difference between planned and actual traffic falls outside of the ± 2% deadband and above the +10% threshold foreseen in the traffic risk sharing mechanism. This significant increase in traffic is mainly due to the major changes in traffic patterns in South-East Europe, i.e. re-routings due to airspace unavailability in Ukraine

#### Actual 2014 costs vs. NPP

The Hungarian en-route cost-base includes costs related to the Hungarian ATSP (HungaroControl), to the MET Service Provider, to the Hungarian NSA and to the EUROCONTROL Agency.

The 2014 actual total en-route costs for Hungary are -8.9% lower than the determined costs in real terms (-10.8% 2014 after deduction of the costs for services provided in the K-FOR sector (see Note 1). This evolution is mainly due to the lower costs recorded for HungaroControl (-9.1% or some -6.9 M€2009 (-11.3% or some -8.6 M€2009 without costs for services provided in the K-FOR sector) as described in the section below. The costs are also lower than planned for the NSA/EUROCONTROL (-7.5%), while the actual costs are slightly higher than planned for the METSP (+0.1%).

It is important to note that the inflation was significantly lower than planned (-3.0 p.p.) which also influenced the level of expenses downwards.

Costs exempt from cost sharing for 2014 are reported for an amount of +0.4 M€2009 to be recovered from airspace users for the en-route activity. These costs will be eligible for carry-over to the following reference period(s), if deemed allowed by the European Commission after verification on the basis of the NSA report establishing and justifying these exemptions

#### RP1 summary

When considering the whole RP1 (2012-2014), the actual number of TSUs is +1.1% higher than planned, while determined costs are -8.3% lower than planned in real terms (some -20.9 M€2009). As a result, the actual weighted average unit cost over RP1 is -9.3% lower than the level planned in the NPP.

#### At ATSP level

#### Actual 2014 HungaroControl costs vs. NPP

In 2014, HungaroControl's actual real en-route costs are lower by -9.1% than planned in the NPP for RP1.

Staff costs have remained quite stable (+0.2%) compared to the amount planned in the NPP mainly due to significantly lower inflation, lower staff costs in case of new employees and lower bonus than planned

Significant savings were made with respect to other operating costs (-17.5% compared to the amounts planned in the NPP) due to the lower than planned maintenance costs, related materials and electricity costs. As in 2012 and 2013, cost savings continued in the field of corporate trainings, advisory services and travelling costs. However, the main driver is the modification of asset management fee resulting in a saving of about -709.5 MHUF (-2.2 M€2009).

Depreciation costs are -11.1% lower than the amount planned in the NPP for 2014. According to the Hungarian Additional Information to the June 2015 en-route reporting tables due to the impact of the change in accounting policy related to ANS I and II and the delays in capitalisation of several investments"

Regarding the cost of capital, the capital employed in 2014 was lower than planned due to some investments which did not materialize in 2014 and which were postponed. The actual cost of capital is significantly lower than planned (-37.7%), which reflects the fact that a lower asset base than planned (-37.7%) was used to compute the ATSP's cost of capital in 2014. According to the Hungarian NSA Monitoring Report, the capex spent by HungaroControl on main investment projects is -36.4% lower than planned. The reason is that some investments planned for CAPEX in 2014 were shifted and did not materialize in 2014.

#### HungaroControl net gain/loss and estimated surplus on en-route activity in 2014

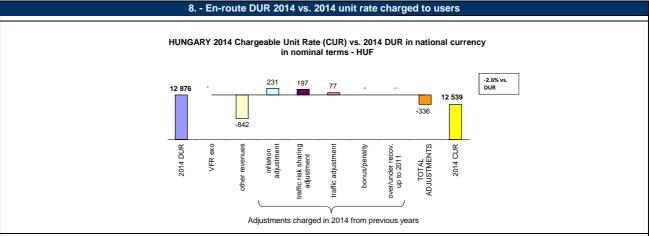
As shown in item 5, the en-route activity for the year 2014 generated a net gain of +9.2 M€2009 for HungaroControl overall. This is the combination of three separate elements:

- a gain of +8.0 M€2009 for HungaroControl as a result of the cost-sharing mechanism, taking into account the costs exempt from cost sharing as submitted in the Reporting Tables (1.1 M€2009):
- a gain of +3.4 M€2009 as a result of the traffic risk sharing mechanism for 2014; and,
- a loss of -2.2 M€2009 recorded as penalty (see Note 2).

On the economic surplus side for the en-route activity, the ex-ante estimated surplus embedded in the cost of capital through the return on equity planned in the NPP amounted to +4.6 M€2009, corresponding to an estimated surplus of +6.1% of the en-route costs/revenues for 2014. Ex-post, the estimated surplus for the year computed by adding the surplus embedded in the actual cost of capital (+2.9 M€2009) and the net gain from the en-route activity in 2014 (+9.2 M€2009), gives a total of +12.1 M€2009 for 2014, corresponding to +15.4% of the en-route revenue in 2014. The resulting ex-post rate of return on equity for 2014 is +44.0% (compared to +10.5% as initially planned in the NPP).

When considering the whole RP1 (2012-2014), HungaroControl could retain a cumulative gain of +16.5 M€2009 (i.e. a gain of +21.1 M€2009 in respect of cost-sharing, a loss of -0.2 M€2009 in respect of traffic risk-sharing and -4.4 M€2009 for the asset management fee reimbursed to users for 2013 and 2014. Adding the estimated surplus embedded in the cost of capital for en-route (+8.6 M€2009 over RP1) gives an overall estimated surplus of +25.1 M€2009, which corresponds to an average ex-post return on equity of

#### Monitoring of en-route and terminal COST-EFFICIENCY for 2014



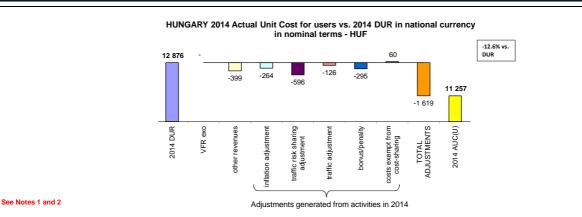
The DUR for 2014 expressed in nominal terms differs from the actual en-route unit rate charged to users in 2014 (CUR).

- the DUR, but also, a deduction of the costs for services to exempted VFR in 2014, as determined prior to the reference period and a deduction of 2014 other revenues;
- as well as adjustments relating to the activities of previous years that are carried-over to 2014. These adjustments include:
- the inflation adjustment:
- \* the adjustment resulting from the implementation of the traffic risk-sharing (ATSP);
- \* the adjustment resulting from the difference in traffic (for costs not subject to traffic risk sharing); \* the bonus/penalty from previous year(s).
- \* the legacy carry-overs incurred in the full cost recovery regime up to and including 2011.

These costs and adjustments are divided by the forecast total service units for 2014 as laid out in the performance plan.

The unit rate charged to airspace users (CUR) in 2014 (12 539 HUF) is -2.6% lower than the determined unit rate (DUR) expressed in nominal terms (12 876 HUF) since the amounts from the different adjustments were compensated by the other revenues. Other revenues include E.U. fundings, HungaroControl commercial revenues (renting offices and selling the AIP and schedule data), and a reimbursement of property management fee for 2013 and 2014 (MHUF 1 424 or some 4.4 M€2009) stemming from the new property management concept based on the consultation with IATA (see Note 1).

#### 9. - En-route DUR 2014 vs. 2014 actual unit cost for users



The DUR for 2014 expressed in nominal terms can also be compared to the actual en-route unit cost for airspace users (AUC-U) for 2014 (also sometimes referred to the "true cost for users"), which reflects the unit cost that the users incur in respect of the activities performed in 2014. The AUC-U comprises:

- the DUR, the deduction of the costs for services to exempted VFR in 2014 and the deduction of 2014 other revenues that has already been billed to the users through the
- as well as adjustments relating to the activities of 2014 but which will be charged or reimbursed to users in future years. These adjustments include:
  - the inflation adjustment;
- \* the adjustments resulting from the implementation of the traffic risk-sharing (ATSP);

  \* the adjustments resulting from the difference in traffic (for costs not subject to traffic risk sharing);
- \* the bonus/penalty for the current year;
  \* the costs exempt from cost sharing (if deemed eligible).

These costs and adjustments are divided by the actual total service units in 2014.

The actual en route unit cost for airspace users calculated for 2014 (11 257 HUF) is significantly lower (-12.6%) than the DUR (12 876 HUF) due to a combination of different adjustments, the deduction of other revenues (including the costs for services provided in the KFOR sector in respect of 2014) and the reimbursement of the property management fee for 2014 (recorded as penalty above).

#### Monitoring of en-route and terminal COST-EFFICIENCY for 2014

10	) Terminal cos	sts and unit ra	ates monitori	ng (2014)			
		2009	2010	2011	2012	2013	2014
Terminal Service Unit Formula	(MTOW/50)^	0.5	0.7	0.7	0.7	0.7	0.7
Number of airports in terminal charging zone		1	1	1	1	1	1
of which, number of airports over 50 000 movements		1	1	1	1	1	1
HUNGARY - Data from RP1 national performance plan		2009A	2010A	2011F	2012P	2013P	2014P
Terminal ANS costs for the charging zones - (in HUF)		5 226 995 382	5 527 709 352	5 958 387 520	5 093 821 268	5 528 644 684	5 788 537 370
Inflation index (100 in 2009)		100.0	104.9	109.2	113.0	116.4	119.9
Real terminal ANS costs - (in HUF2009)		5 226 995 382	5 269 503 672	5 457 035 332	4 507 454 723	4 749 732 216	4 828 164 544
Real terminal ANS costs - (in EUR2009)		18 687 930	18 839 909	19 510 386	16 115 377	16 981 585	17 262 001
HUNGARY - Actual data from June 2015 Reporting Table	es	2009A	2010A	2011A	2012A	2013A	2014A
Terminal ANS costs for the charging zones - (in HUF)		5 226 995 382	5 527 709 819	5 370 415 741	4 708 465 096	4 499 023 759	4 391 136 711
Inflation index (100 in 2009)		100.0	104.9	109.0	115.2	117.2	117.2
Real terminal ANS costs - (in HUF2009)		5 226 995 382	5 269 504 117	4 927 389 246	4 087 081 822	3 840 000 763	3 747 167 720
Real terminal ANS costs - (in EUR2009)		18 687 930	18 839 910	17 616 757	14 612 429	13 729 047	13 397 144
Total terminal service units		55 535	55 839	58 857	49 524	49 128	50 928
Actual real unit costs - (in HUF2009)		94 121.4	94 369.6	83 718.5	82 527.3	78 163.2	73 578.2
Unit rate applied - (in HUF)					93 707	111 789	119 071
Difference between Actuals and Planned in absolute val	ue and in percentag	je (Actuals vs. Ni	PP)		2012	2013	2014
Terminal ANS costs for the charging zones - (in HUF)	in value				-385 356 172	-1 029 620 924	-1 397 400 658
	in%				-7.6%	-18.6%	-24.1%
Inflation index (100 in 2009)	in p.p.				2.2 p.p.	0.8 p.p.	-2.7 p.p.
Real terminal ANS costs - (in HUF2009)	in value				-420 372 900	-909 731 452	-1 080 996 824
	in%				-9.3%	-19.2%	-22.4%
Real terminal ANS costs - (in EUR2009)	in value				-1 502 947	-3 252 537	-3 864 858
	in%				-9.3%	-19.2%	-22.4%

# 11. - General conclusions on the Terminal ANS costs and unit rates monitoring

The terminal charging zone of Hungary comprises one airport, Budapest Ferenc Liszt International Airport, which handles more than 50 000 airport movements per year. The harmonised SES formula (MTOW/50)\*0.7 already applies in the Hungarian Terminal Charging Zone.

The basic unit rate established for 2014 was 119 071 HUF. The Hungarian terminal charges are charged in euro, and the unit rate expressed in euro is adjusted on a monthly

Actual terminal ANS 2014 costs are -22.4% lower than the forecast presented in the NPP for the year 2014 (some -3.9 M€2009), which reflects lower level of staff costs (-15.6%), other operating costs (-14.6%), depreciation (-53.8%) and cost of capital (-63.2%).

The actual terminal traffic for 2014 was 50 928 service units, which is +3.7% higher than the level in 2013.

When considering the whole RP1 (2012-2014), actual terminal ANS costs in real terms were lower than planned in the NPP for every year (-9.3% in 2012, -19.2% in 2013 and -22.4% in 2014). As a result, the cumulative actual terminal ANS costs are -17.1% (some -8.6 M€2009) lower than planned in the NPP for RP1.

	12 Monitor	ing of gate-to	-gate costs (2	2014)			
HUNGARY - Data from RP1 national performance plan		2009A	2010A	2011F	2012P	2013P	2014P
Real en-route costs (determined costs 2012-2014) - (in HUF20	109)	18 270 090 911	21 780 258 428	22 817 268 201	22 998 168 700	23 768 044 350	23 485 839 168
Real terminal ANS costs - (in HUF2009)		5 226 995 382	5 269 503 672	5 457 035 332	4 507 454 723	4 749 732 216	4 828 164 544
Real gate-to-gate ANS costs - (in HUF2009)		23 497 086 293	27 049 762 101	28 274 303 533	27 505 623 423	28 517 776 566	28 314 003 712
Real gate-to-gate ANS costs - (in EUR2009)		84 008 474	96 710 257	101 088 325	98 340 085	101 958 808	101 230 264
Share of en-route costs in gate-to-gate ANS costs		77.8%	80.5%	80.7%	83.6%	83.3%	82.9%
HUNGARY - Actual data from June 2015 Reporting Tables		2009A	2010A	2011A	2012A	2013A	2014A
Real en-route costs - (in HUF2009)	- See Note 1	18 270 090 911	21 780 258 428	21 778 447 107	21 385 294 625	21 617 987 651	21 407 025 575
Real terminal ANS costs - (in HUF2009)		5 226 995 382	5 269 504 117	4 927 389 246	4 087 081 822	3 840 000 763	3 747 167 720
Real gate-to-gate ANS costs - (in HUF2009)	- See Note 1	23 497 086 293	27 049 762 546	26 705 836 353	25 472 376 447	25 457 988 414	25 154 193 296
Real gate-to-gate ANS costs - (in EUR2009)		84 008 474	96 710 258	95 480 629	91 070 674	91 019 233	89 933 083
Share of en-route costs in gate-to-gate ANS costs		77.8%	80.5%	81.5%	84.0%	84.9%	85.1%
Difference between Actuals and Planned in absolute value	and in percenta	ge (Actuals vs. N	PP)		2012	2013	2014
Real en-route costs - (in HUF2009)	in value				-1 612 874 075	-2 150 056 699	-2 078 813 593
	in %				-7.0%	-9.0%	-8.9%
Real terminal ANS costs - (in HUF2009)	in value				-420 372 900	-909 731 452	-1 080 996 824
	in %				-9.3%	-19.2%	-22.4%
Real gate-to-gate ANS costs - (in HUF2009)	in value				-2 033 246 975	-3 059 788 152	-3 159 810 417
	in %				-7.4%	-10.7%	-11.2%
Real gate-to-gate ANS costs - (in EUR2009)	in value				-7 269 411	-10 939 575	-11 297 182
	in %				-7.4%	-10.7%	-11.2%
Share of en-route costs in gate-to-gate ANS costs	in p.p.				0.3 p.p.	1.6 p.p.	2.2 p.p.

#### 13. - General conclusions on the gate-to-gate ANS costs

In 2014, Hungary actual gate-to-gate ANS costs are -11.3 M€2009 lower than planned in the NPP.

The relative share of en-route costs in gate-to-gate ANS costs (85.1%) is higher than planned (82.9%) and has gradually increased since 2009 from 77.8% to 85.1% in 2014.





# PRB Annual Monitoring Report 2014

Ireland

Working Draft 2.0

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# **Monitoring of SAFETY indicators for 2014**

						,	i ilialoato			
	E	ffectivene	ss of Safet	y Managen	nent					
	2014		State le	evel Obser	vations					
State level 85 85										
AA]	79	77	81							
CO1		CO2		CO3		C ≥ Level (	■ EASA	ssessment verification		
Applicati	on of the s	severity cla	assification	of the Ris	k Analysis	Tool (RA	Γ)			
				12	20	13	20	14		
			No reported	Assessed (%)	No reported	Assessed (%)	No reported	Assessed (%)		
on Minima nents (SMIs)			18	100% 100%	13	100% 100%	7	100% 100%		
Incursions (RIs)		ATM Ground ATM Overall		72% 72%	17	100% 71%	23	100% 100%		
ATM Specific Occurences (ATM-Specific)  ATM Overall			37	46%	37	100%	44	100%		
Source of RA	Γ data:		IAA							
			Just cultu	ıre						
					Sta	ate				
of questions answe	ered with \	es or No	20	12	1		2014			
4				NO	YES	NO	YES	NO		
Policy and its implementation				1	9	1	8	1		
Legal/Judiciary				0	8	0	7	0		
Occurrence reporting and Investigation			2	0	2	0	2	0		
TOTAL			19	1	19	1	17	1		
					ANSE	ΓΙΔΔΊ				
Number of questions answered with Yes or No			20	12	1		20	14		
The state of the s				NO	YES	NO	YES	NO		
Policy and its imple	ementation		11	2	12	1	12	1		
Legal/Judic	ary		3	0	3	0	3	0		
Occurrence reporting and Investigation				3	5	3	7	1		
	AA]    Continuation   Continuation	el 85  AA] 79  AA] 79 Application of the second of questions answered with 10 policy and its implementation Legal/Judiciary Legal/Judiciary Policy and its implementation Legal/Judiciary Legal/Judiciary Policy and its implementation Legal/Judiciary	el 85 85  AA] 79 77    16 16   16   16   16   16   16   16	2012   2013   2014     el	2012   2013   2014	S	Continue	Column		

TOTAL

#### **Monitoring of CAPACITY indicators for 2014**

Minutes of ATFM en-route delay										
	2012	2013	2014	Observations						
Reference value	0.09	0.13	0.14							
National Target	0.07	0.12	0.14							
Actual performance	0	0	0							

#### **National capacity assessment**

In terms of achievement of its Capacity targets for 2014, Ireland's actual performance exceeded that set for the specific target "Minutes of en-route ATFM delay per flight" (where actual delay per flight experienced in 2014 was zero).

#### **PRB Capacity assessment**

The excellent capacity performance in 2012 and 2013, continued in 2014, with Ireland surpassing the national target and the effort required to be consistent with the Union-wide target.

#### **Effective booking procedures**

The national monitoring report contained no information regarding airspace bookings via the AUP methodology.

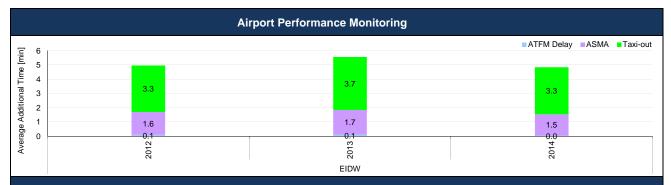
The PRB is mindful, however, that in 2012, the Irish NSA stated that the allocation and activation of restricted and segregated areas has no adverse impact on available ATC capacity or on available route options.

The national monitoring report did contain data regarding airspace allocations made on the day of operations, the Procedure 3 method.

When airspace allocations were made on the day of operations, the ratio of time airspace was actually used for activity requiring segregation or restriction from GAT and the amount of time it was allocated as being restricted was 92%.

#### Recommendations

#### Monitoring of CAPACITY indicators for 2014



#### **Airport Data** Average of Total Additional Total Sum of Total Apt. Additional **ICAO** Apt. ATFM Additional taxi-out Additional Total **Airport Name RP1 Year** ATFM arr. **ASMA** time Code arr. Delay ASMA time time taxi-out Additional delay [min.] [min./arr.] time [total] Time [min] [min./arr.] [min] [min./dep.] 378 123 2012 0.1 8 321 1.6 124 167 3.3 245 635 Dublin **EIDW** 0.1 2013 9 543 1.7 142 650 3.7 294 214 446 407 2014 0.0 4 335 130 979 266 468 401 781 1.5 3.3 2012 0.1 8 321 1.6 124 167 3.3 245 635 378 123 Total 2013 0.1 9 543 1.7 142 650 3.7 294 214 446 407 2014 0.0 4 335 1.5 130 979 3.3 401 781 266 468 2014-2013 -0.1 -5 208 -0.2 -11 672 -0.4 -27 746 -44 626 **Absolute Difference** 2014-2012 -0.1 -3 986 -0.1 6 811 0.0 20 833 23 658

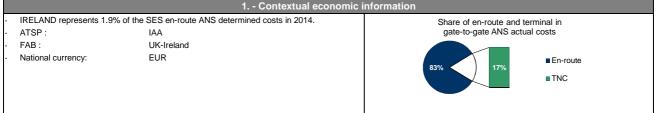
• None

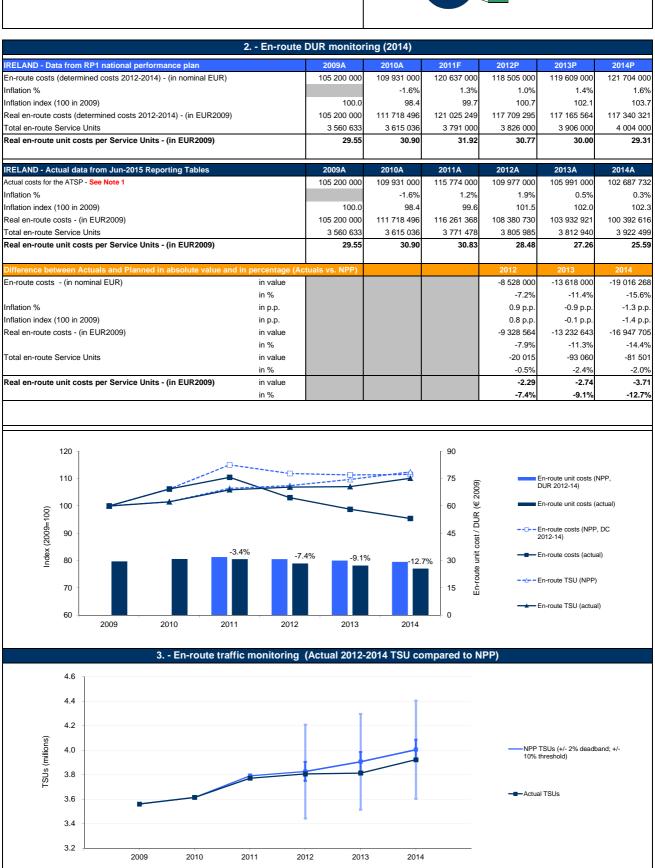
#### **Specific Analysis**

**Critical Issues** 

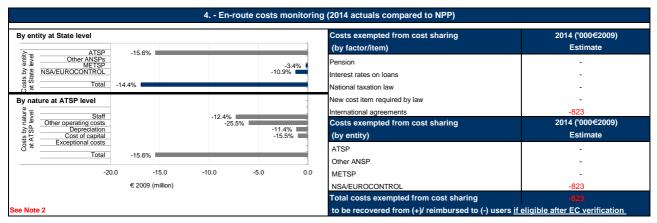
• In average over RP1, total additional time increased by 6% at Dublin Airport, with additional taxi-out time which represents the two third of total delay. It is to be noted that traffic increase by 10%. ATFM arrival delay remains insignificant compared to additional ASMA and taxi-out times.

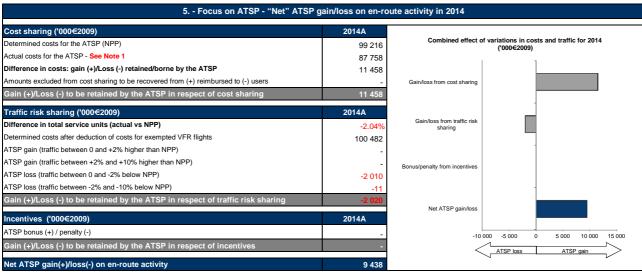
#### Monitoring of en-route and terminal COST-EFFICIENCY for 2014

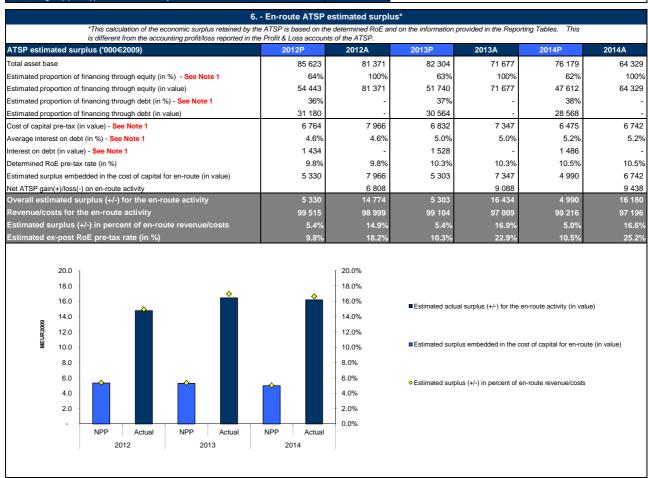




#### Monitoring of en-route and terminal COST-EFFICIENCY for 2014







#### Monitoring of en-route and terminal COST-EFFICIENCY for 2014

#### 7. - General conclusions on the monitoring of the 2014 en-route DUR

#### Notes on information provided by IRELAND

#### Note 1: Return on equity (RoE) and the Cost of capital (WACC)

In items 2 and 4, the reported actual cost of capital for the year 2014 is based on the June 2015 Reporting Tables, using an assumption of 37% debt financing. However, it is understood from the IAA 2014 Annual Report (p.41) that in 2014 IAA was 100% equity financed. The analysis provided in items 5 and 6 of this report is therefore based on an estimated proportion of financing through equity of 100%, which is significantly higher than that used in the Performance Plan (62%).

#### Note 2: Other Revenues

In the Additional Information provided with the June 2015 en-route and terminal Reporting Tables, Ireland indicates that "The IAA recognised other revenues from commercial training activities ...that has been offset against other operating costs". This amounts to 2.8 M€ for en-route and 0.7 M€ for terminal. This implies that the 2014 actual gross costs for the IAA are some 3.5 M€ higher (in nominal terms) than reported in the Reporting Tables, when adding en-route and terminal ANS costs. The en-route Determined Costs in the NPP did not include any commercial revenues. Since netting en-route costs by commercial revenues would distort the estimated surplus analysis provided in items 5 and 6 of the PRB monitoring report, the PRB considered the ATSP gross operating costs (without the effect of commercial revenues) to calculate the gain from cost sharing and the overall estimated surplus for the en-route activity. The other items are not adjusted and therefore show the net operating costs, as reported in the June 2015 Reporting Tables.

#### Note 3: Terminal unit rate

IAA's terminal charges are subject to price cap / economic regulation by the Commission for Aviation Regulation covering the years 2012-2014, therefore the effective terminal unit rate is independent from the planned terminal costs and TNSUs. The terminal unit rate applied by Ireland for 2014 was 156.92 €. See information circular (Ref. El 2014/01) available at https://www.eurocontrol.int/sites/default/files/content/documents/route-charges/information-circulars/ei-2014-01.pdf.

#### At State / Charging Area level

In 2014, Ireland's real en-route unit cost (25.59  $\leq$ 2009) is -12.7% lower than planned in the NPP (29.31  $\leq$ 2009). This difference is due to the fact that 2014 actual real en-route costs are -14.4% lower than the determined costs, while the actual number of total service units (TSUs) is -2.0% lower than planned.

The difference between the actual and the planned TSUs for the year 2014 falls just outside the  $\pm$  2% dead band foreseen in the traffic risk sharing mechanism (-2.04%). The related loss for the small shortfall outside the dead band is shared between the airspace users and the ATSP.

#### Actual 2014 costs vs. NPP

In Ireland the en-route cost base includes the costs related to the Irish ATSP (IAA), the MET service provider (Met Éireann), the Irish NSA and the EUROCONTROL Agency.

In 2014, actual en-route costs for Ireland are -14.4% lower than planned in real terms, resulting from the combination of lower en-route costs in nominal terms (-15.6%) and a lower inflation index (-1.4 p.p.). While costs are lower than planned for all entities the cost savings are mostly attributable to IAA (-15.6% in real terms, -15.5 M€2009). A detailed analysis of IAA's costs is provided in the box below. The costs associated with the NSA/EUROCONTROL are -10.9% lower than planned, equivalent to -1.3M €2009 in absolute terms and the Met Eireann costs are also -3.4% below plan. -0.2M €2009 in absolute terms.

Costs exempt from cost sharing are reported for an amount of -0.8 M€2009 due to lower EUROCONTROL costs than planned. These costs will be eligible for carry-over to the following reference period(s), if deemed allowed by the European Commission after verification on the basis of the NSA report establishing and justifying these exemptions.

#### RP1 summary

When considering the whole of RP1 (2012-2014) the actual number of TSUs is -1.7% lower than planned while actual costs in real terms are -11.2% lower than the determined costs (some -39.5 M€2009). As a result, the weighted average real en-route unit cost over RP1 (27.09 €2009) is -9.7% lower than planned.

#### At ATSP level

#### Actual 2014 IAA costs vs. NPP

IAA 2014 actual en-route costs (as reported in the June 2015 Reporting Tables) are -15.6% lower than planned in real terms. However, as explained in Note 2, the PRB considered the ATSP **gross** operating costs (without the effect of commercial revenues) to calculate the gain from cost sharing and the overall estimated surplus for the en-route activity (in items 5 and 6). When excluding the effect of commercial revenues, the IAA 2014 **gross** en-route costs are lower than planned in real terms (-12.8%, or -12.7 M€2009). This mainly results from lower than planned staff costs and other operating costs.

According to the Additional Information provided with the June 2015 en-route Reporting Tables, staff costs are lower than planned (-7.3 M€2009 or -12.4%) due to the application of cost containment measures, including the absence of pay awards in 2014, and better manpower management. Staff retirements and departures also contributed to lower costs.

Operating costs are lower than planned (-3.3 M€2009 or -13.9%) due to savings in technical and administrative expenses in addition to supply chain and budget management measures.

Lower than planned depreciation costs (-1.2 M€2009 or -11.4%) and cost of capital (-1.0 M€2009 or -15.5%) also contributed to the lower than planned costs at ATSP level, reflecting lower than planned capex during RP1 and a -15.6% smaller asset base when compared to the NPP. According to the NSA 2014 Monitoring Report, cumulative capex in RP1 (12.1 M€) was -53.7% lower than planned in the NPP (26.1 M€).

#### IAA net gain/loss and estimated surplus on en-route activity in 2014

As shown in item 5, the en-route activity for the year 2014 generated a net gain of +9.4 M€2009 for the IAA. This is due to the combination of two separate elements:

- a gain of +11.5 M€2009 as a result of the cost-sharing mechanism; and
- a loss of -2.0 M€2009 as a result of the traffic risk sharing mechanism for 2014.

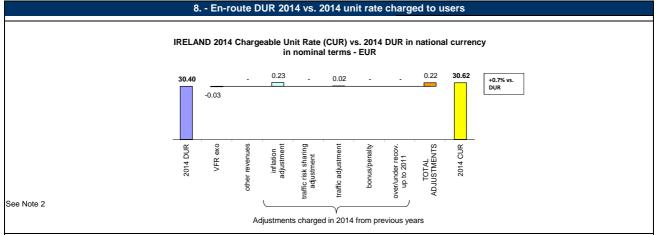
To calculate the overall economic surplus of the ATSP, it is also important to add the surplus embedded in the cost of capital through the return on equity. Based on the figures planned in the NPP, the return on equity amounted to +5.0 M€2009, corresponding to an estimated surplus of 5.0% of the en-route costs/revenues for 2014. Ex-post, the estimated surplus for the year computed by adding the surplus embedded in the cost of capital (+6.7 M€2009, see Note 1) and the net gain from the en-route activity in 2014 (+9.4 M€2009), gives a total of +16.2 M€2009, corresponding to 16.6% of the 2014 en-route revenue. The resulting ex-post rate of return on equity for 2014 is 25.2% (compared to 10.5% planned in the NPP).

#### Conclusions

In 2014 IAA's actual **gross** en-route costs are lower than planned (-12.8%) while traffic is -2.0% lower than foreseen in the NPP. The en-route activity for the year 2014 generated a net gain of +9.4 M€2009 for IAA, which results in an estimated actual surplus of +16.2 M€2009 (16.6% of the en-route revenue for 2014, up from the 5.0% planned in the RP1 PP).

When considering the whole of RP1 (2012-2014), IAA could retain a cumulative gain in respect of cost sharing of +30.0 M€2009 as the cost reductions made in 2012 (7.3 M€2009) were sustained and increased in each subsequent year of RP1. However, IAA incurred a cumulative loss in respect of traffic risk sharing amounting to -4.6 M€2009, which resulted in a cumulative net gain for the en-route activity of +25.3 M€2009.

#### Monitoring of en-route and terminal COST-EFFICIENCY for 2014



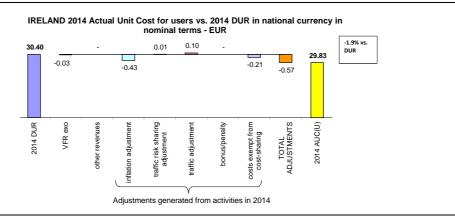
The DUR for 2014 expressed in nominal terms differs from the actual en-route unit rate charged to users in 2014 (CUR).

- the DUR, but also, a deduction of the costs for services to exempted VFR in 2014, as determined prior to the reference period and a deduction of 2014 other revenues;
- as well as adjustments relating to the activities of previous years that are carried-over to 2014. These adjustments include:
- \* the adjustment resulting from the implementation of the traffic risk-sharing (ATSP);
- \* the adjustment resulting from the difference in traffic (for costs not subject to traffic risk sharing); \* the bonus/penalty from previous year(s).
- \* the legacy carry-overs incurred in the full cost recovery regime up to and including 2011.

These costs and adjustments are divided by the forecast total service units for 2014 as laid out in the performance plan.

The actual Chargeable Unit Rate (CUR) charged to users in 2014 is 30.62 €. This is +0.7% higher than the nominal DUR (30.40 €). The difference observed between these two figures (+0.22 €) mainly reflects the inflation adjustment carried over from previous years (+0.23 €) in addition to small adjustments for traffic (+0.02 €) and for exempted VFF

#### 9. - En-route DUR 2014 vs. 2014 actual unit cost for users



The DUR for 2014 expressed in nominal terms can also be compared to the actual en route unit cost for airspace users (AUC-U) for 2014 (also sometimes referred to the "true cost for users"), which reflects the unit cost that the users incur in respect of the activities performed in 2014. The AUC-U comprises:

- the DUR, the deduction of the costs for services to exempted VFR in 2014 and the deduction of 2014 other revenues that has already been billed to the users through the
- as well as adjustments relating to the activities of 2014 but which will be charged or reimbursed to users in future years. These adjustments include:
- the inflation adjustment;
- \* the adjustments resulting from the implementation of the traffic risk-sharing (ATSP);

  \* the adjustments resulting from the difference in traffic (for costs not subject to traffic risk sharing);
- \* the bonus/penalty for the current year;
  \* the costs exempt from cost sharing (if deemed eligible)

These costs and adjustments are divided by the actual total service units in 2014.

The unit cost that the users incurred in respect of the activities performed in 2014 is 29.83 €. This is -1.9% lower than the nominal DUR (30.40 €). The difference observed between these two figures (-0.57 €) mainly reflects negative adjustments for lower than planned inflation (-0.43 €) and for costs exempt from cost-sharing (-0.21 €). There are also small positive adjustments reflecting lower than planned traffic trisk sharing adjustment (+0.01 €) and relating to the traffic adjustment for costs exempt from traffic risk sharing (+0.10 €).

#### Monitoring of en-route and terminal COST-EFFICIENCY for 2014

	10 Terminal cos	sts and unit ra	tes monitorii	ng (2014)			
		2009	2010	2011	2012	2013	2014
Terminal Service Unit Formula	(MTOW/50)^		0.9	0.9	0.8	0.8	0.7
Number of airports in terminal charging zone			3	3	3	3	;
of which, number of airports over 50 000 movements			1	1	1	1	
IRELAND - Data from RP1 national performance plan		2009A	2010A	2011F	2012P	2013P	2014P
Terminal ANS costs for the charging zones - (in EUR)		25 621 000	25 416 000	26 229 000	24 959 000	25 101 000	25 819 000
Inflation index (100 in 2009)		100.0	98.4	99.7	100.7	102.1	103.7
Real terminal ANS costs - (in EUR2009)		25 621 000	25 829 268	26 313 413	24 791 412	24 588 223	24 893 264
IRELAND - Actual data from June 2015 Reporting Tables		2009A	2010A	2011A	2012A	2013A	2014A
Terminal ANS costs for the charging zones - (in EUR) - Se	e Note 2	25 621 000	23 241 000	25 246 000	23 163 000	22 072 000	21 775 395
Inflation index (100 in 2009)		100.0	98.4	99.6	101.5	102.0	102.3
Real terminal ANS costs - (in EUR2009)		25 621 000	23 618 902	25 352 277	22 826 799	21 643 417	21 288 70
Total terminal service units		159 785	137 483	135 824	129 658	136 935	137 659
Actual real unit costs - (in EUR2009)		160.3	171.8	186.7	176.1	158.1	154.6
Unit rate applied - (in EUR) - See Note 3					160.24	153.72	156.92
Difference between Actuals and Planned in absolute v	alue and in percentag	je (Actuals vs. NF	PP)		2012	2013	2014
Terminal ANS costs for the charging zones - (in EUR)	in value				-1 796 000	-3 029 000	-4 043 605
	in%				-7.2%	-12.1%	-15.7%
Inflation index (100 in 2009)	in p.p.				0.8 p.p.	-0.1 p.p.	-1.4 p.p
Real terminal ANS costs - (in EUR2009)	in value				-1 964 613	-2 944 806	-3 604 558
See Note 2	in%				-7.9%	-12.0%	-14.5%
See Note 2	in%				-7.9%	-12.0%	

#### 11. - General conclusions on the Terminal ANS costs and unit rates monitoring

The terminal charging zone in Ireland comprises three airports (Dublin, Shannon and Cork) in RP1. The harmonised SES formula (MTOW/50)^0.7 is applied starting from 2014. The 2014 actual terminal ANS costs are -14.5% lower than planned in real terms (-3.6 M€2009). This results from the combination of lower terminal ANS costs in nominal terms (-15.7%) and a lower inflation index (-1.4 p.p.). According to the Additional Information to the June 2015 terminal Reporting Tables terminal cost reductions have been achieved across all cost categories, as was the case for en-route. Similarly to en-route, the terminal costs reported are net of commercial revenues (0.7 M€), see note 2. When excluding the effect of commercial revenues, the IAA 2014 gross terminal costs are -13.0% lower than planned in real terms.

#### RP1 summary

When considering the whole of RP1 (2012-2014), actual terminal ANS costs are -11.5% lower in real terms (or some -8.5 M€2009) than planned in the NPP. This reflects the fact that terminal ANS costs are lower than planned in each year of RP1. The real unit cost for terminal services in 2014 is 154.6 €2009, -17.1% compared to the real unit cost at the start of RP1.

	12 Monito	ring of gate-to	-gate costs (2	2014)			
IRELAND - Data from RP1 national performance plan		2009A	2010A	2011F	2012P	2013P	2014P
Real en-route costs (determined costs 2012-2014) - (in EU	R2009)	105 200 000	111 718 496	121 025 249	117 709 295	117 165 564	117 340 321
Real terminal ANS costs - (in EUR2009)		25 621 000	25 829 268	26 313 413	24 791 412	24 588 223	24 893 264
Real gate-to-gate ANS costs - (in EUR2009)		130 821 000	137 547 764	147 338 662	142 500 707	141 753 787	142 233 584
Share of en-route costs in gate-to-gate ANS costs		80.4%	81.2%	82.1%	82.6%	82.7%	82.5%
IRELAND - Actual data from June 2015 Reporting Table	es	2009A	2010A	2011A	2012A	2013A	2014A
Real en-route costs - (in EUR2009)		105 200 000	111 718 496	116 261 368	108 380 730	103 932 921	100 392 616
Real terminal ANS costs - (in EUR2009)		25 621 000	23 618 902	25 352 277	22 826 799	21 643 417	21 288 705
Real gate-to-gate ANS costs - (in EUR2009)		130 821 000	135 337 398	141 613 644	131 207 529	125 576 338	121 681 322
Share of en-route costs in gate-to-gate ANS costs		80.4%	82.5%	82.1%	82.6%	82.8%	82.5%
Difference between Actuals and Planned in absolute va	alue and in percenta	ige (Actuals vs. NF	PP)		2012	2013	2014
Real en-route costs - (in EUR2009)	in value				-9 328 564	-13 232 643	-16 947 705
	in %				-7.9%	-11.3%	-14.4%
Real terminal ANS costs - (in EUR2009)	in value				-1 964 613	-2 944 806	-3 604 558
	in %				-7.9%	-12.0%	-14.5%
Real gate-to-gate ANS costs - (in EUR2009)	in value				-11 293 177	-16 177 449	-20 552 263
	in %				-7.9%	-11.4%	-14.4%
Share of en-route costs in gate-to-gate ANS costs	in p.p				0.0 p.p.	0.1 p.p.	0.0 p.p.

#### 13. - General conclusions on the gate-to-gate ANS costs

Actual 2014 gate-to-gate costs are -14.4% lower than planned in real terms following reductions in en-route (-16.9 M€2009, -14.4%) and terminal (-3.6 M€2009, -14.5%) ANS costs.

The allocation of gate-to-gate costs between en-route ANS and terminal ANS appears quite stable over RP1 (approximately 83% share to en-route) and did not change significantly with respect to planned.





# PRB Annual Monitoring Report 2014 Italy

Working Draft 2.0

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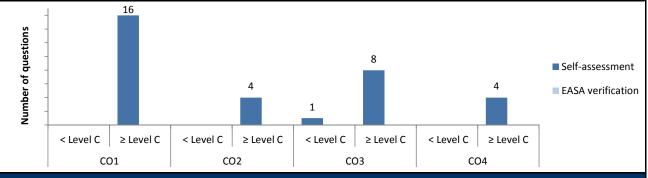
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#### Monitoring of SAFETY indicators for 2014

Effectiveness of Safety Management									
	2012	2013	2014	State level Observations					
State level	80	80	81						
ANSP [ENAV]	82	77	77						



#### Application of the severity classification of the Risk Analysis Tool (RAT) 2012 2013 2014 No Assessed No Assessed No Assessed reported (%) reported (%) reported (%) ATM Ground 85% 100% 80% **Separation Minima** 108 107 132 Infringements (SMIs) ATM Overall 0% 32% 0% **ATM Ground** 62% 73% 88% Runway Incursions (RIs) 89 73 40 **ATM Overall** 0% 19% 0% **ATM Specific Occurences ATM Overall** 67% 8 50% 20 0% 6 (ATM-Specific) Source of RAT data: **ENAV**

Just culture									
			Sta	ate					
Number of questions answered with Yes or No	20	12	20	13	2014				
	YES	NO	YES	NO	YES	NO			
Policy and its implementation	2	8	2	8	2	7			
Legal/Judiciary	3	5	3	5	3	4			
Occurrence reporting and Investigation	2	0	2	0	2	0			
TOTAL	7	13	7	13	7	11			

		ANSP [ENAV]							
Number of questions answered with Yes or No	2012		20	13	2014				
	YES	NO	YES	NO	YES	NO			
Policy and its implementation	11	2	12	1	13	0			
Legal/Judiciary	2	1	2	1	2	1			
Occurrence reporting and Investigation	7	1	7	1	7	1			
TOTAL	20	4	21	3	22	2			

#### **Monitoring of CAPACITY indicators for 2014**

Minutes of ATFM en-route delay										
	2012	2013	2014	Observations						
Reference value	0.14	0.14	0.12							
National Target	0.14	0.14	0.12							
Actual performance	0	0	0.02							

#### **National capacity assessment**

Italy has virtually no delay. The planned capacity has been delivered, with a strong reduction of costs.

#### Military dimension of the plan

Although specifically requested in IR 691/2010 Annex II Template for Performance Plans, paragraph 4: the Performance Plan for Italy did not contain any specific details of how FUA would be applied to increase capacity.

#### **PRB Capacity assessment**

With the excellent capacity performance in 2012 and 2013, continuing through 2014, Italy has exceeded the national target and the level of performance required to be consistent with the EU-wide target for each year of the first Reference Period.

#### **Effective booking procedures**

The ratio of time airspace was actually used for activity requiring segregation or restriction from GAT and the amount of time it was allocated as being restricted on the day of operations: 44%

The ratio of time airspace, that was surplus to requirement, was released with more than 3 hours' notice to the Network Manager and the amount of time it was allocated as being restricted on the day of operations: 0%

The ratio of time airspace was neither used nor released with at least 3 hours' notice to the Network Manager, but was allocated as being restricted on the day of operations: 56%

#### **Previous recommendations**

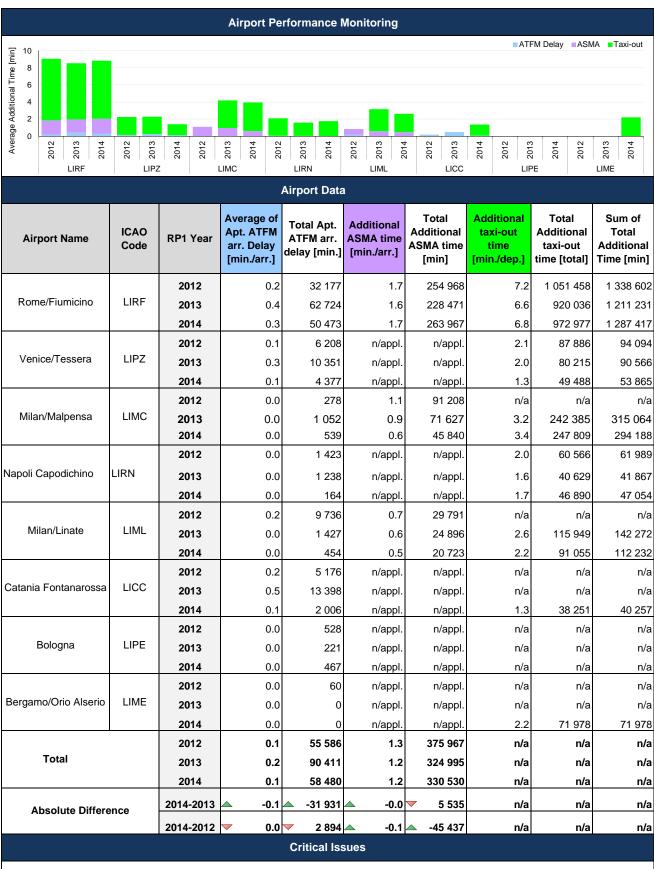
**Annual Monitoring Report 2013:** The PRB reminds Italy of the obligation to report on the individual restricted and segregated areas that impact available ATC capacity, and or route options for general air traffic, rather than simply aggregating over all areas.

#### **NSA** report on follow-up to recommendations

Although the national monitoring report once more contained only the aggregated values, for the effective booking procedures, Italy provided the breakdown per segregated / restricted area to the PRU separately.

#### Recommendations

#### Monitoring of CAPACITY indicators for 2014

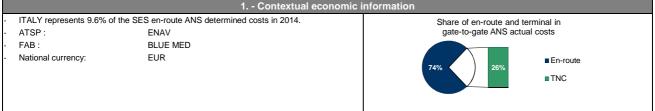


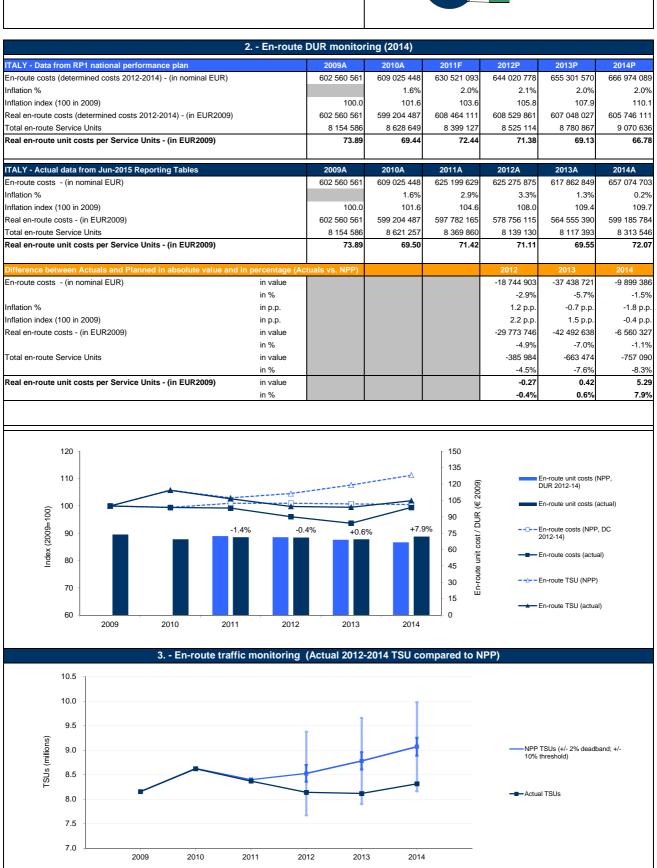
Data missing at Bologna airport.

#### Specific Analysis

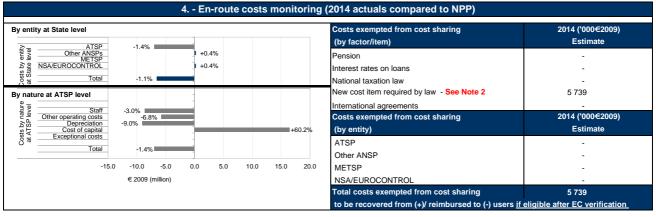
- In average over RP1, ATFM arrival delay increased by 5% in Italy, and additional ASMA time decreased by 12%. The average performance for additional taxi-out time cannot be assessed due to missing data at Bologna Airport.
- Out of this average, Rome Fiumicino is undoubtedly the most critical airport in Italy, well beyond the two Milano airports. ATFM arrival delay and additional ASMA time increased at Rome Fiumicino airport, but additional taxi-out time remains with no doubt the most critical performance (almost 75% of total delay) despite its slight improvement (-4%) over RP1. Further analysis of airport performance showed significant variations of additional taxi-out times over the seasons.
- Italian NSA is advised to look to the metadata that describe the methodologies used to calculate the indicators.

#### Monitoring of en-route and terminal COST-EFFICIENCY for 2014





#### Monitoring of en-route and terminal COST-EFFICIENCY for 2014



Cost sharing ('000€2009)	2014A					
Determined costs for the ATSP (NPP)	500 240	Combined effect of variations in costs and traffic for 2014 ('000€2009)				
Actual costs for the ATSP - See Note 1	475 539	,	,			
Difference in costs: gain (+)/Loss (-) retained/borne by the ATSP	24 701					
Amounts excluded from cost sharing to be recovered from (+) reimbursed to (-) users	-	Gain/loss from cost sharing				
Gain (+)/Loss (-) to be retained by the ATSP in respect of cost sharing	24 701					
raffic risk sharing ('000€2009)	2014A					
Difference in total service units (actual vs NPP)	-8.35%	Gain/loss from traffic risk sharing	_			
Determined costs after deduction of costs for exempted VFR flights	502 277					
ATSP gain (traffic between 0 and +2% higher than NPP)	-		1			
ATSP gain (traffic between +2% and +10% higher than NPP)	-	Bonus/penalty from incentives				
ATSP loss (traffic between 0 and -2% below NPP)	-10 046	,				
ATSP loss (traffic between -2% and -10% below NPP)	-9 563		-			
Sain (+)/Loss (-) to be retained by the ATSP in respect of traffic risk sharing	-19 609					
ncentives ('000€2009)	2014A	Net ATSP gain/loss				
TSP bonus (+) / penalty (-)	7 295	-20 000	10 000 0 10 000 20 000			
Gain (+)/Loss (-) to be retained by the ATSP in respect of incentives	7 295		TSP loss ATSP gain			
let ATSP gain(+)/loss(-) on en-route activity	12 388	7				

Net ATSP gain(+)/loss(-) on en-route activity						12 388				
						stimated surp				
	*This calculation of the different from the accou						n the information provi	ided in the Reporting	Tables. This is	
SP estimated sur	plus ('000€2009)				2012P	2012A	2013P	2013A	2014P	2014A
tal asset base					983 040	962 971	978 048	964 702	958 871	957 5
timated proportion	of financing through eq	juity (in %)			100%	100%	100%	100%	100%	8
timated proportion	of financing through eq	uity (in value)			983 040	962 971	978 048	964 702	958 871	815
timated proportion	of financing through de	ebt (in %)			-	-	-	-	-	
timated proportion	of financing through de	ebt (in value)			-	-	-	-	-	142
st of capital pre-tax	x (in value) - See Note	1			26 542	26 000	27 874	27 494	27 328	26
erage interest on d	lebt (in %)				-	-	-	-	-	2
erest on debt (in va	alue)				-	-	-	-	-	2
termined RoE pre-	tax rate (in %) - See No	ote 1			2.7%	2.7%	2.9%	2.9%	2.9%	2
timated surplus em	bedded in the cost of o	capital for en-route	e (in value)	,	26 542	26 000	27 874	27 494	27 328	23
t ATSP gain(+)/los	s(-) on en-route activity	1				20 977		28 063		12
erall estimated su	urplus (+/-) for the en-	route activity			26 542	46 977	27 874	55 557	27 328	35
venue/costs for the	he en-route activity				502 623	496 447	501 796	490 957	500 240	487
timated surplus (	+/-) in percent of en-re	oute revenue/cos	sts		5.3%	9.5%	5.6%	11.3%	5.5%	
timated ex-post R	RoE pre-tax rate (in %)				2.7%	4.9%	2.9%	5.8%	2.8%	4
60.0 - 50.0 - 60		•	<b>*</b>		Ů	12.0% - 10.0% - 8.0% - 6.0%			n-route activity (in value st of capital for en-route	
20.0 - 10.0 -	NPP Actual	NPP	Actual	NPP	Actual	4.0% 2.0% - 0.0%	♦ Estimated surplus	s (+/-) in percent of en	-route revenue/costs	

#### Monitoring of en-route and terminal COST-EFFICIENCY for 2014

#### 7. - General conclusions on the monitoring of the 2014 en-route DUR

#### Notes on information provided by ITALY

The following issues are standing on the data provided by Italy and could not be resolved during the data validation exercise:

- ITAF and ENAC 2014 costs are still provisional;
- ENAV actual costs take account of a rate of return on equity (5.0%) which is not calculated on the basis of the determined RoE rate (2.9%). The cost of capital computed by ENAV is around +18M€ higher than would be with the determined RoE rate;
- EUROCONTROL costs considered as actual for 2014 are some +4 M€ higher than the actual data provided by EUROCONTROL on 22 May 2015
- Some "Costs exempt from cost-sharing" are reported in Table 3 (6.3M€) but not in any Table 1 for 2014 (and no dedicated report on cost exempt from cost sharing has been submitted)

#### As a result a number of data adjustments had to be implemented to perform the analysis:

#### Note 1: Correction of the Return on Equity rate (%RoE)

The %RoE for year 2014 has been manually adjusted as the determined %RoE (2.9%) set in the RP1 performance plan should be reported. The impact of this "adjustment" is that ENAV actual cost of capital is reduced by some -17.7M€2009 and the total actual costs reduced in consequence to 475.5M€2009 (instead of 493.2M€2009).

#### Note 2: Costs exempt from cost-sharing for 2014

"Costs exempt from cost-sharing" for 2014 are reported in table 3 (+6.3M€) of the June 2015 en-route reporting tables but not in any table 1 for 2014.

#### At State / Charging Area level

In 2014, Italy's real en-route unit cost (72.07 €2009) is +7.9% higher than planned in the NPP (66.78 €2009). This difference is due to the fact that while 2014 actual en-route costs are -1.1% lower than the determined costs in real terms, the actual number of total en-route service units (TSU) is much lower than planned (-8.3%). Italy attributes this loss of traffic partly to the closure of the Libyan airspace from the second half of 2014.

The difference between the actual and planned total en-route service units (-8.3%) falls outside the ±2% dead band but it is still above the -10% threshold. It is therefore shared between the ATSP and airspace users in line with the traffic risk sharing mechanism.

#### Actual 2014 costs vs. NPP

In 2014, actual en-route costs for Italy are -1.1% lower than planned in real terms, as a combination of both lower nominal en-route costs (-1.5%) and lower inflation index (-0.4 p.p.). The cost savings are solely attributed to the ATSP ENAV (-1.4% in real terms, -7.0 M€2009). A detailed analysis of ENAV's 2014 costs is provided in the box below. The provisional 2014 actual costs associated with ITAF (the other Italian ATSP) and the NSA/EUROCONTROL are both +0.4% higher than planned (equivalent to +0.2M €2009 in absolute terms for both entities).

Costs exempt from cost sharing are reported for a total of +5.7 M€2009 to be passed on to users for the en-route activity, corresponding to a "New cost item required by the law" (see **Note 2** above). This is subject to a separate assessment and reporting for both the technical assessment of unit rates and the cost exempt from cost sharing.

#### RP1 summary

When considering the whole of RP1 (2012-2014), the actual number of en-route TSU is much lower than planned (-6.8%) and actual costs are also lower than the determined costs (-4.3%, some -78.8 M€2009). As a result, the weighted average real en-route unit cost over RP1 is +2.7% higher than the level planned in Italy performance plan. mostly due to the performance in 2014 (unit cost is much higher (+7.9%) than in the performance plan.

#### At ATSP level

#### Actual 2014 ENAV costs vs. NPP

ENAV 2014 actual en-route costs are -1.4% lower than planned in real terms. This results from a combination of lower than planned staff costs (-3.0% or -8.7 M€2009), other operating costs (-6.8% or -5.7 M€2009) and depreciation (-9.0% or -9.1 M€2009) as well as significantly higher than planned cost of capital (+60.2% or +16.4 M€2009). According to the additional information provided along with the en-route reporting tables in June 2015 the staff costs were reduced as a result of cost containment measures related to overtime, holiday provisions and redundancy incentives, while depreciation is lower than planned due to the rationalisation of investments made in the previous years through renegotiations of deals with suppliers and through delayed spending. It is worth noting that although the total actual capex over RP1 are indeed lower than planned (-5.3% or -21.1 M€2009), the reported 2014 actual total asset base is very close to the data provided in the NPP (-0.1%). Concerning the cost of capital, the significant cost excess compared to the RP1 performance plan is mostly attributable to the increased rate of return on equity (from 2.9% to 5.0%).

#### ENAV net gain/loss and estimated surplus on en-route activity in 2014

As shown in item 5, taking into account the adjustment made for the 2014 actual rate of return on equity at its ex-ante level (see **Note 1** above), the en-route activity for the year 2014 generated a net gain of +12.4 M€2009 for ENAV overall. This is the combination of three separate elements:

- a gain of +24.7 M€2009 as a result of the cost-sharing mechanism;
- a loss of -19.6 M€2009 as a result of the traffic risk sharing mechanism; and
- a gain of +7.3 M€2009, corresponding to a bonus of 8.0 M€ (in nominal terms) awarded to ENAV as part of the incentive mechanism for the capacity target described in Italy RP1 performance plan.

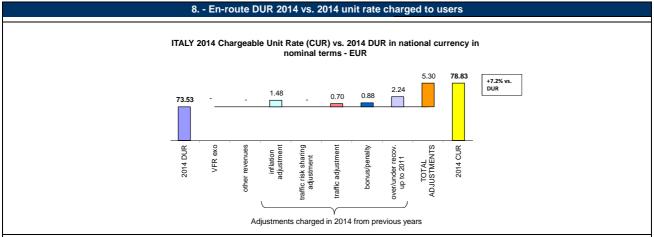
To calculate the overall economic surplus of ENAV, it is also important to add the surplus embedded in the cost of capital through the return on equity. Based on the figures planned in the NPP for year 2014, the return on equity amounted to +27.3 M€2009, corresponding to an estimated surplus of +5.5% of the en-route costs/revenues for 2014. Ex-post, the estimated surplus for the year computed by adding the surplus embedded in the cost of capital (+23.2 M€2009) and the net gain from the en-route activity in 2014 (+12.4 M€2009), gives a total of +35.6 M€2009, corresponding to +7.3% of the 2014 en-route revenue. The resulting ex-post rate of return on equity for 2014 is +4.4% (compared to +2.8% planned in the NPP).

#### Conclusions

In 2014 ENAV's actual en-route costs are slightly lower than planned (-1.4%) while traffic is significantly lower than foreseen in the NPP (-8.3%). In 2014, ENAV generated a net gain of +12.4 M $\in$ 2009 from its en-route activity and the estimated actual surplus for 2014 is +35.6 M $\in$ 2009 (or +7.3% of the en-route revenue for 2014, up from the +5.5% planned in the RP1 PP).

When considering the whole of RP1 (2012-2014), ENAV could retain a cumulative gain in respect of cost sharing of +90.8 M€2009 as actual costs were lower than planned for all years of RP1. However, ENAV incurred a cumulative loss in respect of traffic risk sharing amounting to -51.3 M€2009. When considering also the bonus payments awarded for reaching the capacity targets (+22.0 M€2009 over the three years of RP1), ENAV generated a cumulative net gain of +61.4 M€2009 from its en-route activity over RP1.

#### Monitoring of en-route and terminal COST-EFFICIENCY for 2014



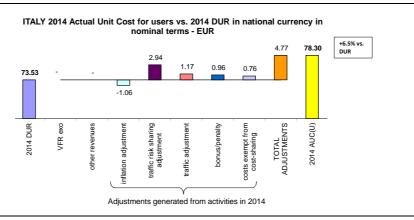
The DUR for 2014 expressed in nominal terms differs from the actual en-route unit rate charged to users in 2014 (CUR).

- the DUR, but also, a deduction of the costs for services to exempted VFR in 2014, as determined prior to the reference period and a deduction of 2014 other revenues;
- as well as adjustments relating to the activities of previous years that are carried-over to 2014. These adjustments include:
- the inflation adjustment:
- \* the adjustment resulting from the implementation of the traffic risk-sharing (ATSP);
- \* the adjustment resulting from the difference in traffic (for costs not subject to traffic risk sharing); \* the bonus/penalty from previous year(s).
- \* the legacy carry-overs incurred in the full cost recovery regime up to and including 2011.

These costs and adjustments are divided by the forecast total service units for 2014 as laid out in the performance plan.

The actual chargeable unit rate (CUR) charged to users in 2014 was 78.83 €. This is +7.2% higher than the nominal DUR (73.53 €). The difference observed between these two figures (+5.30 €) reflects mainly the amount of under-recoveries carried over to 2014 from the legacy prior to RP1 (+2.24 €) and the inflation adjustment carried over from previous years (+1.48 €) in addition to smaller adjustments for traffic not subject to traffic risk sharing (+0.70 €) and the bonus payment related to the capacity targets (+0.88 €).

#### 9. - En-route DUR 2014 vs. 2014 actual unit cost for users



The DUR for 2014 expressed in nominal terms can also be compared to the actual en route unit cost unit cost for airspace users (AUC-U) for 2014 (also sometimes referred to the "true cost for users"), which reflects the unit cost that the users incur in respect of the activities performed in 2014. The AUC-U comprises:

- the DUR, the deduction of the costs for services to exempted VFR in 2014 and the deduction of 2014 other revenues that has already been billed to the users through the
- as well as adjustments relating to the activities of 2014 but which will be charged or reimbursed to users in future years. These adjustments include:
- the inflation adjustment;
- \* the adjustments resulting from the implementation of the traffic risk-sharing (ATSP);

  \* the adjustments resulting from the difference in traffic (for costs not subject to traffic risk sharing);
- \* the bonus/penalty for the current year;
  \* the costs exempt from cost sharing (if deemed eligible).

These costs and adjustments are divided by the actual total service units in 2014.

The actual en-route unit cost that the users incurred in respect of the activities performed in 2014 was 78.30 €. This is +6.5% higher than the nominal DUR (73.53 €). The difference observed between these two figures (+4.77 €) reflects adjustments for traffic risk sharing (+2.94 €), for traffic not subject to traffic risk sharing (+1.17 €), for the capacity target bonus payment in 2014 (+0.96 €), for the costs exempt from cost sharing (+0.76 €) and a deduction for inflation adjustment (-1.06 €).

#### **ITALY**

#### Monitoring of en-route and terminal COST-EFFICIENCY for 2014

10	) Terminal cos	sts and unit ra	ates monitori	ng (2014)			
		2009	2010	2011	2012	2013	2014
Terminal Service Unit Formula	(MTOW/50)^	0.95	0.7	0.7	0.7	0.7	0.7
Number of airports in terminal charging zones		39	47	47	47	47	47
of which, number of airports over 50 000 movements		10	11	11	11	11	11
ITALY - Data from RP1 national performance plan		2009A	2010A	2011F	2012P	2013P	2014P
Terminal ANS costs for the charging zones - (in EUR)		180 118 090	212 109 538	223 061 164	235 190 617	248 312 872	255 821 981
Inflation index (100 in 2009)		100.0	101.6	103.6	105.8	107.9	110.1
Real terminal ANS costs - (in EUR2009)		180 118 090	208 689 124	215 258 005	222 229 653	230 028 198	232 337 617
ITALY - Actual data from June 2015 Reporting Tables		2009A	2010A	2011A	2012A	2013A	2014A
Terminal ANS costs for the charging zones - (in EUR)		180 118 090	212 109 538	223 944 803	227 483 201	226 016 101	228 842 972
Inflation index (100 in 2009)		100.0	101.6	104.6	108.0	109.4	109.7
Real terminal ANS costs - (in EUR2009)		180 118 090	208 689 124	214 123 942	210 558 730	206 516 071	208 681 684
Total terminal service units		35 270 775	908 813	925 436	892 822	854 922	876 150
Actual real unit costs - (in EUR2009)		5.1	229.6	231.4	235.8	241.6	238.2
Unit rate applied - (in EUR) Unit Rate 1					254.34	246.05	195.79
Unit rate applied - (in EUR) Unit Rate 2							214.15
Unit rate applied - (in EUR) Unit Rate 3							246.05
Difference between Actuals and Planned in absolute val	ue and in percentag	e (Actuals vs. Ni	PP)		2012	2013	2014
Terminal ANS costs for the charging zones - (in EUR)	in value				-7 707 416	-22 296 771	-26 979 009
	in%				-3.3%	-9.0%	-10.5%
Inflation index (100 in 2009)	in p.p.				2.2 p.p.	1.5 p.p.	-0.4 p.p.
Real terminal ANS costs - (in EUR2009)	in value				-11 670 923	-23 512 127	-23 655 933
	in%				-5.3%	-10.2%	-10.2%

#### 11. - General conclusions on the Terminal ANS costs and unit rates monitoring

In preparation for RP2, and with effect from 1 January 2014, Italy split its single terminal charging zone (TCZ) recording 47 airports into 3 separate TCZ (with 1, 3 and 43 airports with IFR airport movements above 225 000, between 70 000 and 225 000 and below 70 000, respectively). The harmonised SES TNSU formula (MTOW/50)^0.7 is applied in all three TCZs. For consistency purpose, the TANS cost analysis looks at the consolidated TANS costs (for the three TCZ in 2014 equivalent to the single TCZ in the RP1 NPP). The three terminal unit rates are reported separately for the year 2014. The (consolidated) 2014 actual terminal ANS costs are -10.2% lower than the figures provided in the NPP in real terms. The main driver for this difference is the lower nominal terminal ANS costs (-10.5%) while the inflation index is slightly lower than the plan (-0.4 pp). The cost savings relate mostly to staff costs and to a smaller extent to other operating costs and depreciation costs.

#### **RP1 summary**

When considering the whole of RP1 (2012-2014), actual terminal ANS costs are -8.6% (or some -58.8 M€2009) lower than planned in the NPP, in real terms. Actually TANS costs were also lower than planned for each of the three years of RP1.

	12 Monito	ring of gate-to-	gate costs (2	2014)			
ITALY - Data from RP1 national performance plan		2009A	2010A	2011F	2012P	2013P	2014P
Real en-route costs (determined costs 2012-2014) - (in EU	602 560 561	599 204 487	608 464 111	608 529 861	607 048 027	605 746 111	
Real terminal ANS costs - (in EUR2009)		180 118 090	208 689 124	215 258 005	222 229 653	230 028 198	232 337 617
Real gate-to-gate ANS costs - (in EUR2009)	782 678 651	807 893 610	823 722 116	830 759 514	837 076 225	838 083 728	
Share of en-route costs in gate-to-gate ANS costs		77.0%	74.2%	73.9%	73.2%	72.5%	72.3%
ITALY - Actual data from June 2015 Reporting Tables		2009A	2010A	2011A	2012A	2013A	2014A
Real en-route costs - (in EUR2009)		602 560 561	599 204 487	597 782 165	578 756 115	564 555 390	599 185 784
Real terminal ANS costs - (in EUR2009)		180 118 090	208 689 124	214 123 942	210 558 730	206 516 071	208 681 684
Real gate-to-gate ANS costs - (in EUR2009)		782 678 651	807 893 610	811 906 107	789 314 845	771 071 461	807 867 468
Share of en-route costs in gate-to-gate ANS costs		77.0%	74.2%	73.6%	73.3%	73.2%	74.2%
Difference between Actuals and Planned in absolute va	alue and in percenta	ige (Actuals vs. NF	PP)		2012	2013	2014
Real en-route costs - (in EUR2009)	in value				-29 773 746	-42 492 638	-6 560 327
	in %				-4.9%	-7.0%	-1.1%
Real terminal ANS costs - (in EUR2009)	in value				-11 670 923	-23 512 127	-23 655 933
	in %				-5.3%	-10.2%	-10.2%
Real gate-to-gate ANS costs - (in EUR2009)	in value				-41 444 670	-66 004 764	-30 216 260
	in %				-5.0%	-7.9%	-3.6%
Share of en-route costs in gate-to-gate ANS costs	in p.p				0.1 p.p.	0.7 p.p.	1.9 p.p

## 13. - General conclusions on the gate-to-gate ANS costs

Real 2014 gate-to-gate ANS costs are -3.6% lower than planned following reductions both in en-route (-6.6 M€2009, -1.1%) and terminal (-23.7 M€2009, -10.2%) ANS costs compared to the RP1 performance plan costs.

The relative share of en-route ANS costs in gate-to-gate ANS costs increased slightly from 73.2% to 74.2% between 2013 and 2014 and it is +1.9 percentage points higher than foreseen in the NPP for 2014.





## PRB Annual Monitoring Report 2014

Latvia

Working Draft 2.0

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LATVIA	_ATVIA Monitoring of SAFETY indicators for 2										rs for 2014
				Ef	ffectivenes	ss of Safet	y Manager	nent			
			2012	2	2013	2014		State le	evel Obser	vations	
State lev	/el		57		57	72					
ANSP [L	.GS]		57		60	78					
Number of questions	< Level C	≥ Level			4 3 ≥ Level C		CO3		CO4	■ EASA	ssessment verification
		Applic	ation of t	he s	everity cla	ssification	n of the Ris	k Analysis	s Tool (RA	Γ)	
						20	12	20	13	20	14
						No reported	Assessed (%)	No reported	Assessed (%)	No reported	Assessed (%)

Applicati	ion of the seventy cit		ii oi tile itis	n Allalysis	AMI) IOOI (ICA	',		
	2012		2013		2014			
		No reported	Assessed (%)	No reported	Assessed (%)	No reported	Assessed (%)	
Separation Minima	ATM Ground	2	100%	2	100%	4	100%	
Infringements (SMIs)	ATM Overall	3	100%	2	100%	4	0%	
Runway Incursions (RIs)	ATM Ground		100%	2	100%	2	100%	
Runway incursions (Ris)	ATM Overall	2	100%		0%		0%	
ATM Specific Occurences (ATM-Specific)	ATM Overall	33	100%	9	100%	6	100%	
Source of RA	Γ data:	CAA						

	Just cultu	ire							
	State								
Number of questions answered with Yes or No	20	12	20	13	20	14			
	YES	NO	YES	NO	YES	NO			
Policy and its implementation	4	6	4	6	4	5			
Legal/Judiciary	1	7	1	7	4	3			
Occurrence reporting and Investigation	2	0	2	0	2	0			
TOTAL	7	13	7	13	10	8			

		ANSP [LGS]								
Number of questions answered with Yes or No	2012		2013		2014					
	YES	NO	YES	NO	YES	NO				
Policy and its implementation	11	2	10	3	12	1				
Legal/Judiciary	2	1	2	1	2	1				
Occurrence reporting and Investigation	6	2	6	2	8	0				
TOTAL	19	5	18	6	22	2				

## **Monitoring of CAPACITY indicators for 2014**

		Minutes o	n-route delay	
	2012	2013	2014	Observations
Reference value	0.02	0.04	0.05	
National Target	0.02	0.03	0.03	
Actual performance	0	0	0	

## National capacity assessment

National target for capacity was reached as planned.

## Military dimension of the plan

Although specifically requested in IR 691/2010 Annex II Template for Performance Plans, paragraph 4: the Performance Plan for Latvia did not contain any specific details of how FUA would be applied to increase capacity.

## PRB Capacity assessment

With the excellent capacity performance of 2012 and 2013 continuing throughout 2014, Latvia has exceeded the national target and the level of performance required to be consistent with the EU-wide target for both years.

## **Effective booking procedures**

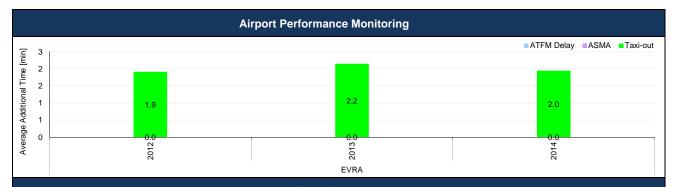
The ratio of time airspace was actually used for activity requiring segregation or restriction from GAT and the amount of time it was allocated as being restricted on the day of operations: 30%

The ratio of time airspace, that was surplus to requirement, was released with more than 3 hours' notice to the Network Manager and the amount of time it was allocated as being restricted on the day of operations: 0%

The ratio of time airspace was neither used nor released with at least 3 hours' notice to the Network Manager, but was allocated as being restricted on the day of operations: 70%

## Recommendations

## **Monitoring of CAPACITY indicators for 2014**



				Airport Data					
Airport Name	ICAO Code	RP1 Year	Average of Apt. ATFM arr. Delay [min./arr.]	Total Apt. ATFM arr. delay [min.]	Additional ASMA time [min./arr.]	Total Additional ASMA time [min]	Additional taxi-out time [min./dep.]	Total Additional taxi-out time [total]	Sum of Total Additional Time [min]
		2012	0.0	65	n/appl.	n/appl.	1.9	63 342	63 407
Riga Intl	EVRA	2013	0.0	19	n/appl.	n/appl.	2.2	67 946	67 965
		2014	0.0	11	n/appl.	n/appl.	2.0	58 977	58 988
		2012	0.0	65	n/appl.	n/appl.	1.9	63 342	63 407
Total		2013	0.0	19	n/appl.	n/appl.	2.2	67 946	67 965
		2014	0.0	11	n/appl.	n/appl.	2.0	58 977	58 988
Absolute Differe	ence	2014-2013	0.0		n/appl.	n/appl.	-0.2	8 970	8 978
		2014-2012	<b>0.0</b>	54	n/appl.	n/appl.	▼ 0.0	<b>-4</b> 365	4 419

## **Critical Issues**

• None

## **Specific Analysis**

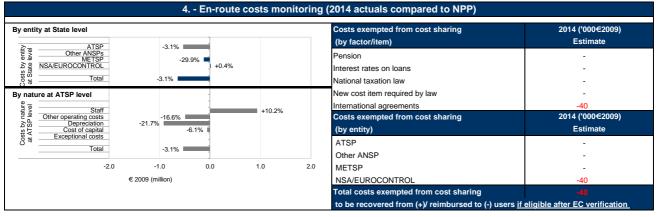
• No specific operational concern regarding RP1 performance monitoring.

## Monitoring of en-route and terminal COST-EFFICIENCY for 2014



							,				
				2.	- En-route l	DUR monitori					
		P1 national perf	•	al EUD)		2009A	2010A	2011F	2012P	2013P	2014P
n-route costs flation %	(determir	ned costs 2012-2	2014) - (In nomin	ai EUR)		15 219 037	16 533 770 -1.1%	19 781 494 4.2%	21 013 230 2.3%	21 425 204 1.7%	22 223 7 1.
flation index	(100 in 20	009)				100.0	98.9	103.1	105.4	107.2	10
		termined costs 2	012-2014) - (in E	UR2009)		15 219 037	16 717 665	19 195 307	19 932 105	19 983 169	20 381 4
otal en-route	Service L	Jnits				595 873	634 000	660 000	701 000	731 000	765 (
eal en-route	unit cos	sts per Service U	Jnits - (in EUR2	009)		25.54	26.37	29.08	28.43	27.34	26
ATVIA - Actu	ual data f	from Jun-2015 R	Reporting Tables	s		2009A	2010A	2011A	2012A	2013A	2014A
n-route costs	- (in non	minal EUR)				15 219 037	16 533 770	20 652 984	20 850 649	20 390 743	20 956 7
flation %							-1.1%	4.2%	2.3%	0.0%	0.
flation index		•				100.0	98.9	103.1	105.4	105.4	10
eal en-route	,					15 219 037	16 717 665	20 040 973	19 777 889	19 341 645	19 740 3
otal en-route		Jnits sts per Service U	Jnits - (in EUR2	009)		595 873 <b>25.54</b>	634 000 <b>26.37</b>	702 400 <b>28.53</b>	707 109 <b>27.97</b>	733 633 <b>26.36</b>	766 8 <b>25</b>
		·				tural and Albah			2040	0040	004.4
n-route costs		ctuals and Planr minal EUR)	ied in absolute	value and in p	in value	tuais vs. NPP)			-162 581	-1 034 461	-1 266 9
					in %				-0.8%	-4.8%	-5.
nflation %					in p.p.				0.0 p.p.	-1.7 p.p.	-1.0 p
flation index	`	,			in p.p.				-0.0 p.p.	-1.8 p.p.	-2.9 p
eal en-route	costs - (in	n EUR2009)			in value				-154 216	-641 525	-641 ′
	0	La tra			in %				-0.8%	-3.2%	-3.
otal en-route	Service C	Jnits			in value in %				6 109 0.9%	2 633 0.4%	1 8 0.
aal en-route	unit cos	sts per Service U	Inite - (in FIIP2)	nna)	in value				-0.46	-0.97	-0.
cai en-ioute	unit cos	nto per dervice c	Jilles - (III EOINE)	003)	in %				-1.6%	-3.6%	-3.4
	140							70			
	140						0	- 60	E. D	n-route unit costs (N UR 2012-14)	PP,
								- 60	D	UR 2012-14)	
100)	130 -		<u></u>					- 60	D	n-route unit costs (N UR 2012-14) n-route unit costs (ad	
09=100)	130 -							- 60	Di	UR 2012-14) n-route unit costs (ac n-route costs (NPP,	ctual)
(2009=100)	130 - 120 - 110 -			-1.9%	-1.6	6% -3.6%	246	- 60	Di	UR 2012-14) n-route unit costs (ad	ctual)
Idex (2009=100)	130 -			-1.9%	-1.0	6% -3.6%	5 -3.4°	- 60	D E E E E E E E E E E E E E E E E E E E	UR 2012-14) n-route unit costs (ac n-route costs (NPP,	ctual) DC
Index (2009=100)	130 - 120 - 110 -			-1.9%	-1.6	3.6%	-3.4	- 60	D E E E E E E E E E E E E E E E E E E E	UR 2012-14) n-route unit costs (ad n-route costs (NPP, 012-14)	ctual) DC
Index (2009=100)	130 - 120 - 110 - 100 - 90 -			-1.9%	-1.6	3.6%	5 -3.4	. 20	D Ei	UR 2012-14) n-route unit costs (ad n-route costs (NPP, 012-14)	ctual) DC
Index (2009=100)	130 - 120 - 110 - 100 -			-1.9%	-1.6	3.6%	-3.4	- 60	D E E E E E	UR 2012-14) n-route unit costs (ac n-route costs (NPP, 012-14) n-route costs (actual n-route TSU (NPP)	otual) DC
Index (2009=100)	130 - 120 - 110 - 100 - 90 -			-1.9%	-1.6	3.6%	-3.4	. 20	D E E E E E	UR 2012-14) n-route unit costs (ac n-route costs (NPP, 012-14) n-route costs (actual	otual) DC
Index (2009–100)	130 - 120 - 110 - 100 - 90 - 80 -	2009	2010	-1.9%	2012	2013	2014	- 60 6 50 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	D E E E E E	UR 2012-14) n-route unit costs (ac n-route costs (NPP, 012-14) n-route costs (actual n-route TSU (NPP)	otual) DC
Index (2009=100)	130 - 120 - 110 - 100 - 90 - 80 -	2009		2011	2012	-3.0%	2014	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	D = E = E = E = E = E = E = E = E = E =	UR 2012-14) n-route unit costs (ac n-route costs (NPP, 012-14) n-route costs (actual n-route TSU (NPP)	otual) DC
Index (2009=100)	130 - 120 - 110 - 100 - 90 - 80 -	2009		2011	2012	2013	2014	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	D = E = E = E = E = E = E = E = E = E =	UR 2012-14) n-route unit costs (ac n-route costs (NPP, 012-14) n-route costs (actual n-route TSU (NPP)	otual) DC
Index (2009=100)	130 - 120 - 110 - 100 - 90 - 80 - 70	2009		2011	2012	2013	2014	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	D = E = E = E = E = E = E = E = E = E =	UR 2012-14) n-route unit costs (ac n-route costs (NPP, 012-14) n-route costs (actual n-route TSU (NPP)	otual) DC
Index (2009=100)	130 - 120 - 110 - 100 - 90 - 80 - 70 -	2009		2011	2012	2013	2014	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	D = E = E = E = E = E = E = E = E = E =	UR 2012-14) n-route unit costs (ac n-route costs (NPP, 012-14) n-route costs (actual n-route TSU (NPP)	otual) DC
	130 - 120 - 110 - 100 - 90 - 80 - 70	2009		2011	2012	2013	2014	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	D = E = E = E = E = E = E = E = E = E =	UR 2012-14) n-route unit costs (ac n-route costs (NPP, 012-14) n-route costs (actual n-route TSU (NPP)	otual) DC
	130 - 120 - 110 - 100 - 90 - 80 - 70 -	2009		2011	2012	2013	2014	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	D  E  F  7  F  7  F  P  NPP  T  NPP  T	UR 2012-14) n-route unit costs (ac n-route costs (NPP, 012-14) n-route costs (actual n-route TSU (NPP) n-route TSU (actual)	ctual)
	130 - 120 - 110 - 100 - 90 - 80 - 70 -	2009		2011	2012	2013	2014	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	D  E  F  7  F  7  F  P  NPP  T  NPP  T	UR 2012-14) n-route unit costs (ac n-route costs (NPP, 012-14) n-route costs (actual n-route TSU (NPP) n-route TSU (actual)	ctual)
	130 - 120 - 110 - 100 - 90 - 80 - 70 - 0.85 - 0.80 - 0.75 -	2009		2011	2012	2013	2014	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	D  E  F  7  F  7  F  P  NPP  T  NPP  T	UR 2012-14) n-route unit costs (ac n-route costs (NPP, 012-14) n-route costs (actual n-route TSU (NPP) n-route TSU (actual)	ctual)
TSUs (millions)	130 - 120 - 110 - 100 - 90 - 80 - 70 - 0.85 - 0.80 - 0.75 -	2009		2011	2012	2013	2014	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	D  E  F  7  F  7  F  P  NPP  T  NPP  T	UR 2012-14) n-route unit costs (ac n-route costs (NPP, 012-14) n-route costs (actual n-route TSU (NPP) n-route TSU (actual)	ctual)
	130 - 120 - 110 - 100 - 90 - 80 - 70 - 0.85 - 0.80 - 0.75 -	2009		2011	2012	2013	2014	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	D	UR 2012-14) n-route unit costs (ac n-route costs (NPP, 012-14) n-route costs (actual n-route TSU (NPP) n-route TSU (actual)	ctual)
	130 - 120 - 110 - 100 - 90 - 80 - 70 - 0.85 - 0.80 - 0.75 -	2009		2011	2012	2013	2014	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	D	UR 2012-14) n-route unit costs (ac n-route costs (NPP, 012-14) n-route costs (actual n-route TSU (NPP) n-route TSU (actual)	ctual)
	130 - 120 - 110 - 100 - 90 - 80 - 70 - 0.85 - 0.75 - 0.70 -	2009		2011	2012	2013	2014	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	D	UR 2012-14) n-route unit costs (ac n-route costs (NPP, 012-14) n-route costs (actual n-route TSU (NPP) n-route TSU (actual)	ctual)

## Monitoring of en-route and terminal COST-EFFICIENCY for 2014



5 Focus on ATSP - "Net" ATSP g	ain/loss on en-	route activity in 2014					
Cost sharing ('000€2009)	2014A						
Determined costs for the ATSP (NPP)	17 217	Combined effect of variations in costs and traffic for 2014 ('000€2009)					
Actual costs for the ATSP	16 686	1	1				
Difference in costs: gain (+)/Loss (-) retained/borne by the ATSP	531						
Amounts excluded from cost sharing to be recovered from (+) reimbursed to (-) users	-	Gain/loss from cost sharing					
Gain (+)/Loss (-) to be retained by the ATSP in respect of cost sharing	531						
Traffic risk sharing ('000€2009)	2014A						
Difference in total service units (actual vs NPP)	0.24%	Gain/loss from traffic risk sharing					
Determined costs after deduction of costs for exempted VFR flights	17 684		Γ				
ATSP gain (traffic between 0 and +2% higher than NPP)	43		1				
ATSP gain (traffic between +2% and +10% higher than NPP)	-	Bonus/penalty from incentives					
ATSP loss (traffic between 0 and -2% below NPP)	-	Bonda pondity non moonavoo					
ATSP loss (traffic between -2% and -10% below NPP)	-		_				
Gain (+)/Loss (-) to be retained by the ATSP in respect of traffic risk sharing	43						
Incentives ('000€2009)	2014A	Net ATSP gain/loss					
ATSP bonus (+) / penalty (-)	-	-60	00 -400 -200 0 200 400 600				
Gain (+)/Loss (-) to be retained by the ATSP in respect of incentives	_	-60	ATSP loss				
Net ATSP gain(+)/loss(-) on en-route activity	574		ATOF ISSS 1 ATOF Gall				

let ATSF gain(+)	)/loss(-) on en-route activi	ty		574				
		6	En-route ATSP e	stimated surp	lus*			
		conomic surplus retained by thating profit/loss reported in the			on the information prov	ided in the Reporting	Tables. This is	
ATSP estimated	surplus ('000€2009)		2012P	2012A	2013P	2013A	2014P	2014A
otal asset base			19 302	17 264	18 404	15 483	16 934	15 9
stimated proport	ion of financing through equ	ity (in %)	88.5%	93.6%	76.0%	100%	100%	10
stimated proport	ion of financing through equ	ity (in value)	17 087	16 166	13 988	15 483	16 934	15 9
stimated proport	ion of financing through deb	ot (in %)	11.5%	6.4%	24.0%	-	-	
stimated proport	ion of financing through deb	t (in value)	2 215	1 097	4 417	-	-	
ost of capital pre	e-tax (in value)		1 312	1 146	1 076	898	847	7
verage interest o	on debt (in %)		6.0%	2.8%	6.0%	3.0%	-	
nterest on debt (ir	n value)		133	30	265	-	-	
etermined RoE p	ore-tax rate (in %)		6.9%	6.9%	5.8%	5.8%	5.0%	5.
stimated surplus	embedded in the cost of ca	apital for en-route (in value)	1 179	1 115	811	898	847	7
let ATSP gain(+)	/loss(-) on en-route activity			153		599		5
verall estimated	d surplus (+/-) for the en-re	oute activity	1 179	1 268	811	1 497	847	1 3
	or the en-route activity		16 883	17 030	16 882	16 943	17 217	17 2
	is (+/-) in percent of en-ro	ute revenue/costs	7.0%	7.4%	4.8%	8.8%	4.9%	7.
stimated ex-pos	st RoE pre-tax rate (in %)		6.9%	7.8%	5.8%	9.7%	5.0%	8.
2.	0 7			T 10.0%				
1.3	8	<b>♦</b>		9.0%				
1.0	6 -	•	<b>♦</b>	8.0%				
	<b>♦</b>		•		■ Estimated actual	surplus (+/-) for the er	n-route activity (in value	e)
1.· 80	4 - •			7.0%				
MEUR2009	2			6.0%				
<b>≝</b> 1.	0 -	<b>♦</b>	<b>♦</b>	5.0%	■ Estimated surplus	s embedded in the cos	st of capital for en-route	e (in value)
0.	8 -			4.0%				
0.0	6 -			3.0%				
0.				2.0%	Estimated surplu:	s (+/-) in percent of en-	-route revenue/costs	
0.:	2 -			1.0%				
-	NPP Actual	NPP Actual	NPP Actual	0.0%				
		NPP Actual						
	2012	2013	2014	I				

#### Monitoring of en-route and terminal COST-EFFICIENCY for 2014

7 General conclusions on the monitoring of the 2014 en-route DUR
Notes on information provided by LATVIA
At State / Charging Area level
In 2014, Latvia's real en-route unit cost (25.74 €2009) is -3.4% lower than planned in the NPP (26.64 €2009). This difference is due to the fact that actual en-route costs are -3.1% (-0.6 M€2009) lower than planned in real terms, while the actual number of total service units (TSUs) is slightly higher than planned
(+0.2%).  The difference between the actual and planned total en-route service units (+0.2%) falls inside the ±2% dead band and is therefore fully borne by the ATSP.

#### Actual 2014 costs vs. NPP

The Latvian en-route cost-base includes costs relating to: the en-route ATSP (LGS), the MET service provider (LVGMC), the Latvian NSA and the EUROCONTROL Agency.

In 2014, actual en-route costs for Latvia are -3.1% lower than planned in real terms. This results from a combination of lower en-route costs in nominal terms (-5.7%) and a lower inflation index (-2.9 p.p.). The cost savings are mostly attributable to LGS (-3.1% in real terms, -0.5 M€2009). A detailed analysis of LGS's costs is provided in the box below. The costs associated with LVGMC are -29.9% lower planned, equivalent to -0.1 M€2009 in absolute terms.

Costs exempt from cost sharing are reported for an amount of -0.04 M€2009 due to lower EUROCONTROL costs than planned. These costs will be eligible for carry-over to the following reference period(s), if deemed allowed by the European Commission after verification on the basis of the NSA report establishing and justifying these exemptions.

#### **RP1 summary**

When considering the whole of RP1 (2012-2014) the actual number of TSUs is +0.5% higher than planned while actual costs in real terms are -2.4% lower than the determined costs (some -1.4 M€2009). As a result, the weighted average unit cost over RP1 (26.66 €2009) is -2.9% lower than planned in the NPP.

#### At ATSP level

#### Actual 2014 LGS costs vs. NPP

LGS 2014 actual en-route costs are -3.1% lower than planned in real terms, as a result of lower than planned costs in all categories except for staff costs which are +10.2% above the NPP (+0.9 M€2009 in absolute terms). According to the Additional Information provided with the en-route Reporting Tables, staff numbers and unit staff costs both contributed to the higher costs. Trade unions were able to negotiate higher ATCO salaries in the context of wage growth across the Latvian economy. At the same time the number of employees increased mainly due to new ATCOs being trained.

Operating costs are lower than planned (-0.5 M€2009 or -16.6%) due to measures taken in previous years, notably i) lower fixed asset maintenance costs and ii) lower training costs. Depreciation costs are also lower than planned (-0.9 M€2009 or -21.7%) following a reduction in capex compared to the NPP as projects were delayed or "reassessed... by taking into consideration the FAB dimension". According to the information provided in the NSA Monitoring Report for 2014 investment over RP1 was -3.9 M€ or -21.0% lower than planned. Lower than planned total capital expenditures, in combination with lower than planned working capital also reduced the cost of capital compared to the NPP (-0.1 M€2009 or -6.1%).

#### LGS net gain/loss and estimated surplus on en-route activity in 2014

As shown in item 5, the en-route activity for the year 2014 generated a net gain of +0.6 M€2009 for LGS. This is due to the combination of two separate elements:

- a gain of +0.5 M€2009 for LGS as a result of the cost-sharing mechanism; and
- a gain of +0.04 M€2009 as a result of the traffic risk sharing mechanism for 2014.

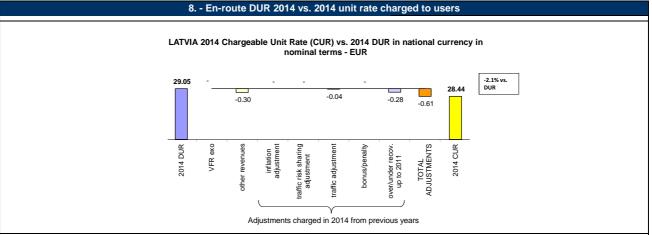
To calculate the overall economic surplus of the ATSP, it is also important to add the surplus embedded in the cost of capital through the return on equity. Based on the figures planned in the NPP, the return on equity amounted to +0.8 M€2009, corresponding to an estimated surplus of 4.9% of the en-route costs/revenues for 2014. Ex-post, the estimated surplus for the year computed by adding the surplus embedded in the cost of capital (+0.8 M€2009) and the net gain from the en-route activity in 2014 (+0.6 M€2009), gives a total of +1.4 M€2009, corresponding to 7.9% of the 2014 en-route revenue. The resulting ex-post rate of return on equity for 2014 is 8.6% (compared to 5.0% planned in the NPP).

#### Conclusions

In 2014 LGS's actual en-route costs are lower than planned (-3.1%, or -0.5 M€2009 in absolute terms) while traffic is slightly higher than foreseen in the NPP (+0.2%). The en-route activity for the year 2014 generated a net gain of +0.6 M€2009 for LGS which results in an estimated actual surplus of +1.4 M€2009 (7.9% of the en-route revenue for 2014, up from the 4.9% planned in the RP1 PP).

When considering the whole of RP1 (2012-2014), LGS could retain a cumulative gain in respect of cost sharing of +1.1 M€2009 due to cost savings in 2013 (+0.5 M€2009) and 2014 (+0.5 M€2009). LGS also retained a cumulative gain in respect of traffic risk sharing amounting to +0.3 M€2009, as traffic remained slightly above planned for all years of RP1. These two effects resulted in a cumulative net gain for the en-route activity of +1.3 M€2009.

#### Monitoring of en-route and terminal COST-EFFICIENCY for 2014



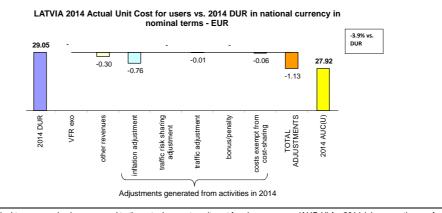
The DUR for 2014 expressed in nominal terms differs from the actual en-route unit rate charged to users in 2014 (CUR).

- the DUR, but also, a deduction of the costs for services to exempted VFR in 2014, as determined prior to the reference period and a deduction of 2014 other revenues;
- as well as adjustments relating to the activities of previous years that are carried-over to 2014. These adjustments include:
- the inflation adjustment:
- \* the adjustment resulting from the implementation of the traffic risk-sharing (ATSP);
- \* the adjustment resulting from the difference in traffic (for costs not subject to traffic risk sharing); \* the bonus/penalty from previous year(s).
- \* the legacy carry-overs incurred in the full cost recovery regime up to and including 2011. For 2014, in most charging zones, these consist exclusively of legacy carry-overs incurred in the full cost recovery regime up to and including 2011.

These costs and adjustments are divided by the forecast total service units for 2014 as laid out in the performance plan.

The actual Chargeable Unit Rate (CUR) charged to users in 2014 is 28.44 €. This is -2.1% lower than the nominal DUR (29.05 €). The difference observed between these two figures (-0.61 €) reflects a combination of negative adjustments for other revenues (-0.30 €), the over recovery in 2011 (-0.28 €) and costs exempt from traffic risk sharing (-0.04 According to the Additional Information provided with the en-route Reporting Tables other revenues relate to rental and financial income.

## 9. - En-route DUR 2014 vs. 2014 actual unit cost for users



The DUR for 2014 expressed in nominal terms can also be compared to the actual en route unit cost for airspace users (AUC-U) for 2014 (also sometimes referred to the "true cost for users"), which reflects the unit cost that the users incur in respect of the activities performed in 2014. The AUC-U comprises:

- the DUR, the deduction of the costs for services to exempted VFR in 2014 and the deduction of 2014 other revenues that has already been billed to the users through the
- as well as adjustments relating to the activities of 2014 but which will be charged or reimbursed to users in future years. These adjustments include:
- the inflation adjustment;
- \* the adjustments resulting from the implementation of the traffic risk-sharing (ATSP);

  \* the adjustments resulting from the difference in traffic (for costs not subject to traffic risk sharing);
- \* the bonus/penalty for the current year;
  \* the costs exempt from cost sharing (if deemed eligible)

These costs and adjustments are divided by the actual total service units in 2014.

The unit cost that the users incurred in respect of the activities performed in 2014 is 27.92 €. This is -3.9% lower than the nominal DUR (29.05 €). The difference observed between these two figures (-1.13 €) predominantly reflects a negative adjustment due to lower than planned inflation (- 0.76 €) and a deduction for other revenues (-0.30 €). Small negative adjustments also apply relating to the traffic adjustment for costs exempt from traffic risk sharing (-0.01 €) and for costs exempt from cost sharing (-0.06 €).

#### Monitoring of en-route and terminal COST-EFFICIENCY for 2014

Terminal Service Unit Formula  Number of airports in terminal charging zone of which, number of airports over 50 000 movements	(MTOW/50)^	2009	2010	2011	2012	2013	2014
Number of airports in terminal charging zone	(MTOW/50)^						
				0.7	0.7	0.7	0.7
of which, number of airports over 50 000 movements				3	3	3	3
				1	1	1	1
<del> </del>							
LATVIA - Data from RP1 national performance plan		2009A	2010A	2011F	2012P	2013P	2014P
Terminal ANS costs for the charging zones - (in EUR)				8 141 088	8 357 894	8 504 895	9 047 642
Inflation index (100 in 2009)		100.0	98.9	103.1	105.4	107.2	109.0
Real terminal ANS costs - (in EUR2009)				7 899 842	7 927 882	7 932 468	8 297 626
LATVIA - Actual data from June 2015 Reporting Tables		2009A	2010A	2011A	2012A	2013A	2014A
Terminal ANS costs for the charging zones - (in EUR)				6 984 835	6 517 898	6 035 811	6 011 022
Inflation index (100 in 2009)		100.0	98.9	103.1	105.4	105.4	106.2
Real terminal ANS costs - (in EUR2009)				6 777 853	6 182 554	5 725 270	5 662 122
Total terminal service units				34 500	32 000	32 093	30 929
Actual real unit costs - (in EUR2009)				196.5	193.2	178.4	183.1
Unit rate applied - (in EUR)					89.73	89.73	89.73
Difference between Actuals and Planned in absolute value	and in percentage	e (Actuals vs. NP	P)		2012	2013	2014
Terminal ANS costs for the charging zones - (in EUR)	in value				-1 839 995	-2 469 084	-3 036 620
	in%				-22.0%	-29.0%	-33.6%
Inflation index (100 in 2009)	in p.p.				0.0 p.p.	-1.8 p.p.	-2.9 p.p
Real terminal ANS costs - (in EUR2009)	in value				-1 745 328	-2 207 198	-2 635 504
	in%				-22.0%	-27.8%	-31.8%

#### 11. - General conclusions on the Terminal ANS costs and unit rates monitoring

The terminal charging zone in Latvia comprises 3 airports of which only one (Riga) handles over 50 000 movements. The harmonised SES formula (MTOW/50)^0.7 already applies in Latvia's terminal charging zone.

The 2014 actual terminal ANS costs are -31.8% lower than planned in real terms (-2.6 M€2009). This results from the combination of lower terminal ANS costs in nominal terms (-33.6%) and a lower inflation index (-2.9 p.p.). According to the Additional Information provided with the terminal Reporting Tables, the reduction in costs is related to the lower than forecast terminal traffic, due in part to problems associated with the National Carrier and to delays in planned capex. The real unit cost for terminal services is 183.1 €2009 in 2014, significantly above the unit rate applied for all years of RP1 (89.73 €).

### RP1 summary

When considering the whole of RP1 (2012-2014), actual terminal ANS costs are -27.3% (or some -6.6 M€2009) lower than planned in the NPP. This reflects the fact that terminal ANS costs are lower than planned in real terms in each year of RP1.

	12 Monito	oring of gate-to-	gate costs (2	2014)			
LATVIA - Data from RP1 national performance plan	TVIA - Data from RP1 national performance plan		2010A	2011F	2012P	2013P	2014P
Real en-route costs (determined costs 2012-2014) - (in El	JR2009)	15 219 037	16 717 665	19 195 307	19 932 105	19 983 169	20 381 458
Real terminal ANS costs - (in EUR2009)		0	0	7 899 842	7 927 882	7 932 468	8 297 626
Real gate-to-gate ANS costs - (in EUR2009)		15 219 037	16 717 665	27 095 150	27 859 987	27 915 637	28 679 084
Share of en-route costs in gate-to-gate ANS costs		N/A	N/A	70.8%	71.5%	71.6%	71.1%
LATVIA - Actual data from June 2015 Reporting Table	s	2009A	2010A	2011A	2012A	2013A	2014A
Real en-route costs - (in EUR2009)		15 219 037	16 717 665	20 040 973	19 777 889	19 341 645	19 740 354
Real terminal ANS costs - (in EUR2009)		0	0	6 777 853	6 182 554	5 725 270	5 662 122
Real gate-to-gate ANS costs - (in EUR2009)		15 219 037	16 717 665	26 818 826	25 960 443	25 066 915	25 402 476
Share of en-route costs in gate-to-gate ANS costs		N/A	N/A	74.7%	76.2%	77.2%	77.7%
Difference between Actuals and Planned in absolute v	alue and in percent	age (Actuals vs. NP	PP)		2012	2013	2014
Real en-route costs - (in EUR2009)	in value				-154 216	-641 525	-641 104
	in %				-0.8%	-3.2%	-3.1%
Real terminal ANS costs - (in EUR2009)	in value				-1 745 328	-2 207 198	-2 635 504
in %					-22.0%	-27.8%	-31.8%
Real gate-to-gate ANS costs - (in EUR2009)	in value				-1 899 544	-2 848 723	-3 276 608
	in %				-6.8%	-10.2%	-11.4%
Share of en-route costs in gate-to-gate ANS costs	in p.p				4.6 p.p.	5.6 p.p.	6.6 p.p.

## 13. - General conclusions on the gate-to-gate ANS costs

Actual 2014 gate-to-gate costs are -11.4% lower than planned in real terms due predominantly to reduced terminal ANS costs (-2.6 M $\in$ 2009, -31.8%) in addition to lower than planned costs for en-route (-0.6 M $\in$ 2009, -3.1%).

The allocation of gate-to-gate costs between en-route ANS and terminal ANS remained quite stable over RP1 (76-78% share to en-route). However this is notably different from the NPP (approximately 71% share to en-route) due to the significant reduction in terminal ANS costs.





## PRB Annual Monitoring Report 2014

Lithuania

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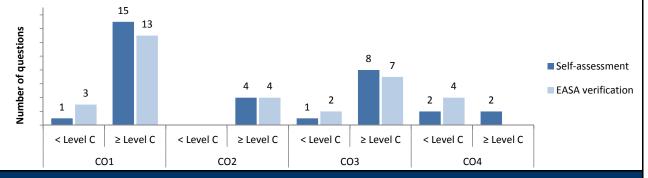
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## Monitoring of SAFETY indicators for 2014

Effectiveness of Safety Management									
	2012	2013	2014	State level Observations					
State level	58	58	58						
ANSP [ORO NAVIGACIJA]	83	85	78						



## Application of the severity classification of the Risk Analysis Tool (RAT)

		2012		2013		2014	
		No reported	Assessed (%)	No reported	Assessed (%)	No reported	Assessed (%)
Separation Minima	eparation Minima ATM Ground		N/A	0	N/A	1	100%
Infringements (SMIs)	ATM Overall	0	N/A	U	N/A	'	100%
Runway Incursions (RIs)	ATM Ground	0	N/A	0	N/A	2	100%
Rullway ilicuisions (Ris)	ATM Overall	U	N/A	U	N/A	2	100%
ATM Specific Occurences (ATM-Specific)	- A IM OVERAIL		100%	17	100%	10	100%

Source of RAT data: ORO NAVIGACIJA

Just culture										
	State									
Number of questions answered with Yes or No	20	12	2013		2014					
	YES	NO	YES	NO	YES	NO				
Policy and its implementation	6	4	6	4	5	4				
Legal/Judiciary	7	1	7	1	6	1				
Occurrence reporting and Investigation	2	0	2	0	2	0				
TOTAL	15	5	15	5	13	5				

	ANSP [ORO NAVIGACIJA]								
Number of questions answered with Yes or No	2012		2013		2014				
	YES	NO	YES	NO	YES	NO			
Policy and its implementation	11	2	11	2	11	2			
Legal/Judiciary	2	1	3	0	3	0			
Occurrence reporting and Investigation	8	0	8	0	8	0			
TOTAL	21	3	22	2	22	2			

## **Monitoring of CAPACITY indicators for 2014**

	n-route delay			
	2012	2013	2014	Observations
Reference value	0.04	0.05	0.06	
National Target	0.04	0.05	0.05	
Actual performance	0	0	0	

## **National capacity assessment**

General performance achievement is very good.

## Military dimension of the plan

The national monitoring report confirms that there is no requirement to apply FUA to increase capacity for general air traffic as, "ATC capacity is sufficient."

## **PRB Capacity assessment**

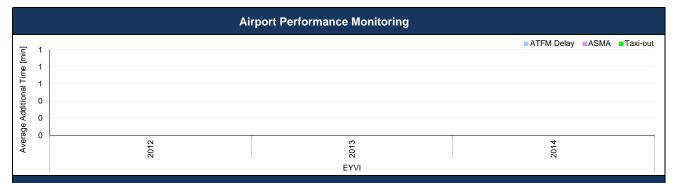
The excellent capacity performance in 2012 and 2013, continued in 2014, with Lithuania surpassing the national target and the effort required to be consistent with the Union-wide target.

## **Effective booking procedures**

Allocation and activation of restricted or segregated areas has no impact on available ATC capacity or on available route options for general air traffic.

## Recommendations

### Monitoring of CAPACITY indicators for 2014



#### **Airport Data** Average of Total Additional Total Sum of Total Apt. Additional **ICAO** Apt. ATFM Additional taxi-out Additional Total **Airport Name RP1 Year** ATFM arr. **ASMA** time arr. Delay Additional Code ASMA time time taxi-out delay [min.] [min./arr.] [min./arr.] [min./dep.] time [total] Time [min] [min] 0 2012 0.0 n/appl. n/appl. n/a n/a n/a Vilnius Intl EYVI 0 0.0 2013 n/appl. n/appl. n/a n/a n/a 0 2014 0.0 n/appl n/appl n/a n/a n/a 2012 0.0 0 n/appl. n/appl. n/a n/a n/a Total 2013 0.0 0 n/appl. n/appl n/a n/a n/a 2014 0.0 0 n/a n/a n/a n/appl. n/appl. 2014-2013 0.0 0 n/a n/appl. n/appl. n/a n/a **Absolute Difference** 0 2014-2012 0.0 n/appl. n/appl. n/a n/a n/a

• Missing Mandatory data. Addendum of NPP for RP1 of 30 January 2012 clarifies that data will be available at the latest for RP2. Representative of Vilnius Int. Airport reconfirmed their plans to provide these data from 1 January 2015.

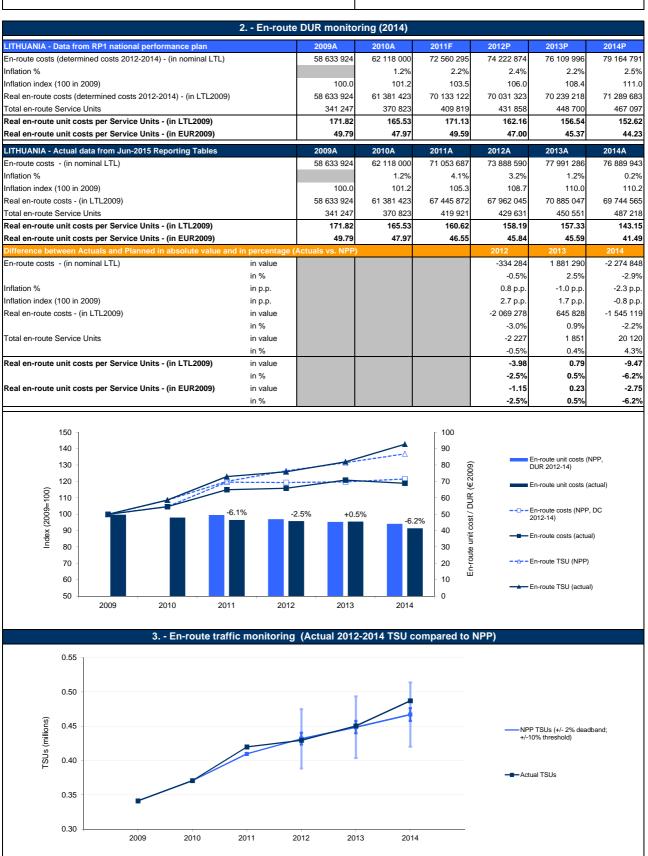
#### **Specific Analysis**

**Critical Issues** 

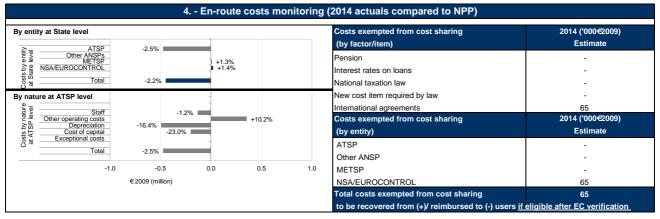
• No specific operational concern regarding RP1 performance monitoring.

#### Monitoring of en-route and terminal COST-EFFICIENCY for 2014

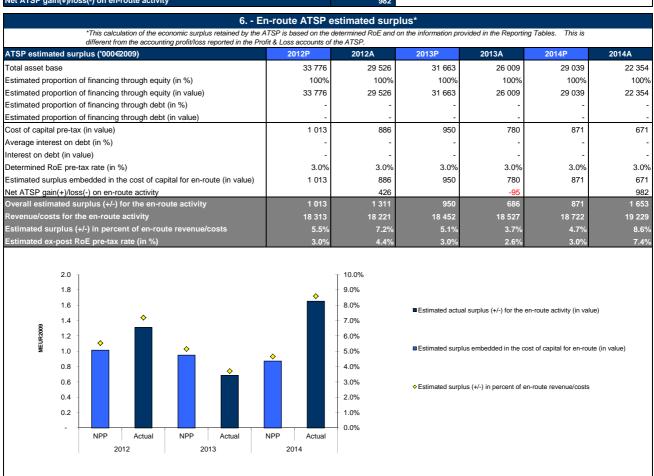




#### Monitoring of en-route and terminal COST-EFFICIENCY for 2014



Cost sharing ('000€2009)	2014A				
Determined costs for the ATSP (NPP)	18 722	Combined effect of variations in ( 000€2009)			
Actual costs for the ATSP	18 248		,		
Difference in costs: gain (+)/Loss (-) retained/borne by the ATSP	474				
Amounts excluded from cost sharing to be recovered from (+) reimbursed to (-) users	-	Gain/loss from cost sharing			
Gain (+)/Loss (-) to be retained by the ATSP in respect of cost sharing	474	74			
Traffic risk sharing ('000€2009)	2014A				
Difference in total service units (actual vs NPP)	4.31%	Gain/loss from traffic risk sharing			
Determined costs after deduction of costs for exempted VFR flights	18 858				
ATSP gain (traffic between 0 and +2% higher than NPP)	377				
ATSP gain (traffic between +2% and +10% higher than NPP)	131	Bonus/penalty from incentives			
ATSP loss (traffic between 0 and -2% below NPP)	-				
ATSP loss (traffic between -2% and -10% below NPP)	-				
Gain (+)/Loss (-) to be retained by the ATSP in respect of traffic risk sharing	508				
Incentives ('000€2009)	2014A	Net ATSP gain/loss			
ATSP bonus (+) / penalty (-)	20147				
Gain (+)/Loss (-) to be retained by the ATSP in respect of incentives		-1 000 -500	0 500 100		
San (1// 2000 ( ) to 20 15tamou 2/ the 1110.		ATSP los	s ATSP gain		
Net ATSP gain(+)/loss(-) on en-route activity	982	7	·		



#### Monitoring of en-route and terminal COST-EFFICIENCY for 2014

7 General conclusions on the monitoring of the 2014 en-route DUR							
otes on information provided by LITHUANIA							
	Ī						
	Į						
	Į						
	4						
At State / Charging Area level	_						

In 2014, Lithuania's real en-route unit cost (41.49 €2009) is -6.2% lower than planned in the NPP (44.23 €2009). This difference is due to the fact that actual en-route costs are -2.2% (-0.4 M€2009) lower than planned in real terms, while the actual number of total service units (TSUs) is +4.3% higher than planned. The difference between the actual and the planned TSUs for the year 2014 falls outside the ± 2% dead band foreseen in the traffic risk sharing mechanism, although it does not exceed the +10% threshold. The related loss is therefore shared between the airspace users and the ATSP.

#### Actual 2014 costs vs. NPP

The Lithuanian en-route cost-base includes costs relating to: the en-route ATSP (Oro Navigacija), the MET service provider (LHMS), the Lithuanian NSA and the EUROCONTROL Agency.

In 2014, actual en-route costs for Lithuania are -2.2% lower than planned in real terms, resulting from a combination of lower en-route costs in nominal terms (-2.9%) and a lower inflation index (-0.8 p.p.). The cost savings are wholly attributable to Oro Navigacija (-2.5% in real terms, -0.5 M€2009). A detailed analysis of Oro Navigacija's costs is provided in the box below. The costs associated with LHMS are +1.3% higher than planned, equivalent to +0.01 M€2009 in absolute terms. According to the Additional Information provided with the June 2015 en-route Reporting Tables this is due to higher staff costs as well as the cost of repair works for meteorological radar. NSA/EUROCONTROL costs were also higher than planned (+1.4%, +0.02 M€2009) due to slightly higher EUROCONTROL costs.

Costs exempt from cost sharing are reported for an amount of +0.07 M€2009 as EUROCONTROL costs are higher than planned. These costs will be eligible for carry-over to the following reference period(s), if deemed allowed by the European Commission after verification on the basis of the NSA report establishing and justifying these exemptions.

#### **RP1 summary**

When considering the whole of RP1 (2012-2014) the actual number of TSUs is +1.5% higher than planned while actual costs in real terms are -1.4% lower than the determined costs (some -0.9 M€2009). As a result, the weighted average unit rate over RP1 (44.21 €2009) is -2.8% lower than planned.

#### At ATSP level

#### Actual 2014 Oro Navigacija costs vs. NPP

Oro Navigacija 2014 actual en-route costs are -2.5% lower than planned in real terms, as a result of lower than planned costs in all categories, except for other operating costs which are +10.2% above the NPP (+0.4 M€2009 in absolute terms). According to the Additional Information to the June 2015 en-route Reporting Tables, this is due to increases in the cost of post warranty contracts and the electricity price as well as write-offs of en-route charges.

Most of the savings are achieved through lower than planned depreciation costs (-16.4% or -0.5 M€2009 in absolute terms) and lower than planned cost of capital (-23.0% or -0.2 M€2009 in absolute terms). A key enabler of these savings is that the main ATM system reached the end of its accounting life earlier than planned (2013 compared to 2016 in NPP), reducing both depreciation costs and the asset base used to calculate the cost of capital. Staff costs are also lower than planned (-1.2%, or -0.1 M€2009 in absolute terms).

#### Oro Navigacija net gain/loss and estimated surplus on en-route activity in 2014

As shown in item 5, the en-route activity for the year 2014 generated a net gain of +1.0 M€2009 for Oro Navigacija. This is due to the combination of two separate elements:

- a gain of +0.5 M€2009 as a result of the cost-sharing mechanism; and
- a gain of +0.5 M€2009 as a result of the traffic risk sharing mechanism for 2014.

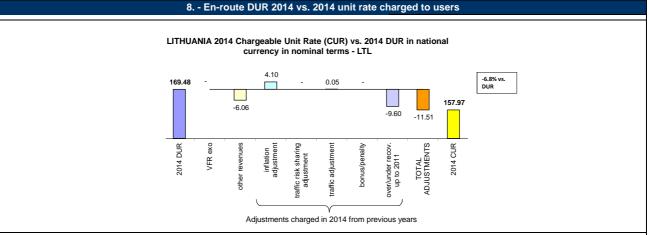
To calculate the overall economic surplus of the ATSP, it is also important to add the surplus embedded in the cost of capital through the return on equity. Based on the figures planned in the NPP, the return on equity amounted to +0.9 M€2009, corresponding to an estimated surplus of 4.7% of the en-route costs/revenues for 2014. Ex-post, the estimated surplus for the year computed by adding the surplus embedded in the cost of capital (+0.7 M€2009) and the net gain from the en-route activity in 2014 (+1.0 M€2009), gives a total of +1.7 M€2009, corresponding to 8.6% of the 2014 en-route revenue. The resulting ex-post rate of return on equity for 2014 is 7.4% (compared to 3.0% planned in the NPP).

#### Conclusions

In 2014 Oro Navigacija's actual en-route costs are lower than planned (-2.5%, or − 0.5 M€2009 in absolute terms) while traffic is +4.3% higher than foreseen in the NPP. The en-route activity for the year 2014 generated a net gain of +1.0 M€2009 for Oro Navigacija which results in an estimated actual surplus of 1.7 M€2009 (8.6% of the en-route revenue for 2014, up from the 4.7% planned in the RP1 PP).

When considering the whole of RP1 (2012-2014), Oro Navigacija could retain a cumulative gain in respect of cost sharing of +0.8 M€2009 due to cost savings in 2012 (+0.5 M€2009) and 2014 (+0.5 M€2009). Oro Navigacija also retained a cumulative gain in respect of traffic risk sharing amounting to +0.5M€2009, predominantly from higher than planned traffic in 2014. These two effects resulted in a cumulative net gain for the en-route activity of +1.3M€2009.

#### Monitoring of en-route and terminal COST-EFFICIENCY for 2014



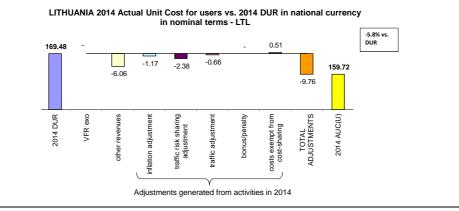
The DUR for 2014 expressed in nominal terms differs from the actual en-route unit rate charged to users in 2014 (CUR).

- the DUR, but also, a deduction of the costs for services to exempted VFR in 2014, as determined prior to the reference period and a deduction of 2014 other revenues;
- as well as adjustments relating to the activities of previous years that are carried-over to 2014. These adjustments include:
- the inflation adjustment:
- \* the adjustment resulting from the implementation of the traffic risk-sharing (ATSP);
- \* the adjustment resulting from the difference in traffic (for costs not subject to traffic risk sharing); \* the bonus/penalty from previous year(s).
- \* the legacy carry-overs incurred in the full cost recovery regime up to and including 2011.

These costs and adjustments are divided by the forecast total service units for 2014 as laid out in the performance plan.

The actual Chargeable Unit Rate (CUR) charged to users in 2014 is 157.97 LTL. This is -6.8% lower than the nominal DUR (169.48 LTL). The difference observed between these two figures (-11.51 LTL) reflects mainly a combination of negative adjustments for the over recovery in 2011 (-9.60 LTL) and other revenues (-6.06 LTL). According to the Additional Information provided with the June 2015 en-route Reporting Tables, other revenues relate to income from provision of radar information to the Lithuanian military and from the sale of AIP and AIC. These are offset by a positive adjustment due to higher inflation than planned in 2012 (+4.10 LTL) and a positive adjustment for costs not subject to traffic risk sharing resulting from lower than planned traffic for 2012 (+0.05 LTL).

## 9. - En-route DUR 2014 vs. 2014 actual unit cost for users



The DUR for 2014 expressed in nominal terms can also be compared to the actual en route unit cost for airspace users (AUC-U) for 2014 (also sometimes referred to the "true cost for users"), which reflects the unit cost that the users incur in respect of the activities performed in 2014. The AUC-U comprises:

- the DUR, the deduction of the costs for services to exempted VFR in 2014 and the deduction of 2014 other revenues that has already been billed to the users through the
- as well as adjustments relating to the activities of 2014 but which will be charged or reimbursed to users in future years. These adjustments include:
- the inflation adjustment;
- the adjustments resulting from the implementation of the traffic risk-sharing (ATSP);
  the adjustments resulting from the difference in traffic (for costs not subject to traffic risk sharing);
- \* the bonus/penalty for the current year;
  \* the costs exempt from cost sharing (if deemed eligible)

These costs and adjustments are divided by the actual total service units in 2014.

The unit cost that the users incurred in respect of the activities performed in 2014 is 159.72 LTL. This is -5.8% lower than the nominal DUR (169.48 LTL). The difference observed between these two figures (-9.76 LTL) reflects mainly a combination of negative adjustments for other revenues (-6.06 LTL), lower inflation than planned (-1.17 LTL), traffic risk sharing adjustment (-2.38 LTL) and costs exempt from traffic risk sharing (-0.66 LTL). There is also a positive adjustment related to the costs exempt from costsharing (+0.51 LTL).

#### Monitoring of en-route and terminal COST-EFFICIENCY for 2014

1	0 Terminal co	sts and unit r	ates monitor	ing (2014)			
		2009	2010	2011	2012	2013	2014
Terminal Service Unit Formula	(MTOW/50)^	0.5	0.5	0.5	0.7	0.7	0.7
Number of airports in terminal charging zone		3	4	4	4	4	4
of which, number of airports over 50 000 movements							
LITHUANIA - Data from RP1 national performance plan	ı	2009A	2010A	2011F	2012P	2013P	2014P
Terminal ANS costs for the charging zones - (in LTL)		9 468 000	10 968 000	12 603 000	13 252 000	13 866 000	14 972 00
Inflation index (100 in 2009)		100.0	101.2	103.5	106.0	108.4	111.0
Real terminal ANS costs - (in LTL2009)		9 468 000	10 837 945	12 181 424	12 503 626	12 796 440	13 482 62
Real terminal ANS costs - (in EUR2009)		2 743 863	3 140 878	3 530 223	3 623 599	3 708 457	3 907 316
LITHUANIA - Actual data from June 2015 Reporting Ta	bles	2009A	2010A	2011A	2012A	2013A	2014A
Terminal ANS costs for the charging zones - (in LTL)		9 468 000	10 968 000	11 413 953	13 846 672	15 270 225	16 992 03
Inflation index (100 in 2009)		100.0	101.2	105.3	108.7	110.0	110.
Real terminal ANS costs - (in LTL2009)		9 468 000	10 837 945	10 834 400	12 736 041	13 878 867	15 412 96
Real terminal ANS costs - (in EUR2009)		2 743 863	3 140 878	3 139 851	3 690 954	4 022 149	4 466 73
Total terminal service units		14 117	17 236	18 361	19 495	21 275	24 057
Actual real unit costs - (in LTL2009)		670.7	628.8	590.1	653.3	652.3	640.7
Unit rate applied - (in LTL)					739.69	726.37	745.2
Difference between Actuals and Planned in absolute v	alue and in percenta	ige (Actuals vs. I	NPP)		2012	2013	2014
Terminal ANS costs for the charging zones - (in LTL)	in value				594 672	1 404 225	2 020 03
	in%				4.5%	10.1%	13.5%
Inflation index (100 in 2009)	in p.p.				2.7 p.p.	1.7 p.p.	-0.8 p.p
Real terminal ANS costs - (in LTL2009)	in value				232 415	1 082 426	1 930 34
	in%				1.9%	8.5%	14.3%
Real terminal ANS costs - (in EUR2009)	in value				67 355	313 691	559 42
	in%				1.9%	8.5%	14.3%

#### 11. - General conclusions on the Terminal ANS costs and unit rates monitoring

The terminal charging zone of Lithuania comprises 4 airports, none of which has over 50 000 air transport movements per year. The harmonised SES formula (MTOW/50)^0.7 is applied from 2012 onwards.

The 2014 actual terminal ANS costs are +14.3% higher than planned in real terms (+0.6 M€2009) resulting from the combination of higher terminal ANS costs in nominal terms (+13.5%) and a lower inflation index (-0.8 p.p.). According to the Additional Information provided with the terminal Reporting Tables, the increase in costs is related to the write-offs for terminal charges, notably related to the National Carrier FlyLAL which suspended operations in 2009, and higher than forecast terminal traffic.

The actual unit cost for terminal services is 640.7 LTL2009 in 2014, -1.8% compared to the real unit cost for 2013. The Unit Rate applied in 2014 is is 745.22 LTL, +2.6% higher than the rate applied in 2013.

#### RP1 summary

When considering the whole of RP1 (2012-2014), actual terminal ANS costs are +8.4% higher in real terms (or some +0.9 M $\le$ 2009) than planned in the NPP. This reflects the fact that terminal ANS costs are higher than planned in real terms in each year of RP1 (+1.9% in 2012, +8.5% in 2013 and +14.3% in 2014).

	12 Monito	ring of gate-to	o-gate costs	(2014)			
LITHUANIA - Data from RP1 national performance plan		2009A	2010A	2011F	2012P	2013P	2014P
Real en-route costs (determined costs 2012-2014) - (in L	TL2009)	58 633 924	61 381 423	70 133 122	70 031 323	70 239 218	71 289 683
Real terminal ANS costs - (in LTL2009)		9 468 000	10 837 945	12 181 424	12 503 626	12 796 440	13 482 624
Real gate-to-gate ANS costs - (in LTL2009)		68 101 924	72 219 368	82 314 546	82 534 950	83 035 659	84 772 308
Real gate-to-gate ANS costs - (in EUR2009)		19 736 199	20 929 449	23 855 071	23 918 945	24 064 052	24 567 340
Share of en-route costs in gate-to-gate ANS costs		86.1%	85.0%	85.2%	84.9%	84.6%	84.1%
LITHUANIA - Actual data from June 2015 Reporting T	ables	2009A	2010A	2011A	2012A	2013A	2014A
Real en-route costs - (in LTL2009)		58 633 924	61 381 423	67 445 872	67 962 045	70 885 047	69 744 565
Real terminal ANS costs - (in LTL2009)		9 468 000	10 837 945	10 834 400	12 736 041	13 878 867	15 412 967
Real gate-to-gate ANS costs - (in LTL2009)		68 101 924	72 219 368	78 280 272	80 698 086	84 763 913	85 157 532
Real gate-to-gate ANS costs - (in EUR2009)		19 736 199	20 929 449	22 685 923	23 386 615	24 564 907	24 678 979
Share of en-route costs in gate-to-gate ANS costs		86.1%	85.0%	86.2%	84.2%	83.6%	81.9%
Difference between Actuals and Planned in absolute	value and in percen	tage (Actuals vs.	NPP)		2012	2013	2014
Real en-route costs - (in LTL2009)	in value				-2 069 278	645 828	-1 545 119
	in %				-3.0%	0.9%	-2.2%
Real terminal ANS costs - (in LTL2009)	in value				232 415	1 082 426	1 930 343
in %					1.9%	8.5%	14.3%
Real gate-to-gate ANS costs - (in LTL2009) in value					-1 836 863	1 728 255	385 224
in %					-2.2%	2.1%	0.5%
Real gate-to-gate ANS costs - (in EUR2009)	in value				-532 330	500 855	111 639
	in %				-2.2%	2.1%	0.5%
Share of en-route costs in gate-to-gate ANS costs	in p.p				-0.6 p.p.	-1.0 p.p.	-2.2 p.p.

## 13. - General conclusions on the gate-to-gate ANS costs

Actual 2014 gate-to-gate costs are +0.5% above planned in real terms due to a combination of lower than planned en-route ANS costs ( $-0.4 \, \text{M} \stackrel{<}{\sim} 2009, -2.2\%$ ) and higher than planned terminal ANS costs ( $+0.6 \, \text{M} \stackrel{<}{\sim} 2009, +14.3\%$ ).

The allocation of gate-to-gate costs to en-route ANS has fallen from 86% in 2011 to 82% in 2014 due to the opposite trends observed for en-route and terminal costs. This was not planned in the NPP and the share of en-route in gate-to-gate ANS costs was planned to remain relatively stable (84-85%).





# PRB Annual Monitoring Report 2014

Malta

Working Draft 2.0

Edition date: 03/09/2015



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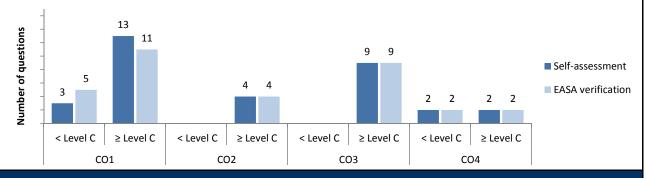
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## Monitoring of SAFETY indicators for 2014

Effectiveness of Safety Management									
	2012	2013	2014	State level Observations					
State level	74	56	63						
ANSP [MATS]	80	80	83						



#### Application of the severity classification of the Risk Analysis Tool (RAT) 2012 2013 2014 No Assessed No Assessed No Assessed reported reported (%) reported (%)(%) ATM Ground 100% 100% 100% **Separation Minima** 2 6 3 Infringements (SMIs) **ATM Overall** 100% 100% 100% **ATM Ground** 100% 83% 100% Runway Incursions (RIs) 3 12 34 **ATM Overall** 100% 100% 83% **ATM Specific Occurences ATM Overall** 22% 87 5% 63 151 6% (ATM-Specific) Source of RAT data: Transport Malta

Just culture									
	State								
Number of questions answered with Yes or No	2012		2013		2014				
	YES	NO	YES	NO	YES	NO			
Policy and its implementation	8	2	7	3	9	0			
Legal/Judiciary	3	5	5	3	7	0			
Occurrence reporting and Investigation	2	0	1	1	1	1			
TOTAL	13	7	13	7	17	1			

	ANSP [MATS]							
Number of questions answered with Yes or No	2012		2013		2014			
	YES	NO	YES	NO	YES	NO		
Policy and its implementation	11	2	11	2	11	2		
Legal/Judiciary	2	1	2	1	2	1		
Occurrence reporting and Investigation	5	3	5	3	5	3		
TOTAL	18	6	18	6	18	6		

## **Monitoring of CAPACITY indicators for 2014**

Minutes of ATFM en-route delay										
	2012	2013	2014	Observations						
Reference value	0.02	0.03	0.05							
National Target	0.02	0.03	0.05							
Actual performance	0	0	0							

## National capacity assessment

No information was provided by the National Supervisory Authority on the assessment of national capacity performance.

## Military dimension of the plan (Opt.)

The NSA for Malta has confirmed in 2012 that the allocation and activation of restricted or segregated areas has no adverse impact on either ATC capacity, or on the ability of aircraft operators to file flight plans.

## **PRB Capacity assessment**

With the excellent capacity performance in 2012, 2013 & 2014, Malta has exceeded the national target and the level of performance required to be consistent with the EU-wide target for each year in RP1.

## **Effective booking procedures**

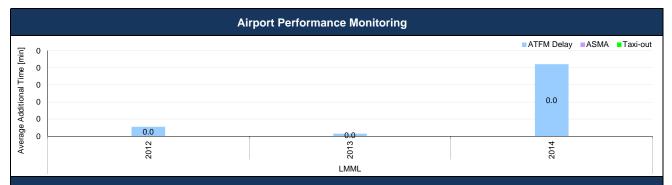
The national monitoring report did not contain any information on effective booking procedures.

In 2012, the NSA for Malta stated that the allocation and activation of restricted or segregated areas has no impact on available ATC capacity, or on available route options for general air traffic.

The PRB understands that the above statement holds true for 2014 and that therefore there is no need for Malta to report on effective booking procedures.

## Recommendations

### Monitoring of CAPACITY indicators for 2014



#### **Airport Data** Average of Total Additional Total Sum of Additional Total Apt. **ICAO** Apt. ATFM Additional taxi-out Additional Total RP1 Year **Airport Name** ATFM arr. **ASMA** time arr. Delay Additional Code ASMA time time taxi-out delay [min.] [min./arr.] [min./arr.] [min./dep.] time [total] Time [min] [min] 46 2012 0.0 n/appl. n/appl. n/a n/a n/a Malta/Luqa LMML 0.0 13 2013 n/appl. n/appl. n/a n/a n/a 2014 0.0 404 n/appl n/appl n/a n/a n/a 2012 0.0 46 n/appl. n/appl. n/a n/a n/a Total 2013 0.0 13 n/appl. n/appl n/a n/a n/a 2014 0.0 404 n/a n/a n/a n/appl. n/appl. 2014-2013 0.0 391 n/a n/a n/appl. n/appl. n/a **Absolute Difference** 2014-2012 0.0 358 n/appl. n/appl. n/a n/a n/a

## Critical Issues

• Data quality issue prohibited the calculation of unimpeded taxi-out time.

## **Specific Analysis**

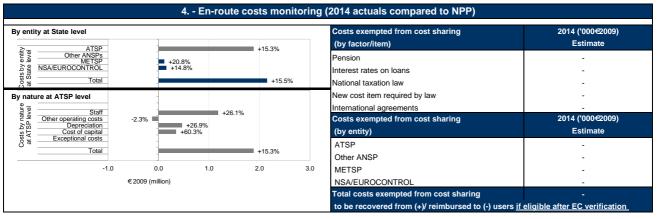
• The average additional taxi-out time could not be calculated for Malta airport due to missing data (missing departure RWY).

## Monitoring of en-route and terminal COST-EFFICIENCY for 2014



							_		
			2 - En-route	DUR monitori	ng (2014)				
ALTA D	form DD4 or					00445	20400	00400	004.40
		tional performance plar costs 2012-2014) - (in nor		2009A 11 335 319	2010A 12 506 056	2011F 10 937 810	2012P 15 097 776	2013P 15 417 209	2014P 15 637 6
flation %	(determined c	:05(5 2012-2014) - (1111101	IIIIdi EUR)	11 333 319	2.0%	2.7%	2.3%	2.4%	2.4
	(100 in 2009)			100.0	102.0	104.8	107.2	109.7	112
		ned costs 2012-2014) - (i	in EUR2009)	11 335 319	12 260 839	10 441 425	14 088 564	14 049 457	13 916 3
	Service Units	, (	=	416 028	486 800	502 000	544 747	588 338	607 1
		r Service Units - (in EU	R2009)	27.25	25.19	20.80	25.86	23.88	22.
ALTA - Actu	ıal data from .	Jun-2015 Reporting Tab	oles	2009A	2010A	2011A	2012A	2013A	2014A
n-route costs	- (in nominal	EUR)		11 335 319	12 220 386	14 811 130	14 264 142	16 084 832	17 650 3
flation %					2.0%	2.5%	3.2%	1.0%	3.0
	(100 in 2009)			100.0	102.0	104.6	107.9	109.0	109
	costs - (in EUF	R2009)		11 335 319	11 980 771	14 166 552	13 220 319	14 760 172	16 068 1
	Service Units			416 028	486 800	505 867	641 289	735 327	727 3
eal en-route	unit costs pe	r Service Units - (in EU	R2009)	27.25	24.61	28.00	20.62	20.07	22.
			ute value and in percentage (Ac	tuals vs. NPP)			2012	2013	2014
n-route costs	- (in nominal	LUK)	in value in %				-833 634 -5.5%	667 623 4.3%	2 012 6 12.9
iflation %			in % in p.p.				-5.5% 0.9 p.p.	4.3% -1.4 p.p.	12.9 -1.6 p
illation % iflation index (	(100 in 200a)		in p.p. in p.p.				0.9 p.p. 0.7 p.p.	-1.4 p.p. -0.8 p.p.	-1.6 p -2.5 p
	costs - (in EUF	R2009)	in p.p.				-868 245	710 715	2.5 p
cai on toute t	(III EUI	,	in %				-6.2%	5.1%	15.5
otal en-route	Service Units		in value				96 542	146 989	120 2
otal on route	0011100 011110		in %				17.7%	25.0%	19.8
eal en-route	unit costs pe	r Service Units - (in EU					-5.25	-3.81	-0.
			in %				-20.3%	-15.9%	-3.6
	180					<sub>[</sub> 100			
					_				
	160 -				<b></b> △	- 80 (600		n-route unit costs (N UR 2012-14)	PP,
	140 -					· 80 (€ 2006)	DI		
100)	140 -		Â	∆		99 - 88 - 100 - 10	DI	UR 2012-14)	
09=100)				-Δ		99	DI ■■■ Er •••• = Er	uR 2012-14) n-route unit costs (ac	ctual)
(2009=100)	140 - 120 -					s 9 8 08 08 00st / DUR (€2009)	DI ■■■ Er •••• = Er	UR 2012-14)	ctual)
idex (2009=100)	140 -		24.69/			09 - 09 - 09 - 09 - 09 - 09 - 09 - 09 -	Di Er 20	uR 2012-14) n-route unit costs (ac	ctual) DC
Index (2009=100)	140 - 120 -		+34.6%	3% 15.00	-3.6%	% 09 08 14 unit cost / DUR (€2009)	Di Er 20	UR 2012-14)  n-route unit costs (ad n-route costs (NPP, 012-14)	ctual) DC
Index (2009=100)	140 - 120 - 100 - 80 -			3% -15.99	6 -3.69	00 08 08 08 09 09 09 09 09 09 09 09 09 09 09 09 09	DI	UR 2012-14)  n-route unit costs (ad n-route costs (NPP, 012-14)	ctual) DC
Index (2009=100)	140 - 120 - 100 -			3% -15.99	6 -3.69	% 09 09 09 09 09 09 09 09 09 09 09 09 09	DI	UR 2012-14) n-route unit costs (ac n-route costs (NPP, 112-14) n-route costs (actual	ctual) DC
Index (2009=100)	140 - 120 - 100 - 80 - 60 -			3% -15.99	6 -3.69	70 09 09 En-route unit cost / DUR (€200	DI Er	UR 2012-14) n-route unit costs (ac n-route costs (NPP, 112-14) n-route costs (actual	ctual) DC
Index (2009=100)	140 - 120 - 100 - 80 - 60 -	2009 2010		3% 15.9%	6 -3.69	70 - 40 - 40 - 40 - 40 - 40 - 40 - 40 -	DI Er	uR 2012-14) n-route unit costs (ad n-route costs (NPP, 112-14) n-route costs (actual n-route TSU (NPP)	ctual) DC
Index (2009=100)	140 - 120 - 100 - 80 - 60 -	2009 2010	2011 2012	2013	2014	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	DI	uR 2012-14) n-route unit costs (ad n-route costs (NPP, 112-14) n-route costs (actual n-route TSU (NPP)	ctual) DC
Index (2009=100)	140 - 120 - 100 - 80 - 60 -	2009 2010	-20.	2013	2014	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	DI	uR 2012-14) n-route unit costs (ad n-route costs (NPP, 112-14) n-route costs (actual n-route TSU (NPP)	ctual) DC
Index (2009=100)	140 - 120 - 100 - 80 - 60 - 40 -	2009 2010	2011 2012	2013	2014	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	DI	uR 2012-14) n-route unit costs (ad n-route costs (NPP, 112-14) n-route costs (actual n-route TSU (NPP)	ctual) DC
Index (2009=100)	140 - 120 - 100 - 80 - 60 - 40 -	2009 2010	2011 2012	2013	2014	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	DI	uR 2012-14) n-route unit costs (ad n-route costs (NPP, 112-14) n-route costs (actual n-route TSU (NPP)	ctual) DC
	140 - 120 - 100 - 80 - 60 - 40 - 2	2009 2010	2011 2012	2013	2014	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	DI	uR 2012-14) n-route unit costs (ad n-route costs (NPP, 112-14) n-route costs (actual n-route TSU (NPP)	ctual) DC
	140 - 120 - 100 - 80 - 40 - 2	2009 2010	2011 2012	2013	2014	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	DI	uR 2012-14) n-route unit costs (ad n-route costs (NPP, 112-14) n-route costs (actual n-route TSU (NPP)	otual)
	140 - 120 - 100 - 80 - 40 - 20	2009 2010	2011 2012	2013	2014	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	DI	UR 2012-14) n-route unit costs (ac n-route costs (NPP, 112-14) n-route costs (actual n-route TSU (NPP) n-route TSU (actual)	otual)
TSUs (millions)	140 - 120 - 100 - 80 - 60 - 40 - 2	2009 2010	2011 2012	2013	2014	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	PP)	UR 2012-14) n-route unit costs (ac n-route costs (NPP, 112-14) n-route costs (actual n-route TSU (NPP) n-route TSU (actual) SUs (+/- 2% deadbareshold)	otual)
	140 - 120 - 100 - 80 - 40 - 20	2009 2010	2011 2012	2013	2014	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	DI	UR 2012-14) n-route unit costs (ac n-route costs (NPP, 112-14) n-route costs (actual n-route TSU (NPP) n-route TSU (actual) SUs (+/- 2% deadbareshold)	otual)
	140 - 120 - 100 - 80 - 40 - 20	2009 2010	2011 2012	2013	2014	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	PP)	UR 2012-14) n-route unit costs (ac n-route costs (NPP, 112-14) n-route costs (actual n-route TSU (NPP) n-route TSU (actual) SUs (+/- 2% deadbareshold)	otual)
	140 - 120 - 100 - 80 - 60 - 40 - 2	2009 2010	2011 2012	2013	2014	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	PP)	UR 2012-14) n-route unit costs (ac n-route costs (NPP, 112-14) n-route costs (actual n-route TSU (NPP) n-route TSU (actual) SUs (+/- 2% deadbareshold)	otual)
	140 - 120 - 100 - 80 - 60 - 40 - 2	2009 2010	2011 2012	2013	2014	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	PP)	UR 2012-14) n-route unit costs (ac n-route costs (NPP, 112-14) n-route costs (actual n-route TSU (NPP) n-route TSU (actual) SUs (+/- 2% deadbareshold)	otual)

## Monitoring of en-route and terminal COST-EFFICIENCY for 2014



5 Focus on ATSP - "Net" ATSP g	ain/loss on en-ı	route activity in 2014				
Cost sharing ('000€2009)	2014A					
Determined costs for the ATSP (NPP)	12 297	Combined effect of variations in costs and traffic for 2014 ('000€2009)				
Actual costs for the ATSP	14 175	1				
Difference in costs: gain (+)/Loss (-) retained/borne by the ATSP	-1 878					
Amounts excluded from cost sharing to be recovered from (+) reimbursed to (-) users	-	Gain/loss from cost sharing				
Gain (+)/Loss (-) to be retained by the ATSP in respect of cost sharing	-1 878					
Traffic risk sharing ('000€2009)	2014A					
Difference in total service units (actual vs NPP)	19.80%	Gain/loss from traffic risk sharing				
Determined costs after deduction of costs for exempted VFR flights	12 579					
ATSP gain (traffic between 0 and +2% higher than NPP)	252	-				
ATSP gain (traffic between +2% and +10% higher than NPP)	302	Bonus/penalty from incentives				
ATSP loss (traffic between 0 and -2% below NPP)	-	Solida portatly non-incontract				
ATSP loss (traffic between -2% and -10% below NPP)	-					
Gain (+)/Loss (-) to be retained by the ATSP in respect of traffic risk sharing	553					
Incentives ('000€2009)	2014A	Net ATSP gain/loss				
ATSP bonus (+) / penalty (-)	-	-2000 -1000 0 1000 2000				
Gain (+)/Loss (-) to be retained by the ATSP in respect of incentives	-	ATSP loss ATSP gain				
Net ATSP gain(+)/loss(-) on en-route activity	-1 325	•				

	6 El *This calculation of the economic surplus retained by the A	n-route ATSP			ouided in the Deportin	a Tables This is	
	different from the accounting profit/loss reported in the Pro			on the information pr	оуіава іп тів керопіп	g rabies. This is	
TSP estimated su	ırplus ('000€2009)	2012P	2012A	2013P	2013A	2014P	2014A
otal asset base		9 238	11 221	9 022	18 877	8 721	19 19
stimated proportion	n of financing through equity (in %)	49.2%	100.0%	13.0%	13.5%	63.3%	25.89
stimated proportion	n of financing through equity (in value)	4 546	11 221	1 172	2 542	5 520	4 95
stimated proportion	n of financing through debt (in %)	50.8%	-	87.0%	86.5%	36.7%	74.2
stimated proportion	n of financing through debt (in value)	4 692	-	7 850	16 336	3 201	14 24
ost of capital pre-ta	ax (in value)	476	539	520	845	583	93
verage interest on	debt (in %)	5.5%	5.5%	5.5%	4.0%	5.5%	4.0
terest on debt (in v	value)	258	-	432	653	176	57
etermined RoE pre	e-tax rate (in %)	4.8%	4.8%	7.6%	7.6%	7.4%	7.4
stimated surplus e	mbedded in the cost of capital for en-route (in value)	218	539	88	192	407	36
et ATSP gain(+)/lo	ss(-) on en-route activity		1 414		-41		-1 32
verall estimated s	surplus (+/-) for the en-route activity	218	1 952	88	150	407	-95
evenue/costs for	the en-route activity	12 429	12 972	12 403	12 952	12 297	12 85
stimated surplus	(+/-) in percent of en-route revenue/costs	1.8%	15.0%	0.7%	1.2%	3.3%	-7.5
stimated ex-post	RoE pre-tax rate (in %)	4.8%	17.4%	7.6%	5.9%	7.4%	-19.4
2.5 2.0 1.5 1.0 0.5 - -0.5 -1.0	NPP Actual NPP Actual 2012 2013	NPP Actual	25.0% 20.0% 15.0% 10.0% 5.0% -0.0% -10.0% -15.0%	■ Estimated surp	al surplus (+/-) for the e lus embedded in the co lus (+/-) in percent of e	st of capital for en-roul	

#### Monitoring of en-route and terminal COST-EFFICIENCY for 2014

#### 7. - General conclusions on the monitoring of the 2014 en-route DUR

#### Notes on information provided by MALTA

The NSA Monitoring Report was not provided by Malta at the date of writing this report. This analysis is therefore based solely on the June 2015 reporting tables.

#### At State / Charging Area level

In 2014, Malta's actual en-route unit cost (22.09 €2009) is -3.6% lower than planned in the National Performance Plan (NPP) (22.92 €2009). This difference is due to the fact that both 2014 actual en-route costs are much higher (+15.5%) than the determined costs in real terms and Malta 2014 actual number of total service units (TSU) is much higher than planned (+19.8%).

The change in actual TSU compared to the NPP for 2014 (+19.8%) exceeds the +10% threshold foreseen in the traffic risk sharing mechanism. According to the additional information provided along with the en-route reporting tables in June 2015, the significant difference between the actual and planned en-route service units is mainly due to the fact that the Libyan airspace was closed and a great number of flights diverted through Maltese airspace in the first half of 2014.

#### Actual 2014 costs vs. NPF

In 2014 actual en-route costs for Malta are +15.5% higher than planned as a combination of higher nominal en-route costs (+12.9%) and lower than expected inflation (-2.5 percentage point lower inflation index). The cost excess in volume is mostly attributable to MATS, the ATSP (+15.3% or +1.9 M€2009). A detailed analysis of MATS's 2014 costs is provided in the box below. The costs associated with the MET service provision and with NSA/EUROCONTROL are also higher than planned (by +20.8% or +0.1 M€2009, and +14.8% or +0.2 M€2009, respectively).

Malta did not report costs exempt from cost sharing for the year 2014.

#### **RP1 summary**

When considering the whole of RP1 (2012-2014) the actual number of en-route TSU is +20.9% higher than planned while actual costs in real terms are +4.7% higher than the determined costs (some +2.0 M€2009). As a result, the weighted average en-route unit cost over RP1 is -13.4% lower than the level planned in the NPP.

However, in terms of trend, following the significant decrease between 2011 and 2012 (-26.4%), the actual en-route unit cost increased by +3.5% p.a. between 2012 (20.62 €2009) and 2014 (22.09 €2009). This is mainly due to the fact that real en-route costs increased significantly between 2012 and 2014 (i.e. by +10.2% p.a. on average).

#### At ATSP level

#### Actual 2014 MATS costs vs. NPP

MATS 2014 actual en-route costs are +15.3% higher than planned in real terms. This results from higher than planned staff costs (+1.2 M€2009 or +26.1%), depreciation costs (+0.5 M€2009 or +26.9%) and cost of capital (+0.4 M€2009 or +60.3%) in addition to small savings in other operating costs (-0.1 M€2009 or -2.3%). According to the additional information provided along with the en-route reporting tables in June 2015, staff costs are higher than what was planned because of a higher than expected increase in wages due to the "conclusion of the collective agreement" and depreciation costs are affected by the higher capex than planned (+35.5% over the 2011-2014 period). On the other hand, this contradicts with the fact that the reported actual net book value of fixed assets is only +2.0% higher than the forecast. However, due to the significant difference in actual and forecast net current assets, the actual total asset base in 2014 is +120.1% (or +10.5 M€2009) higher than planned which contributed to the significant excess in the cost of capital compared to the NPP.

Malta did not provide any explanation about the asset base calculation provided within the en-route reporting tables. This issue would deserve a clarification.

### MATS net gain/loss and estimated surplus on en-route activity in 2014

As shown in item 5, in 2014, MATS generated a net loss of -1.3 Me2009 from its en-route activity. This is the combination of two separate elements:

- a loss of -1.9 M€2009 as a result of the cost-sharing mechanism; and
- a gain of +0.6 M€2009 as a result of the traffic risk sharing mechanism.

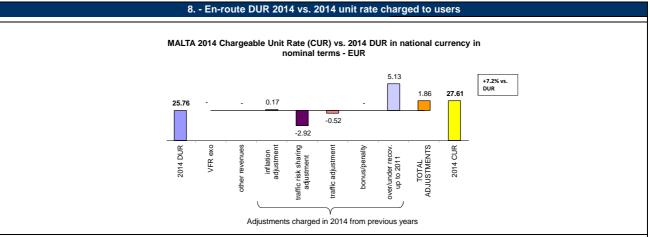
To calculate the overall economic surplus of the ATSP, it is also important to add the surplus embedded in the cost of capital through the return on equity. Based on the figures planned in the NPP, the return on equity amounted to +0.4 M€2009, corresponding to an estimated surplus of +3.3% of the en-route costs/revenues for 2014. Ex-post, the estimated surplus for the year computed by adding the surplus embedded in the cost of capital (+0.4 M€2009) and the net loss from the en-route activity in 2014 (-1.3 M€2009), yields a net total of -1.0 M€2009, corresponding to -7.5% of the 2014 en-route revenue. The resulting expost rate of return on equity for 2014 is -19.4% (compared to +7.4% planned in the NPP).

#### Conclusions

In 2014, MATS's actual en-route costs are significantly higher than planned (+15.3%) in real terms while traffic is also substantially higher than foreseen in the NPP (+19.8%). In 2014, MATS generated a net loss of -1.3 M€2009 from its en-route activity which resulted in an estimated actual surplus of -1.0 M€2009 (-7.5% of the en-route revenue for 2014, down from the +3.3% planned in the RP1 PP).

When considering the whole of RP1 (2012-2014), MATS incurred a cumulative loss in respect of cost sharing of -1.6 M€2009 and a cumulative gain in respect of traffic risk sharing amounting to +1.6M€2009, which resulted in a small cumulative net gain for the en-route activity of 0.05 M€2009 over RP1.

#### Monitoring of en-route and terminal COST-EFFICIENCY for 2014



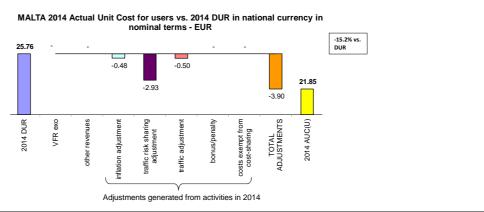
The DUR for 2014 expressed in nominal terms differs from the actual en-route unit rate charged to users in 2014 (CUR).

- the DUR, but also, a deduction of the costs for services to exempted VFR in 2014, as determined prior to the reference period and a deduction of 2014 other revenues;
- as well as adjustments relating to the activities of previous years that are carried-over to 2014. These adjustments include:
- the inflation adjustment:
- \* the adjustment resulting from the implementation of the traffic risk-sharing (ATSP);
- \* the adjustment resulting from the difference in traffic (for costs not subject to traffic risk sharing); \* the bonus/penalty from previous year(s).
- \* the legacy carry-overs incurred in the full cost recovery regime up to and including 2011.

These costs and adjustments are divided by the forecast total service units for 2014 as laid out in the performance plan.

The actual Chargeable Unit Rate (CUR) charged to users in 2014 was 27.61 € This is +7.2% higher than the nominal DUR (25.76 €). The difference observed between these two figures (+1.86 €) reflects mainly the under-recoveries carried over to 2014 from the legacy prior to RP1 (+5.13 €) and the traffic risk sharing adjustment (-2.92 €) in addition to smaller adjustments for traffic not subject to traffic risk sharing (-0.52 €) and inflation (+0.17 €).

## 9. - En-route DUR 2014 vs. 2014 actual unit cost for users



The DUR for 2014 expressed in nominal terms can also be compared to the actual en-route unit cost for airspace users (AUC-U) for 2014 (also sometimes referred to the "true cost for users"), which reflects the unit cost that the users incur in respect of the activities performed in 2014. The AUC-U comprises:

- the DUR, the deduction of the costs for services to exempted VFR in 2014 and the deduction of 2014 other revenues that has already been billed to the users through the
- as well as adjustments relating to the activities of 2014 but which will be charged or reimbursed to users in future years. These adjustments include:
- the inflation adjustment;
- \* the adjustments resulting from the implementation of the traffic risk-sharing (ATSP);
  \* the adjustments resulting from the difference in traffic (for costs not subject to traffic risk sharing);
- \* the bonus/penalty for the current year;
  \* the costs exempt from cost sharing (if deemed eligible).

These costs and adjustments are divided by the actual total service units in 2014.

The unit cost that the users incurred in respect of the activities performed in 2014 was 21.85 € This is lower than the nominal DUR (25.76 €). The difference observed between these two figures (-3.90 €) reflects deductions through adjustments for traffic risk sharing (-2.93 €), inflation (-0.48 €) and traffic not subject to traffic risk sharing

#### Monitoring of en-route and terminal COST-EFFICIENCY for 2014

10 Terminal costs and unit rates monitoring (2014)										
		2009	2010	2011	2012	2013	2014			
Terminal Service Unit Formula										
Number of airports in terminal charging zone					1	1	1			
of which, number of airports over 50 000 movements										
MALTA - Data from RP1 national performance plan		2009A	2010A	2011F	2012P	2013P	2014P			
Terminal ANS costs for the charging zones - (in EUR)	Terminal ANS costs for the charging zones - (in EUR)		4 120 000	4 100 000	3 990 000	4 340 000	4 200 000			
Inflation index (100 in 2009)		100.0	102.0	104.8	107.2	109.7	112.4			
Real terminal ANS costs - (in EUR2009)		0	4 039 216	3 913 932	3 723 288	3 954 973	3 737 689			
MALTA - Actual data from June 2015 Reporting Tables		2009A	2010A	2011A	2012A	2013A	2014A			
Terminal ANS costs for the charging zones - (in EUR)					2 664 658	3 126 283	3 007 151			
Inflation index (100 in 2009)		100.0	102.0	104.6	107.9	109.0	109.8			
Real terminal ANS costs - (in EUR2009)					2 469 663	2 868 819	2 737 598			
Total terminal service units										
Actual real unit costs - (in EUR2009)										
Unit rate applied - (in EUR)					N/appl	N/appl	N/appl			
Difference between Actuals and Planned in absolute va	lue and in percenta	age (Actuals vs. NF	PP)		2012	2013	2014			
Terminal ANS costs for the charging zones - (in EUR)	in value				-1 325 342	-1 213 717	-1 192 849			
	in%				-33.2%	-28.0%	-28.4%			
Inflation index (100 in 2009)	in p.p.				0.7 p.p.	-0.8 p.p.	-2.5 p.p.			
Real terminal ANS costs - (in EUR2009)	in value				-1 253 625	-1 086 154	-1 000 091			
	in%				-33.7%	-27.5%	-26.8%			

## 11. - General conclusions on the Terminal ANS costs and unit rates monitoring

It is understood from previous years and from the additional information provided along with the TANS Reporting Tables that Malta had no Terminal ANS charging zone during RP1 and that no terminal unit rate was applicable for TANS. Malta decided not to apply regulation (EC) No1794/2006, as the only Maltese airport has less than 50 000 commercial air transport movements. (Note: from RP2/1.1.2015, Malta will implement a separate TCZ with one single cost base and terminal unit rate.) However, Malta has reported TANS cost information for its only airport (i.e. Malta/Luqa airport - LMML). The costs borne by Malta for TANS are recovered through "income from other sources" (i.e. State funding). Although these are indicative figures, the actual terminal ANS 2014 costs are -26.8% lower in real terms (or some -1.0 M€2009) than planned in the NPP, as a result of both lower nominal terminal ANS costs (-28.4%) and lower inflation index (-2.5 p.p.) than planned.

#### **RP1 summary**

When considering the whole of RP1 (2012-2014), actual terminal ANS costs are -29.3% lower in real terms (or some -3.3 M€2009) than planned in the NPP. This reflects the fact that terminal ANS costs are significantly lower than planned in every year of RP1.

	12 Monito	oring of gate-to-	gate costs (2	2014)			
MALTA - Data from RP1 national performance plan		2009A	2010A	2011F	2012P	2013P	2014P
Real en-route costs (determined costs 2012-2014) - (in EUR2009)		11 335 319	12 260 839	10 441 425	14 088 564	14 049 457	13 916 358
Real terminal ANS costs - (in EUR2009)		0	4 039 216	3 913 932	3 723 288	3 954 973	3 737 689
Real gate-to-gate ANS costs - (in EUR2009)		11 335 319	16 300 055	14 355 356	17 811 852	18 004 430	17 654 047
Share of en-route costs in gate-to-gate ANS costs		100.0%	75.2%	72.7%	79.1%	78.0%	78.8%
MALTA - Actual data from June 2015 Reporting Table	es	2009A	2010A	2011A	2012A	2013A	2014A
Real en-route costs - (in EUR2009)		11 335 319	11 980 771	14 166 552	13 220 319	14 760 172	16 068 199
Real terminal ANS costs - (in EUR2009)		0	0	0	2 469 663	2 868 819	2 737 598
Real gate-to-gate ANS costs - (in EUR2009)		11 335 319	11 980 771	14 166 552	15 689 982	17 628 991	18 805 796
Share of en-route costs in gate-to-gate ANS costs		100.0%	100.0%	100.0%	84.3%	83.7%	85.4%
Difference between Actuals and Planned in absolute	value and in percent	tage (Actuals vs. NF	PP)		2012	2013	2014
Real en-route costs - (in EUR2009)	in value				-868 245	710 715	2 151 840
	in %				-6.2%	5.1%	15.5%
Real terminal ANS costs - (in EUR2009)	in value				-1 253 625	-1 086 154	-1 000 091
	in %				-33.7%	-27.5%	-26.8%
Real gate-to-gate ANS costs - (in EUR2009)	in value				-2 121 870	-375 439	1 151 749
	in %				-11.9%	-2.1%	6.5%
Share of en-route costs in gate-to-gate ANS costs	in p.p.				5.2 p.p.	5.7 p.p.	6.6 p.p.

#### 13. - General conclusions on the gate-to-gate ANS costs

Real 2014 gate-to-gate costs are +6.5% higher than planned following higher en-route (+2.2 M€2009, +15.5%) and lower terminal (-1.0 M€2009, -26.8%) ANS costs than foreseen in the NPP.

As a result, the share of en-route ANS within total gate-to-gate ANS costs increased to 85.4% in 2014 which is a significant +6.6 percentage points higher than planned, although there were no declared Terminal Charging Zone or separate terminal ANS cost base and terminal unit rate in Malta during RP1.





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Norway

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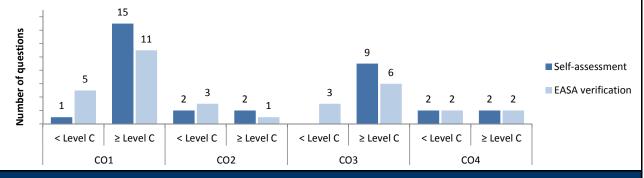
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## Monitoring of SAFETY indicators for 2014

Effectiveness of Safety Management										
	2012	2013	State level Observations							
State level	48	53	60							
ANSP [Avinor]	80	80	77							



## Application of the severity classification of the Risk Analysis Tool (RAT) 2012 2013

			2012		2013		2014	
		No reported	Assessed (%)	No reported	Assessed (%)	No reported	Assessed (%)	
Separation Minima Infringements (SMIs)	ATM Ground	65	9%	81	49%	85	59%	
	ATM Overall		9%		0%		41%	
Punway Incursions (Pls)	ATM Ground	120	3%	110	35%	97	77%	
Runway Incursions (RIs)	ATM Overall		1%		0%		51%	
ATM Specific Occurences (ATM-Specific)	ATM Overall	1315	1%	1340	0%	1107	86%	

Source of RAT data: NCAA

Just culture									
	State								
Number of questions answered with Yes or No	2012		2013		2014				
	YES	NO	YES	NO	YES	NO			
Policy and its implementation	3	7	7	3	6	3			
Legal/Judiciary	6	2	6	2	5	2			
Occurrence reporting and Investigation	2	0	2	0	2	0			
TOTAL	11	9	15	5	13	5			

	ANSP [Avinor]							
Number of questions answered with Yes or No	2012		2013		2014			
	YES	NO	YES	NO	YES	NO		
Policy and its implementation	11	2	11	2	13	0		
Legal/Judiciary	2	1	2	1	2	1		
Occurrence reporting and Investigation	5	3	5	3	6	2		
TOTAL	18	6	18	6	21	3		

#### **NORWAY**

## **Monitoring of CAPACITY indicators for 2014**

Minutes of ATFM en-route delay				
	2012	2013	2014	Observations
Reference value	0.04	0.04	0.05	
National Target	0.04	0.04	0.05	
Actual performance	0.28	0.04	0.03	

### National capacity assessment

No assessment was made in the national monitoring report.

## Military dimension of the plan

Although specifically requested in IR 691/2010 Annex II Template for Performance Plans, paragraph 4: the Performance Plan for Norway did not contain any specific details of how FUA would be applied to increase capacity.

## **PRB Capacity assessment**

The good capacity performance in 2013 continued through 2014 with the result that Norway surpassed both the national target and the effort required to be consistent with the Union-wide target.

## **Effective booking procedures**

Although the national monitoring report for 2014 did not contain any information regarding the effective booking procedures, Avinor had previously provided information on effective booking procedures for Norway in 2014 for the production of the PRR 2014.

The ratio of time airspace was actually used for activity requiring segregation or restriction from GAT and the amount of time it was allocated as being restricted on the day of operations: 47%

No information was provided regarding the allocation of airspace at H-3, so it is impossible to determine how much restricted or segregated airspace, that was surplus to requirements, was released for GAT use.

## **Previous recommendations**

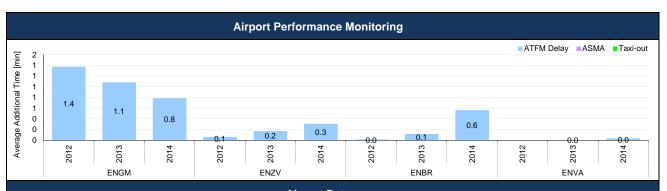
**Annual Monitoring Report 2013:** Norway is requested to provide additional information on effective booking procedures, namely the allocation of airspace at H-3.

## NSA report on follow-up to recommendations

No information was provided in the national monitoring report.

## Recommendations

# **Monitoring of CAPACITY indicators for 2014**



				Airport Data	1				
Airport Name	ICAO Code	RP1 Year	Average of Apt. ATFM arr. Delay [min./arr.]	Total Apt. ATFM arr. delay [min.]	Additional ASMA time [min./arr.]	Total Additional ASMA time [min]	Additional taxi-out time [min./dep.]	Total Additional taxi-out time [total]	Sum of Total Additional Time [min]
		2012	1.4	162 048	n/a	n/a	n/a	n/a	n/a
Oslo/Gardermoen	ENGM	2013	1.1	130 720	n/a	n/a	n/a	n/a	n/a
		2014	0.8	97 676	n/a	n/a	n/a	n/a	n/a
		2012	0.1	2 338	n/appl.	n/appl.	n/a	n/a	n/a
Stavanger/Sola	ENZV	2013	0.2	6 774	n/appl.	n/appl.	n/a	n/a	n/a
		2014	0.3	12 673	n/appl.	n/appl.	n/a	n/a	n/a
		2012	0.0	643	n/appl.	n/appl.	n/a	n/a	n/a
Bergen/Flesland	ENBR	2013	0.1	5 766	n/appl.	n/appl.	n/a	n/a	n/a
		2014	0.6	27 565	n/appl.	n/appl.	n/a	n/a	n/a
		2012	0.0	0	n/appl.	n/appl.	n/a	n/a	n/a
Trondheim/Vaernes	ENVA	2013	0.0	5	n/appl.	n/appl.	n/a	n/a	n/a
		2014	0.0	913	n/appl.	n/appl.	n/a	n/a	n/a
		2012	0.7	165 029	n/a	n/a	n/a	n/a	n/a
Total		2013	0.6	143 265	n/a	n/a	n/a	n/a	n/a
		2014	0.6	138 827	n/a	n/a	n/a	n/a	n/a
Absolute Differ	ence	2014-2013	<u> </u>	4 438	n/a	n/a	n/a	n/a	n/a
		2014-2012	-0.1	-26 202	n/a	n/a	n/a	n/a	n/a

# **Critical Issues**

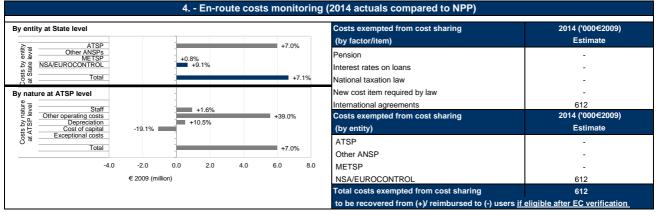
- Missing data for ASMA calculation at Oslo Airport since 2012 (ARWY).
- Missing data for all airports for unimpeded taxi-out time calculation since 2012.
- According to the Norwegian NSA, AVINOR's ATM system requires to be updated in order to generate automatically the data required for additional ASMA and taxi-out times. A remedial Action Plan is maintained by PRU with the aforementioned airports.

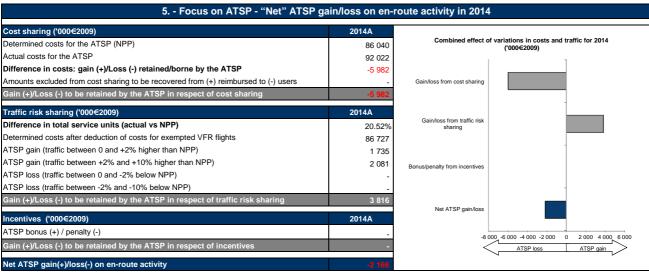
# **Specific Analysis**

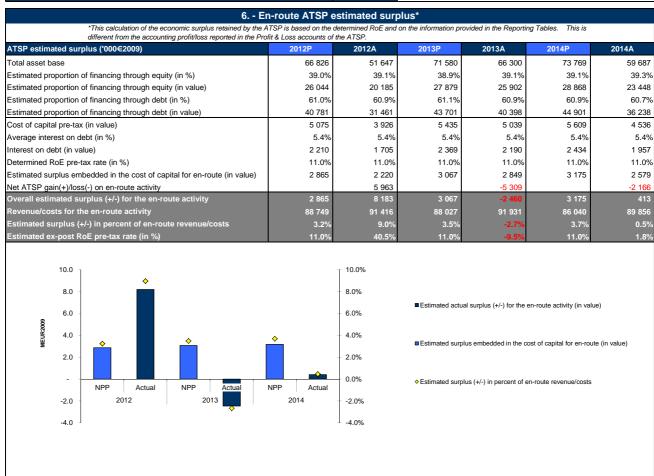
- ATFM arrival delay improved by 16% in average in Norway over the RP1 period.
- The average national performance cannot be assessed for additional ASMA and taxi-out times in Norway due to missing data.



In 2014, the		preciated by 84.	4% compared	I to 2013.							
				2.	En-route	DUR monitor	ing (2014)				
ORWAY - Da	ta from	RP1 national perf	ormance plan			2009A	2010A	2011F	2012P	2013P	2014P
n-route costs	(determi	ned costs 2012-20	14) - (in nomina	al NOK)		816 343 600	811 264 608	834 553 721	885 743 710	893 184 025	891 017 4
flation %	,		, ,	·			1.7%	1.4%	1.4%	1.6%	1.
flation index (	100 in 20	009)				100.0	101.7	103.1	104.6	106.2	10
,		ermined costs 201	12-2014) - (in N	UK3000)		816 343 600	797 703 646	809 273 632	847 054 227	840 718 058	823 040 9
			12-2014) - (11110	OK2009)							
otal en-route S						1 494 584	1 582 742	1 701 332	1 753 798	1 797 642	1 842
		ts per Service Un				546.20	504.00	475.67	482.98	467.68	446
eal en-route	unit cos	ts per Service Un	its - (in EUR20	009)		62.58	57.74	54.50	55.34	53.58	51
ORWAY - Ac	tual data	from Jun-2015 R	Reporting Tab	les		2009A	2010A	2011A	2012A	2013A	2014A
n-route costs	- (in nor	ninal NOK)				816 343 600	806 335 205	851 265 387	844 093 366	972 353 675	946 393 8
flation %							1.7%	1.2%	0.4%	2.0%	1.
flation index (	100 in 20	009)				100.0	101.7	102.9	103.3	105.4	10
eal en-route c		,				816 343 600	792 856 642	827 110 453	816 874 443	922 547 869	881 175 4
otal en-route S						1 494 584	1 582 742	1 712 781	1 845 568	2 050 929	2 220
eal en-route	unit cos	ts per Service Un	its - (in NOK2	009)		546.20	500.94	482.90	442.61	449.82	396
eal en-route	unit cos	ts per Service Un	its - (in EUR20	009)		62.58	57.39	55.33	50.71	51.54	45
fference bet	ween Ad	tuals and Planne	d in absolute	value and in	percentage (Ac	tuals vs. NPP)			2012	2013	2014
n-route costs	- (in nor	ninal NOK)			in value				-41 650 344	79 169 650	55 376
		•			in %				-4.7%	8.9%	6.
nflation %					in p.p.				-1.0 p.p.	0.4 p.p.	-0.0
	100 :- 0	100)									
flation index (		•			in p.p.				-1.2 p.p.	-0.8 p.p.	-0.9
eal en-route c	osts - (ir	NOK2009)			in value				-30 179 784	81 829 811	58 134 4
					in %				-3.6%	9.7%	7.
otal en-route S	Service U	Inits			in value				91 770	253 287	378 ′
					in %				5.2%	14.1%	20.
eal en-route	unit cos	ts per Service Un	its - (in NOK2	009)	in value				-40.37	-17.86	-49
			,	•	in %				-8.4%	-3.8%	-11.
aal ancrouses	unit coo	ts per Service Un	ite - (in EUD)	100)	in value				-4.63	-2.05	-5
car en route	605	o per dervice Un	(III EURZI	,	in value in %				-8.4%	-3.8%	-5 -11.
Index (2009=100)	140 - 130 - 120 - 110 - 100 - 90 - 80 - 70 - 60 -	2009	2010	2011	-8.	4% -3.8°	% -11 2014	135 120 105 105 105 107 107 108 108 109 109 109 109 109 109 109 109 109 109		En-route unit costs (I DUR 2012-14)  En-route unit costs (i En-route costs (NPP 2012-14)  En-route costs (actual En-route TSU (NPP)	actual) , DC
TSUs (millions)	2.5		3 En-ro	ute traffic r	nonitoring	(Actual 2012-	2014 TSU cc	empared to N	— NPP ·	TSUs (+/- 2% deadb hreshold)	vand; +/-
	1.5 -	2009	2010	) 20	11 20	012 201	3 2014				







#### Monitoring of en-route and terminal COST-EFFICIENCY for 2014

7 General conclusions on the monitoring of the 2014 en-route DUR
Notes on information provided by NORWAY
At State / Charging Area level
In 2014, the real en-route unit cost for Norway (45.46 €2009) is -11.2% lower than planned in the NPP for RP1 (51.18 €2009). This difference is due to actual en-route Service Units being +20.5% higher than planned, whilst actual en-route costs in real terms were +7.1% higher than the determined costs.
The number of en-route total service units (TSUs) in 2014 (2.2 million) is significantly higher (+20.5%) than the figures provided in Norway's Adopted NPP (1.8 million), which is outside the ±2% dead band, and exceeds the +10% threshold foreseen in the traffic risk sharing mechanism. In 2014, Avinor reported gains due to traffic risk sharing in the region of +3.8 M€2009. Similar gains were also experienced in 2012 (+2.7 M€2009) and 2013 (+3.9 M€2009).
Actual 2014 costs vs. NPP
Total actual en-route costs in 2014 for Norway (881.2 MNOK2009) are +7.1% more than planned in the NPP (823.0 MNOK2009). This mainly reflects higher en-route costs in nominal terms (+6.2%), as actual inflation is the same as that forecast in the NPP (+1.9%).
The en-route cost-base includes costs relating to Norway's ATSP (Avinor), Norway's METSP, and Norway's NSA. For all three entities (Avinor, METSP and NSA) 2014 en-route costs are higher than planned in real terms (+7.0%, +0.8% and +9.1% respectively). A detailed analysis of Naviair costs is provided in the box below.
Costs exempt from cost sharing are reported for an amount of +0.61 M€2009, corresponding to the difference between the planned and actual values for EUROCONTROL costs. These costs will be eligible for carry-over to the following reference period(s), if deemed allowed by the European Commission after verification on the basis of the NSA report establishing and justifying these exemptions.
RP1 summary When considering the whole of RP1 (2012-2014) the actual number of TSUs is +13.4% higher than planned and actual costs are +4.4% higher than planned (+109.8)
MNOK2009) in real terms. As a result, the weighted average unit cost over RP1 is -8.0% lower than the level planned in the NPP.
At ATSP level

## Actual 2014 Avinor costs vs. NPP

Avinor actual en-route costs are +7.0% higher than the determined costs for 2014. Other operating costs are +39.0% higher than planned. The Additional Information to the June 2015 en-route Reporting Tables indicates that this is due to the increase in traffic. Staff costs and depreciation were also higher than planned, +1.6% and +10.5% respectively. Cost of capital is lower than planned, -19.1%, due to lower capital expenditure.

In 2014, the actual total asset base was 59.7 M€2009, or -19.1% lower than planned, as a result of delayed investments earlier in RP1. This is reflected in the lower than planned cost of capital. However, Avinor stated in 2013 that the level of investment was increasing, the impact of which can be seen in the higher than planned depreciation for 2014. Taken together, depreciation and cost of capital continue to be lower than planned (-4.9% in real terms) in 2014.

# Avinor net gain/loss and estimated surplus on en-route activity in 2014

As shown in item 5, the en-route activity for the year 2014 generated a net loss of -2.2 M€2009 for Avinor overall. This is the result of a combination of two elements:

- a loss of -6.0 M  $\!\!\!\!\!\!\!\!$  2009 for Avinor as a result of the cost-sharing mechanism; and
- a gain of +3.8 M€2009 as a result of the traffic risk sharing mechanism for 2014.

For the en-route activity, the estimated surplus embedded in the cost of capital through the return on equity planned in the NPP amounted to +3.2 M€2009, corresponding to an estimated surplus of +3.7% of the 2014 en-route revenues. Ex-post, the overall estimated surplus for the year calculated by adding the surplus embedded in the cost of capital (+2.6 M€2009) and the net loss from the en-route activity in 2014 (-2.2 M€2009), gives a total gain of +0.4 M€2009 for 2014, corresponding to +0.5% of the en-route revenue in 2014. The resulting ex-post rate of return on equity for 2014 is +1.8% (compared to +11.0% as initially planned in the NPP).

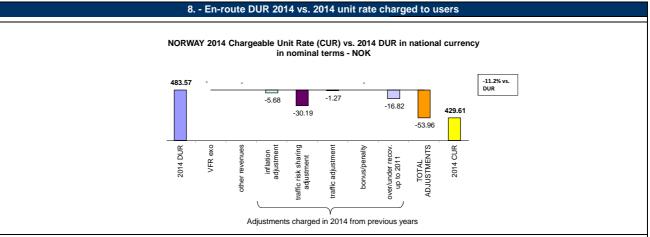
#### Conclusion

Traffic volumes are higher than expected (+20.5%), and Avinor's actual en-route costs in 2014 are +7.0% higher than planned in the NPP. The en-route activity for 2014 generated a net loss of -2.2 M€2009 for Avinor, which results in an overall estimated surplus of +0.5% of the en-route revenue for 2014 (down from a planned +3.7% in the NPP).

This indicates that in 2014, Avinor experienced a small net gain on the en-route activity (+0.4 M€2009). This partially compensates the net loss for the en-route activity generated by Avinor in 2013 of -2.5 M€2009 (or -2.7% of en-route revenues leading to an ex-post rate of return on equity of -9.5%) and adds to the gain in 2012 of +8.2 M€2009 (or +9.0% of en-route revenues leading to an ex-post rate of return on equity of +40.5%).

When considering the whole of RP1 (2012-2014), Avinor will retain a cumulative loss in respect of cost sharing of -11.9 M€2009 as actual costs were higher than planned in 2013 and 2014 of RP1. Avinor incurred a cumulative gain in respect of traffic risk sharing amounting to +10.4 M€2009, which resulted in a cumulative net loss for the en-route activity of -1.5 M€2009.

#### Monitoring of en-route and terminal COST-EFFICIENCY for 2014



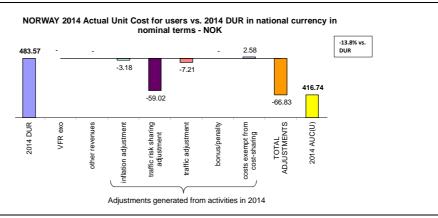
The DUR for 2014 expressed in nominal terms differs from the actual en-route unit rate charged to users in 2014 (CUR).

- the DUR, but also, a deduction of the costs for services to exempted VFR in 2014, as determined prior to the reference period and a deduction of 2014 other revenues;
- as well as adjustments relating to the activities of previous years that are carried-over to 2014. These adjustments include:
  - the inflation adjustment:
- \* the adjustment resulting from the implementation of the traffic risk-sharing (ATSP);
- \* the adjustment resulting from the difference in traffic (for costs not subject to traffic risk sharing); \* the bonus/penalty from previous year(s).
- \* the legacy carry-overs incurred in the full cost recovery regime up to and including 2011.

These costs and adjustments are divided by the forecast total service units for 2014 as laid out in the performance plan.

The CUR charged to airspace users in 2014 is 429.61 NOK, which is -11.2% less than the DUR of 483.57 NOK. The CUR is lower due to a decrease resulting from traffic risk sharing from Avinor (-30.19 NOK, or -6.2%), legacy carry-overs incurred up to and including 2011 (-16.82 NOK, or -3.5%), and inflation adjustment (-5.68 NOK, or -1.2%). Minor adjustments were made to reflect the differences in traffic not subject to risk sharing (-1.27 NOK, or -0.3%).

# 9. - En-route DUR 2014 vs. 2014 actual unit cost for users



The DUR for 2014 expressed in nominal terms can also be compared to the actual en-route unit cost for airspace users (AUC-U) for 2014 (also sometimes referred to the "true cost for users"), which reflects the unit cost that the users incur in respect of the activities performed in 2014. The AUC-U comprises:

- the DUR, the deduction of the costs for services to exempted VFR in 2014 and the deduction of 2014 other revenues that has already been billed to the users through the
- as well as adjustments relating to the activities of 2014 but which will be charged or reimbursed to users in future years. These adjustments include:
- the inflation adjustment;
- \* the adjustments resulting from the implementation of the traffic risk-sharing (ATSP);

  \* the adjustments resulting from the difference in traffic (for costs not subject to traffic risk sharing);
- \* the bonus/penalty for the current year;
  \* the costs exempt from cost sharing (if deemed eligible).

These costs and adjustments are divided by the actual total service units in 2014.

The AUC-U for airspace users in 2014 is 416.74 NOK, which is -13.8% less than the DUR of 483.57 NOK. This is due to adjustments generated from activities in 2014:

-59.02 NOK, or -12.2% deduction due to traffic risk sharing adjustment;

- -7.21 NOK, or -1.5% reflecting the difference in traffic for costs not subject to traffic risk sharing;
- -3.18 NOK, or -0.7% deduction due to inflation adjustment; and
- +2.58 NOK, or +0.5% increase for costs exempt from cost sharing

## Monitoring of en-route and terminal COST-EFFICIENCY for 2014

1	0 Terminal cos	sts and unit ra	ates monitorii	ng (2014)			
		2009	2010	2011	2012	2013	2014
Terminal Service Unit Formula	(MTOW/50)^		0.9	0.9	0.9	0.9	0.9
Number of airports in terminal charging zone			4	4	4	4	4
of which, number of airports over 50 000 movements			4	4	4	4	4
NORWAY - Data from RP1 national performance plan		2009A	2010A	2011F	2012P	2013P	2014P
Terminal ANS costs for the charging zones - (in NOK)		0	399 773 247	409 364 496	441 644 803	427 137 945	433 534 776
Inflation index (100 in 2009)		100.0	101.7	103.1	104.6	106.2	108.3
Real terminal ANS costs - (in NOK2009)		0	393 090 705	396 964 131	422 353 660	402 047 701	400 460 039
Real terminal ANS costs - (in EUR2009)			45 037 529	45 481 318	48 390 270	46 063 758	45 881 855
NORWAY - Actual data from June 2015 Reporting Table	es	2009A	2010A	2011A	2012A	2013A	2014A
Terminal ANS costs for the charging zones - (in NOK)			399 773 235	403 728 452	408 645 293	488 993 427	481 275 975
Inflation index (100 in 2009)		100.0	101.7	102.9	103.3	105.4	107.4
Real terminal ANS costs - (in NOK2009)			393 090 693	392 272 525	395 467 977	463 946 253	448 110 013
Real terminal ANS costs - (in EUR2009)			45 037 528	44 943 788	45 309 900	53 155 652	51 341 249
Total terminal service units - See Note 1			217 615	233 918	247 004	260 537	267 930
Actual real unit costs - (in NOK2009)			1 806.4	1 677.0	1 601.1	1 780.7	1 672.5
Unit rate applied - (in NOK)					1 857.25	1 609.00	1 754.00
Difference between Actuals and Planned in absolute va	lue and in percentag	e (Actuals vs. NF	PP)		2012	2013	2014
Terminal ANS costs for the charging zones - (in NOK)	in value				-32 999 510	61 855 483	47 741 199
	in%				-7.5%	14.5%	11.0%
Inflation index (100 in 2009)	in p.p.				-1.2 p.p.	-0.8 p.p.	-0.9 p.p.
Real terminal ANS costs - (in NOK2009)	in value				-26 885 682	61 898 553	47 649 974
	in%				-6.4%	15.4%	11.9%
Real terminal ANS costs - (in EUR2009)	in value				-3 080 370	7 091 895	5 459 394
	in%				-6.4%	15.4%	11.9%

## 11. - General conclusions on the Terminal ANS costs and unit rates monitoring

Note 1: Data in the 2014 NSA Monitoring Report and the June 2015 Reporting Tables are not consistent in the following areas: Total terminal service units for 2014: Reporting Tables: 267 930; 2014 NSA Monitoring Report 261 733. This monitoring report relies on the service units provided in the Reporting Tables.

The terminal charging zone of Norway comprises four airports (Oslo, Bergen, Stavanger and Trondheim), all of which have over 50,000 airport movements per year. Norway does not use the harmonised SES formula (MTOW/50)^0.7 and the formula (MTOW/50)^0.9 is applied to determine the number of terminal service units throughout RP1. Actual terminal ANS costs in 2014 are +11.9%, or +5.5 M€2009, higher than planned in the NPP. This difference is in the same direction as the en-route costs (+7.1% in real terms higher than planned). According to the Additional Information provided with Norway's June 2015 terminal Reporting Tables, staff costs were considerably higher than expected due to an increase in the pension costs, and operational difficulties and costs relating to the building of Terminal 2 at Oslo. Capital expenditure was below budget, mainly due to a lack of project resources.

#### RP1 summary

When considering the whole of RP1 (2012-2014), actual terminal ANS costs are +6.7% higher in real terms (or some +82.7 MNOK2009) than planned in the NPP. This reflects the fact that terminal ANS costs were higher than planned in 2013 and 2014 of RP1 (-15.4% and +11.9% respectively).

	12 Monite	oring of gate-to-	gate costs (201	4)			
NORWAY - Data from RP1 national performance plan		2009A	2010A	2011F	2012P	2013P	2014P
Real en-route costs (determined costs 2012-2014) - (in NOK2	2009)	816 343 600	797 703 646	809 273 632	847 054 227	840 718 058	823 040 957
Real terminal ANS costs - (in NOK2009)		0	393 090 705	396 964 131	422 353 660	402 047 701	400 460 039
Real gate-to-gate ANS costs - (in NOK2009)		816 343 600	1 190 794 351	1 206 237 763	1 269 407 886	1 242 765 759	1 223 500 996
Real gate-to-gate ANS costs - (in EUR2009)		93 530 826	136 432 722	138 202 118	145 439 700	142 387 236	140 180 016
Share of en-route costs in gate-to-gate ANS costs		100.0%	67.0%	67.1%	66.7%	67.6%	67.3%
NORWAY - Actual data from June 2015 Reporting Tables		2009A	2010A	2011A	2012A	2013A	2014A
Real en-route costs - (in NOK2009)		816 343 600	792 856 642	827 110 453	816 874 443	922 547 869	881 175 416
Real terminal ANS costs - (in NOK2009)		0	393 090 693	392 272 525	395 467 977	463 946 253	448 110 013
Real gate-to-gate ANS costs - (in NOK2009)		816 343 600	1 185 947 335	1 219 382 979	1 212 342 420	1 386 494 122	1 329 285 429
Real gate-to-gate ANS costs - (in EUR2009)		93 530 826	135 877 386	139 708 203	138 901 546	158 854 606	152 300 042
Share of en-route costs in gate-to-gate ANS costs		100.0%	66.9%	67.8%	67.4%	66.5%	66.3%
Difference between Actuals and Planned in absolute valu	e and in percenta	ge (Actuals vs. NI	PP)		2012	2013	2014
Real en-route costs - (in NOK2009)	in value				-30 179 784	81 829 811	58 134 459
	in %				-3.6%	9.7%	7.1%
Real terminal ANS costs - (in NOK2009)	in value				-26 885 682	61 898 553	47 649 974
	in %				-6.4%	15.4%	11.9%
Real gate-to-gate ANS costs - (in NOK2009)	in value				-57 065 466	143 728 363	105 784 433
	in %				-4.5%	11.6%	8.6%
eal gate-to-gate ANS costs - (in EUR2009) in value					-6 538 154	16 467 371	12 120 026
	in %				-4.5%	11.6%	8.6%
Share of en-route costs in gate-to-gate ANS costs	in %				0.7 p.p.	-1.1 p.p.	-1.0 p.p.

#### 13. - General conclusions on the gate-to-gate ANS costs

In 2014, Norway's actual gate-to-gate ANS costs (152.3 M€2009) are +8.6% higher than planned in the NPP (140.2 M€2009). This difference is the result of increases of similar magnitude in both actual terminal costs (+47.6 MNOK2009, or +11.9%) and actual en-route costs (+58.1 MNOK2009, or +7.1%) compared to those planned.

The relative share of en-route costs in gate-to-gate ANS costs (66.3%) is slightly lower than planned in the NPP (67.3%).





# PRB Annual Monitoring Report 2014

Poland

Working Draft 2.0

Edition date: 03/09/2015



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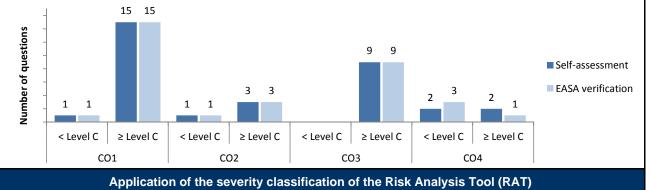
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# Monitoring of SAFETY indicators for 2014

Effectiveness of Safety Management								
	2012	2013	2014	State level Observations				
State level	55	55	56					
ANSP [PANSA]	68	67	66					



# Application of the seventy classification of the Risk Analysis 1001 (RA1)

			2012		2013		2014	
		No reported	Assessed (%)	No reported	Assessed (%)	No reported	Assessed (%)	
Separation Minima	ATM Ground	2	100%	0	N/A	47	78%	
Infringements (SMIs)	ATM Overall	2	100%		N/A		78%	
Runway Incursions (RIs)	ATM Ground	53	87%	26	50%	15	27%	
ATM Overall		55	87%	20	50%	15	27%	
ATM Specific Occurences (ATM-Specific)	ATM Overall	101	71%	47	9%	43	100%	

CAA

Source of RAT data:

	Just cultu	ire								
	State									
Number of questions answered with Yes or No	20	12	20	13	2014					
	YES NO		YES	NO	YES	NO				
Policy and its implementation	4	6	5	5	5	4				
Legal/Judiciary	7	1	7	1	7	0				
Occurrence reporting and Investigation	1	1	2	0	2	0				
TOTAL	12	8	14	6	14	4				

	ANSP [PANSA]								
Number of questions answered with Yes or No		2012		13	2014				
	YES	NO	YES	NO	YES	NO			
Policy and its implementation	6	7	6	7	7	6			
Legal/Judiciary	1	2	1	2	2	1			
Occurrence reporting and Investigation	2	6	2	6	2	6			
TOTAL	9	15	9	15	11	13			

# **Monitoring of CAPACITY indicators for 2014**

		Minutes o	of ATFM en	-route delay
	2012	2013	2014	Observations
Reference value	0.32	0.31	0.26	
National Target	1.0	1.5	0.48	
Actual performance	0.52	0.51	0.79	

## National capacity assessment

"Air traffic demand is exceeding capacity in ACC Warsaw, which could comprise maximum 145 flights per hour. During the peak and hardest period of 2014 it was noted 180 flights per hour. However the real impact on ATFM delay came from unexpected air traffic rerouting after 19th July 2014 - shooting down of Malaysian Airlines Boeing 777. The other reason for re-routing traffic into FIR Warszawa is the low level of air navigation charges in Poland.

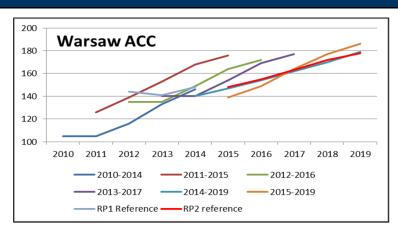
The factor which significantly increased ATFM delay came from industrial actions in France.

Corrective action plan prepared by PANSA in order to approve en-route capacity is focused on two areas:

- "1. Training of ATCOs. PANSA is going to realize of updated training plan to fulfill current requirements (current staff shortage is 17%);
- 2. Vertical split of ACC sectors -. PANSA provides implementation of vertical split of airspace in I quarter 2016.

The target for 2014 in capacity area was very ambitious, what was underlined during the elaboration of Performance plan. During the capacity planning cycle all participants (NM, PANSA, PL NSA) pointed to the effort to increase enroute capacity in FIR Warszawa. The delay in implementation of a new ATM system hampered this achievement."

# ANSP capacity plan



## Military dimension of the plan

Although specifically requested in IR 691/2010 Annex II Template for Performance Plans, paragraph 4: the Performance Plan for Poland did not contain any specific details of how FUA would be applied to increase capacity.

# PRB Capacity assessment

The en-route capacity performance in Poland did not meet either the effort required to be consistent with the union-wide target for en route capacity, or the national target. The PRB recognises the difficulty in the transition to the new ATM system and is cogniscent of the significant efforts by the Network Manager and the surrounding ANSPs to reroute a lot of traffic away from congested areas.

# **Effective booking procedures**

The ratio of time airspace was actually used for activity requiring segregation or restriction from GAT and the amount of time it was allocated as being restricted on the day of operations: 45%

The ratio of time airspace, that was surplus to requirement, was released with more than 3 hours' notice to the Network Manager and the amount of time it was allocated as being restricted on the day of operations: 10%

The ratio of time airspace was neither used nor released with at least 3 hours' notice to the Network Manager, but was allocated as being restricted on the day of operations: 45%

[Note: It is assumed that the values for "sum of hours still allocated at H-3" in the national monitoring report referred instead to the "sum of hours that airspace was released prior to H-3".]

#### **Previous recommendations**

## Extract from notification letter from EC July 2012

Furthermore, Poland's performance plan is assessed on the clear expectation that Poland will require its air navigation service provider to develop and implement capacity plans that will enable the 2014 reference value of 0.26 minute of average delay per flight to be met in 2015, with the assistance of the Network Manager.

**Annual Monitoring Report 2012:** Poland is invited to provide more detailed data on the allocation and use of individual restricted and segregated areas instead of the aggregated data provided.

**Annual Monitoring Report 2013: 1)** In light of capacity performance in 2012 and 2013, and in accordance with Article 17 of EU Regulation 691/2010, Poland is requested to define, apply and communicate appropriate measures to achieve the targets set in the Performance Plan.

**2)** The PRB reminds Poland of the obligation to report on the individual restricted and segregated areas that impact available ATC capacity, and or route options for general air traffic, rather than simply aggregating over all areas.

# NSA report on follow-up to recommendations

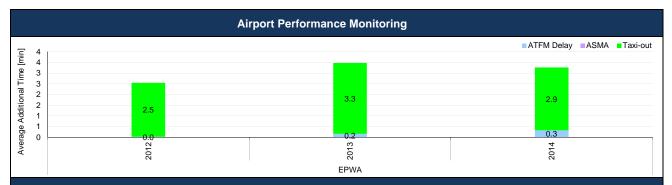
In response to the first recommendation from AMR 2013, the national monitoring report contains the following information:

Corrective action plan prepared by PANSA in order to approve en-route capacity is focused on two areas:

- "1. Training of ATCOs. PANSA is going to realize of updated training plan to fulfill current requirements (current staff shortage is 17%);
- 2. Vertical split of ACC sectors -. PANSA provides implementation of vertical split of airspace in I quarter 2016.

# Recommendations

# Monitoring of CAPACITY indicators for 2014



#### **Airport Data** Average of Total Additional Total Sum of Total Apt. Additional **ICAO** Apt. ATFM Additional taxi-out Additional Total **Airport Name RP1 Year** ATFM arr. **ASMA** time arr. Delay Additional Code ASMA time time taxi-out delay [min.] [min./arr.] [min./arr.] [min./dep.] time [total] Time [min] [min] 160 467 2012 0.0 1 264 n/a n/a 2.5 n/a Warsaw Chopin **EPWA** 3.3 230 039 2013 0.2 11 318 n/a n/a n/a 2014 0.3 22 408 2.9 193 678 n/a n/a n/a 2012 0.0 1 264 n/a n/a 2.5 160 467 n/a Total 2013 0.2 11 318 n/a n/a 3.3 230 039 n/a 2014 0.3 22 408 n/a n/a 2.9 193 678 n/a 2014-2013 11 090 -36 361 n/a 0.2 n/a n/a -0.4 **Absolute Difference** 2014-2012 0.3 21 144 n/a n/a 0.4 33 211 n/a

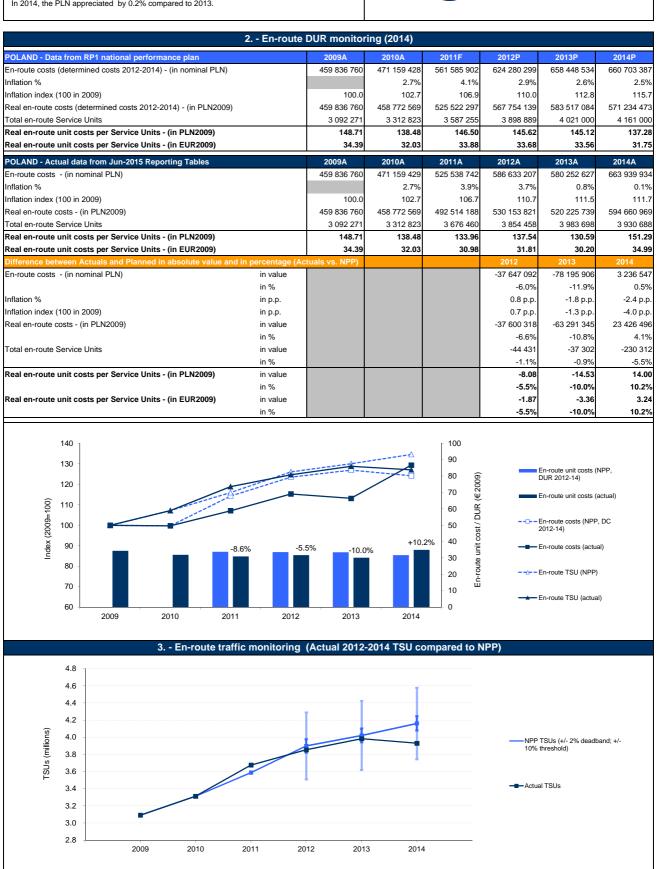
• Missing CPR Data since 2012.

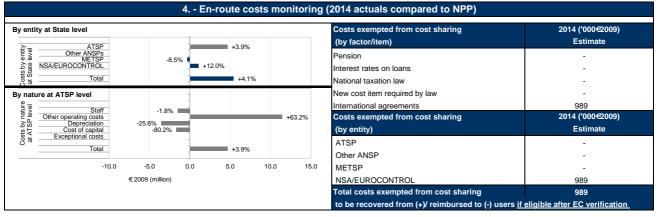
# Specific Analysis

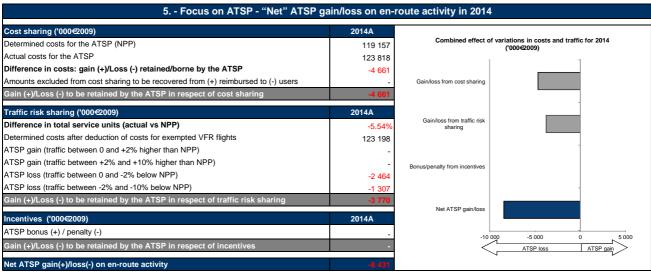
**Critical Issues** 

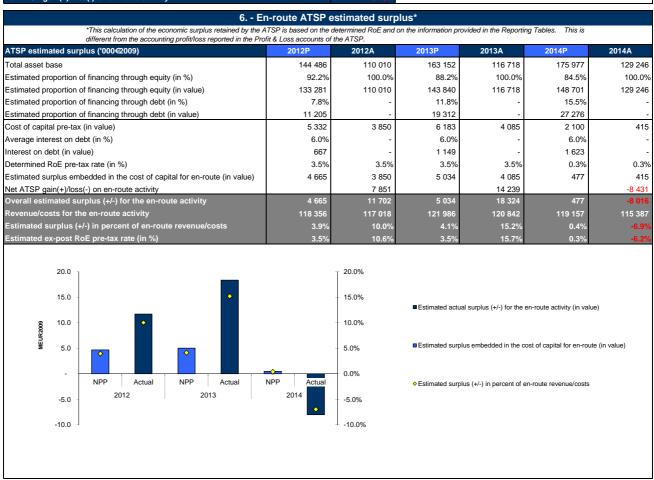
- Additional ASMA time could not be calculated for Warsaw airport due to missing CPR information.
- Taxi-out time performance significantly deteriorated at Warsaw airport by 21% over the RP1 period of time.











#### Monitoring of en-route and terminal COST-EFFICIENCY for 2014

7 General conclusions on the monitoring of the 2014 en-route DUR
Notes on information provided by POLAND
At Class / Characian Associated
At State / Charging Area level
In 2014, the real en-route unit cost for Poland (34.99 €2009) is +10.2% higher than planned in the NPP for RP1 (31.75 €2009). This difference is due to the fact that actual en-route costs in real terms are +4.1% higher than the determined costs, whilst en-route Service Units are -5.5% lower than planned. The increase in costs is due to higher than planned costs for PANSA and EUROCONTROL, and a lower actual inflation rate (-2.4 p.p.).

#### Actual 2014 costs vs. NDD

Total actual en-route costs in 2014 (594.7 MPLN2009) are +4.1% higher than planned in the NPP (571.2 MPLN2009). It is noted that actual inflation (0.1%) in 2014 is less than forecasted in the NPP (2.5%). In nominal terms, actual en-route costs in 2014 (663.9 MPLN) are only +0.5% higher than the planned cost of 660.7 MPLN.

The number of en-route total service units (TSUs) in 2014 (3.93 million) is lower (-5.5%) than the figures provided in Poland's Adopted NPP (4.16 million). This is outside the ±2% dead band, but does not exceed the -10% threshold foreseen in the traffic risk sharing mechanism. The resulting loss of revenue is shared between the

The en-route cost-base includes costs relating to Poland's ATSP (PANSA), the MET Service Provider (IMWM), and Poland's NSA (which includes EUROCONTROL costs). Whilst 2014 en-route costs for IMWM are lower than planned (-8.5% in real terms), PANSA and the NSA/EUROCONTROL actual costs are higher than the amount reported in the NPP (+3.9%, and +12.0% respectively, in real terms). For the NSA (incl. EUROCONTROL), actual costs are +12.0% higher in real terms than the determined costs, primarily due to higher than planned EUROCONTROL costs. A detailed analysis of PANSA's costs is provided in the box below.

Costs exempt from cost sharing are reported for an amount of +0.99 M€2009, corresponding to the difference between planned and actual EUROCONTROL costs. These costs will be eligible for carry-over to the following reference period(s), if deemed allowed by the European Commission after verification on the basis of the NSA report establishing and justifying these exemptions.

#### RP1 summary

When considering the whole of RP1 (2012-2014) the actual number of TSUs is -2.6% lower than planned and actual costs are -4.5% lower than planned (some -77.5 MPLN2009). As a result, the weighted average unit cost over RP1 is -2.0% lower than the level planned in the NPP.

#### At ATSP level

#### Actual 2014 PANSA costs vs. NPP

PANSA actual en-route costs are +3.9% (or +4.7 M€2009) higher than the determined costs as a result of higher other operating costs while staff costs and capital-related costs were lower than planned.

According to the Additional Information to the June 2015 en-route Reporting Tables, other operating costs are +63.2% (or +11.4 M€2009) higher than planned mainly due to "increasing provision for compensation according to non-contractual usage of land that previously belonged to the Branicki family". Excluding this one-time provision, other operating costs are lower, due to lower consumption of materials and energy, as well as lower costs of training, servicing and rental expenses. Staff costs are -1.8% lower than planned, due to a lower number of staff than anticipated, and staff resources being used more flexibly. Depreciation and cost of capital are also lower than planned, -25.6% and -80.2% respectively, due to postponement of some investment and a lack of external financing of PANSA.

In 2014, the actual total asset base is 129.2 M€2009, or -26.6% lower than planned. This is the result of significantly lower investment than planned over RP1, even when unplanned investments are included. This is also reflected in the lower depreciation costs and cost of capital.

# PANSA net gain/loss and estimated surplus on en-route activity in 2014

As shown in item 5, the en-route activity for the year 2014 generated a net loss of -8.4 M€2009 for PANSA overall. This is the result of a combination of two separate elements:

- a loss of -4.7 M€2009 for PANSA as a result of the cost-sharing mechanism; and

ATSP and the airspace users, with the loss borne by the ATSP amounting to some -3.8 M€2009.

- a loss of -3.8 M€2009 as a result of the traffic risk sharing mechanism for 2014.

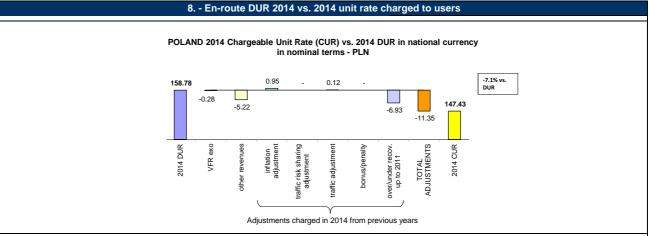
For the en-route activity, the estimated surplus embedded in the cost of capital through the return on equity planned in the NPP amounted to +0.5 M€2009, corresponding to an estimated surplus of +0.4% of the en-route revenues for 2014. Ex-post, the overall estimated surplus for the year calculated by adding the surplus embedded in the cost of capital (+0.4 M€2009) and the net loss from the en-route activity in 2014 (-8.4 M€2009) gives a total loss of -8.0 M€2009, corresponding to -6.9% of the en-route revenue in 2014. The resulting ex-post rate of return on equity for 2014 is -6.2% (compared to +0.3% as initially planned in the NPP). It is important to note that this negative result in 2014 is mainly driven by the recording of an exceptional provision (some 18.3 M€ according to the additional information provided with the June 2015 en-route Reporting Tables).

#### Conclusion

Traffic volumes were lower than expected (-5.5%), and PANSA's actual en-route costs in 2014 were +3.9% higher than planned in the NPP, in real terms. The en-route activity for the year 2014 generated a net loss of -8.4 M€2009 for PANSA, which results in an overall estimated surplus of -6.9% of the en-route revenue for 2014 (lower than the +0.4% planned in the NPP). It is important to note that this negative result in 2014 is mainly driven by the recording of an exceptional provision (some 18.3 M€ according to the additional information provided with the June 2015 en-route Reporting Tables).

When considering the whole of RP1 (2012-2014), PANSA could retain a cumulative gain in respect of cost sharing of +19.9 M€2009, as actual costs were lower than planned in 2012 and 2013. However, PANSA incurred a cumulative loss in respect of traffic risk sharing amounting to -6.3 M€2009, which resulted in a cumulative net gain for the en-route activity of +13.7 M€2009.

#### Monitoring of en-route and terminal COST-EFFICIENCY for 2014



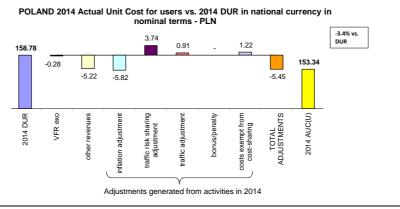
The DUR for 2014 expressed in nominal terms differs from the actual en-route unit rate charged to users in 2014 (CUR).

- the DUR, but also, a deduction of the costs for services to exempted VFR in 2014, as determined prior to the reference period and a deduction of 2014 other revenues;
- as well as adjustments relating to the activities of previous years that are carried-over to 2014. These adjustments include:
- the inflation adjustment:
- \* the adjustment resulting from the implementation of the traffic risk-sharing (ATSP);
- \* the adjustment resulting from the difference in traffic (for costs not subject to traffic risk sharing); \* the bonus/penalty from previous year(s).
- \* the legacy carry-overs incurred in the full cost recovery regime up to and including 2011.

These costs and adjustments are divided by the forecast total service units for 2014 as laid out in the performance plan.

The CUR charged to airspace users in 2014 is 147.43 PLN, which is -7.1% less than the DUR of 158.78 PLN. The CUR is lower due to a deduction of other revenues received by PANSA (-5.22 PLN, or -3.3%) and legacy carry-overs incurred up to and including 2011 (-6.93 PLN, or -4.4%). Minor adjustments were made to reflect the deduction of costs for services exempt from VFR (-0.28 PLN), inflation adjustment (+0.95 PLN) and traffic adjustment (+0.12 PLN).

# 9. - En-route DUR 2014 vs. 2014 actual unit cost for users



The DUR for 2014 expressed in nominal terms can also be compared to the actual en-route unit cost for airspace users (AUC-U) for 2014 (also sometimes referred to the "true cost for users"), which reflects the unit cost that the users incur in respect of the activities performed in 2014. The AUC-U comprises:

- the DUR, the deduction of the costs for services to exempted VFR in 2014 and the deduction of 2014 other revenues that has already been billed to the users through the
- as well as adjustments relating to the activities of 2014 but which will be charged or reimbursed to users in future years. These adjustments include:
- the inflation adjustment;
- \* the adjustments resulting from the implementation of the traffic risk-sharing (ATSP);

  \* the adjustments resulting from the difference in traffic (for costs not subject to traffic risk sharing);
- \* the bonus/penalty for the current year;
  \* the costs exempt from cost sharing (if deemed eligible)

These costs and adjustments are divided by the actual total service units in 2014.

The AUC-U for airspace users in 2014 is 153.34 PLN, which is -3.4% less than the DUR of 158.78 PLN. This is due to adjustments generated from activities in 2014:

- -5.82 PLN, or -3.7% deduction due to inflation adjustment;
- -5.22 PLN, or -3.3% deduction due to other revenues:
- +3.74 PLN, or +2.4% increase of costs for traffic risk adjustment;
- +1.22 PLN, or +0.8% increase for costs exempt from cost sharing;
- +0.91 PLN, or +0.6% increase reflecting the difference in traffic for costs not subject to traffic risk sharing; and
- -0.28 PLN, or -0.2% deduction of costs for services to exempted VFR.

## Monitoring of en-route and terminal COST-EFFICIENCY for 2014

10 Terminal costs and unit rates monitoring (2014)								
		2009	2010	2011	2012	2013	2014	
Terminal Service Unit Formula	(MTOW/50)^	0.5	0.5	0.7	0.7	0.7	0.7	
Number of airports in terminal charging zone		11	11	11	13	13	13	
of which, number of airports over 50 000 movements		1	1	1	1	1	1	
POLAND - Data from RP1 national performance plan		2009A	2010A	2011F	2012P	2013P	2014P	
Terminal ANS costs for the charging zones - (in PLN)		122 938 882	116 336 331	141 412 605	111 077 280	113 550 465	115 911 332	
Inflation index (100 in 2009)		100.0	102.7	106.9	110.0	112.8	115.7	
Real terminal ANS costs - (in PLN2009)		122 938 882	113 277 830	132 331 450	101 019 663	100 628 421	100 215 240	
Real terminal ANS costs - (in EUR2009)		28 432 867	26 198 493	30 605 146	23 363 468	23 272 983	23 177 424	
POLAND - Actual data from June 2015 Reporting Tables	5	2009A	2010A	2011A	2012A	2013A	2014A	
Terminal ANS costs for the charging zones - (in PLN)		122 938 882	116 336 331	121 715 004	106 796 553	103 770 090	120 896 539	
Inflation index (100 in 2009)		100.0	102.7	106.7	110.7	111.5	111.7	
Real terminal ANS costs - (in PLN2009)		122 938 882	113 277 830	114 066 503	96 514 483	93 035 119	108 281 562	
Real terminal ANS costs - (in EUR2009)		28 432 867	26 198 493	26 380 894	22 321 526	21 516 831	25 042 974	
Total terminal service units		126 670	133 012	134 574	150 318	149 649	156 168	
Actual real unit costs - (in PLN2009)		970.5	851.6	847.6	642.1	621.7	693.4	
Unit rate applied - (in PLN)					781.06	812.38	699.80	
Difference between Actuals and Planned in absolute va	lue and in percentag	je (Actuals vs. NF	PP)		2012	2013	2014	
Terminal ANS costs for the charging zones - (in PLN)	in value				-4 280 728	-9 780 375	4 985 207	
	in%				-3.9%	-8.6%	4.3%	
Inflation index (100 in 2009)	in p.p.				0.7 p.p.	-1.3 p.p.	-4.0 p.p.	
Real terminal ANS costs - (in PLN2009)	in value				-4 505 181	-7 593 302	8 066 322	
	in%				-4.5%	-7.5%	8.0%	
Real terminal ANS costs - (in EUR2009)	in value				-1 041 942	-1 756 152	1 865 550	
	in%				-4.5%	-7.5%	8.0%	

## 11. - General conclusions on the Terminal ANS costs and unit rates monitoring

The terminal charging zone of Poland comprises 13 airports, of which only one, Frederic Chopin Airport, handles more than 50 000 airport movements per year. The harmonised SES formula (MTOW/50)\pi0.7 has been applied in the Poland Terminal Charging Zone since 2011.

Actual terminal ANS costs in 2014 are +8.0%, or +1.9 M€2009 higher than planned in the NPP. This difference is larger than that for en-route costs (+4.1% in real terms). PANSA is the only entity that reported higher actual costs than planned in 2014, both IMWM and the NSA reported lower costs than planned. PANSA cost of capital, staff costs and depreciation costs were lower than planned, however other operating costs were significantly higher (as noted in the Additional Information to the June 2015 terminal Reporting Tables, this is mainly due to the recording of exceptional provision for compensation of "non-contractual usage of land that previously belonged to the Branicki family").

# RP1 summary

When considering the whole of RP1 (2012-2014), actual terminal ANS costs were lower than planned in real terms (-1.3% or some -4.0 MPLN2009). Terminal ANS costs were lower than planned in the first two years of RP1 (-4.5% in 2012 and -7.5% in 2013) but higher in 2014 (+8.0%), mainly due to higher than planned other operating costs for PANSA that recorded an exceptional provision for compensation of "non-contractual usage of land that previously belonged to the Branicki family".

	12 Monito	ring of gate-to	-gate costs (2	2014)			
POLAND - Data from RP1 national performance plan		2009A	2010A	2011F	2012P	2013P	2014P
Real en-route costs (determined costs 2012-2014) - (in PL	-N2009)	459 836 760	458 772 569	525 522 297	567 754 139	583 517 084	571 234 473
Real terminal ANS costs - (in PLN2009)		122 938 882	113 277 830	132 331 450	101 019 663	100 628 421	100 215 240
Real gate-to-gate ANS costs - (in PLN2009)		582 775 641	572 050 399	657 853 747	668 773 802	684 145 505	671 449 713
Real gate-to-gate ANS costs - (in EUR2009)		134 782 274	132 301 778	152 146 071	154 671 623	158 226 735	155 290 498
Share of en-route costs in gate-to-gate ANS costs		78.9%	80.2%	79.9%	84.9%	85.3%	85.1%
POLAND - Actual data from June 2015 Reporting Table	es	2009A	2010A	2011A	2012A	2013A	2014A
Real en-route costs - (in PLN2009)	Real en-route costs - (in PLN2009)		458 772 569	492 514 188	530 153 821	520 225 739	594 660 969
Real terminal ANS costs - (in PLN2009)		122 938 882	113 277 830	114 066 503	96 514 483	93 035 119	108 281 562
Real gate-to-gate ANS costs - (in PLN2009)		582 775 641	572 050 399	606 580 690	626 668 304	613 260 858	702 942 531
Real gate-to-gate ANS costs - (in EUR2009)		134 782 274	132 301 779	140 287 821	144 933 613	141 832 787	162 574 044
Share of en-route costs in gate-to-gate ANS costs		78.9%	80.2%	81.2%	84.6%	84.8%	84.6%
Difference between Actuals and Planned in absolute v	alue and in percenta	age (Actuals vs. N	PP)		2012	2013	2014
Real en-route costs - (in PLN2009)	in value				-37 600 318	-63 291 345	23 426 496
	in %				-6.6%	-10.8%	4.1%
Real terminal ANS costs - (in PLN2009)	in value				-4 505 181	-7 593 302	8 066 322
in %					-4.5%	-7.5%	8.0%
Real gate-to-gate ANS costs - (in PLN2009) in value					-42 105 499	-70 884 647	31 492 817
in %					-6.3%	-10.4%	4.7%
Real gate-to-gate ANS costs - (in EUR2009) in value					-9 738 010	-16 393 949	7 283 547
	in %				-6.3%	-10.4%	4.7%
Share of en-route costs in gate-to-gate ANS costs	in p.p.				-0.3 p.p.	-0.5 p.p.	-0.5 p.p.

# 13. - General conclusions on the gate-to-gate ANS costs

In 2014, Poland's actual gate-to-gate ANS costs (162.6 M€2009) are +4.7% higher than planned in the NPP (155.3 M€2009). The major driver of this difference is actual en-route costs, but higher actual terminal costs than planned have also had an impact on actual gate-to-gate ANS costs.

The allocation of gate-to-gate costs between en-route ANS and terminal ANS appears quite stable over RP1 (approximately 85% share to en-route) and did not change significantly with respect to the NPP.





# PRB Annual Monitoring Report 2014

Portugal

Working Draft 2.0

Edition date: 03/09/2015



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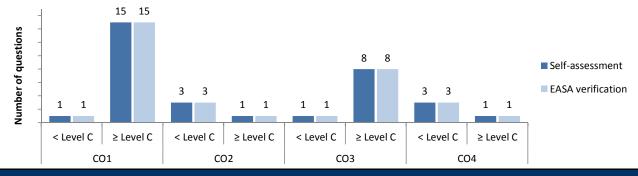
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# Monitoring of SAFETY indicators for 2014

Effectiveness of Safety Management									
	2012	2013	2014	State level Observations					
State level	47	47	46						
ANSP [NAV Portugal]	60	74	N/A						



#### Application of the severity classification of the Risk Analysis Tool (RAT) 2012 2013 2014 Assessed No Assessed No No Assessed reported reported reported (%) (%)(%) ATM Ground 30% 100% 75% Separation Minima 10 8 4 Infringements (SMIs) **ATM Overall** 0% 0% 75% **ATM Ground** 100% 100% 33% Runway Incursions (RIs) 6 6 3 **ATM Overall** 33% 0% 33% **ATM Specific Occurences ATM Overall** 0 N/A 100% 50 100% 91 (ATM-Specific) Source of RAT data: NAV-P

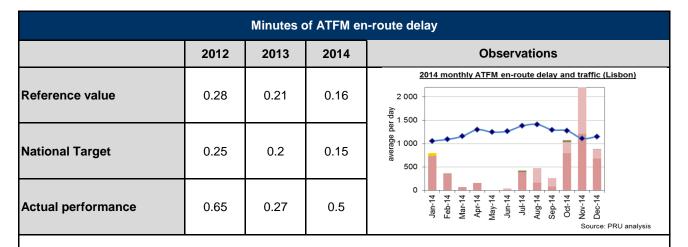
Preliminary results updated after coordination with the AST-FP in August 2015.

Just culture									
			Sta	ate					
Number of questions answered with Yes or No	2012		2013		2014				
	YES	NO	YES	NO	YES	NO			
Policy and its implementation	6	4	6	4	6	3			
Legal/Judiciary	8	0	8	0	7	0			
Occurrence reporting and Investigation	2	0	2	0	2	0			
TOTAL	16	4	16	4	15	3			

	ANSP [NAV Portugal]							
Number of questions answered with Yes or No	2012		2013		2014			
	YES	NO	YES	NO	YES	NO		
Policy and its implementation	9	4	11	2	N/A	N/A		
Legal/Judiciary	2	1	2	1	N/A	N/A		
Occurrence reporting and Investigation	6	2	7	1	N/A	N/A		
TOTAL	17	7	20	4	N/A	N/A		

#### **PORTUGAL**

# Monitoring of CAPACITY indicators for 2014

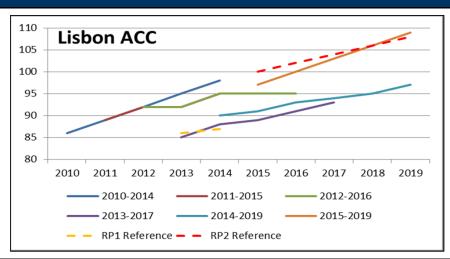


## National capacity assessment

As a result of the general economic situation in Portugal and the Economic Adjustment Program undertaken at national level, the capacity deployment could not be offered throughout the all year, as desirable, having focused all major efforts along the summer period – usual peak traffic period of Lisbon ACC.

Despite the good performance during the summer periods, it was recognized a degradation of the capacity performance along the winter season, resulting in an increase of ATFM delays, thus contributing for not achieving the capacity target for RP1.

# **ANSP** capacity plan



# Military dimension of the plan

The NSA for Portugal has confirmed that the allocation and activation of restricted or segregated areas has no adverse impact on either ATC capacity, or on the ability of aircraft operators to file flight plans.

# PRB Capacity assessment

As in 2012 and 2013 the capacity performance for 2014 did not meet the national target, nor the effort required to be consistent with the EU-wide capacity target. It is evident that the planned measures to improve capacity, as presented by the NSA in the previous monitoring reports, have not been successful. The PRB is mindful that according to the Network Manager there should not be any capacity shortfall in Portugal. It is clear that Portugal needs to address the delay spikes in late Autumn if general capacity performance is to be improved.

# **Effective booking procedures**

The segregated or restricted areas were not reported to the Network Manager via AUP/UUP in 2014, because the areas required for military activities were activated at tactical level and all of them in the lower airspace. This means that no impact was recorded in ATC capacity. Therefore there were no restrictions in the planning of any flights within Lisbon UIR/FIR.

## **Previous recommendations**

**Annual Monitoring Report 2012:** The NSA of Portugal is invited to provide additional information to the Commission on how the problems in deploying sufficient capacity have been addressed.

**Annual Monitoring Report 2013:** In light of the capacity performance in 2012 and 2013, and in accordance with Article 17 of EU Regulation 691/2010, Portugal is requested to define, apply and communicate appropriate measures to achieve the targets set in the Performance Plan.

# NSA report on follow-up to recommendations

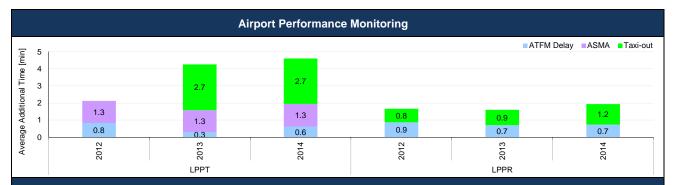
**2012 follow-up**: the unexpected traffic increase during November and December; Lisboa ACC training activities between October and December impossible to be delayed, linked with new functionalities and maintenance of licenses validity; west sector split not implemented, partially due to neighbor FIRs issues.

**2013 follow-up**: Summer capacity has been increased by 13% to meet Summer demand. Implementation of the free route airspace in Santiago/ Asturias has changed traffic flows. Sector openings can be flexibly configured according to traffci flows.

# Recommendations

#### **PORTUGAL**

# Monitoring of CAPACITY indicators for 2014



#### **Airport Data** Average of Total Additional Total Sum of Total Apt. Additional Additional **ICAO** Apt. ATFM Additional taxi-out Total **Airport Name RP1 Year** ATFM arr. **ASMA** time arr. Delay Code ASMA time time taxi-out Additional delay [min.] [min./arr.] Time [min] [min./arr.] [min] [min./dep.] time [total] 1.3 2012 8.0 60 230 83 784 n/a n/a n/a Lisbon **LPPT** 2.7 2013 0.3 21 529 90 127 191 534 303 190 1.3 2014 0.6 204 635 49 446 1.3 99 194 2.7 353 275 2012 0.9 25 597 n/appl. n/appl 8.0 22 769 48 366 LPPR Porto 2013 0.7 20 844 n/appl. n/appl 0.9 26 063 46 907 2014 0.7 23 495 n/appl n/appl 1.2 37 183 60 678 2012 0.8 85 827 1.3 83 784 n/a n/a n/a Total 42 373 90 127 350 097 2013 0.4 1.3 2.2 217 597 72 941 2014 0.7 1.3 99 194 2.2 241 818 413 953 2014-2013 30 568 0.0 9 067 0.3 0.1 24 221 63 856 **Absolute Difference** 2014-2012 -0.2 -12 886 0.0 15 410 n/a n/a n/a

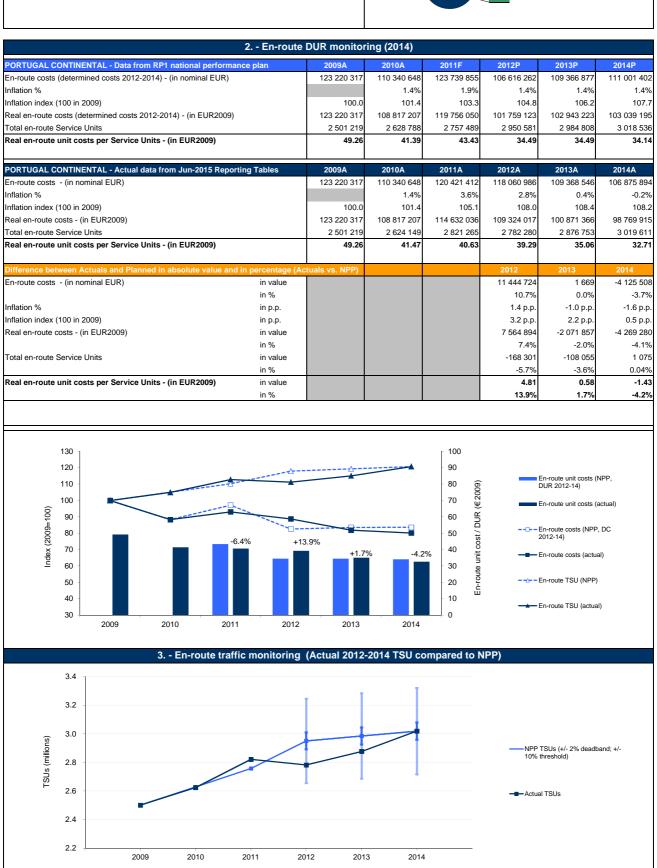
# **Critical Issues**

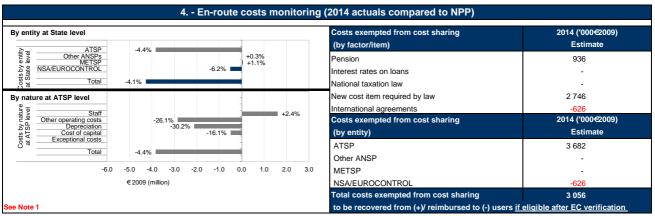
• To be noted that the national average additional taxi-out time cannot be assessed for Portugal in 2012 due to missing data at Lisbon airport.

# **Specific Analysis**

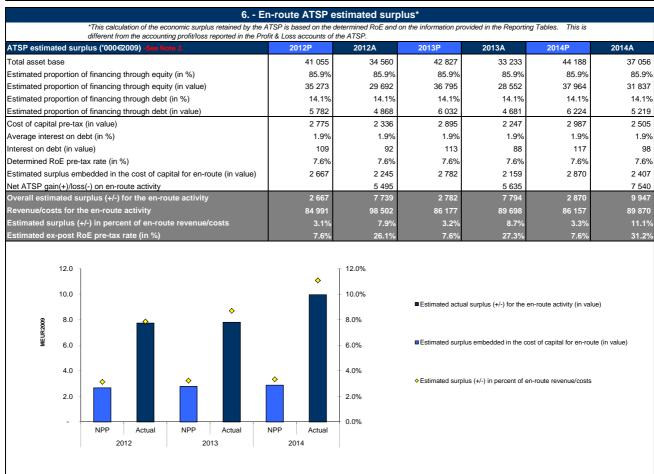
- Following the North Africa situation, Lisbon ACC has experienced unexpected and significant traffic demand growth along the RP1 period, mostly and specially in the last two years, with traffic patterns to/from the Canary Islands developing in a way that is affecting Lisbon FIR, what consequently has a direct impact in the sector opening schemes, presently based in a winter/summer balance, according local ANSP.
- In addition, as a result of the general economic situation in Portugal and the Economic Adjustment Program undertaken at national level, the capacity deployment could not be offered throughout the all year, as desirable, having focused all major efforts along the summer period usual peak traffic period of Lisbon ACC.
- Nevertheless, and taking into consideration Eurocontrol NM capacity reports, between 2012 and 2014, summer traffic demand increased by 11% and NAV Portugal increased summer capacity by 13% (from 83 movements/hour in 2012 to 94 movements/hour in 2014).
- Although ATFM arrival delay decreased by 15% at Lisbon airport, additional taxi-out time increased the last two years and remains the most critical factor for efficiency performance.







Cost sharing ('000€2009)	2014A		
Determined costs for the ATSP (NPP)	86 157	Combined effect of variations in c ('000€2009)	
Actual costs for the ATSP	82 329	(111 _ 11	•
Difference in costs: gain (+)/Loss (-) retained/borne by the ATSP	3 828		
Amounts excluded from cost sharing to be recovered from (+) reimbursed to (-) users	3 682	Gain/loss from cost sharing	
Gain (+)/Loss (-) to be retained by the ATSP in respect of cost sharing	7 510		
Traffic risk sharing ('000€009)	2014A		
Difference in total service units (actual vs NPP)	0.04%	Gain/loss from traffic risk sharing	
Determined costs after deduction of costs for exempted VFR flights	85 775		
ATSP gain (traffic between 0 and +2% higher than NPP)	31		
ATSP gain (traffic between +2% and +10% higher than NPP)	-	Bonus/penalty from incentives	
ATSP loss (traffic between 0 and -2% below NPP)	-	Bonda pontally norminocharce	
ATSP loss (traffic between -2% and -10% below NPP)	-		
Gain (+)/Loss (-) to be retained by the ATSP in respect of traffic risk sharing	31	N. ATOD . A	
Incentives ('000€009)	2014A	Net ATSP gain/loss	
ATSP bonus (+) / penalty (-)	-	-4 000 -2 000 0	2 000 4 000 6 000 8 0
Gain (+)/Loss (-) to be retained by the ATSP in respect of incentives	-	ATSP loss T	ATSP gain
Net ATSP gain(+)/loss(-) on en-route activity	7 540	ATOF IOSS	ATOT galli



#### Monitoring of en-route and terminal COST-EFFICIENCY for 2014

## 7. - General conclusions on the monitoring of the 2014 en-route DUR

# Notes on information provided by PORTUGAL CONTINENTAL

#### Note 1: SAR (Air Force and Navy) costs

In the NPP for RP1, planned SAR costs (4.0 M€, for 2012, 4.1 M€ for 2013 and 4.2 M€ for 2014) were allocated to the main ATSP, NAV Portugal. In the Reporting Tables provided in June 2013, 2014 and 2015, SAR costs are excluded from NAV Portugal's costs and recorded as another ANSP's costs. Therefore, in order to ensure a consistent comparison of planned and actual costs, SAR costs were excluded from NAV Portugal determined costs and allocated to the other ANSP determined costs. It is understood that these SAR services are provided by the Portuguese Airforce and Navy.

#### Note 2: ATSP surplus analysis

The analysis provided in item 6 differs very slightly from the figures reported in the 2013 Monitoring Report. This is due to the fact that NAV Portugal reported different data in the June 2015 Reporting Tables compared to the June 2014 Reporting Tables. The observed changes concern the interest rate on debt (changing from 1.86% to 1.88%) and the proportion of financing through equity (changing from 85.96% to 85.92%). These slight changes affect both planned and actual data for all years of RP1.

#### At State / Charging Area level

In 2014, Portugal's real en-route unit cost (32.71 €2009) is -4.2% lower than planned in the NPP (34.14 €2009). This difference is due to the fact that actual en-route costs are -4.1% (-4.3 M€2009) lower than planned in real terms, while the actual number of total service units (TSUs) is close to the level planned in the NPP (+0.04%). The difference between the actual and planned total en-route service units (+0.04%) falls inside the ± 2% dead band and is therefore fully borne by the ATSP.

#### Actual 2014 costs vs. NPP

The Portuguese en-route cost-base includes costs relating to: the en-route ATSP (NAV Portugal), the MET service provider (IPMA), the Portuguese NSA (ANAC) and the EUROCONTROL Agency. The "Other ANSP" category relates to SAR services provided by the Portuguese Airforce and Navy (see Note 1).

In 2014, actual en-route costs for Portugal are -4.1% (-4.3 M€2009) lower than planned in real terms, resulting from a combination of lower en-route costs in nominal terms (-3.7%) and a higher inflation index (+0.5 p.p.). The cost savings are mostly attributable to NAV Portugal (-4.4% in real terms, -3.8 M€2009). A detailed analysis of NAV Portugal's costs is provided in the box below. NSA/EUROCONTROL costs are also lower than planned (-6.2% in real terms, -0.5 M€2009) due to lower than planned EUROCONTROL costs, which offset higher than planned costs for ANAC. According to the Additional Information provided with the June 2015 en-route Reporting Tables this is due mainly to higher working hours and travel costs.

Costs associated with IPMA are +1.1% higher than planned (+0.1 M€2009 in absolute terms) due mainly to repayment of "Holidays and Christmas allowances" which were not included in the NPP.

Costs exempt from cost sharing are reported for an amount of +3.1 M€2009. NAV Portugal reported costs of +3.7 M€2009 for exemption relating predominantly to the reinstatement of 2010 salary levels reported as a new cost item required by law (+2.7 M€2009). The 2010 salary reinstatement, in combination with changes in market conditions, also led NAV Portugal to report +0.9 M€2009 of pension costs for exemption from cost sharing. Costs exempted from cost sharing also comprise -0.6M€2009 due to lower EUROCONTROL costs than planned. These costs will be eligible for carry-over to the following reference period(s), if deemed allowed by the European Commission after verification on the basis of the NSA report establishing and justifying these exemptions.

#### **RP1 summary**

When considering the whole of RP1 (2012-2014) the actual number of TSUs is -3.1% lower than planned while actual costs in real terms are +0.4% higher than the determined costs (some +1.2 M€2009). As a result, the weighted average unit cost over RP1 (35.60 €2009) is +3.6% higher than planned.

# At ATSP level

# Actual 2014 NAV Portugal costs vs. NPP

NAV Portugal 2014 actual en-route costs are -4.4% (-3.8 M€2009) lower than planned in real terms, as a result of lower than planned costs in all categories, except for staff costs which are +2.4% above the NPP, (+1.6 M€2009 in absolute terms). According to the Additional Information to the June 2015 en-route Reporting Tables higher staff costs result from the combination of three factors. Firstly, there was a reinstatement of 2010 salary levels following the withdrawal of the salary reductions applied in the State Budget Law for 2011. Secondly, higher pension costs are recorded due to the reduction in the discount rate used to calculate pension costs from 3.75% to 2.50% (in line with actual market conditions). Thirdly, the remaining staff cost items are lower than planned.

Other operating costs are -26.1% below planned, (or -2.8 M€2009 in absolute terms) due to lower spending on travel, repair and maintenance, rents and specialised works.

Depreciation costs are also lower than planned (-30.2% or -2.1 M€2009 in absolute terms), due to the postponement of some capex projects, notably the LISATM system which is awaiting a ministerial decision. According to the information provided in the 2014 NSA Monitoring Report, investment over RP1 was -65.8% lower than planned (-33.4M€ in absolute terms), mainly due to lower capex related to the ATM system. The reported asset base for 2014 is -16.1% lower than planned in real terms, which leads to a lower cost of capital (-16.1%, -0.5 M€2009 in absolute terms).

#### NAV Portugal net gain/loss and estimated surplus on en-route activity in 2014

As shown in item 5, the en-route activity for the year 2014 generated a net gain of +7.5 M€2009 for NAV Portugal. This is due to the combination of two separate elements:

- a gain of +7.5 M€2009 as a result of the cost-sharing mechanism; and
- a gain of +0.03 M€2009 as a result of the traffic risk sharing mechanism for 2014.

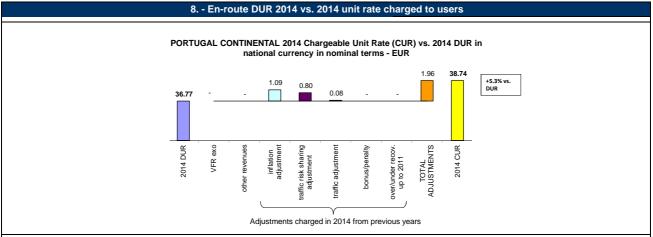
To calculate the overall economic surplus of the ATSP, it is also important to add the surplus embedded in the cost of capital through the return on equity. Based on the figures planned in the NPP, the return on equity amounted to +3.0 M€2009 corresponding to an estimated surplus of 3.3% of the en-route costs/revenues for 2014. Expost, the estimated surplus for the year computed by adding the surplus embedded in the cost of capital (+2.4 M€2009) and the net gain from the en-route activity in 2014 (+7.5 M€2009), gives a total of +9.9 M€2009, corresponding to 11.1% of the 2014 en-route revenue. The resulting ex-post rate of return on equity for 2014 is 31.2% (compared to 7.6% planned in the NPP). It is important to note that the costs submitted for cost exemption account for 48.8% of the net gain on en-route activity. Excluding this amount, the estimated surplus would be 7.3% of en-route costs/revenues for 2014 and the ex-post return on equity would be 19.7%.

#### Conclusions

In 2014 NAV Portugal's actual en-route costs are lower than planned (-4.4%, or -3.8 M€2009 in absolute terms) while traffic is slightly higher (+0.04%) than foreseen in the NPP. The en-route activity for the year 2014 generated a net gain of +7.5 M€2009 for NAV Portugal which results in an estimated actual surplus of +9.9 M€2009 (11.1% of the en-route revenue for 2014, up from the 3.3% planned in the RP1 PP).

When considering the whole of RP1 (2012-2014), NAV Portugal could retain a cumulative gain in respect of cost sharing of +23.3 M€2009, of which +25.4 M€2009 relate to costs exempted from cost sharing. NAV Portugal also incurred a cumulative loss in respect of traffic risk sharing amounting to -4.6 M€2009, due to lower than planned traffic in 2012 and 2013. These two effects resulted in a cumulative net gain for the en-route activity of +18.7 M€2009.

#### Monitoring of en-route and terminal COST-EFFICIENCY for 2014



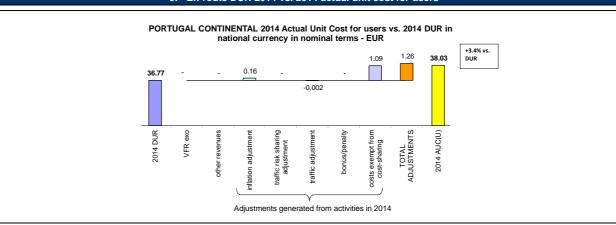
The DUR for 2014 expressed in nominal terms differs from the actual en-route unit rate charged to users in 2014 (CUR).

- the DUR, but also, a deduction of the costs for services to exempted VFR in 2014, as determined prior to the reference period and a deduction of 2014 other revenues;
- as well as adjustments relating to the activities of previous years that are carried-over to 2014. These adjustments include:
- the inflation adjustment:
- \* the adjustment resulting from the implementation of the traffic risk-sharing (ATSP);
- \* the adjustment resulting from the difference in traffic (for costs not subject to traffic risk sharing); \* the bonus/penalty from previous year(s).
- \* the legacy carry-overs incurred in the full cost recovery regime up to and including 2011.

These costs and adjustments are divided by the forecast total service units for 2014 as laid out in the performance plan.

The actual Chargeable Unit Rate (CUR) charged to users in 2014 is 38.74 €. This is +5.3% higher than the nominal DUR (36.77 €). The difference observed between these two figures (+1.96 €) reflects a combination of positive adjustments due to higher inflation than planned in 2012 (+1.09 €) and lower traffic than planned in 2012: traffic risk sharing adjustment (+0.80 €) and for costs exempt from traffic risk sharing (+0.08 €).

# 9. - En-route DUR 2014 vs. 2014 actual unit cost for users



The DUR for 2014 expressed in nominal terms can also be compared to the actual en route unit cost for airspace users (AUC-U) for 2014 (also sometimes referred to the "true cost for users"), which reflects the unit cost that the users incur in respect of the activities performed in 2014. The AUC-U comprises:

- the DUR, the deduction of the costs for services to exempted VFR in 2014 and the deduction of 2014 other revenues that has already been billed to the users through the
- as well as adjustments relating to the activities of 2014 but which will be charged or reimbursed to users in future years. These adjustments include:
- the inflation adjustment;
- \* the adjustments resulting from the implementation of the traffic risk-sharing (ATSP);

  \* the adjustments resulting from the difference in traffic (for costs not subject to traffic risk sharing);
- \* the bonus/penalty for the current year;
  \* the costs exempt from cost sharing (if deemed eligible)

These costs and adjustments are divided by the actual total service units in 2014.

The unit cost that the users incurred in respect of the activities performed in 2014 is  $38.03 \in$  This is +3.4% higher than the nominal DUR (36.77  $\bigcirc$ ). The difference observed between these two figures (+1.26 €) is due predominantly to the positive adjustment for the costs submitted for exemption from cost-sharing in 2014 (+1.09 €), see also item 7. There is also a positive adjustment following lower than planned inflation in 2014 (+0.16 €) and a marginal negative adjustment resulting from the difference in traffic for costs not subject to traffic risk sharing.

## Monitoring of en-route and terminal COST-EFFICIENCY for 2014

		2009	2010	2011	2012	2013	2014
erminal Service Unit Formula	(MTOW/50)^		0.7	0.7	0.7	0.7	0.
umber of airports in terminal charging zone			9	9	9	9	
of which, number of airports over 50 000 movements			2	2	2	2	:
ORTUGAL CONTINENTAL - Data from RP1 national per	formance plan	2009A	2010A	2011F	2012P	2013P	2014P
erminal ANS costs for the charging zones - (in EUR)		28 746 046	27 074 815	31 399 855	25 968 337	26 132 847	26 651 71
iflation index (100 in 2009)		100.0	101.4	103.3	104.8	106.2	107.
Real terminal ANS costs - (in EUR2009)		28 746 046	26 701 001	30 388 936	24 785 292	24 597 937	24 739 96
ORTUGAL CONTINENTAL - Actual data from June 2015	Reporting Tables	2009A	2010A	2011A	2012A	2013A	2014A
erminal ANS costs for the charging zones - (in EUR) - See I	Note 3	28 746 046	27 074 815	31 227 975	29 578 006	27 749 019	25 562 65
iflation index (100 in 2009)		100.0	101.4	105.1	108.0	108.4	108.
eal terminal ANS costs - (in EUR2009)		28 746 046	26 701 001	29 726 660	27 389 120	25 593 112	23 623 85
otal terminal service units		170 976	176 894	179 351	177 634	180 399	191 944
ctual real unit costs - (in EUR2009)		168.1	150.9	165.7	154.2	141.9	123.
nit rate applied - (in EUR)					126.25	174.56	174.2
ifference between Actuals and Planned in absolute valu	e and in percentage	e (Actuals vs. NPI	2)		2012	2013	2014
erminal ANS costs for the charging zones - (in EUR)	in value				3 609 669	1 616 172	-1 089 06
	in%				13.9%	6.2%	-4.19
nflation index (100 in 2009)	in p.p.				3.2 p.p.	2.2 p.p.	0.5 p.p
eal terminal ANS costs - (in EUR2009)	in value				2 603 827	995 175	-1 116 10
	in%				10.5%	4.0%	-4.5%

# 11. - General conclusions on the Terminal ANS costs and unit rates monitoring

#### **Note 3: Terminal Reporting Tables**

Portugal was not able to provide the June 2015 Reporting Tables in time to be used in the 2014 Monitoring. The terminal data shown in items 10 and 12 up to 2013 is from the November 2014 Reporting Tables. The terminal costs and service unit data for 2014 are from the 2014 NSA Monitoring Report.

Portugal counts one terminal charging zone comprising nine airports of which two have above 50 000 movements per year (i.e. Lisbon-LPPT and Porto-LPPR airports). The harmonised SES formula (MTOW/50)^0.7 already applies in the Portuguese Terminal Charging Zone. Actual terminal ANS costs are -4.5% lower than planned in real terms (-1.1 M€2009 in absolute terms) and the real unit cost for terminal services is 123.1 €2009, -13.2% compared to the real unit cost for 2013. The Unit Rate applied in 2014 is 174.21 €, which is close to the rate applied in 2013 (174.56 €).

#### RP1 summary

When considering the whole of RP1 (2012-2014), actual terminal ANS costs are +3.3% higher in real terms (or some +2.5 M€2009) than planned in the NPP. This reflects the fact that terminal ANS costs were higher than planned in 2012 (+10.5%) and 2013 (+4.0%) while 2014 costs are lower than planned (-4.5%).

	12 Monitori	ing of gate-to-	gate costs (2	2014)			
PORTUGAL CONTINENTAL - Data from RP1 national pe	2009A	2010A	2011F	2012P	2013P	2014P	
Real en-route costs (determined costs 2012-2014) - (in EUF	R2009)	123 220 317	108 817 207	119 756 050	101 759 123	102 943 223	103 039 195
Real terminal ANS costs - (in EUR2009)		28 746 046	26 701 001	30 388 936	24 785 292	24 597 937	24 739 965
Real gate-to-gate ANS costs - (in EUR2009)		151 966 363	135 518 209	150 144 986	126 544 416	127 541 160	127 779 161
Share of en-route costs in gate-to-gate ANS costs		81.1%	80.3%	79.8%	80.4%	80.7%	80.6%
PORTUGAL CONTINENTAL - Actual data from June 201	5 Reporting Tables	2009A	2010A	2011A	2012A	2013A	2014A
Real en-route costs - (in EUR2009)		123 220 317	108 817 207	114 632 036	109 324 017	100 871 366	98 769 915
Real terminal ANS costs - (in EUR2009) - See Note 3	28 746 046	26 701 001	29 726 660	27 389 120	25 593 112	23 623 856	
Real gate-to-gate ANS costs - (in EUR2009)		151 966 363	135 518 209	144 358 696	136 713 137	126 464 478	122 393 771
Share of en-route costs in gate-to-gate ANS costs	81.1%	80.3%	79.4%	80.0%	79.8%	80.7%	
Difference between Actuals and Planned in absolute va	lue and in percentag	je (Actuals vs. NF	PP)		2012	2013	2014
Real en-route costs - (in EUR2009)	in value				7 564 894	-2 071 857	-4 269 280
	in %				7.4%	-2.0%	-4.1%
Real terminal ANS costs - (in EUR2009)	in value				2 603 827	995 175	-1 116 109
	in %				10.5%	4.0%	-4.5%
Real gate-to-gate ANS costs - (in EUR2009)	in value				10 168 721	-1 076 682	-5 385 389
	in %				8.0%	-0.8%	-4.2%
Share of en-route costs in gate-to-gate ANS costs	in p.p				-0.4 p.p.	-1.0 p.p.	0.1 p.p.

# 13. - General conclusions on the gate-to-gate ANS costs

Actual 2014 gate-to-gate costs are -4.2% lower than planned in real terms due to lower than planned en-route ANS costs (-4.3 M€2009, -4.1%) and terminal ANS costs (-1.1 M€2009, -4.5%).

The allocation of gate-to-gate costs between en-route ANS and terminal ANS appears quite stable over RP1 (approximately 80% share to en-route) and did not change significantly with respect to the NPP.





# PRB Annual Monitoring Report 2014

Romania

Working Draft 2.0

Edition date: 03/09/2015



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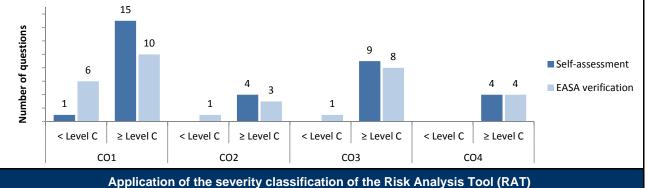
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# Monitoring of SAFETY indicators for 2014

Effectiveness of Safety Management									
	2012	2013	2014	State level Observations					
State level	69	68	70						
ANSP [ROMATSA]	80	80	82						



#### 2012 2013 2014 Assessed No Assessed No Assessed No reported reported reported (%) (%) (%) **ATM Ground** 100% 100% 100% **Separation Minima** 11 10 Infringements (SMIs) **ATM Overall** 0% 100% 100% **ATM Ground** 100% 100% 100% Runway Incursions (RIs) 6 4 4 **ATM Overall** 0% 100% 100% **ATM Specific Occurences ATM Overall** 408 100% 271 100% 228 98% (ATM-Specific)

CIAS

Just culture **State** 2013 Number of questions answered with Yes or No 2012 2014 YES **YES** NO NO YES NO Policy and its implementation 2 8 9 1 8 1 Legal/Judiciary 2 4 2 6 4 5 Occurrence reporting and Investigation 2 1 1 2 0 0 **TOTAL** 

11

9

15

5

12

6

Source of RAT data:

	ANSP [ROMATSA]								
Number of questions answered with Yes or No		2012		2013		14			
	YES	NO	YES	NO	YES	NO			
Policy and its implementation	11	2	11	2	11	2			
Legal/Judiciary	2	1	2	1	2	1			
Occurrence reporting and Investigation	6	2	6	2	6	2			
TOTAL	19	5	19	5	19	5			

#### **ROMANIA**

## **Monitoring of CAPACITY indicators for 2014**

Minutes of ATFM en-route delay										
	2012	2013	2014	Observations						
Reference value	0	0	0							
National Target	0	0	0							
Actual performance	0	0	0							

## National capacity assessment

Romania achieved the capacity performance target.

# Military dimension of the plan

Although specifically requested in IR 691/2010 Annex II Template for Performance Plans, paragraph 4: the Performance Plan for Romania did not contain any specific details of how FUA would be applied to increase capacity.

## **PRB Capacity assessment**

Romania has provided excellent capacity performance since 2012. In 2014, the Ukrainian crisis affected civil aviation both in Ukraine and neighbouring states: despite the considerable increase in traffic, the Romanian ANSP handled the demand with a minimum delay to airspace users. Such trememdous effort resulted in a positive contribution to the EUwide target.

# Effective booking procedures

The ratio of time airspace was actually used for activity requiring segregation or restriction from GAT and the amount of time it was allocated as being restricted on the day of operations: 62%

The ratio of time airspace, that was surplus to requirement, was released with more than 3 hours' notice to the Network Manager and the amount of time it was allocated as being restricted on the day of operations: 14%

The ratio of time airspace was neither used nor released with at least 3 hours' notice to the Network Manager, but was allocated as being restricted on the day of operations: 24%

#### **Previous recommendations**

**Annual Monitoring Report 2013:** Romania is requested to provide information on the effective booking procedures for the individual SUAs, instead of simply the national aggregated figures.

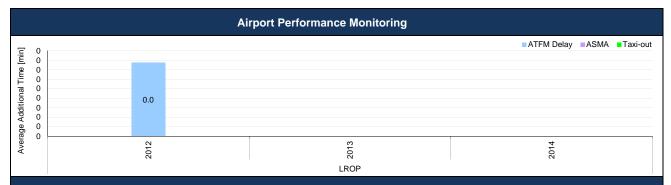
# NSA report on follow-up to recommendations

Although the national monitoring report only contained the aggregated data, Romania provided information on each SUA separately to the PRU.

# Recommendations

## **ROMANIA**

# Monitoring of CAPACITY indicators for 2014



#### **Airport Data** Average of Total Additional Total Sum of Total Apt. Additional **ICAO** Apt. ATFM Additional taxi-out Additional Total **Airport Name RP1 Year** ATFM arr. **ASMA** time arr. Delay ASMA time Additional Code time taxi-out delay [min.] [min./arr.] [min./arr.] [min./dep.] time [total] Time [min] [min] 2012 0.0 672 n/appl. n/appl. n/a n/a n/a Otopeni-Intl. **LROP** 0.0 0 2013 n/appl. n/appl. n/a n/a n/a 0 2014 0.0 n/appl n/appl n/a n/a n/a 2012 0.0 672 n/appl. n/appl. n/a n/a n/a Total 2013 0.0 0 n/appl. n/appl n/a n/a n/a 2014 0.0 0 n/a n/a n/a n/appl. n/appl 2014-2013 0.0 0 n/a n/a n/appl. n/appl. n/a **Absolute Difference** -672 2014-2012 0.0 n/appl. n/appl. n/a n/a n/a

• AOBT provided by the NSA is the ATOT, what prohibited additional taxi-out time to be calculated.

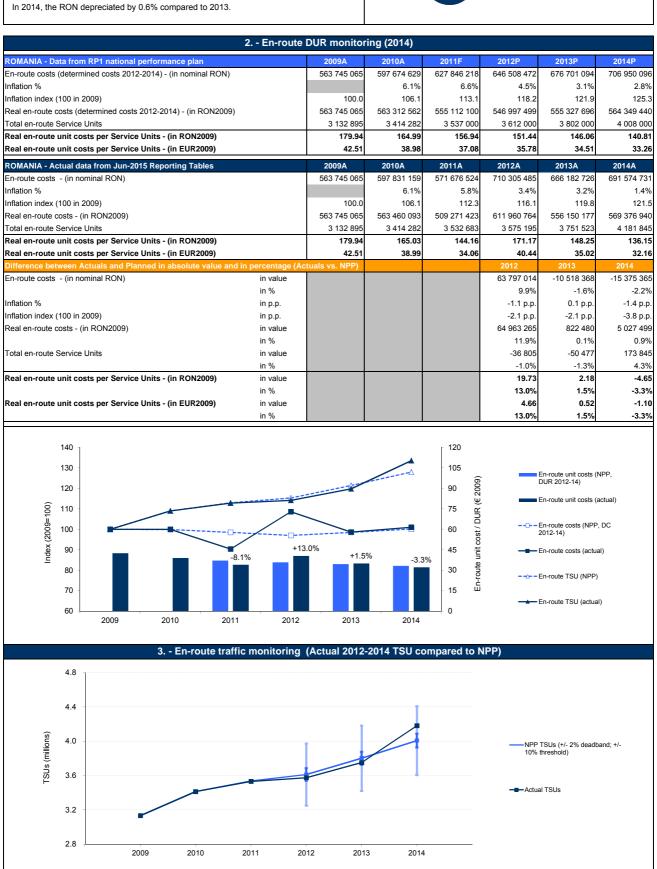
# Specific Analysis

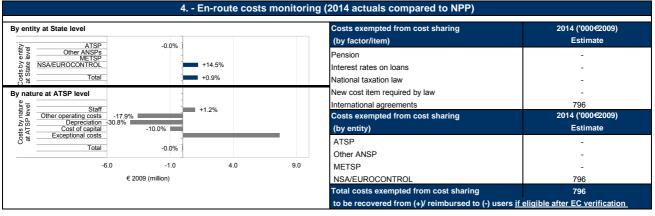
**Critical Issues** 

- ATFM arrival delay is insignificant at Otopeni airport.
- Additional taxi-out time cannot be assessed due to lack of data quality.

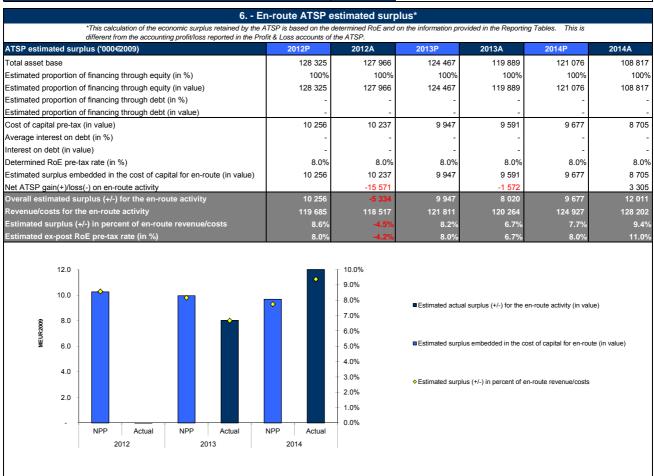
#### **ROMANIA**







5 Focus on ATSP - "Net" ATSP g	ain/loss on en-	route activity in 2014				
Cost sharing ('000€2009)	2014A					
Determined costs for the ATSP (NPP)	124 927	Combined effect of variations in costs and traffic for 2014 ('000€2009)				
Actual costs for the ATSP	124 897	(,	1			
Difference in costs: gain (+)/Loss (-) retained/borne by the ATSP	30					
Amounts excluded from cost sharing to be recovered from (+) reimbursed to (-) users	-	Gain/loss from cost sharing				
Gain (+)/Loss (-) to be retained by the ATSP in respect of cost sharing	30					
Traffic risk sharing ('000€2009)	2014A					
Difference in total service units (actual vs NPP)	4.34%	Gain/loss from traffic risk sharing				
Determined costs after deduction of costs for exempted VFR flights	121 246					
ATSP gain (traffic between 0 and +2% higher than NPP)	2 425					
ATSP gain (traffic between +2% and +10% higher than NPP)	850	Bonus/penalty from incentives				
ATSP loss (traffic between 0 and -2% below NPP)	-					
ATSP loss (traffic between -2% and -10% below NPP)	-		-			
Gain (+)/Loss (-) to be retained by the ATSP in respect of traffic risk sharing	3 275					
Incentives ('000€2009)	2014A	Net ATSP gain/loss				
ATSP bonus (+) / penalty (-)	_	-4 000 -2 000	0 2000 4000			
Gain (+)/Loss (-) to be retained by the ATSP in respect of incentives	-	ATSP loss	ATSP gain			
Net ATSP gain(+)/loss(-) on en-route activity	3 305					



#### Monitoring of en-route and terminal COST-EFFICIENCY for 2014

#### 7. - General conclusions on the monitoring of the 2014 en-route DUR

#### Notes on information provided by ROMANIA

The data provided by Romania are consistent and coherent.

#### At State / Charging Area level

In 2014, Romania's real en-route unit cost (32.16 €2009) is -3.3% lower than planned in their RP1 Performance Plan (33.26 €2009). This difference is due to the fact that although 2014 actual real en-route costs are +0.9% higher than the determined costs, Romania recorded more traffic than forecasted in the performance plan and the actual number of total service units (TSUs) is +4.3% higher than planned.

In 2014, as in the previous two years, Romania recorded some exceptional costs (+7.7 M€2009 or 5.7% of Romania's 2014 en-route determined costs) linked to ROMATSA's "provisions for employee benefits". In fact without the impact of this increase in provisions, the actual costs for Romania would have been -4.8% lower than planned in real terms. In such a case. Romania's real en-route actual unit costs would have been -8.8% lower than the determined unit cost for 2014.

The difference between the actual and planned total en-route service units ( $\pm 4.3\%$ ) falls outside the  $\pm 2\%$  dead band and is therefore partially borne by the airspace users

#### Actual 2014 costs vs. NPP

Real en-route costs for Romania are +0.9% higher in 2014 than planned as a combination of -2.2% lower nominal en-route costs and -3.8 percentage point lower inflation index. The cost excess is attributable to higher NSA/EUROCONTROL costs than planned (+14.5% in real terms, +1.2 M€2009) while the actual real ATSP costs are very close to the plan (-0.02%). A detailed analysis of ROMATSA's costs is provided in the box below.

Romania reported +0.8 M€2009 costs exempt from cost sharing for the year 2014 for the unforeseen change in the EUROCONTROL costs.

#### RP1 summary

When considering the whole of RP1 (2012-2014) the actual number of TSUs is +0.8% higher than planned while actual costs in real terms are +4.2% higher than the determined costs (some +16.7 M€2009). As a result, the weighted average actual unit cost over RP1 is +3.5% higher than the level planned in the NPP.

Excluding the effect of the "provisions for employee benefits", the actual costs in real terms would be -3.3% lower than the determined costs (some -13.0 M€2009). As a result, the weighted average actual unit cost over RP1 would be -4.0% lower than the level planned in the NPP.

#### At ATSP level

#### Actual 2014 ROMATSA costs vs. NPP

ROMATSA 2014 actual en-route costs are practically in line with the plan in real terms (-0.02%). This results from the combination of some significant unplanned exceptional costs relating to "provisions for employee benefits" (+7.7 M€2009) and higher than planned staff costs (+1.0 M€2009 or +1.2%) counterbalanced by significantly reduced depreciation costs (-4.1 M€2009 or -30.8%), other operating costs (-3.6 M€2009 or -17.9%) and cost of capital (-1.0 M€2009 or -10.0%).

According to the additional information provided along with the en-route reporting tables in June 2015, a devaluation of assets in operation took place at the end of 2013 (-22.3% on the en-route service) significantly affecting 2014 depreciation costs. As far as ROMATSA's 2014 CAPEX is concerned, it is also significantly lower than planned (-44.8% below the NPP in real terms or -12.8 M€2009). This is mainly due to significant underspending for the "ATM System ROMATSA 2015+" since the total CAPEX for this project over RP1 was significantly below the plan (-84% below the NPP in real terms or -52.8 M€2009). As a result, ROMATSA actual 2014 asset base is -10.1% below the plan. It should be noted that ROMATSA has no debt and therefore the cost of capital and the return on equity are one and the same

#### ROMATSA net gain/loss and estimated surplus on en-route activity in 2014

As shown in item 5, the en-route activity for the year 2014 generated a net gain of +3.3M€2009 for ROMATSA overall. This is the combination of two separate elements:

- a gain of +0.03 M€2009 for ROMATSA as a result of the cost-sharing mechanism; and
- a gain of +3.3 M€2009 as a result of the traffic risk sharing mechanism for 2014.

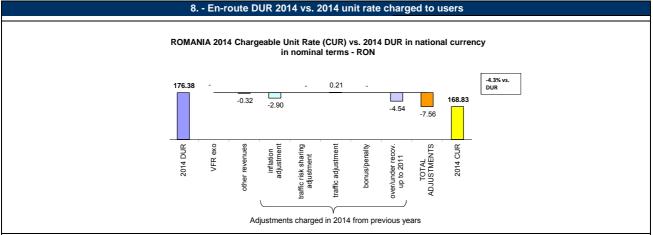
To calculate the overall economic surplus of the ATSP, it is also important to add the surplus embedded in the cost of capital through the return on equity. Based on the figures planned in the NPP, the return on equity amounted to +9.7 M€2009, corresponding to an estimated surplus of +7.7% of the en-route costs/revenues for 2014. Ex-post, the estimated surplus for the year computed by adding the surplus embedded in the cost of capital (+8.7 M€2009) and the net gain from the en-route activity in 2014 (+3.3 M€2009), gives a total of +12.0 M€2009, corresponding to +9.4% of the 2014 en-route revenue. The resulting ex-post rate of return on equity for 2014 is +11.0% (compared to +8.0% planned in the NPP).

#### Conclusions

In 2014 ROMATSA's actual real en-route costs are very close to the plan (-0.02%) - mainly due to some significant exceptional costs and postponed capex/reduced depreciation - while the traffic in terms of TSU is +4.3% higher than foreseen in the NPP. The en-route activity for the year 2014 generated a net gain of +3.3 M€2009 for ROMATSA which results in an estimated actual surplus of +12.0 M€2009 (+9.4% of the en-route revenue for 2014, up from the +7.7% planned in the RP1 performance plan).

When considering the whole of RP1 (2012-2014), ROMATSA incurred a cumulative loss in respect of cost sharing of -14.4 M€2009 which almost exclusively resulted from the cost excess in 2012. On the other hand, ROMATSA retained a cumulative gain in respect of traffic risk sharing amounting to +0.6 M€2009, which resulted in a cumulative net loss for the en-route activity of -13.8 M€2009. Adding the estimated surplus embedded in the en-route cost of capital (28.5 M€2009 over RP1) leads to an overall estimated surplus of 14.7 M€2009, which corresponds to an average ex-post return on equity of 4.1% (compared to 8.0% as initially planned in the NPP).

#### Monitoring of en-route and terminal COST-EFFICIENCY for 2014



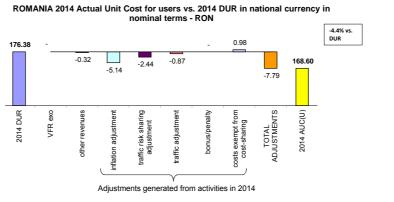
The DUR for 2014 expressed in nominal terms differs from the actual en-route unit rate charged to users in 2014 (CUR).

- the DUR, but also, a deduction of the costs for services to exempted VFR in 2014, as determined prior to the reference period and a deduction of 2014 other revenues;
- as well as adjustments relating to the activities of previous years that are carried-over to 2014. These adjustments include:
  - the inflation adjustment:
- \* the adjustment resulting from the implementation of the traffic risk-sharing (ATSP);
- \* the adjustment resulting from the difference in traffic (for costs not subject to traffic risk sharing); \* the bonus/penalty from previous year(s).
- \* the legacy carry-overs incurred in the full cost recovery regime up to and including 2011.

These costs and adjustments are divided by the forecast total service units for 2014 as laid out in the performance plan

The actual Chargeable Unit Rate (CUR) charged to users in 2014 was 168.83 RON. This is -4.3% lower than the nominal DUR (176.38 RON). The difference observed between these two figures (-7.56 RON) reflects mainly the over-recoveries carried over to 2014 from the legacy prior to RP1 (-4.54 RON) and the inflation adjustment carried over from previous years (-2.90 RON) in addition to small adjustments for other revenues (-0.32 RON) and for traffic (+0.21 RON).

#### 9. - En-route DUR 2014 vs. 2014 actual unit cost for users



The DUR for 2014 expressed in nominal terms can also be compared to the actual en route unit cost for airspace users (AUC-U) for 2014 (also sometimes referred to the "true cost for users"), which reflects the unit cost that the users incur in respect of the activities performed in 2014. The AUC-U comprises:

- the DUR, the deduction of the costs for services to exempted VFR in 2014 and the deduction of 2014 other revenues that has already been billed to the users through the
- as well as adjustments relating to the activities of 2014 but which will be charged or reimbursed to users in future years. These adjustments include:
- the inflation adjustment;
- \* the adjustments resulting from the implementation of the traffic risk-sharing (ATSP);

  \* the adjustments resulting from the difference in traffic (for costs not subject to traffic risk sharing);
- \* the bonus/penalty for the current year;
  \* the costs exempt from cost sharing (if deemed eligible).

These costs and adjustments are divided by the actual total service units in 2014.

The unit cost that the users incurred in respect of the activities performed in 2014 was 168.60 RON. This is -4.4% lower than the nominal DUR (176.38 RON). The difference observed between these two figures (-7.79 RON) reflects mainly the inflation adjustment (-5.14 RON) and the traffic risk sharing adjustment (-2.44 RON) in addition to smaller adjustments for other revenues (-0.32 RON), for traffic (-0.87 RON) and for costs exempt from cost-sharing (+0.98 RON).

#### Monitoring of en-route and terminal COST-EFFICIENCY for 2014

1	0 Terminal cos	sts and unit ra	ites monitori	ng (2014)			
		2009	2010	2011	2012	2013	2014
Terminal Service Unit Formula	(MTOW/50)^		0.7	0.7	0.7	0.7	0.7
Number of airports in terminal charging zone			1	1	1	2	2
of which, number of airports over 50 000 movements			1	1	1	1	1
ROMANIA - Data from RP1 national performance plan		2009A	2010A	2011F	2012P	2013P	2014P
Terminal ANS costs for the charging zones - (in RON)		35 409 481	32 977 000	34 677 547	38 465 138	41 139 249	42 637 910
Inflation index (100 in 2009)		100.0	106.1	113.1	118.2	121.9	125.3
Real terminal ANS costs - (in RON2009)		35 409 481	31 081 056	30 660 256	32 544 560	33 760 496	34 037 312
Real terminal ANS costs - (in EUR2009)		8 365 044	7 342 508	7 243 099	7 688 242	7 975 492	8 040 886
ROMANIA - Actual data from June 2015 Reporting Table	es	2009A	2010A	2011A	2012A	2013A	2014A
Terminal ANS costs for the charging zones - (in RON)		35 409 481	33 038 248	35 281 391	41 611 302	50 241 071	61 732 113
Inflation index (100 in 2009)		100.0	106.1	112.3	116.1	119.8	121.5
Real terminal ANS costs - (in RON2009)		35 409 481	31 138 782	31 430 019	35 850 046	41 942 817	50 824 358
Real terminal ANS costs - (in EUR2009)		8 365 044	7 356 145	7 424 946	8 469 122	9 908 462	12 006 614
Total terminal service units		36 715	38 697	37 480	45 377	47 596	51 136
Actual real unit costs - (in RON2009)		964.4	804.7	838.6	790.0	881.2	993.9
Unit rate applied - (in RON)					931.51	931.51	1 022.68
Difference between Actuals and Planned in absolute va	lue and in percentag	e (Actuals vs. NF	PP)		2012	2013	2014
Terminal ANS costs for the charging zones - (in RON)	in value				3 146 165	9 101 821	19 094 203
	in%				8.2%	22.1%	44.8%
Inflation index (100 in 2009)	in p.p.				-2.1 p.p.	-2.1 p.p.	-3.8 p.p.
Real terminal ANS costs - (in RON2009)	in value				3 305 485	8 182 321	16 787 046
	in%				10.2%	24.2%	49.3%
Real terminal ANS costs - (in EUR2009)	in value				780 879	1 932 970	3 965 728
	in%				10.2%	24.2%	49.3%

#### 11. - General conclusions on the Terminal ANS costs and unit rates monitoring

The terminal charging zone in Romania as from 2013 comprises two airports; Bucharest Henri Coandă International Airport and Bucharest Aurel Vlaicu International Airport. The harmonised SES formula (MTOW/50) ^ 0.7 already applies to the Romanian TCZ in order to determine the number of terminal navigation service units (TNSU). According to the Nov. 2013 Terminal Reporting Tables the Unit rate applied for 2014 is 1022.68 RON. In their RP1 performance plan submitted in June 2011, Romania only declared terminal ANS costs for one airport ("Romania has decided to apply Regulation (EU) No 691/2010 and Regulation (EC) No 1794/2006 only on Bucharest Henri Coandă International Airport, the only airport in Romania that is above the threshold of 50.000 commercial movements per year"). With effect from 2013 (therefore the two last years of RP1: 2013-2014), a second airport was added (Bucharest Aurel Vlaicu International Airport), thus the data reported for the terminal charging zone "Terminal Bucharest airports" includes costs and traffic information for those two airports.

Therefore the actual 2014 terminal ANS costs are +49.3% higher (in real terms) than the forecast presented in the NPP in June 2011. This significant cost increase reflects a combination of:

- higher than planned real costs by +16.5% (or +1.4 M€2009) for terminal ANS services in Bucharest Henri Coandă International Airport due to "changes in cost allocation and exceptional items" although no detailed information was provided about these changes

- addition of the new airport costs (+2.3 M€2009) which represent a share of 20% of the total actual TCZ costs

Finally, in 2014 Romania had some exceptional costs related to the adjustments in the provision for employee benefits (+0.7 M€2009 or +5.7% of the actual terminal ANS costs). Without the effect of the exceptional costs, the actual 2014 terminal ANS costs would have been +36.6% higher (in real terms) than the NPP forecast.

#### RP1 summary

When considering the whole of RP1 (2012-2014), actual terminal ANS costs are  $\pm$ 28.2% higher in real terms (or some  $\pm$ 6.7 M€2009) than planned in the NPP. This partly reflects the fact that from 2013 a second airport was added to the TCZ that was not planned in the RP1 NPP (the effect of the addition of this new airport over RP1 is  $\pm$ 4.3 M€2009).

	12 Monito	ring of gate-to	-gate costs (2	2014)			
ROMANIA - Data from RP1 national performance plan		2009A	2010A	2011F	2012P	2013P	2014P
Real en-route costs (determined costs 2012-2014) - (in RC	N2009)	563 745 065	563 312 562	555 112 100	546 997 499	555 327 696	564 349 440
Real terminal ANS costs - (in RON2009)		35 409 481	31 081 056	30 660 256	32 544 560	33 760 496	34 037 312
Real gate-to-gate ANS costs - (in RON2009)		599 154 545	594 393 618	585 772 356	579 542 060	589 088 192	598 386 752
Real gate-to-gate ANS costs - (in EUR2009)		141 542 712	140 418 003	138 381 338	136 909 509	139 164 663	141 361 330
Share of en-route costs in gate-to-gate ANS costs		94.1%	94.8%	94.8%	94.4%	94.3%	94.3%
ROMANIA - Actual data from June 2015 Reporting Tab	les	2009A	2010A	2011A	2012A	2013A	2014A
Real en-route costs - (in RON2009)		563 745 065	563 460 093	509 271 423	611 960 764	556 150 177	569 376 940
Real terminal ANS costs - (in RON2009)		35 409 481	31 138 782	31 430 019	35 850 046	41 942 817	50 824 358
Real gate-to-gate ANS costs - (in RON2009)		599 154 545	594 598 875	540 701 442	647 810 810	598 092 994	620 201 297
Real gate-to-gate ANS costs - (in EUR2009)		141 542 712	140 466 492	127 733 903	153 037 141	141 291 934	146 514 742
Share of en-route costs in gate-to-gate ANS costs		94.1%	94.8%	94.2%	94.5%	93.0%	91.8%
Difference between Actuals and Planned in absolute v	alue and in percenta	age (Actuals vs. N	PP)		2012	2013	2014
Real en-route costs - (in RON2009)	in value				64 963 265	822 480	5 027 499
	in %				11.9%	0.1%	0.9%
Real terminal ANS costs - (in RON2009)	in value				3 305 485	8 182 321	16 787 046
	in %				10.2%	24.2%	49.3%
Real gate-to-gate ANS costs - (in RON2009)	in value				68 268 750	9 004 802	21 814 546
	in %				11.8%	1.5%	3.6%
Real gate-to-gate ANS costs - (in EUR2009)	in value				16 127 632	2 127 271	5 153 412
	in %				11.8%	1.5%	3.6%
Share of en-route costs in gate-to-gate ANS costs	in p.p				0.1 p.p.	-1.3 p.p.	-2.5 p.p.

#### 13. - General conclusions on the gate-to-gate ANS costs

Real 2014 gate-to-gate costs are +3.6% higher than planned following cost overruns both in en-route (+5.0 M€2009, +0.9%) but especially in terminal (+16.8 M€2009, +49.3%).

The allocation of gate-to-gate costs between en-route ANS and terminal ANS used to be relatively stable at around 94% until 2012, then - following the inclusion of the new airport in the TCZ - in 2013 and 2014 this ratio decreased to 93.0% and 91.8%, respectively. Compared to the forecast in the National Performance Plan, the actual share of en-route costs in gate-to-gate costs was -2.5 percentage points lower in 2014. This tendency of en-route costs being in line with the plan while the difference between actual and planned terminal costs increasing significantly should be monitored closely in the future.





# PRB Annual Monitoring Report 2014

Slovakia

Working Draft 2.0

Edition date: 03/09/2015



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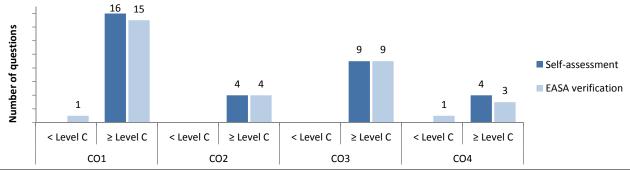
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#### Monitoring of SAFETY indicators for 2014

Effectiveness of Safety Management										
2012 2013 2014 State level Observations										
State level	55	55	54							
ANSP [LPS SR]	70	82	86							
ANSP [SAF (Slovak Air Force), Airport Sliac]	46	45	44							



#### Application of the severity classification of the Risk Analysis Tool (RAT) 2012 2013 2014 Assessed No Assessed No Assessed No (%) reported (%) reported (%) reported ATM Ground 100% 100% 75% **Separation Minima** 5 8 4 Infringements (SMIs) **ATM Overall** 100% 100% 25% ATM Ground 100% 100% 100% Runway Incursions (RIs) 2 4 1 **ATM Overall** 100% 100% 100% **ATM Specific Occurences ATM Overall** 225 100% 183 100% 178 88% (ATM-Specific)

CAA/LPS

Source of RAT data:

Just culture								
	State							
Number of questions answered with Yes or No	20	12	20	13	2014			
	YES	NO	YES	NO	YES	NO		
Policy and its implementation	5	5	5	5	6	3		
Legal/Judiciary	5	3	6	2	5	2		
Occurrence reporting and Investigation	2	0	2	0	2	0		
TOTAL	12	8	13	7	13	5		

	ANSP [LPS SR ATS]							
Number of questions answered with Yes or No	2012		2013		2014			
	YES	NO	YES	NO	YES	NO		
Policy and its implementation	12	1	12	1	13	0		
Legal/Judiciary	2	1	2	1	2	1		
Occurrence reporting and Investigation	6	2	6	2	8	0		
TOTAL	20	4	20	4	23	1		

	ANSP [SAF (Slovak Air Force), Airport Sliac]								
Number of questions answered with Yes or No	2012		2013		2014				
	YES	NO	YES	NO	YES	NO			
Policy and its implementation	11	2	9	4	9	4			
Legal/Judiciary	1	2	1	2	1	2			
Occurrence reporting and Investigation	4	4	5	3	5	3			
TOTAL	16	8	15	9	15	9			

#### Monitoring of CAPACITY indicators for 2014

Minutes of ATFM en-route delay									
	2012	2013	2014	Observations					
Reference value	0.24	0.22	0.19						
National Target	0.3	0.32	0.19						
Actual performance	0	0	0.14						

#### **National capacity assessment**

The targets set by National Performance Plan have been achieved. The delays in FIR Bratislava were caused by the modernisation of the Polish ACC and crisis in Ukraine.

#### **PRB Capacity assessment**

Although not able to maintain the excellent capacity performance in 2012 and 2013, Slovakia exceeded both the national target and the level of performance required to be consistent with the EU-wide target for each year of RP1.

#### **Effective booking procedures**

The ratio of time airspace was actually used for activity requiring segregation or restriction from GAT and the amount of time it was allocated as being restricted on the day of operations: 57%

No information was provided regarding the allocation of airspace at H-3, so it is impossible to determine how much restricted or segregated airspace, that was surplus to requirements, was released for GAT use.

### **Previous recommendations**

**Annual Monitoring Report 2013: 1.** Although the Member States were asked to provide information on the individual SUAs, the national monitoring report for Slovakia only contained the aggregated data.

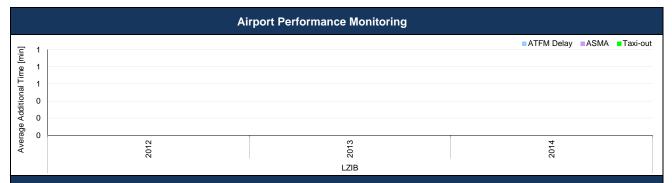
**2.** Slovakia is requested to provide additional information on effective booking procedures, namely the allocation of airspace at H-3.

#### NSA report on follow-up to recommendations

1. Slovakia provided information on the individual SUAs as requested. 2. Slovakia did not provide any information on the allocation of airspace at H-3.

## Recommendations

#### Monitoring of CAPACITY indicators for 2014



#### **Airport Data** Average of Total Additional Total Sum of Total Apt. Additional **ICAO** Apt. ATFM Additional taxi-out Additional Total **Airport Name RP1 Year** ATFM arr. **ASMA** time arr. Delay Additional Code ASMA time time taxi-out delay [min.] [min./arr.] [min./arr.] [min./dep.] time [total] Time [min] [min] 0 2012 0.0 n/appl. n/appl. n/a n/a n/a Bratislava Ivanka LZIB 0 0.0 2013 n/appl. n/appl. n/a n/a n/a 0 2014 0.0 n/appl n/appl n/a n/a n/a 2012 0.0 0 n/appl. n/appl. n/a n/a n/a Total 2013 0.0 0 n/appl. n/appl. n/a n/a n/a 2014 0.0 0 n/a n/a n/a n/appl. n/appl. 2014-2013 0.0 0 n/a n/a n/appl. n/appl. n/a **Absolute Difference** 0 2014-2012 0.0 n/appl. n/appl. n/a n/a n/a

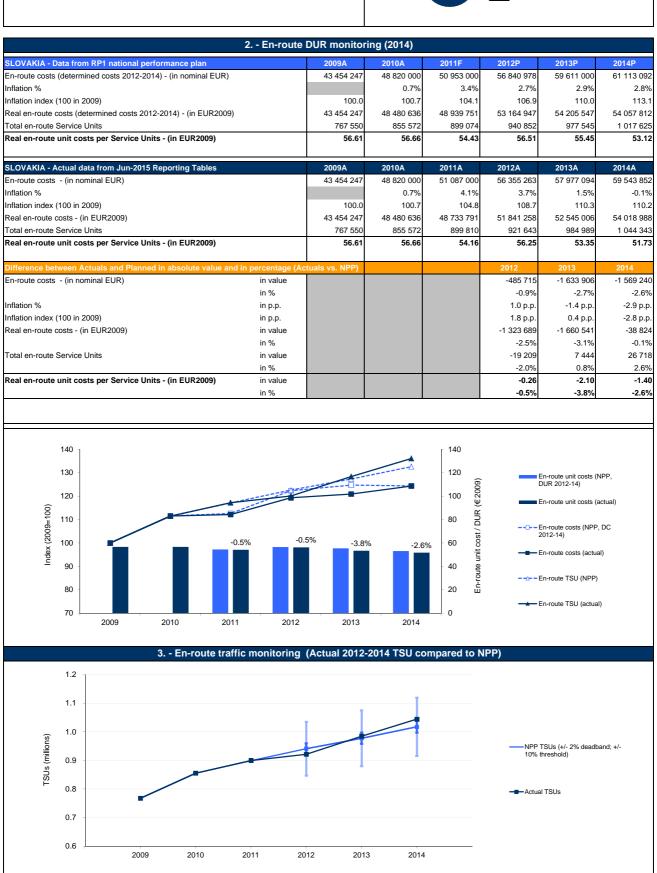
#### • Missing DRWY information, prohibiting from additional taxi-out time calculation.

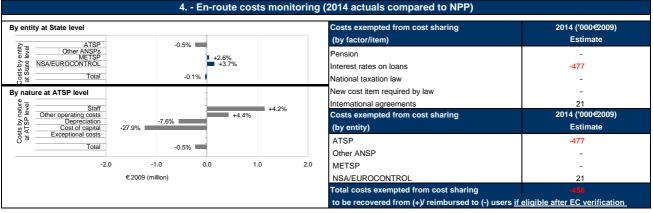
**Critical Issues** 

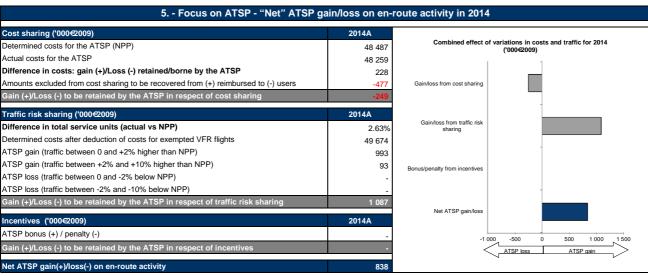
Specific Analysis

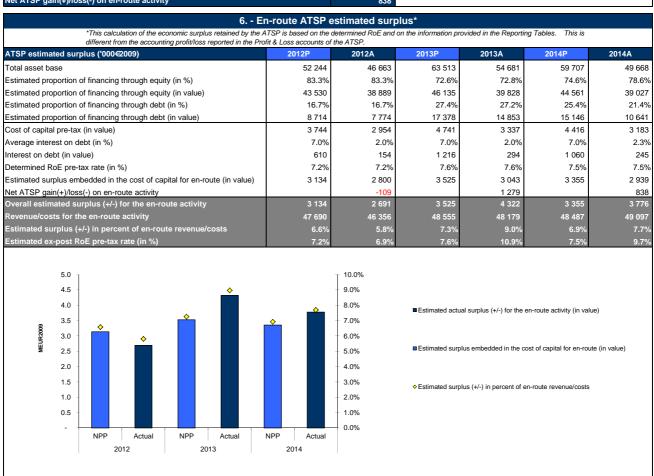
• The average additional taxi-out time could not be assessed for Bratislava airport over RP1.











#### Monitoring of en-route and terminal COST-EFFICIENCY for 2014

#### 7. - General conclusions on the monitoring of the 2014 en-route DUR

#### Notes on information provided by SLOVAKIA

#### Note 1: Costs exempt from cost sharing

Slovakia has adjusted the costs exempt from cost sharing (former "uncontrollable costs") for the years 2012 and 2013 following the EC recommendation communicated during the Single Sky Committee 55 meeting held on 14-15 January 2015. Amounts relating to new items required by law (-50 KEUR for 2012 and -74 KEUR for 2013) were removed for LPS. For this reason, the net ATSP gain/loss for the en-route activity reported in this document for 2012 and 2013 differ slightly from the information published in the PRB 2013 Monitoring Report.

#### At State / Charging Area level

In 2014, Slovakia's real en-route unit cost (51.73 €2009) was -2.6% lower than planned in the NPP for RP1 (53.12 €2009), mainly as a result of actual total service units (TSUs) being higher than planned by +2.6%, while real en-route costs were at planned level (-0.1% compared to the plan).

The actual en-route traffic (TSUs) grew by +6.0% in 2014 over 2013. According to the information provided by Slovakia, the increase was driven mainly by additional overflights due to Ukrainian crisis, while both arrivals/departures and internal flights continued to decrease further against 2013.

#### Actual 2014 costs vs. NPP

The Slovakian en-route cost-base includes costs related to the Slovakian ATSP (LPS), to the MET SHMU, to the Slovakian NSA (DU SR) and to the EUROCONTROL Agency.

In 2014, actual total en-route costs for Slovakia were -0.1% lower than planned in real terms, resulting from a combination of lower en-route costs in nominal terms (-2.6%) and a lower inflation index than planned (-2.8 p.p.). LPS actual real en-route costs were slightly lower than planned (-0.5% - see details at ANSP level below), while the MET SHMU and NSA/EUROCONTROL costs were slightly higher than the amounts planned in the NPP.

Costs exempt from cost sharing for 2014 are reported for an amount of -0.46 M€2009 to be reimbursed to users for the en-route activity. These costs will be eligible for carry-over to the following reference period(s), if deemed allowed by the European Commission after verification on the basis of the NSA report establishing and justifying these exemptions.

#### **RP1 summary**

When considering the whole of RP1 (2012-2014) the actual number of TSUs is +0.5% higher than planned while determined costs are -1.9% lower than planned (some -3.0 M€2009). As a result, the actual weighted average unit cost over RP1 is -2.4% lower than the level planned in the NPP.

#### At ATSP level

#### Actual 2014 LPS costs vs. NPP

In 2014 LPS actual real en-route costs were lower by -0.5% than planned in the RP1 NPP. This mainly reflects lower cost of capital (by -27.9%) and depreciation (by -7.6%). These decreases are partly compensated by higher staff costs (by +4.2%) and higher other operating costs (by +4.4%) than planned in the NPP for RP1.

As reported by Slovakia, actual staff costs were higher than determined due to changes in health insurance and social insurance legislation. The higher other operating costs are due to provisions for doubtful debts (approximately 2 M€). Without these unplanned provisions, they would have been lower (mainly due to lower maintenance costs and costs of insurance).

Depreciation is lower due to delays in procurement. The lower level of the cost of capital is explained by two factors: an actual asset base lower than planned (by -16.8%) and lower actual interest rate on debts (from 7.0% as initially planned to 2.3%).

#### LPS net gain/loss and estimated surplus on en-route activity in 2014

As shown in item 5, the en-route activity for the year 2014 generated a net gain of +0.8 M€2009 for LPS overall. This is the combination of two separate elements:

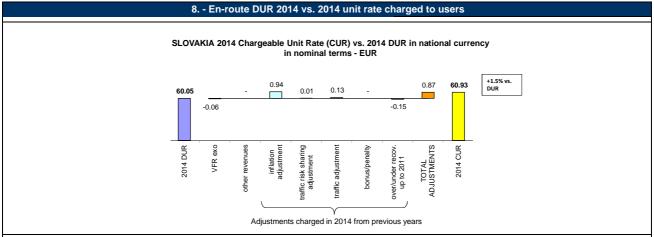
- a loss of -0.2 M€2009 for LPS as a result of the cost-sharing mechanism;
- a gain of +1.1 M€2009 as a result of the traffic risk sharing mechanism for 2014.

On the economic surplus side for the en-route activity, the ex-ante estimated surplus embedded in the cost of capital through the return on equity planned in the NPP amounted to +3.4 M€2009, corresponding to an estimated surplus of +6.9% of the en-route costs/revenues for 2014. Ex-post, the estimated surplus for the year computed by adding the surplus embedded in the cost of capital (+2.9 M€2009) and the net gain from the en-route activity in 2014 (+0.8 M€2009), gives a total of +3.8 M€2009 for 2014, corresponding to +7.7% of the en-route revenue in 2014. The resulting ex-post rate of return on equity for 2014 is +9.7% (compared to +7.5% as initially planned in the NPP).

#### Conclusion

When considering the whole of RP1 (2012-2014), LPS could retain a cumulative gain of +2.0 M€2009 (i.e. a gain of +1.5 M€2009 in respect of cost-sharing and a gain of +0.5 M€2009 in respect of traffic risk-sharing). Adding the estimated surplus embedded in the cost of capital for en-route (+8.8 M€2009 over RP1) gives an overall estimated surplus of +10.8 M€2009, which corresponds to an average ex-post return on equity of +9.2%.

#### Monitoring of en-route and terminal COST-EFFICIENCY for 2014



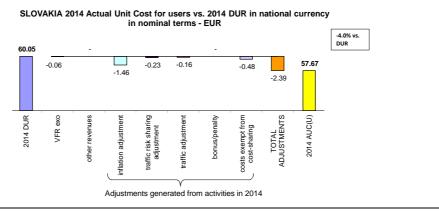
The DUR for 2014 expressed in nominal terms differs from the actual en-route unit rate charged to users in 2014 (CUR).

- the DUR, but also, a deduction of the costs for services to exempted VFR in 2014, as determined prior to the reference period and a deduction of 2014 other revenues;
- as well as adjustments relating to the activities of previous years that are carried-over to 2014. These adjustments include:
- the inflation adjustment:
- \* the adjustment resulting from the implementation of the traffic risk-sharing (ATSP);
- \* the adjustment resulting from the difference in traffic (for costs not subject to traffic risk sharing); \* the bonus/penalty from previous year(s).
- \* the legacy carry-overs incurred in the full cost recovery regime up to and including 2011.

These costs and adjustments are divided by the forecast total service units for 2014 as laid out in the performance plan.

The UR charged in 2014 (60.93 €) was higher than the nominal DUR (60.05 €) by +1.5%, as a result of the carry-over of the 2012 inflation adjustment (+0.94 €) and the adjustments relating to the 2012 difference in traffic (+0.13 € for the traffic adjustment and +0.01 € for the traffic risk-sharing adjustment), while the deduction of costs for exempted VFR flights and carry-overs of over-recoveries incurred prior to RP1 amounted to respectively -0.06 € and -0.15 €).

#### 9. - En-route DUR 2014 vs. 2014 actual unit cost for users



The DUR for 2014 expressed in nominal terms can also be compared to the actual en-route unit cost for airspace users (AUC-U) for 2014 (also sometimes referred to the "true cost for users"), which reflects the unit cost that the users incur in respect of the activities performed in 2014. The AUC-U comprises:

- the DUR, the deduction of the costs for services to exempted VFR in 2014 and the deduction of 2014 other revenues that has already been billed to the users through the
- as well as adjustments relating to the activities of 2014 but which will be charged or reimbursed to users in future years. These adjustments include:
- the inflation adjustment;
- \* the adjustments resulting from the implementation of the traffic risk-sharing (ATSP);
  \* the adjustments resulting from the difference in traffic (for costs not subject to traffic risk sharing);
- \* the bonus/penalty for the current year;
  \* the costs exempt from cost sharing (if deemed eligible).

These costs and adjustments are divided by the actual total service units in 2014.

The AUC-U calculated for 2014 (57.67 €) is lower than the DUR (60.05 €) by -4.0%, mainly due to the negative 2014 inflation adjustment (-1.46 €), but also to the 2014 difference in traffic (-0.16 € for the traffic adjustment and -0.23 € for the traffic risk-sharing adjustment), as well as to the costs exempt from cost sharing as currently filed by Slovakia for 2014 (-0.48 € to be reimbursed to airspace users).

#### Monitoring of en-route and terminal COST-EFFICIENCY for 2014

1	0 Terminal c	osts and unit ra	tes monitorir	ng (2014)			
		2009	2010	2011	2012	2013	2014
Terminal Service Unit Formula							
Number of airports in terminal charging zone			5	6	6	6	6
of which, number of airports over 50 000 movements							
SLOVAKIA - Data from RP1 national performance plan		2009A	2010A	2011F	2012P	2013P	2014P
Terminal ANS costs for the charging zones - (in EUR)		7 438 000	5 530 000	5 268 000	6 145 312	6 390 300	6 579 897
Inflation index (100 in 2009)		100.0	100.7	104.1	106.9	110.0	113.1
Real terminal ANS costs - (in EUR2009)		7 438 000	5 491 559	5 059 851	5 747 881	5 810 835	5 820 272
SLOVAKIA - Actual data from June 2015 Reporting Tab	les	2009A	2010A	2011A	2012A	2013A	2014A
Terminal ANS costs for the charging zones - (in EUR)		7 438 000	5 528 000	5 625 000	5 878 567	7 374 000	6 801 270
Inflation index (100 in 2009)		100.0	100.7	104.8	108.7	110.3	110.2
Real terminal ANS costs - (in EUR2009)		7 438 000	5 489 573	5 365 897	5 407 699	6 683 103	6 170 204
Total terminal service units			682 657	654 041	581 137	551 288	571 424
Actual real unit costs - (in EUR2009)			8.0	8.2	9.3	12.1	10.8
Unit rate applied - (in EUR)					6.47	6.47	6.47
Difference between Actuals and Planned in absolute va	lue and in percent	age (Actuals vs. NP	P)		2012	2013	2014
Terminal ANS costs for the charging zones - (in EUR)	in value				-266 745	983 700	221 373
3 3 3 3 7 7	in%				-4.3%	15.4%	3.4%
Inflation index (100 in 2009)	in p.p.				1.8 p.p.	0.4 p.p.	-2.8 p.p.
Real terminal ANS costs - (in EUR2009)	in value				-340 182	872 267	349 932
. ,	in%				-5.9%	15.0%	6.0%

#### 11. - General conclusions on the Terminal ANS costs and unit rates monitoring

The terminal charging zone of Slovakia for RP1 comprises six airports. As all airports are below 50 000 movements, Slovakia was not bound to apply the common formula (MTOW/50) $^{X}$  where 0.5< $^{X}$ <0.9 in RP1. The formula applied was MTOW/50. The unit rate remained unchanged throughout the period at 6.472  $^{Y}$  per MTOW/50.

Actual terminal ANS 2014 costs are +6.0% higher than the forecast presented in the NPP for the year 2014 (by some 0.3 M $\in$ 2009), but -7.7% lower than actual terminal ANS 2013 costs (-0.5 M $\in$ 2009).

The traffic increased by +3.7% in 2014 over 2013. This was a first time year on year increase since 2008 when flag domestic operators (SkyEurope, Air Slovakia) declared bankruptcy.

#### RP1 summary

When considering the whole of RP1 (2012-2014), actual terminal ANS costs in real terms were higher than planned in the NPP for every year except 2012 (-5.9% in 2012, +15.0% in 2013 and +6.0% in 2014). As a result, the cumulative actual terminal ANS costs are +5.1% (some +0.9 M€2009) higher than planned in the NPP for RP1.

	12 Monitoring of gate-to-gate costs (2014)									
SLOVAKIA - Data from RP1 national performance plan		2009A	2010A	2011F	2012P	2013P	2014P			
Real en-route costs (determined costs 2012-2014) - (in EUR2009)		43 454 247	48 480 636	48 939 751	53 164 947	54 205 547	54 057 812			
Real terminal ANS costs - (in EUR2009)		7 438 000	5 491 559	5 059 851	5 747 881	5 810 835	5 820 272			
Real gate-to-gate ANS costs - (in EUR2009)		50 892 247	53 972 195	53 999 602	58 912 828	60 016 382	59 878 084			
Share of en-route costs in gate-to-gate ANS costs		85.4%	89.8%	90.6%	90.2%	90.3%	90.3%			
SLOVAKIA - Actual data from June 2015 Reporting Tak	oles	2009A	2010A	2011A	2012A	2013A	2014A			
Real en-route costs - (in EUR2009)		43 454 247	48 480 636	48 733 791	51 841 258	52 545 006	54 018 988			
Real terminal ANS costs - (in EUR2009)		7 438 000	5 489 573	5 365 897	5 407 699	6 683 103	6 170 204			
Real gate-to-gate ANS costs - (in EUR2009)		50 892 247	53 970 209	54 099 688	57 248 956	59 228 109	60 189 192			
Share of en-route costs in gate-to-gate ANS costs		85.4%	89.8%	90.1%	90.6%	88.7%	89.7%			
Difference between Actuals and Planned in absolute va	alue and in percent	age (Actuals vs. NF	PP)		2012	2013	2014			
Real en-route costs - (in EUR2009)	in value				-1 323 689	-1 660 541	-38 824			
	in %				-2.5%	-3.1%	-0.1%			
Real terminal ANS costs - (in EUR2009)	in value				-340 182	872 267	349 932			
	in %				-5.9%	15.0%	6.0%			
Real gate-to-gate ANS costs - (in EUR2009)	in value				-1 663 871	-788 273	311 108			
	in %				-2.8%	-1.3%	0.5%			
Share of en-route costs in gate-to-gate ANS costs	in p.p.				0.3 p.p.	-1.6 p.p.	-0.5 p.p			

#### 13. - General conclusions on the gate-to-gate ANS costs

The actual gate-to-gate ANS 2014 costs (60.2 M€2009) were close to the amounts planned in the NPP (59.9 M€2009).

When considering the whole of RP1 (2012-2014), the actual gate-to-gate ANS costs recorded for RP1 are -1.2% lower than the amounts planned for the period. The relative share of en-route costs in gate-to-gate ANS costs remained stable over RP1 and in line with the RP1 plan (around 90%).





# PRB Annual Monitoring Report 2014

Slovenia

Working Draft 2.0

Edition date: 03/09/2015



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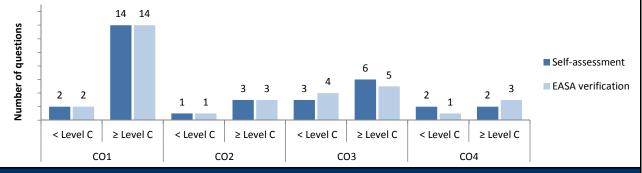
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# Monitoring of SAFETY indicators for 2014

Effectiveness of Safety Management									
2012 2013 2014 State level Observations									
State level	50	51	48						
ANSP [Slovenia Control]	72	73	76						



# Application of the severity classification of the Risk Analysis Tool (RAT)

		2012		2013		2014		
		No reported	Assessed (%)	No reported	Assessed (%)	No reported	Assessed (%)	
Separation Minima Infringements (SMIs)	ATM Ground	6	100%	3	100%	3	100%	
	ATM Overall		100%		100%		100%	
Punway Incursions (Pls)	ATM Ground			100%	3	100%	5	100%
Runway Incursions (RIs)	ATM Overall	6	100%	3	100%	5	100%	
ATM Specific Occurences (ATM-Specific)	ATM Overall	37	100%	41	100%	46	100%	

Source of RAT data: CAA/Slovenia Control

Just culture								
			Sta	ate				
Number of questions answered with Yes or No	20	12	20	13	20	14		
	YES	NO	YES	NO	YES	NO		
Policy and its implementation	4	6	4	6	4	5		
Legal/Judiciary	6	2	6	2	6	1		
Occurrence reporting and Investigation	1	1	2	0	2	0		
TOTAL	11	9	12	8	12	6		

	ANSP [Slovenia Control]								
Number of questions answered with Yes or No	20	12	20	13	2014				
	YES	NO	YES	NO	YES	NO			
Policy and its implementation	13	0	13	0	13	0			
Legal/Judiciary	2	1	1	2	2	1			
Occurrence reporting and Investigation	6	2	6	2	7	1			
TOTAL	21	3	20	4	22	2			

#### Monitoring of CAPACITY indicators for 2014

	Minutes of ATFM en-route delay										
	2012	2013	2014	Observations							
Reference value	0.31	0.26	0.22								
National Target	0.31	0.03	0.03								
Actual performance	0	0	0								

#### National capacity assessment

Traffic increased in 2014 at higher rate compared to forecasted in 2013, reason for that being mainly opening of Kosovo airspace in April 2014. Additional minor traffic increase in Slovenia was linked with the Ukraine situation in second half of 2014. Sufficient capacity was provided in line with the Capacity plan and delay target met.

#### PRB Capacity assessment

The excellent capacity performance in 2012 and 2013 continued through 2014. Slovenia has exceeded both the national target and the level of performance required to be consistent with the EU-wide target for both years.

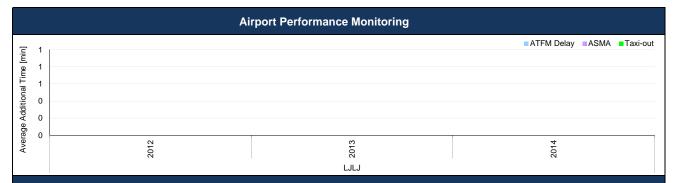
#### **Effective booking procedures**

The ratio of time airspace was actually used for activity requiring segregation or restriction from GAT and the amount of time it was allocated as being restricted on the day of operations: 51%

No information was provided regarding the allocation of airspace at H-3, so it is impossible to determine how much restricted or segregated airspace, that was surplus to requirements, was released for GAT use.

#### Recommendations

#### Monitoring of CAPACITY indicators for 2014



#### **Airport Data** Average of Total Additional Total Sum of Total Apt. Additional **ICAO** Apt. ATFM Additional taxi-out Additional Total **Airport Name RP1 Year** ATFM arr. **ASMA** time arr. Delay Additional Code ASMA time time taxi-out delay [min.] [min./arr.] [min./arr.] time [total] Time [min] [min] [min./dep.] 0 2012 0.0 n/appl. n/appl. n/a n/a n/a Ljubljana LJLJ 0 0.0 2013 n/appl. n/appl. n/a n/a n/a 0 2014 0.0 n/appl n/appl n/a n/a n/a 2012 0.0 0 n/appl. n/appl. n/a n/a n/a Total 2013 0.0 0 n/appl. n/appl n/a n/a n/a 2014 0.0 0 n/a n/a n/a n/appl. n/appl. 2014-2013 0.0 0 n/a n/a n/appl. n/appl. n/a **Absolute Difference** 0 2014-2012 0.0 n/appl. n/appl. n/a n/a n/a

#### **Critical Issues**

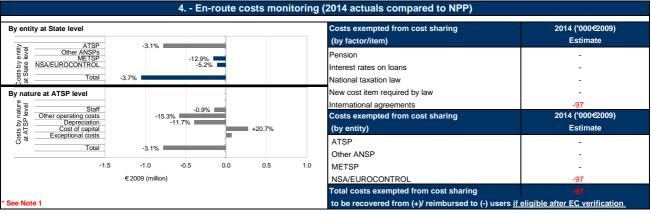
• Missing DRWY data for the calculation of unimpeded taxi out time.

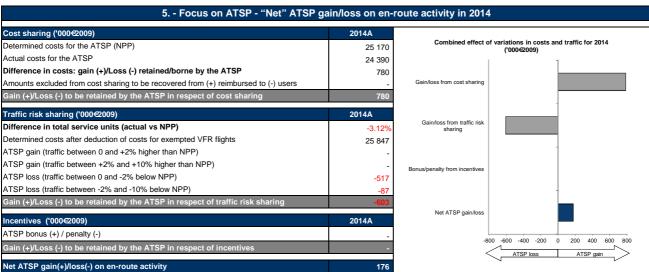
#### Specific Analysis

• The average additional taxi-out time could not be assessed for Ljubljana airport over RP1 due to missing data.



					2	En-r	oute Dl	JR monitor	ing (2014)				
		RP1 national p						2009A	2010A	2011F	2012P	2013P	2014P
	(determin	ed costs 2012-2	2014) - (in r	nominal El	UR)	*		23 493 772	26 211 708	28 930 090	30 790 503	31 687 890	32 084
flation %	(400 :- 00	00)						400.0	1.8%	2.2%	3.1%	2.3%	2.
flation index		•	0012 2014)	(in ELID	2000)	*		100.0 23 493 772	101.8 25 748 240	104.0 27 806 806	107.3 28 705 125	109.7 28 877 550	11 28 581 £
otal en-route	•	ermined costs 2	.012-2014) -	- (III EURZ	2009)			330 983	365 201	414 180	426 792	441 730	473
		s per Service l	Jnits - (in E	EUR2009)		*		70.98	70.50	67.14	67.26	65.37	60
See Note 1													
		a from Jun-201	15 Reportir	ng Tables				2009A	2010A	2011A	2012A	2013A	2014A
-route costs	s - (in nom	nai EUR)						23 493 772	26 032 613	28 929 420	27 878 188	29 465 767	30 093
flation % flation index	(100 in 20	00)						100.0	1.8% 101.8	2.1% 103.9	2.8% 106.8	1.9% 108.9	0. 10
all en-route	•		*					23 493 772	25 572 312	27 833 397	26 091 432	27 063 062	27 529
tal en-route	•							330 983	365 201	424 670	425 205	411 103	459
		s per Service l	Jnits - (in E	EUR2009)		*		70.98	70.02	65.54	61.36	65.83	59
ee Note 1		•		ĺ									
		uals and Plani	ned in abso	olute valu	e and in			als vs. NPP)			2012	2013	2014
-route costs	o - (iri nom	ııdı EUK)				in valu in %	ie				-2 912 315 -9.5%	-2 222 123 -7.0%	-1 991 -6
flation %						in % in p.p.					-9.5% -0.3 p.p.	-7.0% -0.4 p.p.	-6. <sub> </sub> 1.9-
flation index	(100 in 20	09)				in p.p.					-0.3 p.p. -0.4 p.p.	-0.4 p.p. -0.9 p.p.	-2.9
eal en-route		•				in valu					-2 613 693	-0.9 p.p.	-1 052
ar orr route	00000 (111	20112000)				in %					-9.1%	-6.3%	-3
tal en-route	Service U	nits				in valu	ie				-1 587	-30 627	-14
						in %					-0.4%	-6.9%	-3
al en-route	unit cost	s per Service U	Jnits - (in E	EUR2009)		in valu	ie				-5.90	0.46	-(
			·			in %					-8.8%	0.7%	-0
	160									160			
	140 -							∆·		140	E	n-route unit costs (N UR 2012-14)	PP,
	120				<u> </u>			$\longrightarrow$		- 120 - 120	E	n-route unit costs (ad	ctual)
100	120									100 🛎			
=60	100 -									- 80 -		n-route costs (NPP,	DC
Index (2009=100)	100				-2.4%	6	-8.8%	+0.7	% -0.6	% cost	2	012-14)	
gex	80 -									60 ±	<b></b> E	n-route costs (actual	)
_	00									- 40 de			
	60 -									i v	<u>-</u> -E	n-route TSU (NPP)	
	00									- 20			
	40									0	<del>-</del>	n-route TSU (actual)	
		2009	2010		2011		2012	2013	2014				
			3 EI	n-route	traffic	monito	ring (A	ctual 2012-	2014 TSU co	mpared to N	IPP)		
	0.60												
	0.60												
	0.55								ī				
(\$							_	ĭ					
illions)	0.55						I					"SUs (+/- 2% deadba	ınd; +/-
Us (millions)	0.55						_				——NPP T 10% tł	"SUs (+/- 2% deadba nreshold)	ınd; +/-
TSUs (millions)	0.55 - 0.50 - 0.45 -						+				—— NPP T 10% tł	nreshold)	ind; +/-
TSUs (milions)	0.55						-				10% th	nreshold)	ınd; +/-
TSUs (millions)	0.55 - 0.50 - 0.45 -	•		1			-				10% th	nreshold)	ınd; +/-
TSUs (millions)	0.55	•									10% th	nreshold)	ind; +/-





let ATSP gai	in(+)/los	s(-) on en-r	route activi	ity						176				
									estimated					
								s based on the oss accounts o		and c	on the information pro	vided in the Reportin	g Tables. This is	
TSP estima	ted surp	lus ('000€	2009)					2012P	2012A		2013P	2013A	2014P	2014A
otal asset ba	ase							24 147	25	504	23 957	24 545	21 358	25
stimated pro	portion o	f financing	through equ	uity (in %)				65.1%	65	.1%	65.1%	65.1%	65.1%	65
stimated pro	portion o	f financing	through equ	uity (in valu	ıe)			15 724	16	507	15 600	15 983	13 908	16
stimated pro	portion o	f financing	through deb	ot (in %)				34.9%	34	.9%	34.9%	34.9%	34.9%	34
stimated pro	portion o	f financing	through deb	ot (in value	e)			8 423	8	397	8 357	8 562	7 451	8
ost of capita	l pre-tax	(in value)						1 456	1	538	1 445	1 480	1 288	1
erage intere	est on de	ebt (in %)						4.4%	4	.4%	4.4%	4.4%	4.4%	4
erest on de	bt (in val	ue)						366		387	364	372	324	
etermined R	oE pre-ta	ax rate (in %	6)					6.9%	6	.9%	6.9%	6.9%	6.9%	6
stimated sur	plus emb	edded in th	e cost of ca	apital for e	n-route (in	value)		1 090	1	151	1 081	1 108	964	1
et ATSP gai	n(+)/loss	(-) on en-ro	ute activity						2	157		745		
verall estim	nated sur	rplus (+/-) f	or the en-r	oute activ	/ity			1 090	3	808	1 081	1 852	964	
venue/cos	ts for the	e en-route	activity					25 328	25	233	25 484	24 590	25 170	24
Estimated surplus (+/-) in percent of en-route revenue/costs				4.3%	14	.3%	4.2%	7.5%	3.8%					
stimated ex	-post Ro	E pre-tax ı	rate (in %)					6.9%	21	.7%	6.9%	11.6%	6.9%	{
MEUR2009	4.0 = 3.5 = 3.0 = 2.5 =		<b>♦</b>						14.0% 12.0% 10.0%				n-route activity (in valu	
ž	1.5				<b>♦</b>			<b>♦</b>	6.0%		Estimated surpli	us embedded in the co	st of capital for en-rout	te (in value)
	1.0						<b>^</b>		4.0%		<ul> <li>Estimated surplu</li> </ul>	us (+/-) in percent of e	n-route revenue/costs	
	0.5								0.0%					
		NPP	Actual	NPP	Actu	ıal	NPP	Actual						
		20	12		2013			2014						

#### Monitoring of en-route and terminal COST-EFFICIENCY for 2014

#### 7. - General conclusions on the monitoring of the 2014 en-route DUR

#### Notes on information provided by SLOVENIA

#### Note 1: Other Revenues

For Slovenia, the determined and actual costs for RP1 are considered after deduction of revenues from other sources (i.e. commercial activities and TEN-T funds, amounting to 113 K€ in 2014) in order to ensure consistency with the NPP. The break-down shown in item 4 (graph) presents these deductions as (positive) exceptional costs for the ATSP.

#### At State / Charging Area level

In 2014, Slovenia's real en-route unit cost (59.95 €2009) is -0.6% lower than planned in the NPP (60.30 €2009). This difference is due to the fact that 2014 actual en-route costs are -3.7% (-1.1 M€2009) lower than planned in real terms, while the actual number of total service units (TSUs) is -3.1% lower than planned. The difference between the actual and the planned TSUs for the year 2014 falls outside the ± 2% dead band foreseen in the traffic risk sharing mechanism, although it does not exceed the -10% threshold. The related loss is therefore shared between the airspace users and the ATSP.

Between 2013 and 2014 TSUs increased by +11.7%, which is significantly higher than planned. According to the NSA Monitoring Report this is due predominantly to the opening of the Kosovo airspace in April 2014. The situation in Ukraine also tended to increase traffic in Slovenia in the second half of 2014.

#### Actual 2014 costs vs. NPP

The Slovenia en-route cost-base includes costs related to the Slovenian ATSP (Slovenia Control), the MET service provider (ARSO), the Slovenian NSA and the EUROCONTROL Agency.

In 2014, actual en-route costs for Slovenia are -3.7% lower than planned in real terms. This results from the combination of lower en-route costs in nominal terms (-6.2%) and a lower inflation index (-2.9 p.p.). The cost savings are mostly attributable to Slovenia Control (-3.1% in real terms or -0.8 M€2009). A detailed analysis of Slovenia Control's costs is provided in the box below. The costs associated with the other entities are also lower than planned (-12.9% or -0.2 €2009 for MET ARSO and -5.2% or -0.1 €2009 for the NSA/EUROCONTROL).

Costs exempt from cost sharing are reported for an amount of -0.1 M€2009 due to lower EUROCONTROL costs than planned. These costs will be eligible for carry-over to the following reference period(s), if deemed allowed by the European Commission after verification on the basis of the NSA report establishing and justifying these exemptions.

#### **RP1 summary**

When considering the whole of RP1 (2012-2014) the actual number of TSUs is -3.5% lower than planned while actual costs in real terms are -6.4% lower than the determined costs (some -5.5 M€2009). As a result, the weighted average unit cost over RP1 (62.28 €2009) is -3.0% lower than planned.

#### At ATSP level

#### Actual 2014 Slovenia Control costs vs. NPP

Before consideration of the commercial revenues (see note 1), Slovenia Control 2014 actual en-route costs are -3.3% lower than planned in real terms. This mainly results from lower than planned other operating costs (-0.7 M€2009 or -18.5%), and lower than planned depreciation costs (-0.4 M€2009 or -11.7%). According to the Additional Information provided with the en-route Reporting Tables in June 2015, operating costs were reduced through "mitigation measures" to adapt to lower traffic, and depreciation costs were lower than planned due to delays in the commissioning of some capex projects (from the beginning of 2014 to the second half of 2014 or the start of 2015). Staff costs are also -0.1 M€2009 lower than planned (-0.9%) as savings were made through "efficient social dialogue" at State and ATSP level and by delaying some training.

On the other hand, the cost of capital is higher than planned (+20.7%, or +0.3 M€2009 in absolute terms) mainly due to a change in the level of net current assets included in the asset base. According to the information provided in the NSA Monitoring Report actual capex over RP1 is +48.7% higher than planned in the NPP.

#### Slovenia Control net gain/loss and estimated surplus on en-route activity in 2014

As shown in item 5, the en-route activity for the year 2014 generated a net gain of +0.2 M€2009 for Slovenia Control. This is due to the combination of two separate elements:

- a gain of +0.8 M€2009 for Slovenia Control as a result of the cost-sharing mechanism; and
- a loss of -0.6 M€2009 as a result of the traffic risk sharing mechanism for 2014.

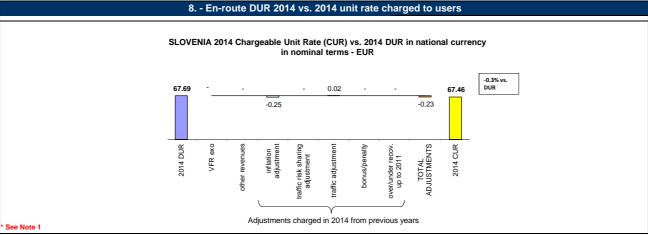
To calculate the overall economic surplus of the ATSP, it is also important to add the surplus embedded in the cost of capital through the return on equity. Based on the figures planned in the NPP, the return on equity amounted to +1.0 M€2009, corresponding to an estimated surplus of 3.8% of the en-route costs/revenues for 2014. Ex-post, the estimated surplus for the year computed by adding the surplus embedded in the cost of capital (+1.2 M€2009) and the net gain from the en-route activity in 2014 (+0.2 M€2009), gives a total of +1.3 M€2009, corresponding to 5.5% of the 2014 en-route revenue. The resulting ex-post rate of return on equity for 2014 is 8.0% (compared to 6.9% planned in the NPP).

#### Conclusions

In 2014 Slovenia Control's actual en-route costs are lower than planned (-3.1%, or -0.8 M€2009 in absolute terms) while traffic is -3.1% lower than foreseen in the NPP. The en-route activity for the year 2014 generated a net gain of +0.2 M€2009 for Slovenia Control which results in an estimated actual surplus of +1.3 M€2009 (5.5% of the en-route revenue for 2014, up from the 3.8% planned in the RP1 PP).

When considering the whole of RP1 (2012-2014), Slovenia Control could retain a cumulative gain in respect of cost sharing of +5.0 M€2009 as actual costs were lower than planned for all years of RP1. The majority of this gain was generated in 2012 when Slovenia Control retained 2.6 M€2009 as a result of cost sharing. However, Slovenia Control incurred a cumulative loss in respect of traffic risk sharing amounting to -1.6 M€2009, resulting in a cumulative net gain for the en-route activity of +3.4 M€2009.

#### Monitoring of en-route and terminal COST-EFFICIENCY for 2014



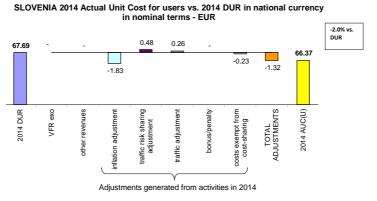
The DUR for 2014 expressed in nominal terms differs from the actual en-route unit rate charged to users in 2014 (CUR). The CUR takes account of

- the DUR, but also, a deduction of the costs for services to exempted VFR in 2014, as determined prior to the reference period and a deduction of 2014 other revenues;
- as well as adjustments relating to the activities of previous years that are carried-over to 2014. These adjustments include:
- \* the adjustment resulting from the implementation of the traffic risk-sharing (ATSP);
- \* the adjustment resulting from the difference in traffic (for costs not subject to traffic risk sharing); \* the bonus/penalty from previous year(s).
- \* the legacy carry-overs incurred in the full cost recovery regime up to and including 2011.

These costs and adjustments are divided by the forecast total service units for 2014 as laid out in the performance plan.

The actual Chargeable Unit Rate (CUR) charged to users in 2014 is 67.46€. This is -0.3% lower than the nominal DUR (67.69 €). The difference observed between these two figures (-0.23 €) reflects mainly the inflation adjustment carried over from previous years (-0.25 €) in addition to a small adjustment for traffic (+0.02 €).

#### 9. - En-route DUR 2014 vs. 2014 actual unit cost for users



The DUR for 2014 expressed in nominal terms can also be compared to the actual en-route unit cost for airspace users (AUC-U) for 2014 (also sometimes referred to the "true cost for users"), which reflects the unit cost that the users incur in respect of the activities performed in 2014. The AUC-U comprises:

- the DUR, the deduction of the costs for services to exempted VFR in 2014 and the deduction of 2014 other revenues that has already been billed to the users through the
- as well as adjustments relating to the activities of 2014 but which will be charged or reimbursed to users in future years. These adjustments include:
- the inflation adjustment;
- \* the adjustments resulting from the implementation of the traffic risk-sharing (ATSP);

  \* the adjustments resulting from the difference in traffic (for costs not subject to traffic risk sharing);
- \* the bonus/penalty for the current year;
  \* the costs exempt from cost sharing (if deemed eligible)

These costs and adjustments are divided by the actual total service units in 2014.

The unit cost that the users incurred in respect of the activities performed in 2014 is 66.37 € This is -2.0% lower than the nominal DUR (67.69 €). The difference observed between these two figures (-1.32  $\bigcirc$ ) reflects negative adjustments due to lower than planned inflation (-1.83  $\bigcirc$ ) and costs exempt from cost sharing (-0.23  $\bigcirc$ ) offset by positive adjustments as traffic was lower than planned. This includes +0.48 € for traffic risk sharing and +0.26 € for the traffic adjustment for costs not subject to traffic risk sharing.

#### Monitoring of en-route and terminal COST-EFFICIENCY for 2014

	10 Terminal cos	sts and unit ra	tes monitorin	ıg (2014)			
		2009	2010	2011	2012	2013	2014
Terminal Service Unit Formula	(MTOW/50)^	0.7	0.7	0.7	0.7	0.7	0.7
Number of airports in terminal charging zone		3	3	3	3	3	;
of which, number of airports over 50 000 movements							
SLOVENIA - Data from RP1 national performance plan		2009A	2010A	2011F	2012P	2013P	2014P
Terminal ANS costs for the charging zones - (in EUR)		3 420 816	2 962 000	3 204 000	3 272 000	3 496 000	3 620 000
Inflation index (100 in 2009)		100.0	101.8	104.0	107.3	109.7	112.3
Real terminal ANS costs - (in EUR2009)		3 420 816	2 909 627	3 079 597	3 050 394	3 185 946	3 224 779
* See Note 1							
SLOVENIA - Actual data from June 2015 Reporting Tal	oles	2009A	2010A	2011A	2012A	2013A	2014A
Terminal ANS costs for the charging zones - (in EUR)		3 420 816	2 962 125	3 227 622	3 037 742	2 992 634	3 198 60°
Inflation index (100 in 2009)		100.0	101.8	103.9	106.8	108.9	109.3
Real terminal ANS costs - (in EUR2009)		3 420 816	2 909 749	3 105 340	2 843 048	2 748 608	2 926 07
* See Note 1							
Total terminal service units		13 327	12 519	12 555	11 198	11 353	11 162
Actual real unit costs - (in EUR2009)		256.7	232.4	247.3	253.9	242.1	262.2
Unit rate applied - (in EUR)					256.74	256.73	256.72
Difference between Actuals and Planned in absolute v	alue and in percentag	e (Actuals vs. NP	P)		2012	2013	2014
Terminal ANS costs for the charging zones - (in EUR)	in value				-234 258	-503 366	-421 399
	in%				-7.2%	-14.4%	-11.6%
Inflation index (100 in 2009)	in p.p.				-0.4 p.p.	-0.9 p.p.	-2.9 p.p
Real terminal ANS costs - (in EUR2009)	in value				-207 346	-437 338	-298 704
Real terminal ANS COSTS - (III EURZOUS)							

#### 11. - General conclusions on the Terminal ANS costs and unit rates monitoring

The terminal charging zone in Slovenia comprises three airports (Ljubljana, Maribor and Portoroz). The harmonised SES formula (MTOW/50)^0.7 already applies in the Slovenia terminal charging zone.

The 2014 actual terminal ANS costs are -9.3% lower than planned in real terms (-0.3 M€2009). This results from the combination of lower terminal ANS costs in nominal terms (-11.6%) and a lower inflation index (-2.9 p.p.). The real unit cost for terminal services is 262.2 €2009, +8.3% compared to the real unit cost for 2013. The Unit Rate applied in 2014 is 256.72 €, which has remained almost constant throughout RP1.

Note that the terminal ANS costs presented in the NPP and the actual costs presented in item 9 above are net of other income (see also Note 1).

#### RP1 summary

When considering the whole of RP1 (2012-2014), actual terminal ANS costs are -10.0% lower in real terms (or some -0.9 M€2009) than planned in the NPP. This reflects the fact that terminal ANS costs are lower than planned in each year of RP1.

	40 10 10						
	12 Monitor	ing of gate-to	-gate costs (2	2014)			
SLOVENIA - Data from RP1 national performance plan	n	2009A	2010A	2011F	2012P	2013P	2014P
Real en-route costs (determined costs 2012-2014) - (in E	UR2009)	23 493 772	25 748 240	27 806 806	28 705 125	28 877 550	28 581 573
Real terminal ANS costs - (in EUR2009)		3 420 816	2 909 627	3 079 597	3 050 394	3 185 946	3 224 779
Real gate-to-gate ANS costs - (in EUR2009)		26 914 589	28 657 867	30 886 403	31 755 519	32 063 496	31 806 352
Share of en-route costs in gate-to-gate ANS costs		87.3%	89.8%	90.0%	90.4%	90.1%	89.9%
SLOVENIA - Actual data from June 2015 Reporting Ta	ibles	2009A	2010A	2011A	2012A	2013A	2014A
Real en-route costs - (in EUR2009)		23 493 772	25 572 312	27 833 397	26 091 432	27 063 062	27 529 078
Real terminal ANS costs - (in EUR2009)		3 420 816	2 909 749	3 105 340	2 843 048	2 748 608	2 926 075
Real gate-to-gate ANS costs - (in EUR2009)		26 914 589	28 482 061	30 938 737	28 934 480	29 811 670	30 455 153
Share of en-route costs in gate-to-gate ANS costs		87.3%	89.8%	90.0%	90.2%	90.8%	90.4%
Difference between Actuals and Planned in absolute	value and in percenta	ge (Actuals vs. Ni	PP)		2012	2013	2014
Real en-route costs - (in EUR2009)	in value				-2 613 693	-1 814 488	-1 052 495
	in %				-9.1%	-6.3%	-3.7%
Real terminal ANS costs - (in EUR2009)	in value				-207 346	-437 338	-298 704
	in %				-6.8%	-13.7%	-9.3%
Real gate-to-gate ANS costs - (in EUR2009)	in value				-2 821 039	-2 251 826	-1 351 199
	in %				-8.9%	-7.0%	-4.2%
Share of en-route costs in gate-to-gate ANS costs	in p.p				-0.2 p.p.	0.7 p.p.	0.5 p.p

#### 13. - General conclusions on the gate-to-gate ANS costs

Actual 2014 gate-to-gate costs are -4.2% lower than planned in real terms following reductions both in en-route (-1.1 M€2009, -3.7%) and terminal (-0.3 M€2009, -9.3%) ANS costs compared to planned costs.

The allocation of gate-to-gate costs between en-route ANS and terminal ANS appears quite stable over RP1 (approximately 90% share to en-route) and did not change significantly with respect to the NPP.





# PRB Annual Monitoring Report 2014 Spain

Working Draft 2.0

Edition date: 03/09/2015



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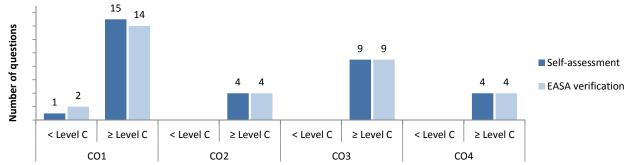
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#### Monitoring of SAFETY indicators for 2014

Effectiveness of Safety Management										
2012	2013	2014	State level Observations							
59	49	57								
69	76	78								
N/A	N/A	69								
	<b>2012</b> 59 69	2012     2013       59     49       69     76	2012         2013         2014           59         49         57           69         76         78							



# Application of the severity classification of the Risk Analysis Tool (RAT)

		20	12	20	13	20	14
		No reported	Assessed (%)	No reported	Assessed (%)	No reported	Assessed (%)
Separation Minima	ATM Ground	122	16%	181	33%	215	91%
Infringements (SMIs)	ATM Overall	122	16%		33%	210	43%
Runway Incursions (RIs)	ATM Ground	123	1%	85	1%	169	25%
Rullway illcursions (Ris)	ATM Overall	123	1%	8	1%	109	4%
ATM Specific Occurences (ATM-Specific)	ATM Overall	738	3%	309	0%	1176	18%
Source of RA			AE	NA			

Preliminary results updated after coordination with the AST-FP in August 2015.

**TOTAL** 

#### Just culture State Number of questions answered with Yes or No **YES** NO YES NO **YES** NO Policy and its implementation Legal/Judiciary Occurrence reporting and Investigation

	ANSP [ENAIRE]								
Number of questions answered with Yes or No	20	12	20	13	2014				
	YES	NO	YES	NO	YES	NO			
Policy and its implementation	5	8	5	8	6	7			
Legal/Judiciary	2	1	2	1	2	1			
Occurrence reporting and Investigation	5	3	4	4	4	4			
TOTAL	12	12	11	13	12	12			

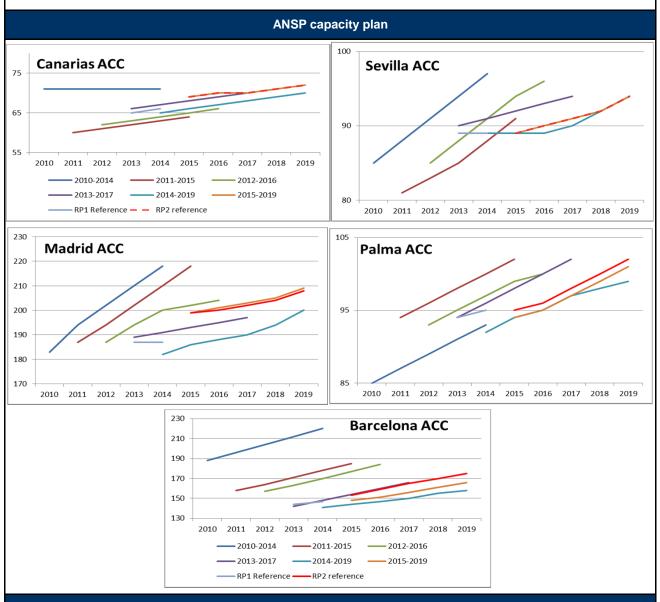
	ANSP [Ferronats]								
Number of questions answered with Yes or No	20	12	20	13	2014				
	YES	NO	YES	NO	YES	NO			
Policy and its implementation	N/A	N/A	N/A	N/A	11	2			
Legal/Judiciary	N/A	N/A	N/A	N/A	2	1			
Occurrence reporting and Investigation	N/A	N/A	N/A	N/A	4	4			
TOTAL	N/A	N/A	N/A	N/A	17	7			

#### **Monitoring of CAPACITY indicators for 2014**

		-route delay		
	2012	2013	2014	Observations
Reference value	0.52	0.42	0.31	
National Target	0.8	0.75	0.5	
Actual performance	0.48	0.41	0.3	

#### **National capacity assessment**

In terms of the capacity indicator, the actual value of ATFM delay per flight for 2014 is of 0.3 min/flight, a difference of - 0.2 min/flight (-40%) with respect to the 2014 national target of 0.50 min/flight.



#### Military dimension of the plan

Although specifically requested in IR 691/2010 Annex II Template for Performance Plans, paragraph 4: the Performance Plan for Spain did not contain any specific details of how FUA would be applied to increase capacity.

#### **PRB Capacity assessment**

As in 2012 and 2013, Spain has provided sufficient capacity in 2014 to be consistent with the effort required to meet the EU-wide capacity performance target. The PRB is happy to note that capacity plans have improved in all Spanish ACCs from the previous year. However, at two of the ACCs the planned capacity is not yet in line with the effort required to be consistent with the union-wide targets for RP2.

#### **Effective booking procedures**

The ratio of time airspace was actually used for activity requiring segregation or restriction from GAT and the amount of time it was allocated as being restricted on the day of operations: 37%

The ratio of time airspace, that was surplus to requirement, was released with more than 3 hours' notice to the Network Manager and the amount of time it was allocated as being restricted on the day of operations: 0%

The ratio of time airspace was neither used nor released with at least 3 hours' notice to the Network Manager, but was allocated as being restricted on the day of operations: 63%

#### **Previous recommendations**

#### Extract from notification letter from EC July 2012:

The Commission considers that the capacity target could have been further improved. Spain's revised performance plan is assessed on the understanding that Spain will require its air navigation service provider to develop and implement capacity plans that will enable the 2014 reference value of 0.31 minute of average delay per flight to be met at the earliest possible date in the second reference period, with the assistance of the Network Manager.

**Annual Monitoring Report 2012:** Spain is invited to ensure that information on the allocation and use of airspace structures is made available to the Commission in accordance with IR 691/2010, and IR 2150/2005. [ Addressed in Annual Monitoring Report 2013]

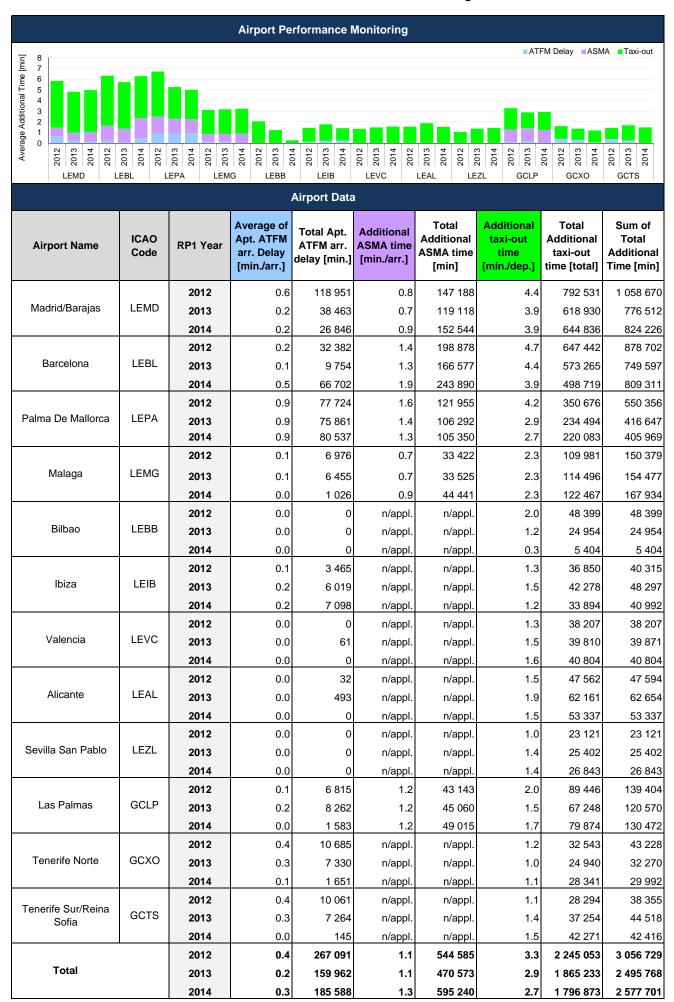
**Annual Monitoring Report 2013:** The PRB requests Spain to provide information on how the capacity planning of the ANSP is consistent with the existing recommendation of the European Commission that Spain will require its air navigation service provider to develop and implement capacity plans that will enable the 2014 reference value of 0.31 minute of average delay per flight to be met at the earliest possible date in the second reference period, with the assistance of the Network Manager.

#### **NSA** report on follow-up to recommendations

ENAIRE, on behalf of AESA, provides the planned capacity to the NM in a regular basis. Furthermore, ENAIRE's capacity plans are included in the European Network Operations Plan.

#### Recommendations

#### Monitoring of CAPACITY indicators for 2014



	RP1 Year	Average of Apt. ATFM arr. Delay [min./arr.]	Total Apt. ATFM arr. delay [min.]	Additional ASMA time [min./arr.]	Total Additional ASMA time [min]	Additional taxi-out time [min./dep.]	Total Additional taxi-out time [total]	Sum of Total Additional Time [min]
Absolute Difference	2014-2013	0.0	<b>25 626</b>	<b>0.2</b>	<b>124 667</b>	-0.2	<u></u> -68 359	<b>81 933</b>
	2014-2012	-0.1	<u></u> -81 503	<b>0.1</b>	<b>▽</b> 50 654	-0.5	<u> </u>	<b>479 029</b>

#### **Critical Issues**

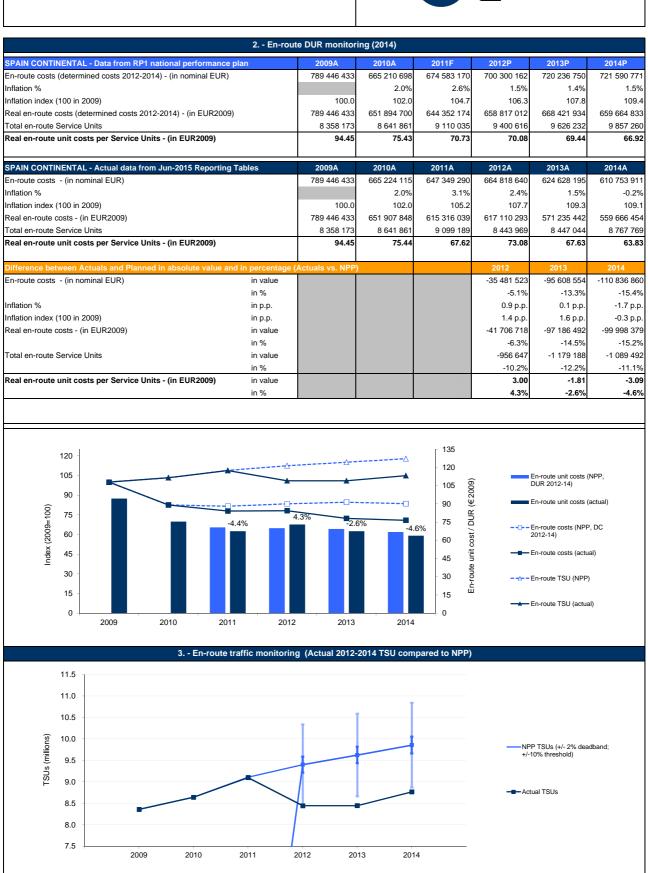
• None

#### Specific Analysis

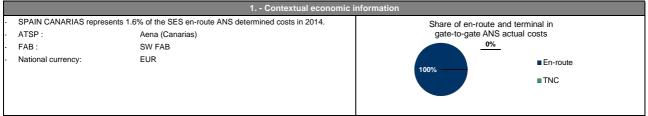
- In average over RP1, total additional delay decreased by 16% in Spain, what demonstrates a good performance. This improvement is broken down into a decrease of ATFM arrival delay by 31% and a reduction of additional taxi-out time by 20%. Additional ASMA time however increased by 9%.
- Out of this average, Madrid Barajas, Bardelona and Palma de Mallorca are undoubtedly the most critical airports in Spain.
- Total additional delay was reduced by 28% at Madrid Barajas airport over RP1 period of time. The improved performance efficiency was mainly due to a reduction of ATFM arrival delay divided by a factor 4, as well as a reduction of additional taxi-out time by 23%. To be noted that the traffic decreased by 9% at the airport over the same period of time.
- As far as Barcelona is concerned, a 9% reduction of additional time could be observed between 2012 and 2014, for a decrease of traffic by 6%. Although additional taxi-out time was reduced by 30%, the delay on the inbound traffic increased.
  - For a similar traffic volume, the total additional time was reduced by 36% at Palma de Mallorca airport.

#### **SPAIN CONTINENTAL**





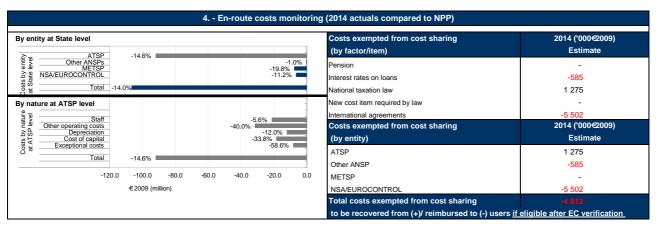
#### **SPAIN CANARIAS**

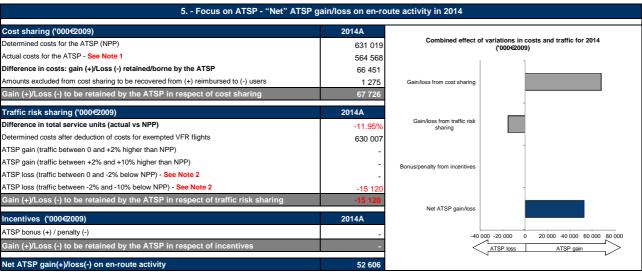


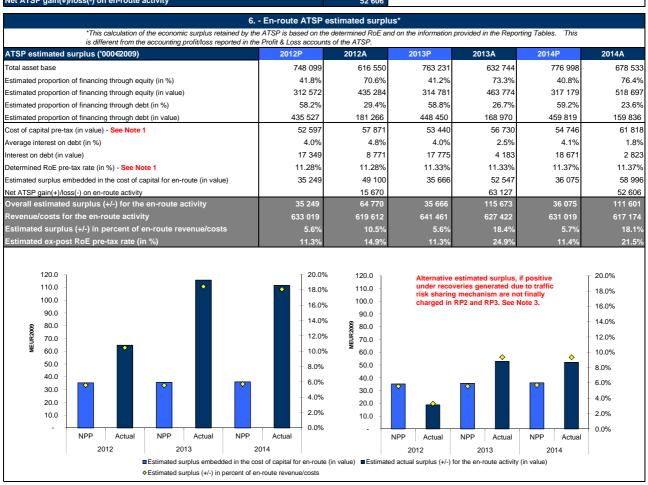
			2 En-rou	ıte DUR monitori	ng (2014)				
PAIN CANA	RIAS - Data from RP1 natio	nal performance pla	an	2009A	2010A	2011F	2012P	2013P	2014P
n-route costs	determined costs 2012-201	4) - (in nominal EUR	)	120 326 752	109 449 714	110 443 775	111 451 532	112 037 851	111 614 2
flation %					2.0%	2.6%	1.5%	1.4%	1.5
flation index	(100 in 2009)			100.0	102.0	104.7	106.3	107.8	109
eal en-route	costs (determined costs 2012	2-2014) - (in EUR200	9)	120 326 752	107 258 781	105 494 311	104 849 562	103 977 695	102 035 6
	Service Units	to (in EUR2000)		1 492 498 <b>80.62</b>	1 539 855	1 655 554	1 705 420 <b>61.48</b>	1 746 350 <b>59.54</b>	1 795 2 <b>56</b> .
ear en-route	e unit costs per Service Unit	is - (in EUR2009)		80.62	69.66	63.72	61.48	59.54	36.
	RIAS - Actual data from Jur	n-2015 Reporting Ta	ıbles	2009A	2010A	2011A	2012A	2013A	2014A
	s - (in nominal EUR)			120 326 752	109 450 125	105 288 074	111 197 098	106 784 464	104 152 7
ıflation %					2.0%	3.1%	2.4%	1.5%	-0.2
flation index	(100 in 2009)			100.0	102.0	105.2	107.7	109.3	109
eal en-route	costs - (in EUR2009)			120 326 752	107 259 184	100 078 029	103 217 433	97 656 608	95 440 7
otal en-route	Service Units			1 492 498	1 539 855	1 665 737	1 599 207	1 515 812	1 491 7
eal en-route	unit costs per Service Unit	ts - (in EUR2009)		80.62	69.66	60.08	64.54	64.43	63.
	tween Actuals and Planned	I in absolute value a		(Actuals vs. NPP)			2012	2013	2014
n-route costs	s - (in nominal EUR)		in value				-254 434	-5 253 387	-7 461 4
			in %				-0.2%	-4.7%	-6.7
nflation %			in p.p.				0.9 p.p.	0.1 p.p.	-1.7 p
flation index	(100 in 2009)		in p.p.				1.4 p.p.	1.6 p.p.	-0.3 p
eal en-route	costs - (in EUR2009)		in value				-1 632 129	-6 321 087	-6 594 9
			in %				-1.6%	-6.1%	-6.5
otal en-route	Service Units		in value				-106 213	-230 538	-303 4
			in %				-6.2%	-13.2%	-16.9
eal en-route	unit costs per Service Unit	ts - (in EUR2009)	in value			-3.64	3.06	4.89	7.
Index (2009=100)	150 135 120 105 90 75 60 45 30 15	2010 20	111 201:	5.0% 8.2 2 2013	2014	- 60 Stylin ayrot-45	0	En-route unit costs (NDUR 2012-14) En-route unit costs (aEn-route costs (NPP, 2012-14) En-route Costs (actual En-route TSU (NPP) En-route TSU (actual	DC
Index (2009=100)	135 - 120 - 105 - 90 - 75 - 60 - 45 - 30 - 15 - 0	2010 20	111 201:	2 2013	2014	- 135 - 120 (6002 - 105 - 90 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 7	0	DUR 2012-14)  En-route unit costs (a  En-route costs (NPP, 2012-14)  En-route costs (actua  En-route TSU (NPP)	DC
Index (2009=100)	135 - 120 - 105 - 90 - 0 - 75 - 60 - 45 - 30 - 15 - 0 - 2009	2010 20	111 201:	2 2013	2014	- 135 - 120 (6002 - 105 - 90 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 7	0	DUR 2012-14)  En-route unit costs (a  En-route costs (NPP, 2012-14)  En-route costs (actua  En-route TSU (NPP)	DC
Index (2009=100)	135 - 120 - 105 - 90 - 75 - 60 - 45 - 30 - 15 - 0 - 2009	2010 20	111 201:	2 2013	2014	- 135 - 120 (6002 - 105 - 90 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 7	0	DUR 2012-14)  En-route unit costs (a  En-route costs (NPP, 2012-14)  En-route costs (actua  En-route TSU (NPP)	DC
	135 - 120 - 105 - 90 - 75 - 60 - 45 - 30 - 15 - 0 - 2009	2010 20	111 201:	2 2013	2014	- 135 - 120 (6002 - 105 - 90 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 7		En-route unit costs (a En-route costs (NPP, 2012-14)  En-route costs (actual En-route TSU (NPP)	ctual) DC
	135 - 120 - 105 - 90 - 75 - 60 - 45 - 30 - 15 - 0 - 2009	2010 20	111 201:	2 2013	2014	- 135 - 120 (6002 - 105 - 90 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 7		En-route unit costs (c En-route costs (NPP, 2012-14) En-route Costs (actual En-route TSU (NPP) En-route TSU (actual	ctual) DC
	135 - 120 - 105 - 90 - 75 - 60 - 45 - 30 - 15 - 0 - 2009	2010 20	111 201:	2 2013	2014	- 135 - 120 (6002 - 105 - 90 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 7		En-route unit costs (a En-route costs (NPP, 2012-14)  En-route costs (actual En-route TSU (NPP)	ctual) DC
	135 - 120 - 105 - 90 - 0 75 - 60 - 45 - 30 - 15 - 0 2009 2009	2010 20	111 201:	2 2013	2014	- 135 - 120 (6002 - 105 - 90 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 7		En-route unit costs (c En-route costs (NPP, 2012-14) En-route Costs (actual En-route TSU (NPP) En-route TSU (actual	ctual) DC
TSUs (millions)	135 - 120 - 105 - 90 - 75 - 60 - 45 - 30 - 15 - 0 - 2009	2010 20	111 201:	2 2013	2014	- 135 - 120 (6002 - 105 - 90 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 7		DUR 2012-14)  En-route unit costs (a  En-route costs (NPP, 2012-14)  En-route costs (actua  En-route TSU (NPP)  En-route TSU (actual  P TSUs (+/- 2% dead 0% threshold)	ctual) DC
	135 - 120 - 105 - 90 - 0 75 - 60 - 45 - 30 - 15 - 0 2009 2009	2010 20	111 201:	2 2013	2014	- 135 - 120 (6002 - 105 - 90 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 7		En-route unit costs (c En-route costs (NPP, 2012-14) En-route Costs (actual En-route TSU (NPP) En-route TSU (actual	ctual) DC
	135 - 120 - 105 - 90 - 0 75 - 60 - 45 - 30 - 15 - 0 2009 2009	2010 20	111 201:	2 2013	2014	- 135 - 120 (6002 - 105 - 90 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 7		DUR 2012-14)  En-route unit costs (a  En-route costs (NPP, 2012-14)  En-route costs (actua  En-route TSU (NPP)  En-route TSU (actual  P TSUs (+/- 2% dead 0% threshold)	ctual) DC
	135 - 120 - 105 - 90 - 0	2010 20	111 201:	2 2013	2014	- 135 - 120 (6002 - 105 - 90 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 7		DUR 2012-14)  En-route unit costs (a  En-route costs (NPP, 2012-14)  En-route costs (actua  En-route TSU (NPP)  En-route TSU (actual  P TSUs (+/- 2% dead 0% threshold)	ctual) DC
	135 - 120 - 105 - 90 - 0 75 - 60 - 45 - 30 - 15 - 0 2009 2009	2010 20	111 201:	2 2013	2014	- 135 - 120 (6002 - 105 - 90 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 7		DUR 2012-14)  En-route unit costs (a  En-route costs (NPP, 2012-14)  En-route costs (actua  En-route TSU (NPP)  En-route TSU (actual  P TSUs (+/- 2% dead 0% threshold)	ctual) DC
	135 - 120 - 105 - 90 - 0	2010 20	111 201:	2 2013	2014 TSU com	135 120 6002 90 600 45 30 15 0 pared to NPP)		DUR 2012-14)  En-route unit costs (a  En-route costs (NPP, 2012-14)  En-route costs (actua  En-route TSU (NPP)  En-route TSU (actual  P TSUs (+/- 2% dead 0% threshold)	ctual) DC

### **SPAIN CONTINENTAL & SPAIN CANARIAS**

### Monitoring of en-route and terminal COST-EFFICIENCY for 2014







### **SPAIN CONTINENTAL & SPAIN CANARIAS**

### Monitoring of en-route and terminal COST-EFFICIENCY for 2014

### 7. - General conclusions on the monitoring of the 2014 en-route DUR

### Notes on information provided by SPAIN

Note 1: Reporting of actual costs to the ATSP
"Correction" to the 2012 actual cost of capital reported for ENAIRE (AENA), as per previous years' Monitoring analysis. This correction is to change the rate of return on equity (RoE) from the RoE post-tax value presented by Spain (7.89% for 2012) to the planned RoE pre-tax (i.e. 11.28%). Details can be found in the 2012 Monitoring Report.
"Correction" to the 2013 actual cost of capital reported for ENAIRE (AENA), as per previous years' Monitoring analysis. This correction is to change the RoE from the pre-tax value presented by Spain (8.78% for 2013) to the planned RoE pre-tax value (11.33% for 2013). Details can be found in the 2013 Monitoring Report.
"Correction" to the 2014 actual cost of capital reported for ENAIRE (AENA). This correction is to change the RoE from the pre-tax value presented by Spain (6.44% for 2014) to the planned RoE pre-tax value (11.37% for 2014). As a result ENAIRE (AENA)'s cost of capital relating to equity would be some +23.2 M€ higher than presented (or +21.3 M€2009) for Spain Continental and +4.7 M€ (or +4.3 M€2009) for Spain Canarias. The total actual costs for ENAIRE (AENA), taking into account of this "correction" would be 564.6 M€2009 instead of 539.0 M€2009.

Note 2: Exemption from the application of the dead-band in traffic risk sharing.

For 2012, 2013 and 2014, Spain has considered that the range of the dead-band is not shared and that it is allocated to users (100%). For the purpose of this analysis there has been no traffic risk sharing applied to the dead-band, i.e. any gains (or losses) resulting from the difference in traffic between +2% and -2% is allocated to users. This presents a revision to the approach previously applied for 2012 in the 2012 and 2013 Monitoring Reports. The Additional Information to the June 2013 Reporting Tables (see A.I.3 d) indicated that Spain had invoked the application of Article 2 of EU Regulation 1191/2010 amending the Charging Regulation 1794/2006 and had applied the exemption of the dead-band on ENAIRE (AENA) traffic risk sharing.

Note 3: Alternative en-route ATSP estimated surplus calculation.

Spain has indicated that the positive under recoveries generated due to traffic risk sharing mechanism, now foreseen to be recovered in the last 2 years of RP2 and in RP3, based on the June 2015 Reporting tables, may not be finally charged to users in future years. If this is finally the case, the genuine value of the economic surplus over RP1 would be lower. Item 6 shows, at the right bottom, and additional graph with the en-route ATSP estimated surplus calculation based on this assumption.

# At State / Charging Area level

In 2014, the actual en-route unit cost for Spain Continental (63.83 €2009) is -4.6% lower than planned in Spain's Adopted NPP for RP1 (66.92 €2009). This difference is mainly due to actual en-route costs are -15.2% lower in real terms than the determined costs, and en-route Service Units being -11.1% lower than planned. The decrease in actual costs in real terms is due to cost reductions across all entities and a

In 2014, the actual en-route unit cost for Spain Canarias (63.98 €2009) is +12.6% higher than planned in the NPP for RP1 (56.84 €2009). This difference is mainly due to actual en-route costs being -6.5% lower in real terms than the determined costs, and en-route Service Units being -16.9% lower than planned. The decrease in actual costs in real terms is due to cost reductions across all entities and a lower actual inflation rate.

With actual en-route traffic (TSUs) in 2014 -11.1% lower than planned, Spain Continental falls outside the -10% threshold in 2014. This threshold was exceeded in 2012 (-10.2%) and 2013 (-12.2%) also Spain Canarias has also exceeded the -10% TSUs threshold in 2014, with traffic -16.9% lower than planned. The traffic threshold was not exceeded in 2012 (-6.2%), but was exceeded in 2013 (-13.2%). The Spanish 2014 NSA Monitoring Report notes that although the difference in traffic in both Spain Continental (-11.1% vs. NPP) and Spain Canarias (-16.9%) has been higher than the 10% threshold set in the

Actual 2014 costs vs. NPP
Total actual en-route costs for Spain Continental in 2014 (559.7 M€2009) are -15.2% lower than planned, and -6.5% lower for Spain Canarias (95.4 M€2009). This mainly reflects lower en-route costs in nominal terms (-15.4% for Spain Continental and -6.7% for Spain Canarias) while the actual inflation index in 2014 is also lower than that forecast in the NPP (by -0.3 p.p., index based in 2009).

The combined -106.6 M€2009 reductions seen in total costs in 2014 against the plan for Spain Continental and Spain Canarias are driven primarily by the ATSP, ENAIRE (AENA), which has actual costs in 2014 that are -14.6% lower than planned. A detailed analysis of ENAIRE costs is provided in the box below. Other entities also contribute to the overall reduction in costs, including the MET Service Provider, other ANSPs and NSA/EUROCONTROL (-14.6 M€2009 in total), however the overall reduction is driven by ENAIRE (AENA) (a reduction of -92.0 M€2009). Cost reductions were seen in all cost categories across both en-route charging zones

Costs exempt from cost sharing are reported for an amount of -4.8 M€2009, primarily corresponding to the difference between the planned and actual values for EUROCONTROL costs (-5.5 M€2009). Other costs exempt from cost sharing include -0.6 M€2009 relating to Interest rates on loans for Other ANSPs, and revenues of +1.3 M€2009 relating to the difference between the planned values for operating costs as a result of increases in national taxation (VAT) for the ATSP. These costs will be eligible for carry-over to the following reference period(s), if deemed allowed by the European Commission after verification on the basis of the NSA report establishing and justifying these exemptions.

When considering the whole of RP1 (2012-2014) for Spain Continental the actual number of TSUs is -11.2% lower than planned and actual costs in real terms are -12.0% lower than planned (-238.9 M€2009). As a result, the weighted average unit cost over RP1 is -1.0% lower than the level planned in the NPP.

When considering the whole of RP1 (2012-2014) for Spain Canarias the actual number of TSUs is -12.2% lower than planned and actual costs in real terms are -4.7% lower than planned (-14.5 M€2009). As a

# At ATSP level

Actual 2014 ENAIRE (AENA) costs vs. NPP
ENAIRE (AENA) actual en-route costs in 2014 are 564.6 Me2009, -92.0 Me2009 or -14.6% lower than the determined costs reported for 2014. According to the Additional Information to the June 2015 en-route Reporting tables, changes to cost categories are explained as follows:

Other operating costs are -40.0% (-31.7 M€2009) lower than planned, mainly due to the reinforcement of efficiency measures, consumption cuts, renegotiation of contracts and insourcing or previously outsourced activities.

Staff costs are -5.6% (-21.4 M€2009) lower than planned, due to savings "derived in great measure by the Social Plan for Voluntary Lay-offs adopted in 2012", reducing staff by 249 in the first half of 2013. Other measures adopted for cost containment include wage freezes and organisational restructuring.

Depreciation is -12.0% (-12.1 M€2009) lower than planned, because of the "rationalisation of investme planned in the NPP, while the capex planned for 2014 has also not fully materialised (-72.1% vs. NPP). ation of investment plans". This decrease is anticipated as actual capex in 2013 was -67.8% lower than that

The cost of capital is -33.8% (-18.5 M©2009) lower than planned, due to the lower average capital employed. This is primarily due to a lower total asset base size (-12.7%) as a result of a smaller capital investment programme. The higher-than-planned equity ratio (76% equity vs. 41% in NPP) is offset by the pre-tax return on equity rate (6.4%) being lower than planned (11.4%), while the average interest on debt is also lower than that foreseen in the NPP (1.8% vs. 4.1%).

Exceptional items are -58.6% (-8.3M © 2009) lower than planned, due to the "actuarial review and the new ATCOs collective agreement signed in 2011" and the consequent reduction of the annual planned amounts in 2011 and through RP1.

In 2014, actual traffic was -11.95% lower than planned, resulting in a loss due to traffic risk sharing of -15.1 M€2009 for ENAIRE (AENA). This loss calculation is based on the approach adopted by Spain, where the range of the dead-band is not shared, but is allocated to users (100%). But If we apply the assumption m M€2009 for ENAIRE (AENA). note 3, the loss due to traffic risk sharing would be -74.6

In 2014, the actual total asset base was 678.5 M€2009, or -12.7% lower than planned. In 2014, actual capex was 45.2 M€, -116.8 M€ less than planned in the NPP. Investments planned for 2014 in the NPP amounted to 162 M€, which was revised in the 2012 Air Navigation Annual Plan to 75.5 M€, of which 45.2 M€ was actually spent, as capex projects have been postponed to prioritise short-term investments

ENAIRE (AENA) net gain/loss and estimated surplus on en-route activity in 2014
As shown in item 5, the en-route activity for the year 2014 generated a net gain of +52.6 M@2009 for ENAIRE (AENA) overall. This is the combination of two separate elements:
- a gain of +67.7 M@2009 for ENAIRE (AENA) as a result of the cost-sharing mechanism; and
- a loss of +15.1 M@2009 as a result of the traffic risk sharing mechanism for 2014, based on the approach adopted by Spain, where the range of the dead-band is not shared, but is allocated in entirety to users (100%). But If we apply the assumption mentioned in note 3, the loss due to traffic risk sharing would be -74.6 M@2009 for ENAIRE (AENA).

For the en-route activity, the surplus embedded in the cost of capital through the return on equity planned in the NPP amounted to +36.1 M€2009, corresponding to an estimated surplus of +5.7% of en-route revenues for 2014. Ex-post, the overall estimated surplus for the year calculated by adding the surplus embedded in the cost of capital (+59.0 M€2009) and the net gain from the en-route activity in 2014 (+52.6 M€2009), gives a total of +111.6 M€2009 for 2014, corresponding to +18.1% of the en-route revenue in 2014 (or 9,4% under the assumption indicated in note 3). The resulting ex-post rate of return on equity for 2014 is +21.5% (compared to +11.4% as initially planned in the NPP).

# Conclusion

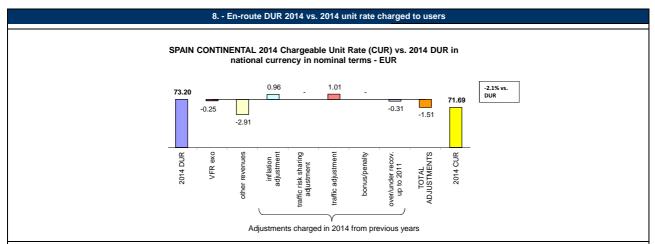
In the context of actual traffic in 2014 that was overall -11.95% lower than planned across both Spain Continental and Spain Canarias charging zones, ENAIRE (AENA) reduced its en-route costs through staff savings, austerity policies and reduced investments, and in 2014 ENAIRE (AENA) en-route costs were -14.6% lower than planned (in real terms). Despite the loss under the traffic risk sharing mechanism (assuming no losses to ENAIRE (AENA) within the dead-band), this resulted in a net gain on the en-route activity compared to the NPP. ENAIRE (AENA)'s estimated surplus in respect of the 2014 en-route activity amounts to 111.6 M€2009, corresponding to 18.1% of the en-route revenue (or 9,4% under the assumption indicated in note 3).

This indicates that in 2014, ENAIRE (AENA) was in a position to retain the part of surplus embedded in the cost of capital in 2014 and to generate extra gains arising from the lower costs than planned in 2014. This adds to the overall positive estimated surplus for the en-route activity generated by ENAIRE (AENA) in 2013 of +115.7 M©2009 (or +18.4% estimated surplus of en-route revenues in 2013 leading to an ex-post rate of return on equity of +24.9%) and in 2012 of +46.8 M©2009 (or +10.5% of en-route revenues in 2012 leading to an ex-post rate of return on equity of +14.9%). However, as indicated in note 3, Spain has indicated that their positive entitlement under-recoveries, now foreseen to be recovered at the end of RP2 and RP3 based on the June 2015 Reporting tables, may not be finally charged to users in future years. If this is finally the case, consequently the genuine value of the estimated economic surplus over all the years RP1 would be lower as showed in the alternative graph displayed at the right bottom of in item 6.

When considering the whole of RP1 (2012-2014), ENAIRE (AENA) could retain a cumulative gain in respect of cost sharing of +175.6 M€2009, as actual costs for both Spain Continental and Spain Canarias were lower than planned for each year of RP1. However, ENAIRE (AENA) incurred a cumulative loss in respect of traffic risk sharing amounting to -44.2 M€2009 (-212.4 M€2009 under the assumption indicated in note 3), which resulted in a cumulative net gain for the en-route activity over RP1 of +131.4 M€2009. (-36.8.M€2009 under the assumption indicated in note 3).

### **SPAIN CONTINENTAL**

### Monitoring of en-route and terminal COST-EFFICIENCY for 2014



The DUR for 2014 expressed in nominal terms differs from the actual en-route unit rate charged to users in 2014 (CUR). The CUR takes account of:

- the DUR, but also, a deduction of the costs for services to exempted VFR in 2014, as determined prior to the reference period and a deduction of 2014 other revenues;
- as well as adjustments relating to the activities of previous years that are carried-over to 2014. These adjustments include:
- \* the adjustment resulting from the implementation of the traffic risk-sharing (ATSP);

  \* the adjustment resulting from the difference in traffic (for costs not subject to traffic risk sharing);

  \* the bonus/penalty from previous year(s).
- \* the legacy carry-overs incurred in the full cost recovery regime up to and including 2011.

These costs and adjustments are divided by the forecast total service units for 2014 as laid out in the performance plan.

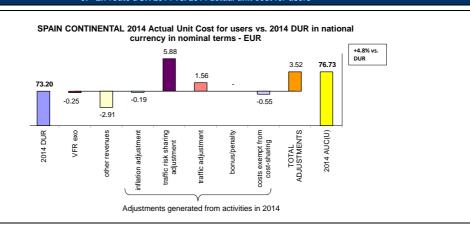
In 2014, Spain Continental's CUR charged to users is 71.69 € in nominal terms, -2.1% lower than the nominal DUR (73.20 €). This difference is due to:

-2.91 €, or -4.0% of other revenues;

-0.25 €, or -0.3%, for costs for services to exempted VFR; and

+1.65 € or +2.3% relating to other adjustments charged in 2014 from previous years.

# 9. - En-route DUR 2014 vs. 2014 actual unit cost for users



The DUR for 2014 expressed in nominal terms can also be compared to the actual en-route unit cost for airspace users (AUC-U) for 2014 (also sometimes referred to the "true cost for users"), which reflects the unit cost that the users incur in respect of the activities performed in 2014. The AUC-U comprises:

- the DUR, the deduction of the costs for services to exempted VFR in 2014 and the deduction of 2014 other revenues that has already been billed to the users through the
- as well as adjustments relating to the activities of 2014 but which will be charged or reimbursed to users in future years. These adjustments include:
- the inflation adjustment:
- the initiation adjustments,

  the adjustments resulting from the implementation of the traffic risk-sharing (ATSP);

  the adjustments resulting from the difference in traffic (for costs not subject to traffic risk sharing);
- \* the bonus/penalty for the current year;

  \* the costs exempt from cost sharing (if deemed eligible).

These costs and adjustments are divided by the actual total service units in 2014.

The AUC-U for airspace users in 2014 for Spain Continental is 76.73 €, +4.8% higher than the nominal DUR (73.20 €). The deduction of costs for services to exempted VFR and for other revenues are as above in section 8.

All other adjustments generated from activities in 2014 are:

-0.19 € or -0.3% for the inflation adjustment:

- +5.88 €, or +8.0% for the traffic risk sharing adjustment;
- +1.56 €, or +2.1% for an adjustment reflecting the difference in traffic for costs not subject to traffic risk sharing; and
- -0.55 € or -0.8% for costs exempt from cost sharing.

### Monitoring of en-route and terminal COST-EFFICIENCY for 2014

#### 8. - En-route DUR 2014 vs. 2014 unit rate charged to users SPAIN CANARIAS 2014 Chargeable Unit Rate (CUR) vs. 2014 DUR in national currency in nominal terms - EUR 0.84 0.66 -6.1% vs. 62.17 -0.13 58.36 -3.81 -5.18 TOTAL ADJUSTMENTS 2014 DUR over/under recov. up to 2011 CUR evenues risk sharing adjustm adjustment VFR other Adjustments charged in 2014 from previous years

The DUR for 2014 expressed in nominal terms differs from the actual en-route unit rate charged to users in 2014 (CUR). The CUR takes account of:

the DUR, but also, a deduction of the costs for services to exempted VFR in 2014, as determined prior to the reference period and a deduction of 2014 other revenues;

- as well as adjustments relating to the activities of previous years that are carried-over to 2014. These adjustments include:
- \* the adjustment resulting from the implementation of the traffic risk-sharing (ATSP);

  \* the adjustment resulting from the difference in traffic (for costs not subject to traffic risk sharing);

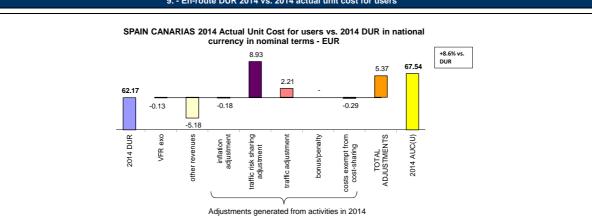
  \* the bonus/penalty from previous year(s).
- \* the legacy carry-overs incurred in the full cost recovery regime up to and including 2011.

These costs and adjustments are divided by the forecast total service units for 2014 as laid out in the performance plan.

In 2014, Spain Canarias's CUR charged to users is 58.36 € in nominal terms, -6.1% lower than the nominal DUR (62.17 €). This difference is due to

- -5.18 €, or -8.3% of other revenues received by ENAIRE (AENA);
- -0.13 €, or -0.2% relating to costs for services to exempted VFR; and +1.50 €, or +2.4% relating to other adjustments charged in 2014 from previous years.

# 9. - En-route DUR 2014 vs. 2014 actual unit cost for users



The DUR for 2014 expressed in nominal terms can also be compared to the actual en-route unit cost for airspace users (AUC-U) for 2014 (also sometimes referred to the "true cost for users"), which reflects the unit cost that the users incur in respect of the activities performed in 2014. The AUC-U comprises:

- the DUR, the deduction of the costs for services to exempted VFR in 2014 and the deduction of 2014 other revenues that has already been billed to the users through the chargeable unit rate;
- as well as adjustments relating to the activities of 2014 but which will be charged or reimbursed to users in future years. These adjustments include:
- the inflation adjustment:
- the initiation adjustment,
  the adjustments resulting from the implementation of the traffic risk-sharing (ATSP);
  the adjustments resulting from the difference in traffic (for costs not subject to traffic risk sharing);
- \* the bonus/penalty for the current year;

  \* the costs exempt from cost sharing (if deemed eligible).

These costs and adjustments are divided by the actual total service units in 2014.

The AUC-U for airspace users in 2014 for Spain Canarias is 67.54 €, +8.6% higher than the nominal DUR (62.17 €). The deduction of costs for services to exempted VFR and for other revenues are as above in section 8.

All other adjustments generated from activities in 2014 are:

- -0.18 € or -0.3% for the inflation adjustment:
- +8.93 €, or +14.4% for the traffic risk sharing adjustment;
- +2.21 €, or +3.6% for an adjustment reflecting the difference in traffic for costs not subject to traffic risk sharing; and
- -0.29 € or -0.5% for costs exempt from cost sharing.

# **SPAIN CONTINENTAL & SPAIN CANARIAS**

# Monitoring of en-route and terminal COST-EFFICIENCY for 2014

	10 Terminal c	osts and unit ra	ates monitoring	j (2014)			
		2009	2010	2011	2012	2013	2014
Terminal Service Unit Formula	(MTOW/50)^		0.9	0.9	0.9	0.9	0.9
Number of airports in terminal charging zone			12	12	12	12	12
of which, number of airports over 50 000 movements			11	11	11	11	11
SPAIN CONTINENTAL & SPAIN CANARIAS - Data from	n RP1 national perfo	2009A	2010A	2011F	2012P	2013P	2014P
Terminal ANS costs for the charging zones - (in EUR)		296 699 042	207 969 277	197 696 761	182 534 898	170 362 749	169 074 168
Inflation index (100 in 2009)		100.0	102.0	104.7	106.3	107.8	109.4
Real terminal ANS costs - (in EUR2009)		296 699 042	203 806 207	188 837 112	171 722 217	158 106 620	154 564 453
SPAIN CONTINENTAL & SPAIN CANARIAS - Actual da	ata from June 2015 I	2009A	2010A	2011A	2012A	2013A	2014A
Terminal ANS costs for the charging zones - (in EUR)		296 699 042	207 969 277	193 055 354	171 334 877	145 953 159	140 729 381
Inflation index (100 in 2009)		100.0	102.0	105.2	107.7	109.3	109.1
Real terminal ANS costs - (in EUR2009)		296 699 042	203 806 207	183 502 257	159 039 639	133 477 192	128 957 854
Total terminal service units		953 954	966 720	1 008 085	935 578	890 486	941 847
Actual real unit costs - (in EUR2009)		311.0	210.8	182.0	170.0	149.9	136.9
Unit rate applied - (in EUR)					17.12	17.12	17.12
Difference between Actuals and Planned in absolute v	alue and in percenta	ge (Actuals vs. I	NPP)		2012	2013	2014
Terminal ANS costs for the charging zones - (in EUR)	in value				-11 200 021	-24 409 590	-28 344 787
	in%				-6.1%	-14.3%	-16.8%
Inflation index (100 in 2009)	in p.p.				1.4 p.p.	1.6 p.p.	-0.3 p.p.
Real terminal ANS costs - (in EUR2009)	in value				-12 682 578	-24 629 428	-25 606 599
	in%				-7.4%	-15.6%	-16.6%
	l						

# 11. - General conclusions on the Terminal ANS costs and unit rates monitoring

The terminal charging zone in Spain comprises twelve airports, of which eleven have over 50,000 movements per year. There has been no change to the terminal charging zone as

The terminal service unit formula (MTOW/50)^0.9 is applied, which is not harmonised with the SES formula using the 0.7 exponent.

Actual terminal ANS costs in 2014 are 129.0 M€2009, -16.6%, or -25.6 M€2009 lower than planned in the NPP. This difference is of a similar magnitude to that seen in the en-route costs (actual en-route costs were -14.0% lower than planned across both Spain Continental and Spain Canarias charging zones in real terms).

RP1 summary
When considering the whole of RP1 (2012-2014), actual terminal ANS costs are -13.0% lower in real terms (or some -62.9 M€2009) than planned in the NPP. This is because terminal ANS costs were lower than planned for all years of RP1.

	12 Monit	oring of gate-to	-gate costs (20	14)			
SPAIN CONTINENTAL & SPAIN CANARIAS - Data from	m RP1 national perfo	2009A	2010A	2011F	2012P	2013P	2014P
Real en-route costs (determined costs 2012-2014) - (in E	UR2009)	909 773 184	759 153 481	749 846 485	763 666 574	772 399 629	761 700 489
Real terminal ANS costs - (in EUR2009)		296 699 042	203 806 207	188 837 112	171 722 217	158 106 620	154 564 453
Real gate-to-gate ANS costs - (in EUR2009)		1 206 472 226	962 959 688	938 683 597	935 388 790	930 506 250	916 264 942
Share of en-route costs in gate-to-gate ANS costs		75.4%	78.8%	79.9%	81.6%	83.0%	83.1%
SPAIN CONTINENTAL & SPAIN CANARIAS - Actual d	ata from June 2015 I	2009A	2010A	2011A	2012A	2013A	2014A
Real en-route costs - (in EUR2009)		909 773 184	759 167 032	715 394 068	720 327 727	668 892 050	655 107 207
Real terminal ANS costs - (in EUR2009)		296 699 042	203 806 207	183 502 257	159 039 639	133 477 192	128 957 854
Real gate-to-gate ANS costs - (in EUR2009)		1 206 472 226	962 973 239	898 896 325	879 367 365	802 369 242	784 065 061
Share of en-route costs in gate-to-gate ANS costs		75.4%	78.8%	79.6%	81.9%	83.4%	83.6%
Difference between Actuals and Planned in absolute	value and in percent	age (Actuals vs.	NPP)		2012	2013	2014
Real en-route costs - (in EUR2009)	in value				-43 338 847	-103 507 579	-106 593 283
	in %				-5.7%	-13.4%	-14.0%
Real terminal ANS costs - (in EUR2009)	in value				-12 682 578	-24 629 428	-25 606 599
	in %				-7.4%	-15.6%	-16.6%
Real gate-to-gate ANS costs - (in EUR2009)	in value				-56 021 425	-128 137 008	-132 199 881
	in %				-6.0%	-13.8%	-14.4%
Share of en-route costs in gate-to-gate ANS costs	in p.p.				0.3 p.p.	0.4 p.p.	0.4 p.p.

# 13. - General conclusions on the gate-to-gate ANS costs

In 2014, Spain's actual gate-to-gate ANS costs (784.1 M€2009) are -14.4% lower than planned in the NPP (916.3 M€2009). This difference is driven by lower actual costs than planned in both en-route and terminal ANS costs of similar proportions.

The relative share of en-route costs in gate-to-gate ANS costs (83.6%) is marginally higher than planned in the NPP (83.1%) in 2014. Since 2011, the share of en-route costs in gate-to-gate ANS costs increased from 79.6% to 83.5%. This increase is in line with the NPP.





# PRB Annual Monitoring Report 2014

**United Kingdom** 

Working Draft 2.0

Edition date: 03/09/2015



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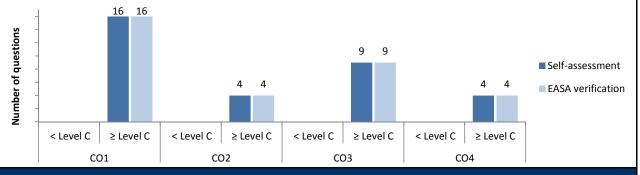
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# Monitoring of SAFETY indicators for 2014

Effectiveness of Safety Management										
	2012	2013	2014	State level Observations						
State level	84	80	86							
ANSP [NATS NERL]	84	84	83							
ANSP [NATS NSL]	84	84	83							
ANSP [Newcastle Airport]	62	66	76							
ANSP [East Midlands Airport]	73	82	80							



#### Application of the severity classification of the Risk Analysis Tool (RAT) 2012 2013 2014 No Assessed No Assessed No Assessed reported (%) reported (%) reported (%) **ATM Ground Separation Minima** 24% 100% 100% 304 289 302 Infringements (SMIs) **ATM Overall** 24% 100% 100% ATM Ground 6% 100% 100% Runway Incursions (RIs) 210 162 195 **ATM Overall** 6% 100% 100% **ATM Specific Occurences ATM Overall** 318 15% 209 100% 217 100% (ATM-Specific) Source of RAT data: **UK CAA**

Just culture										
	State									
Number of questions answered with Yes or No	2012		2013		2014					
	YES	NO	YES	NO	YES	NO				
Policy and its implementation	8	2	7	3	6	3				
Legal/Judiciary	7	1	7	1	7	0				
Occurrence reporting and Investigation	2	0	2	0	2	0				
TOTAL	17	3	16	4	15	3				

	ANSP [NATS NERL]								
Number of questions answered with Yes or No	2012		2013		2014				
	YES	NO	YES	NO	YES	NO			
Policy and its implementation	11	2	11	2	12	1			
Legal/Judiciary	2	1	2	1	3	0			
Occurrence reporting and Investigation	7	1	7	1	8	0			
TOTAL	20	4	20	4	23	1			

	ANSP [NATS NSL]							
Number of questions answered with Yes or No	2012		2013		2014			
	YES	NO	YES	NO	YES	NO		
Policy and its implementation	11	2	11	2	12	1		
Legal/Judiciary	2	1	2	1	3	0		
Occurrence reporting and Investigation	7	1	7	1	8	0		
TOTAL	20	4	20	4	23	1		

	ANSP [Newcastle Airport]							
Number of questions answered with Yes or No	2012		2013		2014			
	YES	NO	YES	NO	YES	NO		
Policy and its implementation	5	8	4	9	7	6		
Legal/Judiciary	3	0	2	1	2	1		
Occurrence reporting and Investigation	1	7	2	6	3	5		
TOTAL	9	15	8	16	12	12		

	ANSP [East Midlands Airport]							
Number of questions answered with Yes or No	2012		2013		2014			
	YES	NO	YES	NO	YES	NO		
Policy and its implementation	4	9	8	5	8	5		
Legal/Judiciary	1	2	2	1	2	1		
Occurrence reporting and Investigation	2	6	3	5	3	5		
TOTAL	7	17	13	11	13	11		

# Monitoring of CAPACITY indicators for 2014

Minutes of ATFM en-route delay										
	2012	2013	2014	Observations						
Reference value	0.31	0.28	0.27							
National Target	0.31	0.26	0.26							
Actual performance	0.07	0.13	0.06							

# National capacity assessment

For the KPIs where targets are set in the UK RP1 National Performance Plan, actual performance in 2014 has been in line or better than planned.

The UK capacity KPI as well as additional capacity PIs/incentives exceeded. The UK has outperformed the total ANS costs in real terms and the real unit cost. Actual performance was broadly in line with planned performance in 2014 and did not require any NSA intervention.

# **PRB Capacity assessment**

The United Kingdom surpassed the target for capacity performance in 2014, as it did in 2013 and 2012. The level of capacity performance was also consistent with the level required to meet the EU-wide target of 0.5 minutes per flight in 2014.

# **Effective booking procedures**

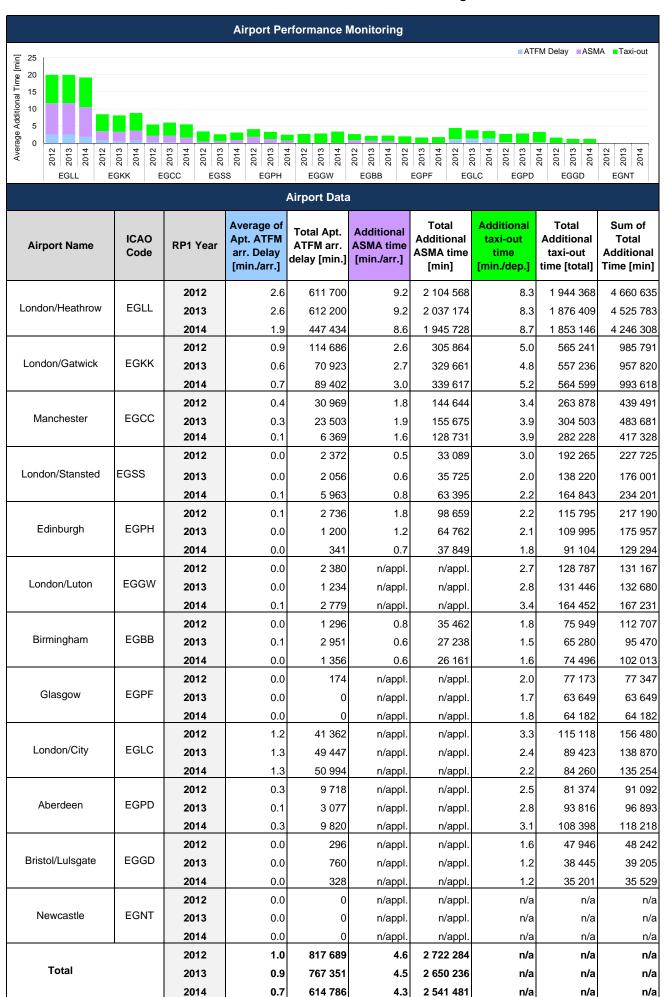
The ratio of time airspace was actually used for activity requiring segregation or restriction from GAT and the amount of time it was allocated as being restricted on the day of operations: 40%

The ratio of time airspace, that was surplus to requirement, was released with more than 3 hours' notice to the Network Manager and the amount of time it was allocated as being restricted on the day of operations: 21%

The ratio of time airspace was neither used nor released with at least 3 hours' notice to the Network Manager, but was allocated as being restricted on the day of operations: 39%

# Recommendations

# Monitoring of CAPACITY indicators for 2014



	RP1 Year	Average of Apt. ATFM arr. Delay [min./arr.]	Total Apt. ATFM arr. delay [min.]	Additional ASMA time [min./arr.]	Total Additional ASMA time [min]	Additional taxi-out time [min./dep.]	Total Additional taxi-out time [total]	Sum of Total Additional Time [min]
Absolute Difference	2014-2013			_			n/a n/a	n/a n/a

# **Critical Issues**

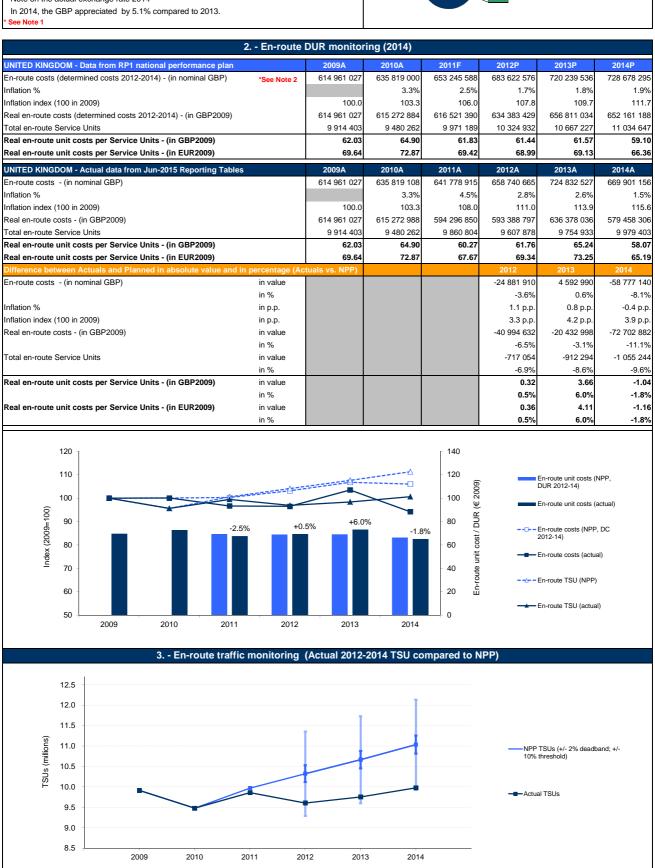
• Data quality issue (AOBT), and missing departure stand missing for 30% of the flights at Newcastle airport.

# **Specific Analysis**

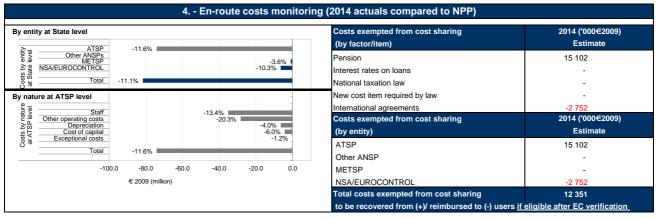
- In average over RP1, ATFM arrival delay decreased by 25% in the UK. Additional ASMA time was also reduced by 7%. The average for additional taxi-out time could not be calculated due to missing data at Newcastle airport.
- London Heathrow and Gatwick are undoubtedly the most critical airports in the UK.
- It is to be noted that, although it remains an outlier in terms of performance, the situation significantly improved at London Heathrow over RP1 period of time. ATFM arrival delay was reduced by 37%, whilst additional ASMA and taxi-out times were improved respectively by 8 and 5% (for a traffic decreased by 4%). Additional ASMA and taxi-out times however remain well above the European average. Further analysis of London Heathrow airport performance showed the following:
- i. London Heathrow had by far the highest impact on the European network with 31% of total additional ASMA time and 13% of total airport arrival ATFM delays in 2014.
- ii. The high level of additional ASMA time at London Heathrow is mainly due to a deliberate decision taken during the airport scheduling process to minimize the buffer between declared and operational capacity, due to the high economic value of an airport slot at London Heathrow. The schedule intensity is very high with continuous arrivals and take-offs throughout the day making the airport one of the busiest two-runway airports worldwide.
- iii. The cross border arrival management (XMAN) project was set up for major arrival flows into London Heathrow airport in March 2014. The neighbouring ANSPs (DSNA, IAA, MUAC) were asked to slow down aircraft up to 350 miles away from London to help minimising local holding delays at London Heathrow by two minutes by the end of 2014. This project aims at absorbing some of the stack holding times and improving fuel efficient in the en-route phase.
- iv. Time-based separation, planned to be operational at London Heathrow in spring 2015, aims at reducing the negative impact of headwinds at the airport, and consequently improving inbound traffic operations efficiency during RP2.
- ATFM delay was reduced at Gatwick airport (-28%).

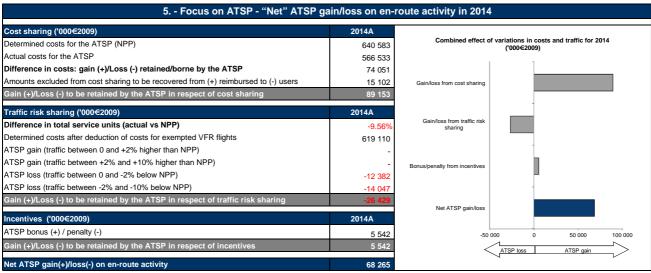
# Monitoring of en-route and terminal COST-EFFICIENCY for 2014

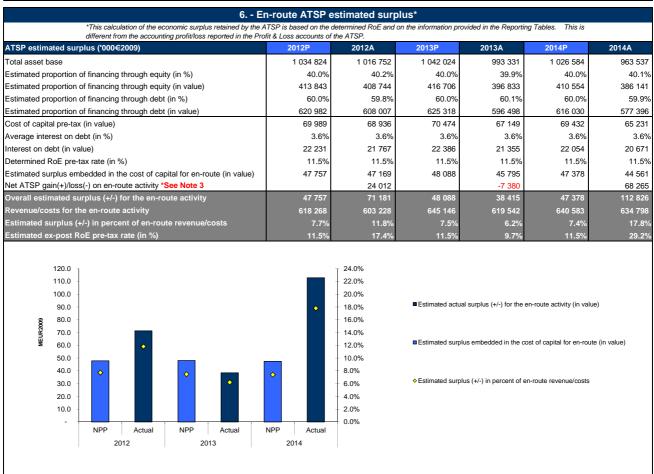




# Monitoring of en-route and terminal COST-EFFICIENCY for 2014







# Monitoring of en-route and terminal COST-EFFICIENCY for 2014

# 7. - General conclusions on the monitoring of the 2014 en-route DUR

# Notes on information provided by UNITED KINGDOM

# Note 1: Exchange rate of the British Pound against the Euro

Between 2013 and 2014, the British Pound appreciated by 5.1% against the Euro. This issue does not affect the monitoring analysis provided in this document since the UK financial data expressed in Pounds (both actual and determined costs) are converted into Euros using the actual 2009 exchange rate.

#### Note 2: UK Determined Costs

The Determined Costs (DCs) provided by the UK in the Reporting Tables submitted in the context of the June 2015 session of the Enlarged Committee for Route Charges slightly differ from the information reported in the NPP for the years 2013 and 2014. This difference is due to the fact that the DCs of the MET Service Provider (UK MET Office) were still under discussion at the time of adoption of the NPP and have subsequently been revised downwards. In order to pass through the benefits of the reduction in determined MET costs to airspace users as quickly as possible, the UK has applied the revised costs to the 2013 and 2014 unit rates. The 2014 Monitoring Report uses the revised figures.

#### Note 3: Costs exempt from cost sharing

The UK has adjusted the costs exempt from cost sharing (formerly "uncontrollable costs") for the years 2012 and 2013 following the EC recommendation communicated during the Single Sky Committee 55 meeting held on 14-15 January 2015. For this reason, the net ATSP gain/loss for the en-route activity reported in this document for 2012 and 2013 differs from the information published in the PRB 2013 Monitoring Report. The 2013 Monitoring Report included costs exempt related to NERL pension costs for 2012 (-3.1 M€2009) and 2013 (+2.1 M€2009). There are now no NERL costs exempt reported for 2012 and 2013 and a figure of +15.1 M€2009 is reported for

### At State / Charging Area level

In 2014, UK's real en-route unit cost (65.19 €2009) is -1.8% lower than planned in the NPP (66.36 €2009). This difference is due to the fact that actual en-route costs are -11.1% (-81.6 M€2009) lower than planned in real terms, while the actual number of total service units (TSUs) is -9.6% lower than planned.

The difference between the actual and the planned TSUs for the year 2014 falls outside the ± 2% dead band foreseen in the traffic risk sharing mechanism, although it does not exceed the -10% threshold. The related loss is therefore shared between the airspace users and the ATSP.

#### Actual 2014 costs vs. NPP

The UK en-route cost-base includes costs relating to: the en-route ATSP (NERL), the MET service provider (MET office), the UK NSA (CAA), the UK Department for Transport (DfT) and the EUROCONTROL Agency. The costs related to the CAA and DfT are included under NSA costs for charging purposes.

In 2014, actual en-route costs for UK are -11.1% lower than planned in real terms, resulting from a combination of lower en-route costs in nominal terms (-8.1%) and a higher inflation index (+3.9 p.p.). While costs are lower than planned for all entities, the cost savings are mostly attributable to NERL (-11.6% in real terms, -74.1 M€2009). A detailed analysis of NERL's costs is provided in the box below. The costs associated with the CAA/DfT/EUROCONTROL are -10.3% lower planned, equivalent to -6.5 M€2009 in absolute terms. According to the Additional Information provided with the June 2015 en-route Reporting Tables this is due to lower staff costs as well as lower other operating costs as the CAA introduced a new pay and grading structure and optimised the staff organisation. Costs for the MET Office are also -3.6% lower than planned, equivalent to -1.0 M€2009 in absolute terms due mainly to lower salary costs.

Costs exempt from cost sharing are reported for an amount of 12.4 M€2009 (+15.1 M€2009 due to higher NERL pensions costs and -2.8 M€2009 due to lower EUROCONTROL costs). The higher than planned pension costs for NERL relate to NERL's defined benefit scheme, reflecting the difference between planned and actual market conditions. These costs will be eligible for carry-over to the following reference period(s), if deemed allowed by the European Commission after verification on the basis of the NSA report establishing and justifying these exemptions.

# **RP1 summary**

When considering the whole of RP1 (2012-2014) the actual number of TSUs is -8.4% lower than planned. Actual costs in real terms are -6.9% lower than the determined costs (some -150.6 M€2009), due predominantly to lower than planned costs in 2014, which cumulate with previous years' savings. As a result, the weighted average unit cost over RP1 (69.23 €2009) is +1.6% higher than planned.

# At ATSP level

# Actual 2014 NERL costs vs. NPP

NERL 2014 actual en-route costs are -11.6% lower than planned in real terms, resulting from lower than planned costs in all categories.

Staff costs are -13.4% below planned, or -35.1 M€2009 in absolute terms, as a result of pay restraint as well as a reduction in staff numbers following NERL's voluntary redundancy programme. The actual staff costs reported by NERL for the year 2014 do not include the accounting pension contributions as reported under IFRS but comprise regulatory pension allowances. According to the Additional Information to the June 2015 en-route Reporting Tables the regulatory allowance for 2014/15 is

74.7 M£ compared to an accounting cost of 66.7 M£.

Other operating costs are -20.3% below planned, or -28.2 M€2009 in absolute terms due to continued supply chain savings, a reduction in training costs and lower non-capitalisable expenditure on investment projects.

Depreciation costs are -4.0% below planned, or -6.4 M€2009 in absolute terms due to changes in the timing of investment projects. According to the Additional Information provided with the June 2015 en-route Reporting Tables the total actual capex during RP1 (363.7 M£) is -11.7% lower than planned in the NPP (411.7 M£). As for the staff costs, the actual depreciation costs provided for NERL comprise the regulatory depreciation allowances which differ from the accounting depreciation costs. According to the Additional Information provided with the June 2015 en-route Reporting Tables the regulatory allowance for 2014/15 is 185.2 M£ compared to an accounting cost of 99.5 M£

The cost of capital is -6.0% lower than planned, or -4.2 M€2009 in absolute terms. This difference reflects the use of a lower asset base (-6.1%) to compute the actual cost of capital for NERL. In addition to fixed assets, the regulated asset base (RAB) includes working capital and capitalised finance costs as well as adjustments for pension pass through and the rolling incentive mechanism. The RAB is also indexed to inflation.

# NERL net gain/loss and estimated surplus on en-route activity in 2014

As shown in item 5, the en-route activity for the year 2014 generated a net gain of +68.3 M€2009 for NERL. This is the combination of three separate elements:

- a gain of +89.2 M€2009 for NERL as a result of the cost-sharing mechanism, taking into account the costs exempt from cost sharing as submitted in the Reporting Tables (+15.1 M€2009);
- a loss of -26.4 M€2009 as a result of the traffic risk sharing mechanism for 2014; and, a gain of +5.5 M€2009, corresponding to the bonus of 5.7 M£ (nominal terms) eligible for payment to NERL as part of the incentive mechanism associated with the quality of service performance and following out performance of the delay target in 2014. According to NATS 2014/15 Annual Report, the service incentive of 5.7 M£ takes into account the system failure that occurred on 12 December 2014. In absence of this technical failure, the amount of the bonus would have been 0.5 M£ higher. To calculate the overall economic surplus of the ATSP, it is also important to add the surplus embedded in the cost of capital through the return on equity. Based on the figures planned in the NPP, the return on equity amounted to 47.4 M€2009, corresponding to an estimated surplus of 7.4% of the en-route costs/revenues for 2014. Ex-post, the estimated surplus for the year computed by adding the surplus embedded in the cost of capital (+44.6 M€2009) and the net gain from the en-route activity in 2014 (+68.3 M€2009), gives a total of +112.8 M€2009, corresponding to 17.8% of the 2014 en-route revenue. The resulting ex-post rate of return on equity for 2014

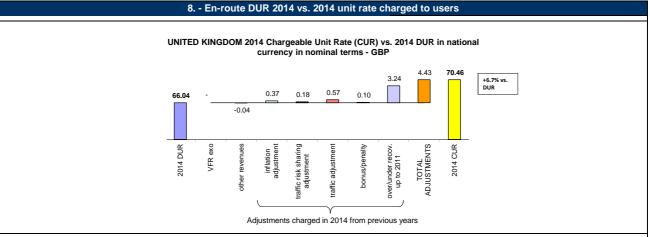
is 29.2% (compared to 11.5% planned in the NPP).

For the calculation of the cost of capital NERL uses an inflation-adjusted regulated asset base and a real RoE and rate of interest on debt. This means that the determined and ex-post rates of return on equity are in real terms.

Conclusions
In 2014 NERL's actual en-route costs are lower than planned (-11.6%, or -74.1 M€2009 in absolute terms) while traffic is -9.6% lower than foreseen in the NPP. The en-route activity for the year 2014 generated a net gain of +68.3 M€2009 for NERL which resulted in an estimated actual surplus of 112.8 M€2009 (15.8% of the en-route revenue for 2014, up from the 7.4% planned in the NPP). Excluding the 15.1 M€2009 submitted as costs exempt the estimated surplus is 97.7 M€2009 (15.8% of the en-route revenue for 2014).

When considering the whole of RP1 (2012-2014), NERL could retain a cumulative gain in respect of cost sharing of +146.4 M€2009 notably due to lower than planned costs in 2014 (-89.2 M€2009). NERL also incurred a cumulative loss in respect of traffic risk sharing amounting to -72.0 M€2009, as traffic remained below the forecast for all years of RP1 (-6.9% in 2012, -8.6% in 2013 and -9.6% in 2014). These two effects resulted in a cumulative net gain for the en-route activity of +84.9M€2009.

# Monitoring of en-route and terminal COST-EFFICIENCY for 2014



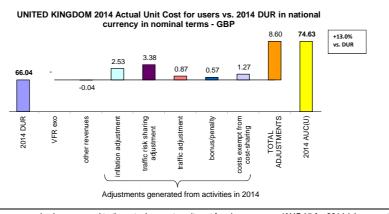
The DUR for 2014 expressed in nominal terms differs from the actual en-route unit rate charged to users in 2014 (CUR).

- the DUR, but also, a deduction of the costs for services to exempted VFR in 2014, as determined prior to the reference period and a deduction of 2014 other revenues;
- as well as adjustments relating to the activities of previous years that are carried-over to 2014. These adjustments include:
  - the inflation adjustment:
- \* the adjustment resulting from the implementation of the traffic risk-sharing (ATSP);
- \* the adjustment resulting from the difference in traffic (for costs not subject to traffic risk sharing); \* the bonus/penalty from previous year(s).
- \* the legacy carry-overs incurred in the full cost recovery regime up to and including 2011.

These costs and adjustments are divided by the forecast total service units for 2014 as laid out in the performance plan.

The actual Chargeable Unit Rate (CUR) charged to users in 2014 is 70.46 £. This is +6.7% higher than the nominal DUR (66.04 £). The difference observed between these two figures (+4.43 £) reflects predominantly the adjustment for under recoveries prior to the start of RP1 (+3.24 £) due to a loss from traffic risk sharing in 2010. There are also positive adjustments due to higher inflation than planned (+0.37 £) and lower traffic than planned in 2012: traffic risk sharing adjustment (+0.18 £) and traffic adjustment for costs exempt from traffic risk sharing (+0.57 £). Additional items relate to the incentive payment adjustment from previous years (+0.10 £) and other revenues related to the CAA/DfT (-0.04 £).

# 9. - En-route DUR 2014 vs. 2014 actual unit cost for users



The DUR for 2014 expressed in nominal terms can also be compared to the actual en-route unit cost for airspace users (AUC-U) for 2014 (also sometimes referred to the "true cost for users"), which reflects the unit cost that the users incur in respect of the activities performed in 2014. The AUC-U comprises:

- the DUR, the deduction of the costs for services to exempted VFR in 2014 and the deduction of 2014 other revenues that has already been billed to the users through the
- as well as adjustments relating to the activities of 2014 but which will be charged or reimbursed to users in future years. These adjustments include:
- the inflation adjustment;
- the adjustments resulting from the implementation of the traffic risk-sharing (ATSP);
  the adjustments resulting from the difference in traffic (for costs not subject to traffic risk sharing);
- \* the bonus/penalty for the current year;
  \* the costs exempt from cost sharing (if deemed eligible)

These costs and adjustments are divided by the actual total service units in 2014.

The unit cost that the users incurred in respect of the activities performed in 2014 is 74.63 £. This is +13.0% higher than the nominal DUR (66.04 £). The difference observed between these two figures (+8.60 £) reflects a combination of positive adjustments due to higher inflation than planned (+2.53 £) and lower traffic than planned: traffic risk sharing adjustment (+3.38 £) and relating to the traffic adjustment for costs exempt from traffic risk sharing (+0.87 £). Additional positive adjustments relate to the bonus in the year (+0.57 £) and the costs exempt from cost sharing (+1.27 £). The negative adjustment is related to other revenues (-0.04 £).

# Monitoring of en-route and terminal COST-EFFICIENCY for 2014

1	0 Terminal c	osts and unit ra	ites monitori	ng (2014)			
		2009	2010	2011	2012	2013	2014
Terminal Service Unit Formula							
Number of airports in terminal charging zones Zone A		10	10	9	9	9	9
of which, number of airports over 50 000 movements		9	9	9	9	9	9
Number of airports in terminal charging zones Zone B		4	4	4	4	4	4
of which, number of airports over 50 000 movements		4	4	4	4	4	4
UNITED KINGDOM - Data from RP1 national performan	ce plan	2009A	2010A	2011F	2012P	2013P	2014P
Terminal ANS costs for the charging zones - (in GBP)		136 840 188	138 349 000	141 025 000	143 959 593	148 462 679	153 777 405
Inflation index (100 in 2009)		100.0	103.3	106.0	107.8	109.7	111.7
Real terminal ANS costs - (in GBP2009)		136 840 188	133 878 334	133 096 848	133 590 644	135 388 188	137 629 530
Real terminal ANS costs - (in EUR2009)		153 641 328	150 315 819	149 438 384	149 992 807	152 011 053	154 527 591
UNITED KINGDOM - Actual data from June 2015 Report	ting Tables	2009A	2010A	2011A	2012A	2013A	2014A
Terminal ANS costs for the charging zones - (in GBP)		136 840 188	130 232 458	126 651 472	129 685 562	134 742 205	136 399 54
Inflation index (100 in 2009)		100.0	103.3	108.0	111.0	113.9	115.6
Real terminal ANS costs - (in GBP2009)		136 840 188	126 024 073	117 281 152	116 819 811	118 299 023	117 984 345
Real terminal ANS costs - (in EUR2009)		153 641 328	141 497 218	131 680 848	131 162 863	132 823 692	132 470 378
Total terminal service units							
Actual real unit costs - (in GBP2009)							
Unit rate applied - (in GBP) - Charging zone Zone A							
Unit rate applied - (in GBP) - Charging zone Zone B							
Difference between Actuals and Planned in absolute va	alue and in percent	age (Actuals vs. NF	PP)		2012	2013	2014
Terminal ANS costs for the charging zones - (in GBP)	in value				-14 274 031	-13 720 475	-17 377 86°
	in%				-9.9%	-9.2%	-11.3%
Inflation index (100 in 2009)	in p.p.				3.3 p.p.	4.2 p.p.	3.9 p.p
Real terminal ANS costs - (in GBP2009)	in value				-16 770 833	-17 089 166	-19 645 191
	in%				-12.6%	-12.6%	-14.3%
Real terminal ANS costs - (in EUR2009)	in value				-18 829 944	-19 187 361	-22 057 213
	in%				-12.6%	-12.6%	-14.3%

# 11. - General conclusions on the Terminal ANS costs and unit rates monitoring

In RP1, costs relating to the London approach service charge are captured in neither the en-route ANS cost monitoring nor in the terminal ANS cost monitoring.

In 2014, the two UK terminal charging zones comprise 13 airports (9 in zone A and 4 in zone B). Zone A includes airports handling between 50 000 and 150 000 commercial air transport movements per year. Zone B comprises airports with more than 150 000 commercial air transport movements per year. In the UK, terminal ANS costs are not recovered through Terminal Navigation Charges (TNC) but through revenues arising from contractual arrangements with airports operators.

The 2014 actual terminal ANS costs are -14.3% lower than planned in real terms (-22.1 M€2009). This results from the combination of lower terminal ANS costs in nominal terms (-11.3%) and a higher inflation index (+3.9 p.p.). According to the Additional Information to the terminal Reporting Tables, both Zones made savings on staff costs, including through lower pensions costs, and on non-staff and overhead costs. For Zone B, savings were made on operational asset and property services, although these were offset by some one-off restructuring costs.

RP1 summary
When considering the whole of RP1 (2012-2014), actual terminal ANS costs are -13.2% lower in real terms (or some -60.1 M€2009) than planned in the NPP. This reflects the fact that terminal ANS costs in real terms are lower than planned in each year of RP1.

	12 Monito	ring of gate-to	gate costs (2	2014)			
UNITED KINGDOM - Data from RP1 national performan	ce plan	2009A	2010A	2011F	2012P	2013P	2014P
Real en-route costs (determined costs 2012-2014) - (in GE	P2009)	614 961 027	615 272 884	616 521 390	634 383 429	656 811 034	652 161 188
Real terminal ANS costs - (in GBP2009)		136 840 188	133 878 334	133 096 848	133 590 644	135 388 188	137 629 536
Real gate-to-gate ANS costs - (in GBP2009)		751 801 215	749 151 217	749 618 238	767 974 073	792 199 222	789 790 724
Real gate-to-gate ANS costs - (in EUR2009)		844 106 829	841 131 467	841 655 828	862 265 379	889 464 875	886 760 663
Share of en-route costs in gate-to-gate ANS costs		81.8%	82.1%	82.2%	82.6%	82.9%	82.6%
UNITED KINGDOM - Actual data from June 2015 Report	ting Tables	2009A	2010A	2011A	2012A	2013A	2014A
Real en-route costs - (in GBP2009)		614 961 027	615 272 988	594 296 850	593 388 797	636 378 036	579 458 306
Real terminal ANS costs - (in GBP2009)		136 840 188	126 024 073	117 281 152	116 819 811	118 299 023	117 984 345
Real gate-to-gate ANS costs - (in GBP2009)		751 801 215	741 297 061	711 578 002	710 208 608	754 677 059	697 442 651
Real gate-to-gate ANS costs - (in EUR2009)		844 106 829	832 312 982	798 945 039	797 407 511	847 335 767	783 074 160
Share of en-route costs in gate-to-gate ANS costs		81.8%	83.0%	83.5%	83.6%	84.3%	83.1%
Difference between Actuals and Planned in absolute v	alue and in percent	age (Actuals vs. NF	PP)		2012	2013	2014
Real en-route costs - (in GBP2009)	in value				-40 994 632	-20 432 998	-72 702 882
	in %				-6.5%	-3.1%	-11.1%
Real terminal ANS costs - (in GBP2009)	in value				-16 770 833	-17 089 166	-19 645 191
	in %				-12.6%	-12.6%	-14.3%
Real gate-to-gate ANS costs - (in GBP2009)	in value				-57 765 465	-37 522 164	-92 348 073
	in %				-7.5%	-4.7%	-11.7%
Real gate-to-gate ANS costs - (in EUR2009)	in value				-64 857 867	-42 129 108	-103 686 503
	in %				-7.5%	-4.7%	-11.7%
Share of en-route costs in gate-to-gate ANS costs	in p.p				0.9 p.p.	1.4 p.p.	0.5 p.p

# 13. - General conclusions on the gate-to-gate ANS costs

Actual 2014 gate-to-gate costs are -11.7% lower than planned in real terms due predominantly to lower en-route ANS costs (-81.6 M€2009, -11.1%) and lower terminal ANS costs (-

The allocation of gate-to-gate costs between en-route ANS and terminal ANS appears quite stable over RP1 (approximately 83% share to en-route) and did not change significantly