Network Manager
nominated by
the European Commission

EUROCONTROL

EUROCONTROL Seven-Year Forecast February 2015

Flight Movements and Service Units 2015 - 2021

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7-year IFR Flight Movements and Service Units Forecast: 2015-2021

EXECUTIVE SUMMARY

This is the final report of the EUROCONTROL 7-year flight and service units forecast, February 2015 release. This document has been prepared as the final step in the revised, more inclusive forecast process that was agreed at the 40th session of the Provisional Council. All Stakeholders' comments and our responses to them are made available on the STATFOR OneSky Teams.

The forecast

IFR Movements

Since the previous forecast published in September 2014, the economic outlook in the Scandinavian countries (including Finland) and in Russia has strongly deteriorated in the first years of the forecast. This has a negative impact on European traffic growth overall and is not compensated by the solid growth rates expected for this Summer in Southern countries. In parallel, the various airspace unavailabilities (e.g. Eastern Ukraine, Libya) since the second half of 2014 have significantly changed the traffic patterns adding to the disparities in growth within the surrounding countries for 2015. It is to be noted that, the recent fall in oil price has not yet translated into a reduction on ticket prices, thus not specifically boosted passenger demand.

At European level, the flight forecast for 2015 has therefore been revised downwards compared to the September 2014 forecast to 1.5% (±1.0 pp). For 2016, a more steady growth of 3% (±1.2 pp) is foreseen. Dealing with the busiest European States; the forecasts for Germany and France have been revised downwards (compared to the previous forecast) to 0.9% and 1.3% respectively in 2015. On the other hand, the 2015 forecasts for Spain and Italy have been revised upwards to 4.1% and 2%, respectively. UK forecast is stable (compared to the previous forecast) with a growth rate of 1.9% in 2015.

After 2016, the flight growth in Europe stabilises at around 2.6% increase per year, showing higher rates in 2016 and 2020 but these are due to the extra growth from the leap year effect. The 2008 peak of traffic of 10.1 million flights is forecasted to be reached again in 2017; this is one year later compared to the September 2014 forecast publication. In the first part of the horizon (2016-2018), annual growth rates will average at 2.8% notably thanks to additional capacity brought by the third airport in Turkey from end 2017, lifting the constraints on the European network. However, the capacity constraints will weigh again as of 2019 with growth rates levelling off at 2.5%.

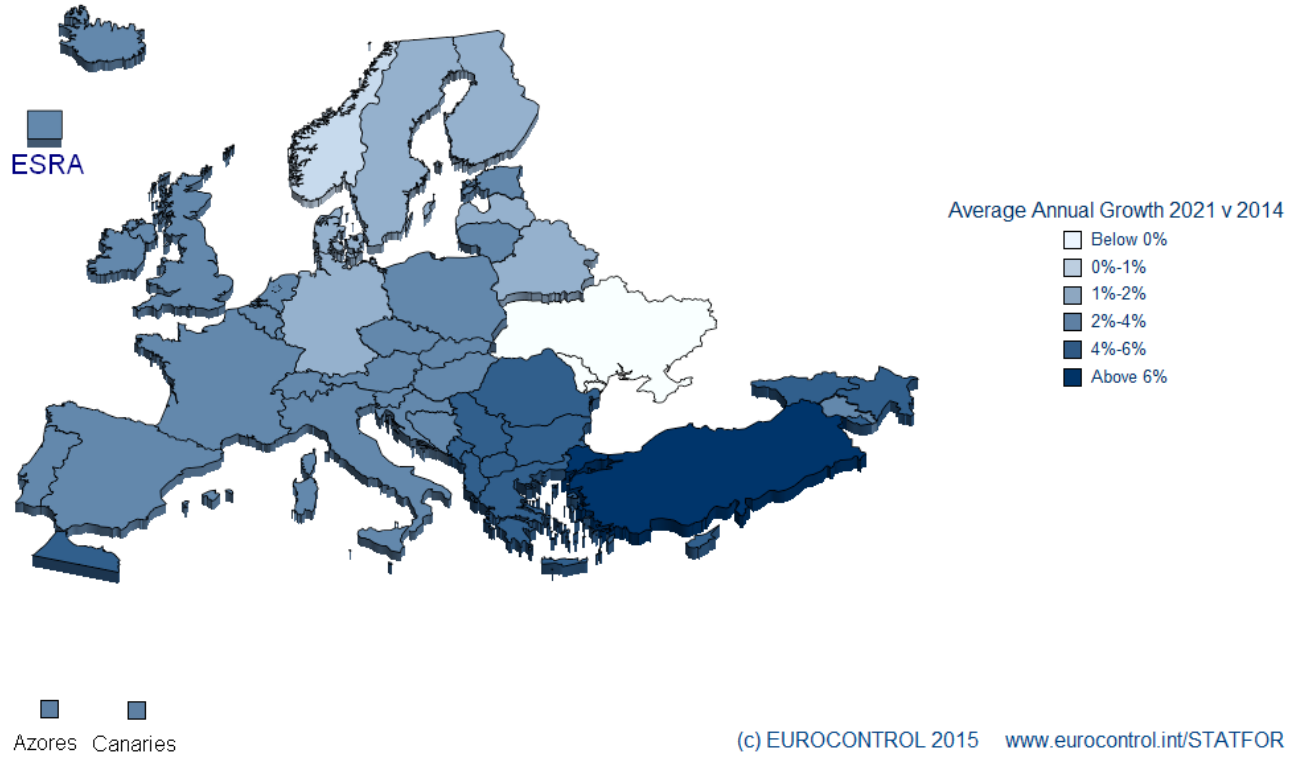
The new forecast is for 11.4 million IFR movements (±1 million) in Europe in 2021, accounting for 19% more than in 2014. By 2021, the high-growth scenario has 0.9 million more and low-growth scenario 1 million fewer flights than the base scenario. Any user of the forecast is strongly advised to use the forecast range (low-growth to high-growth) as an indicator of risk. These are discussed in Section 6. Last but not least, this forecast assumes[1] no return to "normal" routing will happen by the end of the seven-year horizon (2021). That being said, there is a probability that some flights through Ukraine will be restored, which would result in significant variations in the forecast results.

[1] Assumptions in this document are purely for forecasting purposes and do not represent any policy of the Agency.

Figure 1. Summary of the flight forecast for Europe.

ESRA08		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	AAGR 2021/2014	RP1 2014/2011 AAGR	RP2 2019/2014 AAGR
IFR Flight Movements (thousands)	H	.	.	.	.	9,834	10,228	10,675	11,089	11,487	11,957	12,332	**3.6%**	**.**	**3.6%**
	B	9,784	9,548	9,447	9,604	9,750	10,039	10,310	10,588	10,852	11,166	11,397	**2.5%**	**-0.6%**	**2.5%**
	L	.	.	.	.	9,638	9,803	9,876	10,001	10,124	10,263	10,343	**1.1%**	**.**	**1.1%**
Annual Growth (compared to previous year)	H	.	.	.	.	2.4%	4.0%	4.4%	3.9%	3.6%	4.1%	3.1%	**3.6%**	**.**	**3.6%**
	B	3.1%	-2.4%	-1.1%	1.7%	1.5%	3.0%	2.7%	2.7%	2.5%	2.9%	2.1%	**2.5%**	**-0.6%**	**2.5%**
	L	.	.	.	.	0.4%	1.7%	0.8%	1.3%	1.2%	1.4%	0.8%	**1.1%**	**.**	**1.1%**

Figure 2. Average annual flight growth 2014-2021 per State.



Total En-Route Service Units

In 2015, 136.8 million en-route service units (TSU) are expected to be produced in the CRCO14 area, corresponding to a growth of 3.6% (±1.3 pp) compared to 2014. This is a small revision downwards compared to the September 2014 forecast, owing to the downward revision in the flight forecast and the slower-than-expected trends in service units recorded since the start of the Winter timetable. The downward revision of TSU is more limited (-0.3 pp) than in the flight forecast (-0.9 pp) as the average weight factor is expected to continue to increase.

Over the 7-year horizon, growth rates are expected to gradually decelerate from 3.6% in 2015 to slightly below 3% in 2021 (when adjusting for the calendar effects of the leap years).
For States involved in the Performance Scheme (RP2Region area), the 2015 forecast has been revised downwards by 0.7 pp to 2.8% (compared to the September 2014 forecast publication). During the second review period (2015-2019), the TSU are expected to grow by 3% (± 1.4 pp) per year, on average, this is in line with the most-likely scenario published in the reference forecast of February 2014.

For some States, due to the implementation of ABACUS, the CRCO experiences some delays in the processing of flight messages for flight operated from November 2014. Consequently, there is a risk that the forecast produced may undercount en-route service units. This is an upside risk.

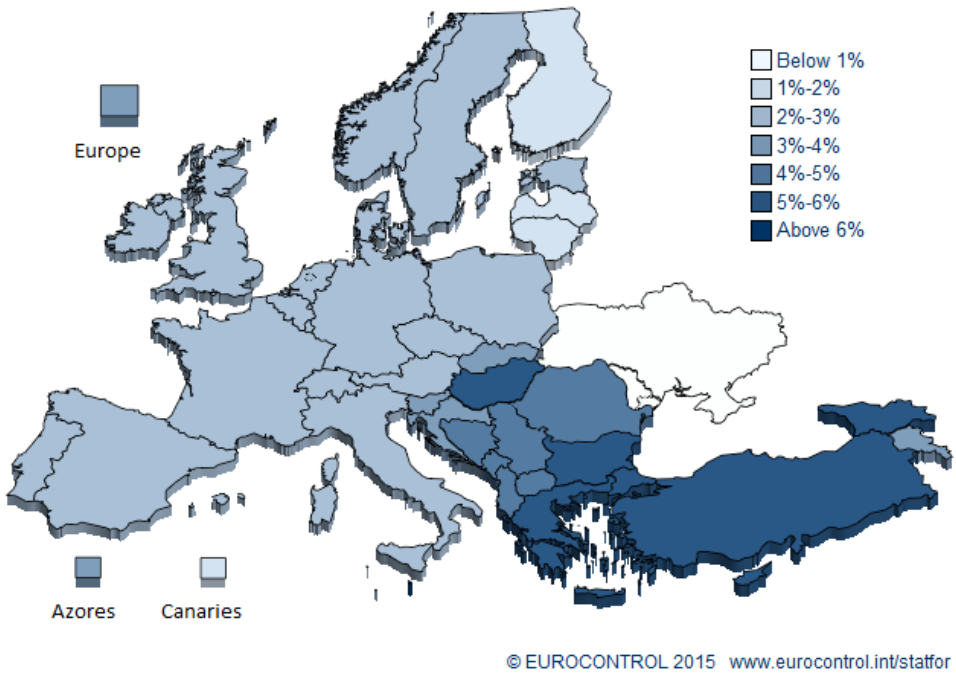
Figure 3. Summary of total service units forecast in Europe.

Total en-route service units (thousands)		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2021/ 2013 Total Growth	RP1 2014/ 2011 AAGR	RP2 2019/ 2014 AAGR
CRCO14*	H	.	.	.	.	138,481	145,379	152,740	159,753	166,648	174,523	180,872	**37%**	.	**4.8%**
	B	123,939	122,298	124,910	132,131	136,834	142,159	146,778	151,621	156,310	161,516	165,540	**25%**	**2.2%**	**3.4%**
	L	.	.	.	.	135,067	138,601	140,286	142,731	145,143	147,636	149,288	**13%**	.	**1.9%**
RP1Region†	H	.	.	.	.	114,202	119,448	124,952	130,283	135,482	141,485	146,081	**33%**	.	**4.3%**
	B	105,126	103,572	105,235	109,910	112,921	116,915	120,262	123,819	127,300	131,195	134,047	**22%**	**1.5%**	**3.0%**
	L	.	.	.	.	111,539	114,128	115,149	116,790	118,426	120,182	121,215	**10%**	.	**1.5%**
RP2Region†	H	.	.	.	.	116,070	121,415	127,020	132,447	137,741	143,848	148,532	**33%**	.	**4.3%**
	B	106,761	105,251	106,930	111,670	114,758	118,823	122,230	125,852	129,396	133,359	136,264	**22%**	**1.5%**	**3.0%**
	L	.	.	.	.	113,344	115,968	117,008	118,681	120,348	122,135	123,188	**10%**	.	**1.5%**

Total en-route service units (annual growth)		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	AAGR 2021/ 2013	RP1 2014/ 2011 AAGR	RP2 2019/ 2014 AAGR
CRCO14*	H	.	.	.	.	4.8%	5.0%	5.1%	4.6%	4.3%	4.7%	3.6%	**4.6%**	.	**4.8%**
	B	5.0%	-1.3%	2.1%	5.8%	3.6%	3.9%	3.2%	3.3%	3.1%	3.3%	2.5%	**3.3%**	**2.2%**	**3.4%**
	L	.	.	.	.	2.2%	2.6%	1.2%	1.7%	1.7%	1.7%	1.1%	**1.8%**	.	**1.9%**
RP1Region†	H	.	.	.	.	3.9%	4.6%	4.6%	4.3%	4.0%	4.4%	3.2%	**4.1%**	.	**4.3%**
	B	4.5%	-1.5%	1.6%	4.4%	2.7%	3.5%	2.9%	3.0%	2.8%	3.1%	2.2%	**2.9%**	**1.5%**	**3.0%**
	L	.	.	.	.	1.5%	2.3%	0.9%	1.4%	1.4%	1.5%	0.9%	**1.4%**	.	**1.5%**
RP2Region†	H	.	.	.	.	3.9%	4.6%	4.6%	4.3%	4.0%	4.4%	3.3%	**4.2%**	.	**4.3%**
	B	4.6%	-1.4%	1.6%	4.4%	2.8%	3.5%	2.9%	3.0%	2.8%	3.1%	2.2%	**2.9%**	**1.5%**	**3.0%**
	L	.	.	.	.	1.5%	2.3%	0.9%	1.4%	1.4%	1.5%	0.9%	**1.4%**	.	**1.5%**

* CRCO14 stands for the sum over all States participating in the Multilateral Route Charges System in 2014 of all TSU either measured or forecasted for the corresponding year. CRCO14=CRCO11+Georgia who joined Eurocontrol in 2014. See Annex A.
† RP1Region stands for the sum over all the 30 states that were involved in the EU-wide performance target setting minus Croatia (28 EU member states plus Norway and Switzerland minus Croatia) of all TSU. RP2Region is RP1Region plus Croatia.

Figure 4. Average annual flight growth 2014-2021 per State.



Terminal Navigation Service Units

As for the flights, this forecast is partly driven by a weak economic growth in some parts of Europe. However, this forecast is also influenced by the continuing increase in average weight factor (overall). In total, over the whole Terminal Charging Zones within the Performance Scheme area (RP2Region[2]), the Terminal Navigation Service Units (TNSU) growth is increased by 2.4% (±0.9 pp) in 2015 which is slightly higher than the 2015 flight forecast rate of 1.6% (all flows, for SES-RP2 Region) for the reason above mentioned. After 2015, the forecast growth rates should stabilise around 3% per year on average (when adjusting for the calendar effects of the leap years) to reach 8.9 million (±0.8 million) in 2021.

During the second review period (2015-2019), the TNSU are expected to grow by 2.9% (± 1.3 pp) per year, on average, this is in line with the most-likely scenario published in the reference forecast of February 2014.

Figure 5. Summary of Terminal Navigation Service Units forecast in Europe.

RP2 Region[2]		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	AAGR 2021/ 2014	RP1 2014/ 2011 AAGR	RP2 2019/ 2014 AAGR
Terminal Navigation Service Units (millions)	H	.	.	.	.	7.5	7.8	8.2	8.5	8.9	9.3	9.6	**4.1%**	**.**	**4.0%**
	B	7.4	7.2	7.2	7.3	7.4	7.7	7.9	8.1	8.4	8.7	8.9	**2.9%**	**-0.5%**	**2.9%**
	L	.	.	.	.	7.4	7.5	7.6	7.7	7.8	8.0	8.0	**1.5%**	**.**	**1.5%**
Annual growth (compared to previous year)	H					3.1%	4.4%	4.3%	4.5%	3.9%	4.8%	3.5%	**4.1%**	**.**	**4.0%**
	B	8.6%	-1.9%	-0.1%	0.6%[3]	2.4%	3.4%	2.7%	3.1%	2.9%	3.4%	2.3%	**2.9%**	**-0.5%**	**2.9%**
	L					1.3%	2.2%	0.9%	1.5%	1.4%	1.7%	1.1%	**1.5%**	**.**	**1.5%**

The EUROCONTROL intermediate two-year service unit forecast for 2015-2016 will be published in May 2015.

The EUROCONTROL 7-year IFR movements and service units forecast will be updated in September 2015, with limited parts of the assumptions refreshed only.

[2] RP2Region is defined by 35 Terminal Charging Zones covering 30 States in the second period of the Perfromance Scheme (RP2), details can be found in Annex A.
[3] Due to changes in the charging zone between first and second reference period, this is not comparable.

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DOCUMENT APPROVAL

The following table identifies all management authorities who have successively approved the present issue of this document.

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B. Flynn Head of Performance, Forecasts, Relations		19/3/15
J. Sultana Director Network Manager		19/3/15
F. Brenner Director General		23/3/15

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DOCUMENT CHANGE RECORD

The following table records the complete history of the successive editions of the present document.

Version	Date	Reason for Change	Sections affected
v0.1	17/12/2014	Skeleton draft to present initial inputs.	All
v0.2	04/02/2015	Update based on 2nd Draft forecast	All
v1.0	11/03/2015	All Sections and Annexes amended after the second review process cycle: updated input data and forecast results after comments and latest trends.	All

Contents

Figures

1. INTRODUCTION

1.1 Context

This is the final report of the 7-year forecast, February 2015 edition. This document has been prepared as part of the revised, more-inclusive forecast process that was agreed at the 40th session of the Provisional Council in 2013.

The quality of the input data and assumptions for the forecast are of key importance to producing the best-possible forecast. Therefore the new process put in place at the end of 2013 aims to encourage comments on the forecast assumptions from a wide group of Stakeholders.

This final forecast is the last step of the four-month preparation process of the February 2015 forecast. This forecast is a refinement of the first and second drafts. It includes a review of the forecast inputs and traffic trends up until January 2015.

This 7-year IFR movements and Service Units forecast is an update of the September 2014 report (Ref. 1).

1.2 Forecast Method

For the new forecast process, we produced a completely revised set of documentation on the forecast methods (Ref. 2). This documentation describes the methods at a number of levels of detail, from a two-page summary, to a function-by-function reference. For convenience of readers, the summary is reproduced in this section.

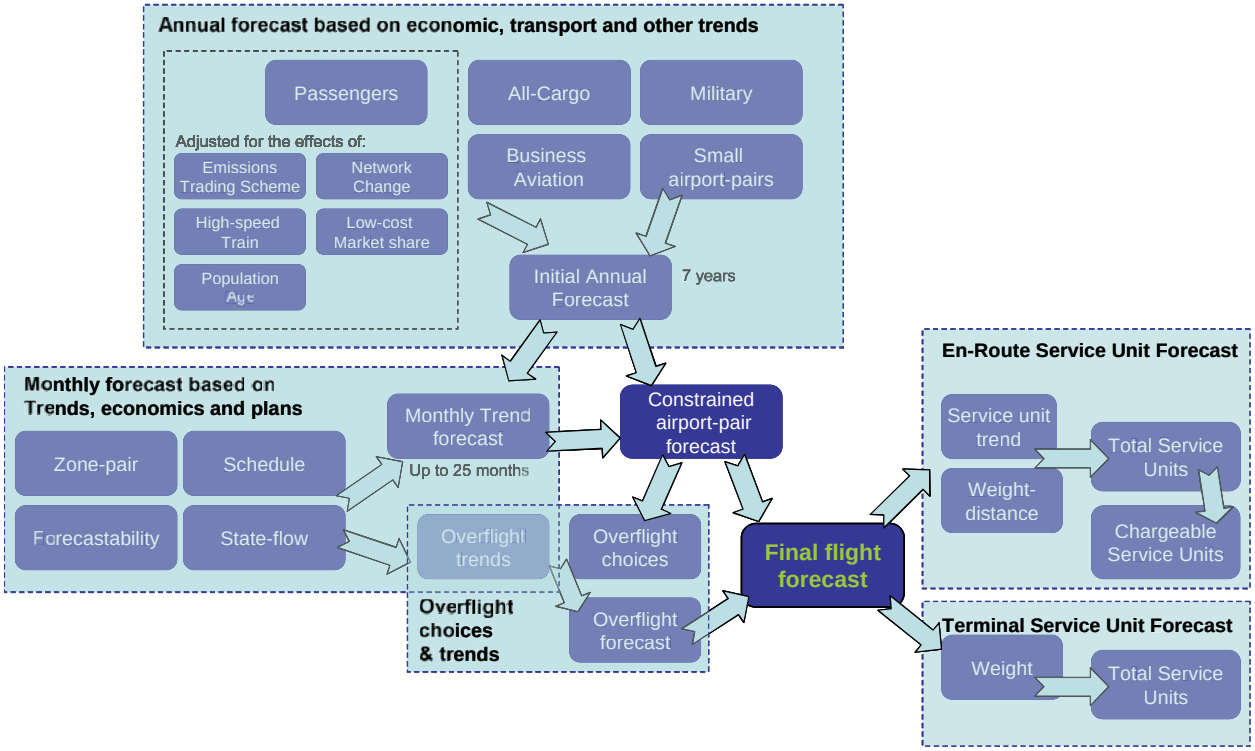
EUROCONTROL/STATFOR provides impartial air traffic forecasts, market analyses and statistics to the ATM community in the widest sense, to improve understanding of current and future trends, to enable better-informed decision making and thus to improve network performance. The STATFOR forecast has been serving European ATM since the 1970s. It is the only air traffic forecast covering Europe.

STATFOR publishes a forecast of IFR flights and both en-route and terminal service units for the next seven years in Europe. The main forecast update is published in February each year. Our focus is on the traffic forecast for States or larger regions. This influences the modelling choices made in the forecasting process. Other EUROCONTROL units use this high level forecast to drill down to the level of airports, control centres, sectors etc.

The number of flights depends on the interaction of supply and demand: an airline operates a flight between an airport A and an airport B because it has customers who pay to travel or ship goods from A to B. Supply and demand are each influenced by a large number of factors like economy, regulation, demographics, business development, oil prices, high-speed rail. When forecasting, we use data that describe these factors, and data more directly about actual and future supply (past flights, and future schedules). Some data are more relevant to the short-term horizon (e.g. airline schedules) while others are used in the medium-term horizon (e.g. demographics). Probably the three most influential inputs to the forecast are:

- **Economic growth** forecasts obtained from external specialists, and which in recent years have been very variable; growth has slowed, but there is nothing in our data to show that flight growth has decoupled from economic growth;
- **Regulation**, e.g. rules on visas, open skies, airport funding, aviation taxes;
- **Overflight** patterns since, for the majority of States, most of their flights are overflights. A crisis such as that in Syria in 2013 can easily change the number of flights by 10% or more in a number of States due to re-routing, even if the number of flights on the network as a whole is little changed.

Figure 6. The components of the STATFOR seven-year forecast.



Overall, the components of the forecast can be grouped into five elements as in Figure 6:

- An initial annual forecast for the next seven years based on economic, transport and other trends;
- A monthly forecast based on trends, economics and airlines' plans;
- These are merged, and constrained by airport capacities to give the constrained forecast;
- The final step of the flight forecast is to calculate how many flights are generated in each State, using both routings through airspace observed in the historical data and recent trends.
- The number of service units in a charging zone depends on the number of flights, the weight of aircraft and, in the *en route* case, the distance flown. The two service unit forecasts therefore take the flight forecast as an input and combine this with time series forecasts of weight and distance as needed. This gives total service units, from which future chargeable service units are estimated using the ratio of chargeable/total from the previous calendar year.

We use a highly-automated and structured process to produce traffic forecasts and because of the variety of factors and inputs, different forecasting techniques are used: traditional time series methods to extrapolate historical patterns, econometric analyses to take into account how economic, social and operational conditions have an effect on the development of traffic, scenario-based inputs to describe the future (what Europe will be in 10 years' time?) and specific data-driven models (e.g. high-speed rail development model). As for any forecast, the method relies on historical data either for taking a snapshot of the most recent trends or longer history to calibrate the models.

The future is always uncertain. We capture this uncertainty in the forecast through three forecast scenarios: low- and high-growth scenarios, with the most-likely "base" forecast in between. All three scenarios should be considered as part of the risk management of any decision based on the forecast.

As requested by Stakeholders, we have re-calibrated some of the key relationships with high-speed train growth for this forecast (see Section 3.5). This re-calibration process is described in Ref. 3, which has been distributed to the STATFOR User Group.

2. FLIGHT AND SERVICE UNITS TRENDS IN 2014

In 2014, the number of flights in Europe increased by 1.7% (compared to 2013) the sign of a traffic recovery after two years of decline, overall. Despite a hesitant economic recovery, the dynamism of low-cost carriers has contributed to the growth. The busiest European States (in terms of IFR movements) showed 2014 growth rates at or above 2% on average (except Germany). This overall positive trend in 2014 however hid local disparities as 2014 has been marked by major changes in traffic patterns in South-East Europe owing to specific events, especially in Ukraine.

2.1 IFR Movements

In 2014, the number of flights increased by 1.7% (compared to 2013, see Figure 7) in Europe (ESRA08[4]). Overall, growth was at the high end of the forecast over the Summer, and stronger-than-expected growth rates have been recorded especially in Southern Europe.

With a progressive economic recovery in Europe of 1.4% for 2014 (on 2013), the continuing efforts in restructuring for major carriers and the low-cost carriers' dynamism (growing by 6.6%, see Figure 8), the number of flights grew during 12 consecutive months overall for the first time since February 2008. European load factors remained exceptionally high, averaging 76% in 2014 (Source: AEA, STATFOR), and more than 1 percentage point higher than last year. Oil prices started 2014 high but stable at around €80 per barrel in the first 8 months of the year, falling rapidly to €55 in December 2014, which will help airline profitability in the coming quarters, even if hedging will delay the arrival of lower fuel costs for some.

In 2014, the number of seats per flight increased by more than 2% (compared to the same period in 2013), closely linked to the increasing trend in aircraft weights (see Figure 9). Increasing flights, seats per flight and load factors together drove the strong growth of passenger numbers for 2014: a 5.4% growth on average for passengers at European airports reported by ACI and a 3% growth in passengers for AEA airlines (compared to 2013).

Overall, four of the five busiest European States (France, UK, Italy and Spain) reported each a flight growth rate for 2014 of at least 2% on average (compared to 2013), marking a solid traffic recovery. The growth in Germany, the busiest European state in terms of IFR movements, was slightly above 1% in 2014, weakened by decreases on traffic flows with strong partners like Poland, France, North-Atlantic and Russian Federation (see Figure 10).

For the first eight months of the year, European traffic remained on average 1.9% above the 2013 traffic levels. This sustained growth rate was supported by rapid growth in South-European States over Summer: Greece (+10.2%), Canary Islands (+9.3%), Lisbon FIR (8.4%), Spain (4.5%), compared to previous Summer.

From September onwards, average traffic growth was slower (+0.8% on average, compared to the same period in 2013) owing to the start of the Winter Schedules, the worsening of the Russian economy and industrial action (e.g. France, Germany, Italy, Belgium).

As illustrated by the map shown in Figure 12, 2014 has been marked by major changes in traffic patterns in South-East Europe owing to specific events. First, the crisis in Ukraine leading to the closure of the Crimean airspace (Apr. 14) followed by the closure of Eastern Ukraine (MH17 crash, Jul. 14), and many aircraft operators finally bypassed the whole Ukrainian airspace (Nov. 14). As a result, flows between North-West Europe and South-East Asia/Middle-East, progressively avoided Ukraine, hence Moldova, and were re-routed more southerly, mainly through Turkey, Bulgaria, Romania and Hungary (double-digit overflight growth rates). Russian flows to/from holiday destinations (e.g. Turkey, Egypt) were re-routed through the Baltic States, Poland, Slovakia, Bulgaria, Romania and Hungary. Second, the Libyan airspace closure (Aug. 14) had an adverse impact on Maltese overflights: flows between North-West Europe and Southern Africa were shifted either eastwards through Greece or westwards (Tunisia/Morocco). Third, the conflicts in Syria, Iraq and the partial unavailability of Sinai Peninsula (Nov. 14) shifted some overflights through Greece

[4] The Network Manager (NM) has reported 1.8% growth in the NM Area in 2014. The difference between this and the ESRA08 result of 1.7% is mostly in strongly-growing traffic (>10%) within the Caucasus (Georgia, Armenia and Azerbaijan) or between Russia, the Caucasus and the Middle East. Much of the remaining difference is due to Morocco, where there is also growth in double figures.

and Cyprus. In addition, KFOR sector re-opening in April 2014 (after 15 years) led to local changes in routing patterns along the Adriatic, with airlines quickly opting for more direct routes (indeed, more rapidly than had been forecast).

Referring to local traffic only (i.e. excluding overflights), Turkey remained the main contributor (+9%) of growth in the European network, followed by UK (+2%, thanks to solid increases in international arrivals/departures) and Greece after exceptional growth (+11%) over the Summer. Ukraine lost approximately 140 flights/day (-29%) on average since the beginning of the year while France lost approx. 50 flights/day (-1%) owing to the weakness of its internal traffic (see Figure 11).

Outside Europe, Russia remained the number one destination from Europe in terms of number of flights with circa 870 flights per day on average in 2014 (see Figure 13). However, Russian traffic is being strongly affected by the Russian economic slowdown, the collapse of the rouble and the tensions between Russia and the EU: the Russian flow declined by 4.6% since the beginning of the year (a loss of around 40 flights per day, on average, compared to adding around 85 flights/day in 2013). By comparison the United States, the second destination from Europe, grew by 3.4% on average over the same period. Traffic to and from Egypt, affected by the renewed civil unrest in July 2013 recovered after one year of traffic losses but, having been rank 3 in 2012, now is only sixth, behind Russian Federation, United States, Morocco, United Arab Emirates and Israel (see Figure 13).

Figure 7. 2014 saw 1.7% more flights than 2013.

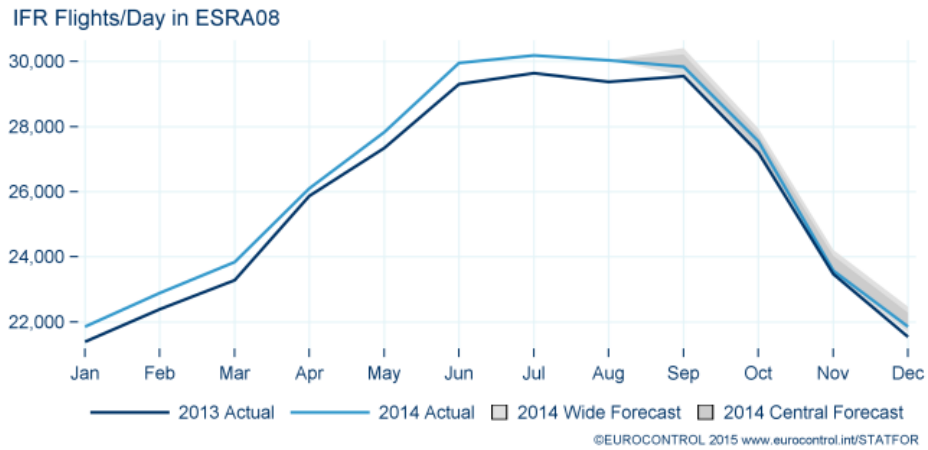


Figure 8. Low-cost was the only segment with continuous growth in 2014.

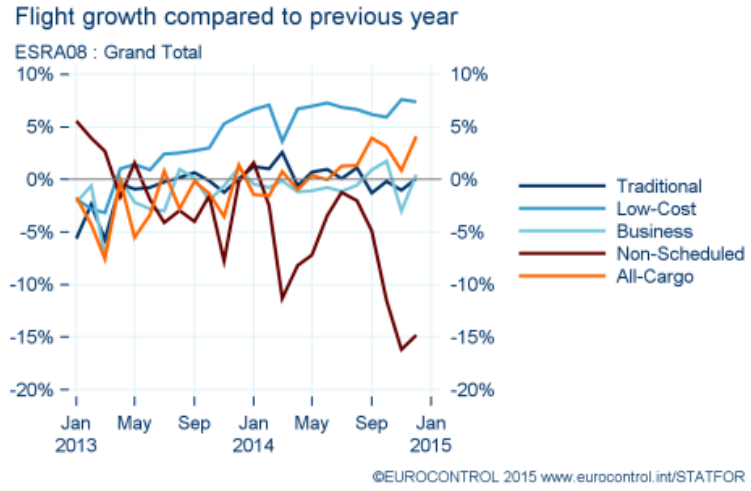


Figure 9. Average aircraft weight increased in 2014, mostly through increases in flights in the 150-200 seat band.

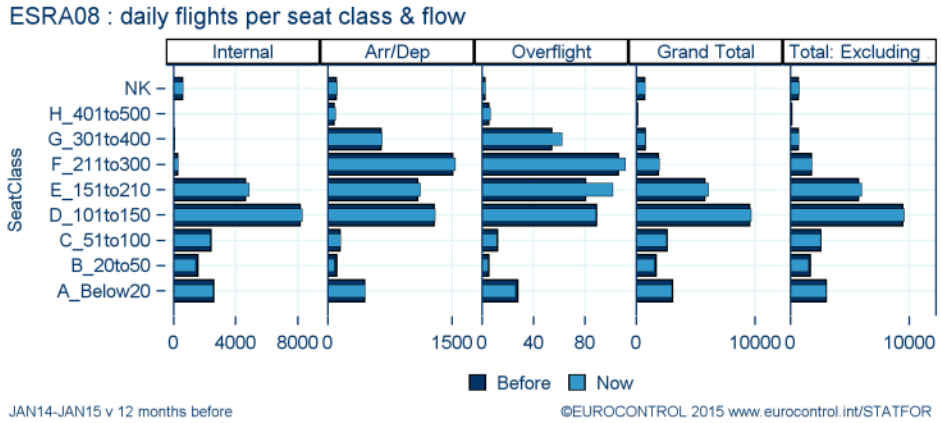


Figure 10. 2014 Traffic growth averaged at least at 2% for four of the busiest European States.

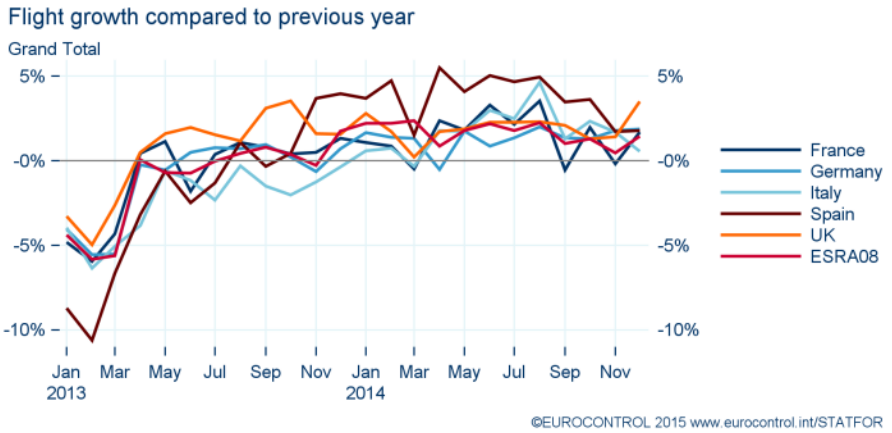


Figure 11. Turkey remained the biggest contributor to European growth in 2014 (excl. overflights).

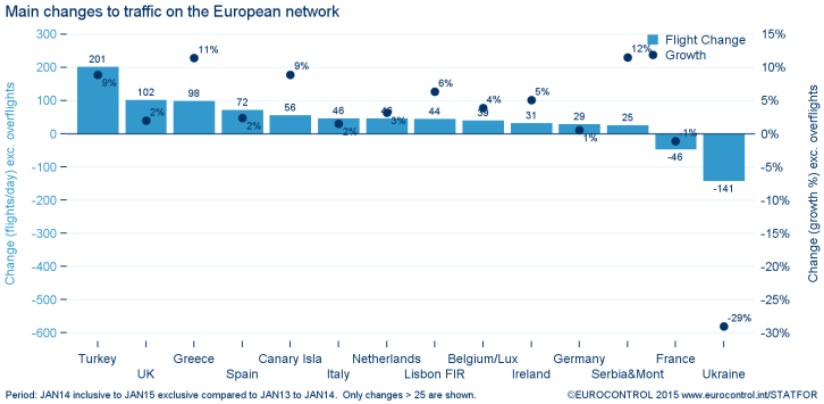


Figure 12. Airspace unavailability as of November 2014: parts of Eastern Ukraine and Libya are closed. Syria, Irak and Sinai peninsula zones remain at risk.

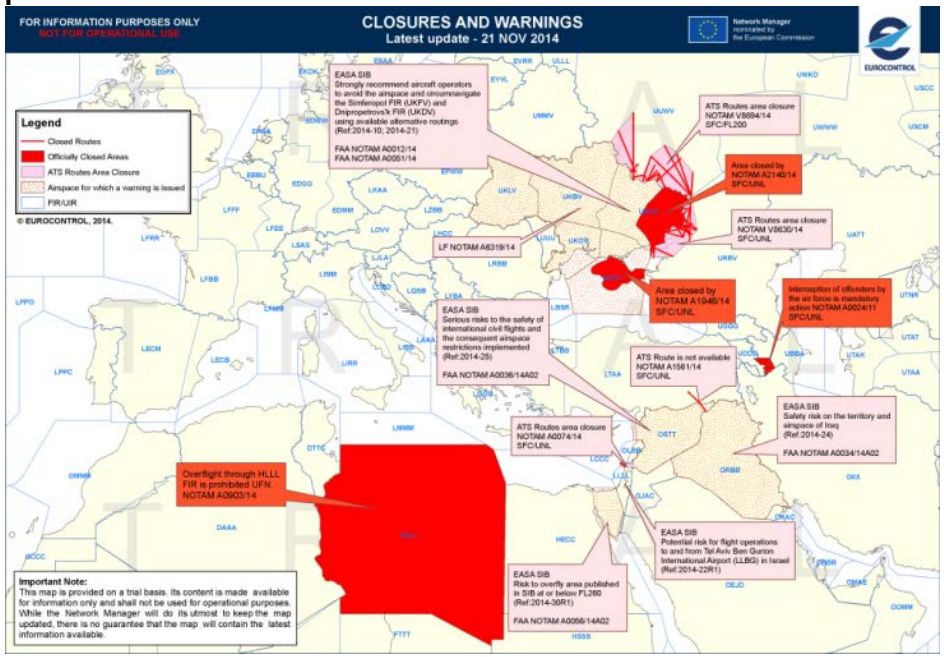
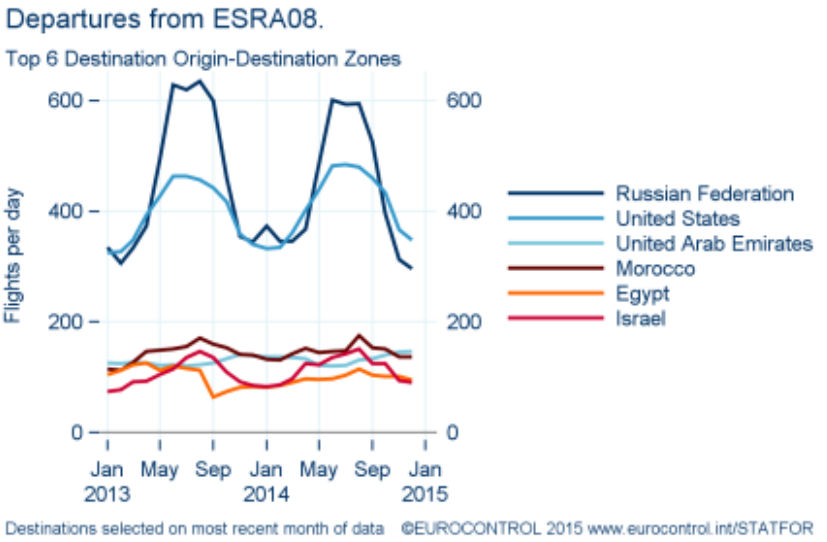
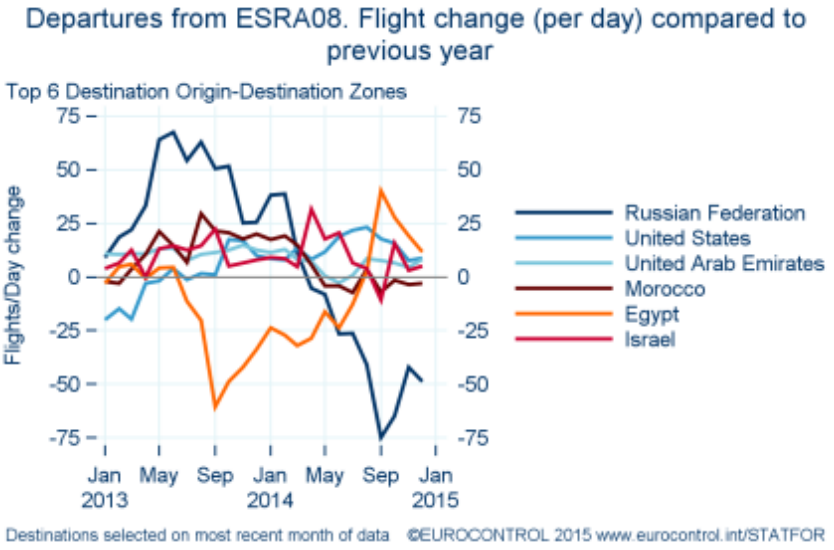


Figure 13. Russia remained the number one destination outside Europe in 2014 overall, however weakening since February 2014.

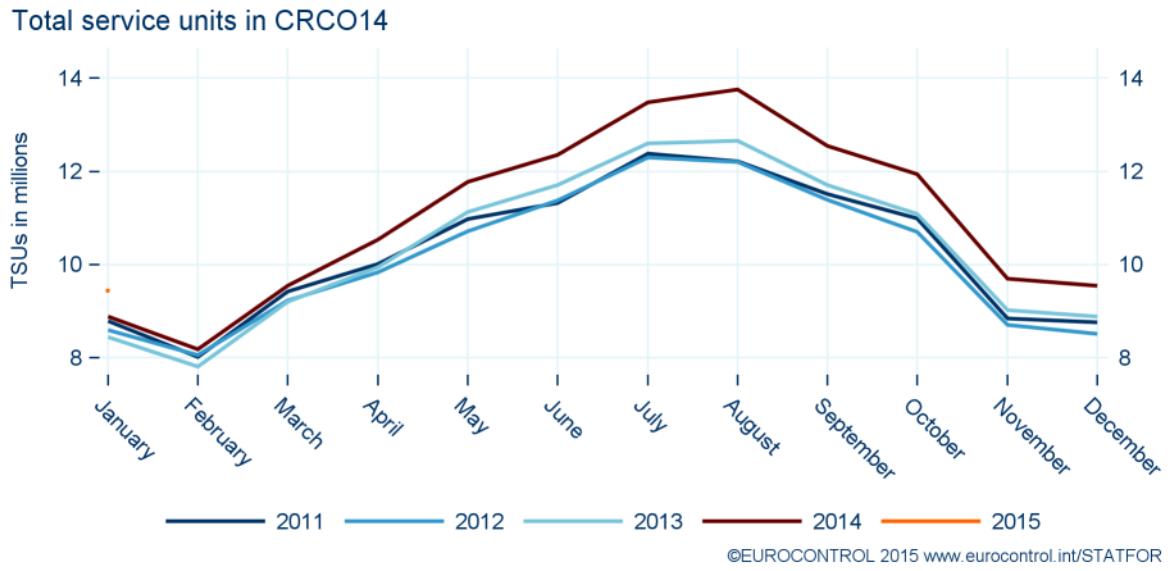




2.2 En-route Service Units

Figure 14 presents the monthly evolution of the total en-route service units (TSU) recorded in the Member States of EUROCONTROL in the last five years ("CRCO14" region).

Figure 14. Evolution of total service units recorded in CRCO14 area since 2011.



In 2014, 132.2 million total en-route service units (TSU) were produced in the CRCO14 region. This represents a 5.8% increase compared to 2013, making 2014 the peak year ever. Since April 2014, TSU growth has accelerated owing to increasing weight factors and the extra flights re-routed out of Ukraine[5] into the CRCO14 area.

Overall, the number of service units continued to grow more strongly than the number of flights as shown in Figure 17 through a like-for-like comparison over the airspace of the States involved in the Performance Scheme (second period) called SES-RP2 Region (IFR movements) or RP2Region (TSU). Part of the reason for that is illustrated in recent statistics on aircraft size (see Figure 9): the number of seats per flights, hence, the average weight of aircraft has been increasing which, in turn increases the number of service units. Moreover, the average distance (and duration) per flight has slightly increased in 2014 too as a result of the gradual shift from short to long haul traffic.

Figure 15. Total en-route service units (TSU) have been growing faster than IFR flight movements for RP2Region, over the last 7 years.

[5] Ukraine is not a member of CRCO14 region.

Service Units data for recent months:

As already mentioned, the CRCO experiences some delays in the processing of flight messages billed for route charges. A backlog of approximately 15,000 flights is still pending for manual processing. Consequently, in order ensure a better forecast accuracy, the number of TSU for December 2014 and January 2015 have been adjusted for a few States (see Section 3.10), but it is possible that the forecast for these and other States may still be affected by the missing data. This presents an upside risk: actual traffic could be slightly higher than forecast.

3. FORECAST INPUTS AND ASSUMPTIONS

As mentioned earlier, economic growth and other factors strongly influence demand for air travel. This section describes in detail the many input assumptions, including those on economic growth. Section 4 describes how they influence the forecast.

The improved forecast process described in Section 1 enabled the use of the most up-to-date forecast inputs and assumptions reflecting the main drivers and influential factors over the next seven years: economic growth (Section 3.1), low-cost traffic development (Section 3.2), load factors evolution (Section 3.3), demographics and propensity to fly (Section 3.4), high-speed rail network development (Section 3.5), emission trading scheme (Section 3.6), airline schedules (Section 3.7), airports (Section 3.8), events and trends (Section 3.9) and the TSU adjustment (Section 3.10).

As usual, there are three forecast scenarios, presented in this 7-year forecast:

- **High**: based on assumptions of strong economic growth, stronger growth of low-cost market segment, stronger effect of events (e.g. EU accession) and slower development of high-speed rail.; this stronger growth goes with weaker load factors[6];
- **Low**: based on assumptions of weak economic growth, weaker growth in low-cost market segment, weaker (and later) effect of events (e.g. EU accession) and quicker development of high-speed rail; this weaker growth means stronger load factors which are used to absorb the flight demand;
- **Base**: the most-likely of the 3 scenarios, representing an intermediate point between high and low.

The specific factors which are used in the scenarios are described below. Details of how they have this effect are in the methodology document (Ref. 2).

3.1 Economic growth

Forecasts of growth in gross domestic product (GDP) are provided by Oxford Economics Ltd (OE) for most of the States. For some States, when recommended by Stakeholders, other GDP forecasts are used. In particular, official government forecast (October 2014) has been used for Germany. All other States or region GDP forecast data in this report originate from the January 2015 update of the OE forecast.

The high- and low-growth scenarios are based on fixed offsets[7] from these forecasts.

3.1.1 ECONOMIC FORECAST FOR EUROPE

Even if geopolitical tensions persist in Europe at the end of 2014, EU28 economic growth is expected to accelerate slowly in the course of 2015 to 1.9%, on the back of improving foreign and domestic demand. A further acceleration of economic growth to 2.1% in 2016 is expected to be driven by the strengthening of the financial sector, as well as recent structural reforms and the quantitative-easing measures starting to bear fruit. The recent re-emergence of concerns about Eurozone stability is not included in this economic forecast, and contributes to the downside risks.

Figure 16 illustrates how little the economic outlook has changed for EU since the preparation of the September flight forecast (indicated as MTF14b in Figure 16, see Ref. 1). The economic outlook for EU has been slightly revised upwards in 2016 and downwards as of 2018 in the OE January release (indicated as MTF15 in Figure 16).

[6] See Section 3.3.

7 +1%, -1% for early years and big States, +1.5%, -1.5% for early years and small States, +0.5%, -0.5% for late years and big States, +0.8%, -0.8% for late years and small States.

Figure 16. EU GDP growth remains around 2% across the horizon of the forecast, with 2016 forecast revised slightly upwards since the OE August 2014 revision used in MTF14b.

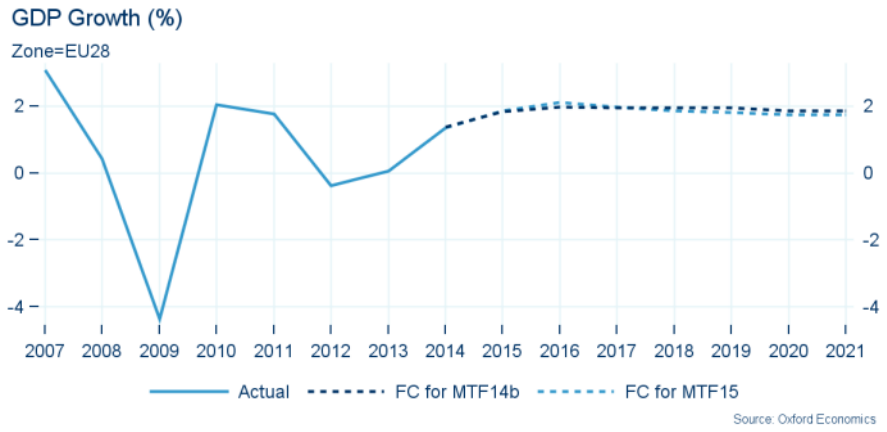
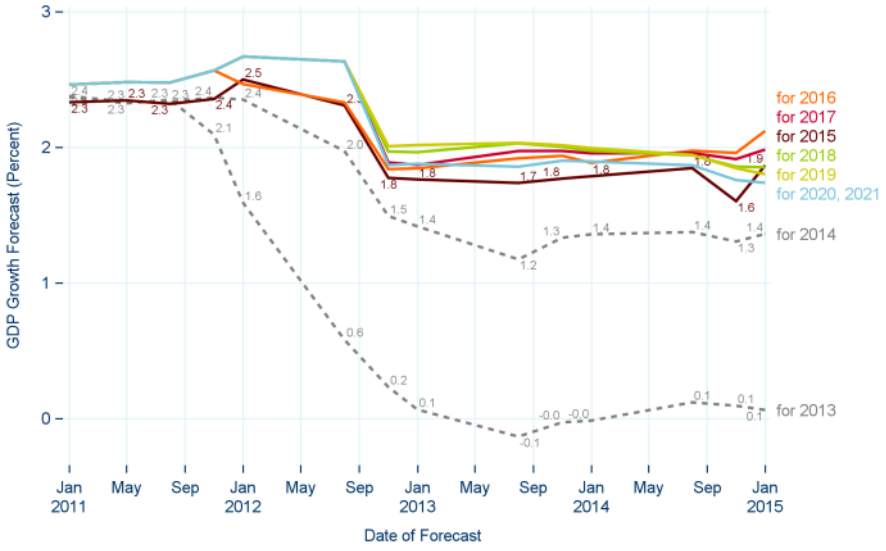


Figure 17 shows that, from late 2011, the consecutive updates of the EU economic forecasts have been successively revised downwards, more drastically for 2013 and 2014 than for later years. If the latest EU economic forecast update (January 2015) has slightly been revised upwards for 2016 and slightly downwards for 2019-2021, the changes are much smaller than those we saw for 2013, 2014 (and 2012, not shown).

Figure 17. After strong downward revisions since 2011, we are now seeing more stability in the economic growth forecasts for the EU for 2015 and beyond.



3.1.2 DETAILS PER STATE

The GDP forecasts are shown for specific States in Figure 18 and Figure 21. For all other States, the economic growth of the traffic region is used. Traffic regions are listed in Figure 49, and their economic growth in Figure 22.

Figure 18. GDP Growth by Traffic Zone.

Source: 2005-2021 from Oxford Economics Ltd (Jan2015)
Comments: Real GDP Growth in Euro.
Units: Growth per year. Data last updated: 16/01/2015

	Actual			Base						
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Albania	1.3%	0.4%	1.4%	2.4%	3.1%	3.3%	3.4%	3.4%	3.2%	3.2%
Algeria	2.6%	2.8%	3.5%	3.5%	3.8%	3.9%	3.8%	3.8%	3.2%	3.2%
Armenia	7.1%	3.5%	3.4%	3.8%	4.7%	5.0%	5.0%	5.0%	4.7%	4.7%

7-year IFR Flight Movements and Service Units Forecast: 2015-2021

	Actual			Base						
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Austria	1.0%	0.1%	0.4%	1.3%	2.1%	2.1%	1.9%	1.7%	1.5%	1.5%
Azerbaijan	2.2%	5.8%	2.7%	3.2%	4.2%	4.5%	4.5%	4.5%	4.9%	4.9%
Belarus	1.5%	1.1%	0.8%	1.3%	3.5%	4.3%	4.3%	4.3%	4.2%	4.2%
Belgium/Luxembourg	0.1%	0.3%	1.1%	1.4%	1.7%	1.8%	1.8%	1.8%	1.6%	1.6%
Bosnia-Herzegovina	-1.2%	2.5%	0.2%	2.6%	3.5%	3.9%	3.7%	3.5%	3.3%	3.3%
Bulgaria	0.4%	0.9%	1.5%	2.1%	3.1%	3.4%	3.6%	3.3%	3.3%	3.3%
Canary Islands	-2.1%	-1.2%	1.3%	2.4%	2.5%	2.4%	2.4%	2.3%	2.0%	2.0%
Croatia	-2.4%	-0.6%	-0.6%	0.8%	1.8%	2.2%	2.1%	1.8%	1.6%	1.6%
Cyprus	-2.4%	-5.4%	-2.9%	0.3%	1.4%	1.0%	1.8%	2.5%	3.8%	3.8%
Czech Republic	-0.7%	-0.7%	2.3%	2.8%	2.9%	2.8%	2.7%	2.7%	2.5%	2.5%
Denmark	-0.7%	-0.5%	0.8%	1.7%	2.3%	2.2%	1.9%	1.8%	1.7%	1.7%
Egypt	2.2%	2.1%	2.2%	3.5%	4.0%	4.5%	5.4%	5.2%	5.0%	5.0%
Estonia	4.5%	2.2%	1.8%	2.7%	3.8%	3.9%	4.0%	4.0%	3.8%	3.8%
FYROM	-0.4%	2.0%	3.5%	3.4%	3.9%	3.7%	3.5%	3.0%	2.9%	2.9%
Finland	-1.5%	-1.2%	0.0%	0.5%	1.2%	1.8%	2.1%	2.2%	2.1%	2.1%
France	0.4%	0.4%	0.4%	1.2%	1.7%	1.5%	1.6%	1.6%	1.7%	1.7%
Georgia	6.2%	3.2%	4.7%	5.1%	5.3%	5.4%	5.1%	4.9%	4.4%	4.4%
Germany	0.6%	0.2%	1.5%	1.3%	1.3%	1.3%	1.3%	1.3%	0.9%	0.9%
Greece	-6.6%	-4.0%	1.1%	2.6%	2.4%	2.3%	2.4%	2.5%	2.7%	2.7%
Hungary	-1.5%	1.6%	3.2%	2.5%	2.6%	1.9%	1.8%	1.8%	2.0%	2.0%
Iceland	1.1%	3.5%	2.0%	2.5%	3.0%	2.8%	2.5%	2.5%	2.5%	2.5%
Ireland	-0.3%	0.2%	4.7%	3.3%	3.0%	3.1%	3.2%	3.6%	3.2%	3.2%
Italy	-2.3%	-1.9%	-0.4%	0.2%	0.9%	1.0%	1.0%	1.0%	0.9%	0.9%
Latvia	4.8%	4.2%	2.6%	3.1%	4.0%	4.6%	4.5%	4.5%	4.0%	4.0%
Lisbon FIR	-3.3%	-1.4%	0.8%	1.5%	1.4%	1.3%	1.3%	1.3%	1.0%	1.0%
Lithuania	3.8%	3.3%	2.9%	3.6%	4.6%	4.8%	4.8%	4.6%	3.3%	3.3%
Malta	2.0%	2.5%	2.7%	2.5%	2.2%	2.0%	1.8%	1.8%	1.8%	1.8%
Moldova	-0.7%	8.9%	1.6%	3.7%	4.3%	4.3%	4.0%	4.0%	4.0%	4.0%
Morocco	2.7%	4.4%	2.3%	4.3%	5.0%	5.3%	5.5%	5.4%	5.3%	5.3%
Netherlands	-1.6%	-0.7%	0.7%	1.4%	1.4%	1.6%	1.7%	1.6%	1.8%	1.8%
Norway	2.5%	0.8%	2.1%	0.6%	1.5%	2.1%	2.1%	2.1%	2.0%	2.0%
Poland	1.8%	1.5%	3.4%	3.7%	3.8%	3.5%	3.4%	3.2%	2.7%	2.7%
Romania	0.6%	3.1%	3.0%	3.2%	3.4%	3.4%	3.4%	3.4%	3.5%	3.5%
Russian Federation	3.4%	1.3%	0.6%	-6.3%	0.0%	3.7%	3.7%	3.2%	2.6%	2.6%
Santa Maria FIR	-3.3%	-1.4%	0.8%	1.5%	1.4%	1.3%	1.3%	1.3%	1.0%	1.0%
Serbia&Montenegro	-1.7%	2.5%	-2.0%	-0.5%	2.8%	3.7%	3.8%	3.6%	3.2%	3.2%
Slovakia	1.8%	0.9%	2.4%	2.8%	3.3%	3.5%	3.5%	3.4%	2.7%	2.7%
Slovenia	-2.5%	-1.0%	2.0%	2.2%	2.4%	2.8%	3.3%	3.1%	3.1%	3.1%
Spain	-2.1%	-1.2%	1.3%	2.4%	2.5%	2.4%	2.4%	2.3%	2.0%	2.0%
Sweden	0.0%	1.3%	1.9%	2.1%	3.0%	2.3%	1.9%	1.8%	1.8%	1.8%
Switzerland	1.1%	1.9%	1.9%	1.9%	2.1%	1.7%	1.7%	1.6%	1.5%	1.5%
Tunisia	3.7%	2.3%	2.3%	3.5%	4.5%	5.0%	4.8%	4.7%	4.4%	4.4%
Turkey	2.1%	4.1%	2.7%	3.9%	5.0%	4.9%	4.7%	4.6%	4.2%	4.2%
UK	0.7%	1.7%	2.6%	3.0%	2.8%	2.7%	2.5%	2.3%	2.5%	2.5%
Ukraine	0.2%	0.2%	-7.6%	-3.5%	5.0%	5.3%	5.3%	5.0%	4.7%	4.7%
ESRA08	-0.1%	0.3%	1.4%	1.9%	2.2%	2.1%	2.0%	1.9%	1.8%	1.8%

Most of the GDP forecasts per state remain little changed by 2020[8]. Figure 19 shows the order of magnitude of the forecast revision by year. Most of the significant revisions take place in the first years (2014 to 2016) of the horizon, apart for Moldova. More specifically in 2015, Ukraine has seen its GDP forecast revised downwards as a direct consequence of the ongoing Russia-Ukraine crisis. Ukraine economy is expected to improve from 2016 onwards, growing by 5% per year. The economic troubles affecting the Scandinavian countries (including Finland) in 2015 explain the

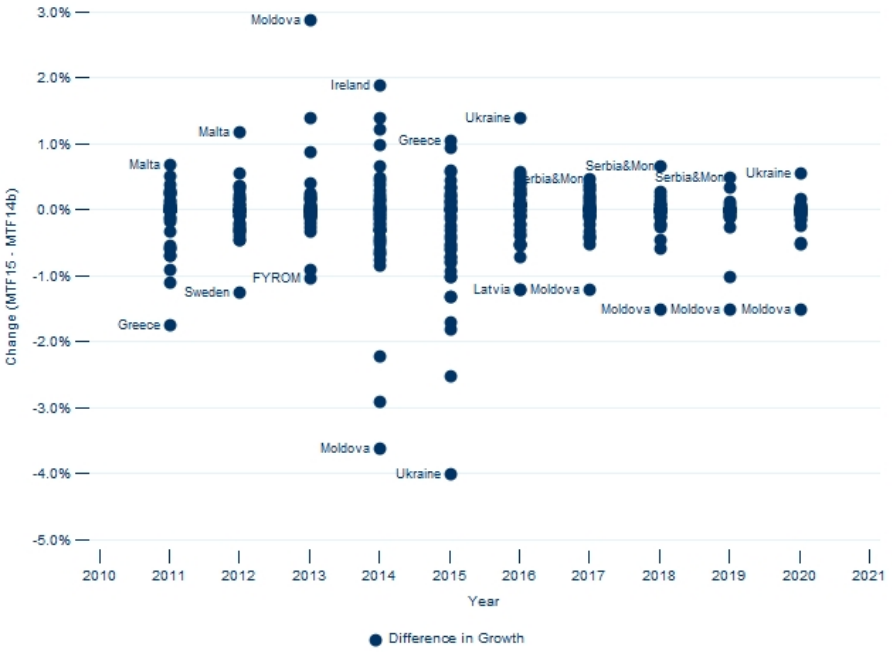
[8] 2020 is the common year between this forecast (MTF15 covering 2015-2021) and the previous forecast (MTF14b covering 2014-2020)

downward revision in those countries.

Figure 20 shows the cumulated growth differences by order of increasing change over 7 years. By 2021, because the developments between Russia and Ukraine have hurt business and consumer confidence, Moldova, Latvia, Lithuania, Bulgaria and Ukraine have seen their economic development revised downwards. Economic forecasts for Italy, Germany and the Scandinavian countries (including Finland) are also weaker than previously expected. On the other hand, Greece, UK and Turkey are expected to continue to grow even faster than previously expected.

The fall in the price of oil and the international economic sanctions imposed on Russia following Russia's annexation of Crimea and the conflict in Ukraine brought about a decline in confidence in the Russian economy. This caused investors to sell off their Russian assets, causing a decline in the value of the Russian rouble since the second half of 2014. All this resulted in a Russian financial crisis and a shrinking of the Russian economy. Experts predict that Russia will face a major recession and high inflation in 2015 (see GDP for Other Europe in Figure 22).

Figure 19. GDP Growth change per year between this forecast (MTF15) and the previous one (MTF14b) [9].



[9] In September 2014, most of the national statistics organisation in Europe moved to the new standards of the European System of Accounts 2010 (ESA2010) to meet European regulation and, especially to bring EU standards in line with the international systems of national accounts. This had an impact on national accounts then GDP growth. Oxford Economics, gathering historical data from statistical offices, had therefore to revise the past values as shown in the figure.

Figure 20. GDP Growth cumulative change per State by 2021 between this forecast (MTF15) and the previous one (MTF14b).

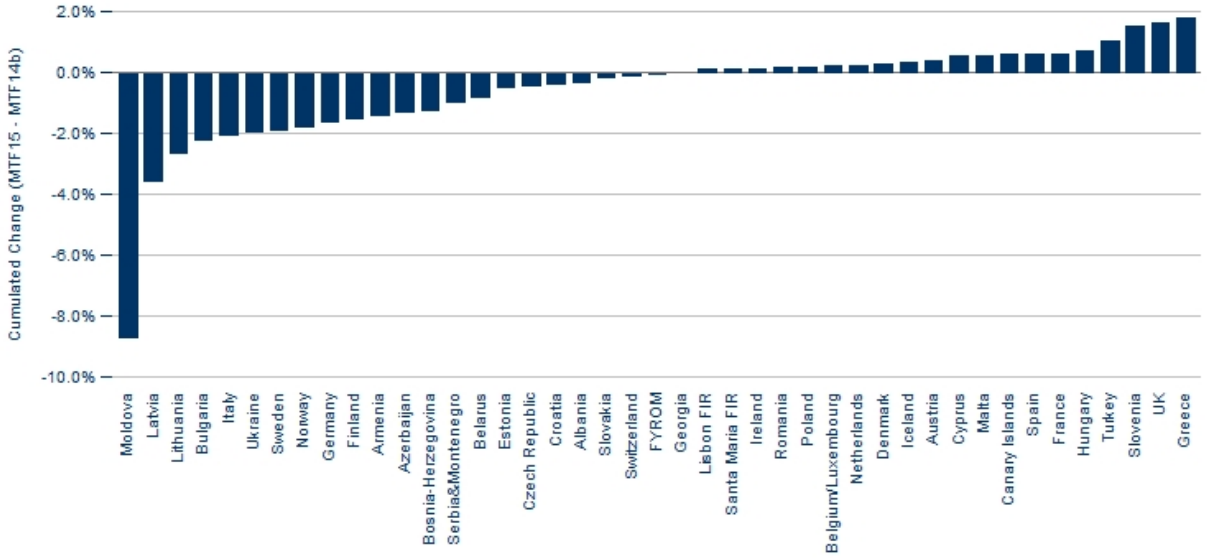


Figure 21. GDP Growth by Origin-Destination Zone.

Source: 1993-2004 from STATFOR records. 2005 onwards from Oxford Economics Ltd, Jan15.
Comments: Real GDP Growth in local currency.
Units: Growth per year. Data last updated: 19/01/2015

	Actual			Base						
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Brazil	1.0%	2.5%	0.0%	0.1%	1.6%	3.1%	3.2%	3.1%	3.0%	3.0%
China	7.7%	7.7%	7.4%	6.8%	6.1%	5.7%	5.5%	5.4%	5.1%	5.1%
India	4.8%	4.7%	5.3%	6.1%	6.2%	6.3%	6.4%	6.4%	6.0%	6.0%
Israel	3.0%	3.4%	2.4%	3.3%	3.8%	4.5%	4.5%	3.8%	3.4%	3.4%
South Africa	2.2%	2.2%	1.2%	2.6%	3.0%	3.2%	3.4%	3.5%	3.3%	3.3%

Figure 22. GDP Growth by Traffic Region.

Source: 2005 onwards updated from Oxford Economics Jan15
Comments: Real GDP Growth.
Units: Growth per year. Data last updated: 16/01/2015

	Actual			Base						
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Asia/Pacific	2.6%	2.5%	1.7%	2.3%	2.9%	2.2%	2.0%	2.1%	2.1%	2.1%
ESRA East	0.5%	1.2%	2.7%	3.0%	3.3%	3.1%	3.1%	3.0%	2.7%	2.7%
ESRA Mediterranean	-1.8%	-0.8%	0.8%	1.6%	2.2%	2.2%	2.2%	2.2%	2.0%	2.0%
ESRA North-West	0.4%	0.6%	1.5%	2.0%	2.1%	2.0%	1.8%	1.7%	1.7%	1.7%
Mid-Atlantic	3.5%	2.0%	2.2%	3.2%	3.7%	3.9%	3.8%	3.7%	3.1%	3.1%
Middle-East	2.3%	2.2%	2.4%	3.2%	2.9%	2.7%	2.7%	2.7%	2.4%	2.4%
North Atlantic	3.6%	2.9%	2.4%	2.5%	3.5%	3.7%	3.9%	3.8%	3.9%	3.9%
North-Africa	27%	-3.5%	-3.9%	5.6%	9.4%	8.8%	7.0%	5.1%	4.0%	4.0%
Other Europe	3.4%	1.7%	0.9%	-4.6%	0.8%	3.9%	3.8%	3.4%	2.9%	2.9%
South-Atlantic	3.1%	3.5%	0.7%	1.2%	3.4%	3.8%	3.9%	3.8%	3.3%	3.3%
Southern Africa	3.6%	5.7%	5.2%	5.6%	5.7%	5.6%	5.4%	5.3%	5.2%	5.2%

GDP multipliers or “elasticities” convert economic growth into growth in passengers. The multipliers per traffic region pairs are the same as those used in the September 2014 forecast (Figure 23). The list of State-pairs for which we use specific GDP-elasticities instead of region-pair elasticities was revised (Figure 24).

Figure 23. GDP Multipliers per Traffic Region Pair.

Source: STATFOR Analysis and modelling
Comments: MTF15 Inputs. See Doc499 for discussion.
Units: Multiplier (Elasticity). Data last updated: 26/11/2013
Note: Elasticity reduced by 1.1 for all domestic flights within States in ESRA sub-regions.

	ESRA North-West	ESRA Mediter	ESRA East	Other Europe	Asia/ Pacific	North Atlantic	Mid-Atlantic	South-Atlantic	North-Africa	Southern Africa	Middle-East
ESRA North-West	1.7	2.2	3.0	2.5	2.0	1.3	2.2	1.5	2.2	1.5	2.2
ESRA	2.2	3.1	3.4	2.5	2.5	1.7	2.6	3.0	2.6	3.0	3.2
ESRA East	3.0	3.4	2.9	2.7	3.5	.	3.1	.	3.1	.	2.6
Other Europe	2.5	2.5	2.7	3.4	2.8	.	3.5	.	3.5	.	3.5
Asia/Pacific	2.0	2.5	3.5	2.8	.	.	.	.	.	.	.
North Atlantic	1.3	1.7	.	.	.	.	0.9	.	0.9	.	.
Mid-Atlantic	1.1	1.4	.	.	.	.	.	.	.	.	.
South-Atlantic	2.7	3.3	.	.	.	.	.	.	.	.	.
North-Africa	2.2	2.6	3.1	3.5	.	0.9	3.2	2.1	3.2	2.1	2.8
Southern Africa	1.5	3.0	.	.	.	.	2.1	.	2.1	.	.
Middle-East	2.2	3.2	2.6	3.5	.	.	2.8	.	2.8	.	.

Figure 24. GDP Multipliers per Traffic Zone / Traffic Region Pair.

Source: STATFOR Analysis and modelling
Comments: GDP elasticity per TZ2 flow
Units: Multiplier (Elasticity). Data last updated: 28/01/2014

	Belgium /Lux	Bulgaria	France	Germany	Greece	Lisbon FIR	Turkey	Asia/Pacific	North Atlantic	Mid-Atlantic	Southern Africa	Middle-East
France	.	.	.	.	.	.	.	.	1.0	.	1.2	2.1
Germany	.	1.7	2.2	0.3	.	.	.	.	.	.	.	.
Greece	.	.	.	.	0.9	.	.	.	.	.	.	.
Hungary	.	.	.	2.5	.	.	.	.	.	.	.	.
Italy	1.6	.	.	.	.	.	.	.	.	.	.	.
Lisbon FIR	.	.	.	.	.	0.8	.	.	.	.	.	.
Spain	1.1	.	.	.	.	.	.	.	.	0.3	.	.
Tunisia	.	.	1.1	.	.	.	.	.	.	.	.	.
Turkey	.	.	.	.	.	.	3.0	.	.	.	.	3.4
UK	.	.	.	.	0.7	.	.	1.6	.	.	.	2.1

3.2 Low-Cost effects

The additional flight movements generated by low-cost carrier growth are represented by the input assumptions given in Figure 25. The figure shows the actual and future low-cost market share for each scenario.

Figure 25. Low-Cost effects by Traffic Zone.

Source: STATFOR Analysis and modelling
Comments: Represents additional growth for Low-Cost, but only the baseline year is a true statistic for low-cost
Units: Percentage Additional Growth Due to Low-Cost Growth. Data last updated: 26/02/2015

	Actual	Low	Base	High
	2014	2021	2021	2021
Albania	4%	4%	6%	9%
Armenia	3%	3%	6%	7%
Austria	25%	24%	29%	30%
Azerbaijan	2%	2%	4%	7%
Belarus	2%	2%	4%	7%
Belgium/Luxembourg	20%	19%	24%	25%
Bosnia-Herzegovina	22%	21%	26%	32%
Bulgaria	20%	19%	24%	30%
Canary Islands	50%	50%	53%	58%
Croatia	32%	31%	36%	41%
Cyprus	31%	30%	39%	49%
Czech Republic	38%	37%	46%	56%

	Actual	Low	Base	High
	2014	2021	2021	2021
Denmark	22%	21%	26%	27%
Estonia	18%	17%	26%	36%
FYROM	43%	39%	44%	49%
Finland	13%	12%	17%	23%
France	27%	26%	31%	32%
Georgia	15%	15%	18%	23%
Germany	37%	37%	38%	38%
Greece	33%	32%	37%	38%
Hungary	45%	44%	51%	59%
Iceland	28%	27%	32%	37%
Ireland	37%	36%	41%	46%
Italy	43%	39%	44%	47%
Latvia	80%	55%	65%	80%
Lisbon FIR	36%	35%	40%	45%
Lithuania	41%	40%	45%	50%
Malta	36%	35%	44%	54%
Moldova	11%	11%	13%	16%
Morocco	22%	20%	33%	48%
Netherlands	26%	25%	30%	31%
Norway	24%	23%	28%	29%
Poland	33%	32%	43%	44%
Romania	27%	26%	31%	36%
Santa Maria FIR	1%	1%	3%	6%
Serbia&Montenegro	11%	10%	16%	21%
Slovakia	30%	29%	37%	45%
Slovenia	5%	4%	13%	23%
Spain	57%	56%	59%	59%
Sweden	21%	21%	24%	25%
Switzerland	20%	19%	24%	25%
Turkey	32%	31%	36%	37%
UK	48%	47%	49%	51%
Ukraine	9%	8%	14%	20%

3.3 Load Factors

Assumptions about the development of load factors are based on STATFOR analysis of historical data from the Association of European Airlines (AEA). Forecasts are been made using the recent trends shown in the annual data. These are used as inputs to the forecast, and are shown in Figure 26.

The load factors forecast is based on the previous trend but it is combined with assumptions about maximum limits that can be maintained by the airlines in the medium-term. The baseline scenario load factors in 2021 are relatively high, between 70% and 90% depending on the flow and scenario. The current increasing trend implies that an average of 80% is feasible for short-haul while an average of 90% is envisaged for long-haul.

It could be argued that load factors for other market segments (e.g. regional or low-cost carriers) are different from those provided by the AEA. However, in the model, it is the relative change from the start to the end of the forecast that is most important (see Ref. 2). We assume that the relative changes in load factors for traditional carriers will be similar for other segments.

Figure 26. Load factors by Traffic Region.

Source: Actual: AEA (STAR14). Forecast: STATFOR analysis and modelling.
Comments: 2014 estimated on weighted average (ASK).
Units: Percentage Load Factor for this Traffic Region. Data last updated: 15/01/2015

	Actual									Low	Base	High
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2021	2021	2021
Asia/Pacific	80.7%	83.2%	80.9%	80.4%	83.4%	79.9%	81.4%	81.8%	82.7%	87.7%	85.1%	82.5%
ESRA East	68.6%	69.2%	67.9%	68.1%	70.1%	72.1%	73.7%	74.7%	76.0%	80.0%	80.0%	78.8%
ESRA Mediterranean	68.6%	69.2%	67.9%	68.1%	70.1%	72.1%	73.7%	74.7%	76.0%	80.0%	80.0%	78.8%
ESRA North-West	68.6%	69.2%	67.9%	68.1%	70.1%	72.1%	73.7%	74.7%	76.0%	80.0%	80.0%	78.8%
Mid-Atlantic	82.1%	84.4%	83.4%	81.7%	82.7%	82.4%	83.9%	84.1%	85.1%	90.0%	88.3%	86.3%
Middle-East	70.9%	73.8%	74.0%	69.5%	71.5%	70.1%	71.6%	73.1%	74.9%	80.0%	76.9%	73.8%
North Atlantic	81.5%	82.2%	81.4%	82.7%	84.0%	83.1%	84.8%	85.6%	85.3%	90.0%	89.5%	87.3%
North-Africa	68.5%	69.9%	70.9%	68.4%	70.7%	68.0%	72.4%	71.6%	71.4%	76.6%	73.9%	71.2%
Other Europe	68.6%	69.2%	67.9%	68.1%	70.1%	72.1%	73.7%	74.7%	76.0%	80.0%	80.0%	78.8%
South-Atlantic	86.3%	85.0%	81.1%	80.2%	85.0%	85.0%	84.7%	85.1%	84.2%	90.0%	88.7%	85.2%
Southern Africa	78.0%	79.2%	79.1%	77.7%	77.3%	77.7%	78.6%	79.8%	80.1%	84.2%	82.2%	80.3%

3.4 Demographics

The demography model combines the evolution of population age structure with the age structure of the passengers. The population data are based on the 2012 United Nations (UN) population forecast update which is the latest available. The input data are shown at traffic zone level in Figure 27 and at traffic region level in Figure 28. Only the propensities to fly have been updated for this forecast.

Figure 27. Population distribution per Traffic Zone.

Source: United Nations, Department of Economic and Social Affairs, Population Division: World Population Prospects, the 2012 Revision. New York, 2013 (http://esa.un.org/wpp/Excel-Data/population.htm)
Comments: Only the population age distributions, not numbers (in 000s) are used.
Units: Percentage of TZ population in this age range. Data last updated: 23/10/2013

	Actual										Base									
	2010										2021									
	Age 0 to 14	Age 15 to 19	Age 20 to 24	Age 25 to 34	Age 35 to 44	Age 45 to 54	Age 55 to 59	Age 60 to 64	Age 65 to 74	Age 75+	Age 0 to 14	Age 15 to 19	Age 20 to 24	Age 25 to 34	Age 35 to 44	Age 45 to 54	Age 55 to 59	Age 60 to 64	Age 65 to 74	Age 75+
Albania	23%	8.9%	9.8%	15%	13%	13%	4.5%	3.6%	6.2%	3.4%	19%	5.7%	6.5%	17%	13%	12%	6.1%	5.9%	10%	5.9%
Armenia	20%	8.6%	9.9%	15%	11%	15%	5.7%	3.5%	6.0%	5.1%	18%	7.0%	6.0%	14%	17%	12%	5.5%	6.5%	9.4%	4.9%
Austria	15%	6.0%	6.2%	13%	15%	16%	5.9%	5.5%	9.6%	8.0%	15%	4.9%	5.3%	12%	13%	13%	7.7%	7.5%	11%	10%
Azerbaijan	21%	9.9%	11%	16%	14%	15%	4.4%	2.3%	3.7%	2.8%	21%	6.8%	6.1%	16%	17%	12%	5.8%	6.0%	6.9%	2.2%
Belarus	15%	6.3%	8.2%	16%	14%	16%	6.5%	4.9%	7.5%	6.1%	16%	5.8%	5.0%	12%	17%	14%	6.5%	7.0%	11%	5.8%
Belgium/Luxembourg	17%	5.8%	6.0%	13%	14%	15%	6.4%	5.9%	8.6%	8.7%	17%	5.8%	5.5%	12%	12%	13%	6.7%	6.7%	11%	10%
Bosnia-Herzegovina	15%	6.0%	7.8%	15%	15%	16%	6.9%	5.2%	8.3%	5.8%	14%	4.4%	6.0%	15%	15%	13%	7.1%	7.5%	11%	8.2%
Bulgaria	14%	5.3%	6.7%	15%	14%	14%	7.0%	6.9%	9.8%	7.7%	14%	5.1%	4.6%	10%	14%	16%	7.1%	6.5%	12%	9.8%
Canary Islands	15%	4.8%	5.5%	16%	17%	14%	5.6%	5.3%	8.3%	8.7%	14%	5.4%	5.0%	9.7%	13%	17%	7.7%	7.0%	11%	11%
Croatia	15%	5.9%	6.3%	14%	14%	15%	7.1%	6.1%	9.5%	7.7%	14%	5.2%	5.0%	12%	13%	14%	6.7%	7.0%	13%	9.9%
Cyprus	18%	7.6%	8.5%	17%	14%	13%	5.5%	4.7%	6.8%	4.7%	16%	5.4%	6.2%	15%	16%	14%	5.9%	5.6%	9.3%	6.8%
Czech Republic	14%	6.1%	6.6%	17%	14%	13%	7.4%	7.0%	8.1%	6.7%	16%	5.5%	4.7%	11%	14%	16%	6.2%	5.7%	11%	9.4%
Denmark	18%	6.4%	6.0%	12%	14%	14%	6.2%	6.8%	9.5%	7.0%	17%	5.8%	6.0%	13%	12%	13%	6.7%	6.4%	11%	10%
Estonia	15%	5.7%	8.0%	15%	13%	14%	6.5%	5.6%	9.3%	7.9%	16%	5.9%	5.2%	11%	15%	14%	6.5%	6.1%	11%	9.4%
FYROM	18%	7.4%	7.8%	16%	15%	14%	6.3%	4.9%	7.3%	4.5%	15%	5.4%	5.6%	14%	16%	14%	6.8%	6.4%	11%	6.2%
Finland	17%	6.2%	6.1%	13%	12%	14%	7.2%	7.5%	9.2%	8.1%	17%	5.6%	5.4%	12%	12%	12%	6.2%	6.3%	12%	12%
France	18%	6.0%	6.4%	13%	14%	14%	6.5%	6.2%	7.9%	8.9%	18%	5.9%	6.0%	12%	12%	12%	6.3%	6.1%	11%	11%
Georgia	17%	7.8%	8.5%	14%	13%	15%	6.1%	4.8%	8.2%	6.1%	18%	6.8%	5.0%	12%	14%	13%	6.0%	7.3%	11%	7.1%
Germany	13%	5.1%	6.1%	12%	15%	16%	6.6%	5.6%	11%	8.9%	13%	4.4%	4.7%	11%	13%	12%	8.3%	8.4%	13%	12%
Greece	15%	4.9%	5.6%	15%	16%	14%	6.2%	5.8%	9.5%	9.1%	14%	5.2%	4.9%	10%	13%	15%	7.6%	6.7%	12%	11%
Hungary	15%	6.0%	6.5%	15%	15%	13%	7.4%	6.0%	9.2%	7.3%	15%	5.2%	5.2%	12%	14%	16%	6.4%	5.3%	12%	8.9%
Iceland	21%	7.5%	7.2%	15%	13%	14%	5.8%	4.8%	6.2%	5.8%	20%	6.6%	6.1%	13%	13%	12%	5.7%	5.8%	9.7%	7.3%

	Actual										Base									
	2010										2021									
	Age 0 to 14	Age 15 to 19	Age 20 to 24	Age 25 to 34	Age 35 to 44	Age 45 to 54	Age 55 to 59	Age 60 to 64	Age 65 to 74	Age 75+	Age 0 to 14	Age 15 to 19	Age 20 to 24	Age 25 to 34	Age 35 to 44	Age 45 to 54	Age 55 to 59	Age 60 to 64	Age 65 to 74	Age 75+
Ireland	21%	6.2%	6.8%	16%	15%	13%	5.4%	4.8%	6.6%	5.1%	20%	6.9%	6.3%	12%	14%	14%	6.0%	5.5%	8.8%	6.9%
Italy	14%	4.9%	5.1%	13%	16%	14%	6.1%	6.2%	10%	10%	14%	4.8%	5.0%	11%	12%	15%	7.9%	7.4%	12%	13%
Latvia	14%	5.9%	8.3%	15%	14%	14%	6.3%	5.1%	10%	7.8%	17%	5.5%	4.9%	11%	15%	13%	6.4%	6.6%	11%	8.9%
Lisbon FIR	15%	5.2%	5.6%	15%	15%	14%	6.3%	5.7%	9.5%	8.4%	12%	4.9%	5.4%	11%	13%	16%	7.3%	7.1%	12%	11%
Lithuania	15%	7.0%	8.2%	14%	14%	15%	5.8%	5.0%	8.9%	7.2%	17%	5.3%	4.7%	13%	16%	14%	6.7%	6.8%	10%	7.5%
Malta	15%	6.7%	7.5%	15%	12%	15%	7.3%	7.3%	8.2%	5.8%	14%	4.8%	5.0%	13%	15%	13%	5.8%	7.0%	13%	10%
Moldova	17%	8.1%	9.9%	15%	12%	15%	6.9%	4.8%	6.7%	4.4%	17%	6.2%	4.7%	13%	18%	13%	5.7%	6.6%	11%	4.8%
Netherlands	18%	6.1%	6.0%	12%	15%	15%	6.6%	6.5%	8.4%	6.9%	16%	5.5%	6.0%	12%	12%	12%	7.3%	7.1%	12%	11%
Norway	19%	6.8%	6.2%	13%	15%	13%	5.9%	6.5%	7.4%	7.3%	19%	6.0%	6.0%	13%	13%	13%	6.5%	5.8%	9.9%	8.9%
Poland	15%	6.5%	7.8%	17%	13%	14%	7.7%	5.6%	7.1%	6.5%	16%	5.2%	4.6%	12%	16%	15%	5.6%	5.8%	13%	8.2%
Romania	15%	5.6%	7.9%	16%	16%	12%	6.7%	5.4%	8.5%	6.4%	15%	5.2%	5.1%	11%	16%	16%	7.9%	5.2%	11%	7.4%
Russian Federation	15%	5.7%	8.6%	16%	13%	16%	7.0%	5.0%	7.4%	5.4%	17%	5.9%	5.2%	11%	17%	14%	5.6%	6.6%	11%	5.6%
Santa Maria FIR	15%	5.2%	5.6%	15%	15%	14%	6.3%	5.7%	9.5%	8.4%	12%	4.9%	5.4%	11%	13%	16%	7.3%	7.1%	12%	11%
Serbia&Montenegro	18%	6.6%	7.3%	15%	14%	13%	7.1%	5.3%	7.8%	6.5%	14%	5.5%	5.7%	13%	15%	15%	6.4%	6.2%	12%	7.1%
Slovakia	15%	6.8%	7.8%	17%	14%	14%	7.1%	5.2%	6.9%	5.1%	15%	5.2%	4.8%	12%	16%	16%	6.1%	6.2%	12%	6.8%
Slovenia	14%	5.1%	6.3%	15%	15%	15%	7.4%	6.0%	8.9%	7.6%	14%	5.1%	4.7%	10%	14%	15%	7.1%	7.0%	13%	9.9%
Spain	15%	4.8%	5.5%	16%	17%	14%	5.6%	5.3%	8.3%	8.7%	14%	5.4%	5.0%	9.7%	13%	17%	7.7%	7.0%	11%	11%
Sweden	17%	6.8%	6.6%	12%	14%	13%	6.1%	6.7%	9.7%	8.5%	18%	5.9%	5.6%	12%	13%	12%	6.3%	5.8%	10%	11%
Switzerland	15%	6.0%	5.9%	13%	16%	15%	6.2%	6.1%	8.6%	8.0%	15%	4.8%	5.1%	13%	14%	13%	7.0%	6.6%	10%	10%
Turkey	26%	9.0%	8.8%	17%	14%	11%	4.2%	3.1%	3.8%	2.1%	22%	7.5%	7.6%	15%	15%	13%	5.3%	4.6%	6.8%	3.8%
UK	17%	6.3%	6.8%	13%	14%	14%	5.8%	6.1%	8.7%	7.9%	18%	6.0%	5.5%	12%	13%	12%	6.8%	6.5%	10%	10%
Ukraine	14%	6.1%	7.9%	16%	14%	15%	6.6%	5.3%	9.3%	6.2%	16%	5.8%	4.4%	11%	17%	15%	6.1%	6.8%	12%	6.2%

Figure 28. Population distribution per Traffic Region.

Source: United Nations, Department of Economic and Social Affairs, Population Division: World Population Prospects, the 2012 Revision. New York, 2013 (http://esa.un.org/wpp/Excel-Data/population.htm)
Comments: Only the population age distributions, not numbers (in 000s) are used.
Units: Percentage of TR population in this age range. Data last updated: 23/10/2013

	Actual										Base									
	2010										2021									
	Age 0 to 14	Age 15 to 19	Age 20 to 24	Age 25 to 34	Age 35 to 44	Age 45 to 54	Age 55 to 59	Age 60 to 64	Age 65 to 74	Age 75+	Age 0 to 14	Age 15 to 19	Age 20 to 24	Age 25 to 34	Age 35 to 44	Age 45 to 54	Age 55 to 59	Age 60 to 64	Age 65 to 74	Age 75+
Asia/Pacific	21%	8.0%	8.6%	15%	17%	13%	5.5%	4.0%	5.3%	3.3%	19%	6.4%	6.1%	14%	15%	14%	7.0%	5.9%	8.4%	4.8%
ESRA East	15%	6.0%	8.1%	16%	14%	15%	7.0%	5.3%	7.9%	5.9%	16%	5.7%	5.0%	11%	17%	15%	5.9%	6.3%	11%	6.6%
ESRA Mediterranean	15%	5.2%	5.7%	14%	16%	14%	6.1%	5.7%	9.2%	8.8%	14%	5.1%	5.1%	11%	13%	15%	7.6%	7.1%	11%	11%
ESRA North-West	16%	5.6%	6.2%	12%	14%	15%	6.5%	5.9%	9.7%	8.6%	15%	5.1%	5.4%	12%	13%	12%	7.3%	7.3%	12%	11%
Mid-Atlantic	30%	9.8%	8.9%	15%	13%	9.9%	3.7%	2.7%	3.9%	2.6%	25%	8.3%	8.2%	16%	13%	12%	4.9%	4.0%	5.7%	3.7%
Middle-East	32%	9.6%	9.3%	17%	13%	9.1%	3.3%	2.3%	3.0%	1.8%	26%	8.3%	7.9%	16%	16%	11%	4.1%	3.3%	4.6%	2.3%
North Atlantic	20%	6.9%	7.0%	14%	13%	15%	6.3%	5.4%	7.0%	6.2%	19%	6.2%	6.3%	13%	13%	12%	5.9%	6.2%	11%	8.1%
North-Africa	32%	9.9%	9.9%	17%	12%	9.2%	3.4%	2.6%	3.2%	1.6%	29%	8.9%	7.8%	15%	14%	10%	4.1%	3.5%	4.6%	2.0%
Other Europe	15%	5.8%	8.6%	16%	14%	16%	7.0%	5.0%	7.5%	5.4%	17%	5.9%	5.2%	12%	17%	14%	5.6%	6.6%	11%	5.7%
South-Atlantic	27%	8.9%	8.8%	16%	13%	11%	4.2%	3.2%	4.3%	2.8%	22%	7.5%	7.8%	15%	15%	12%	5.2%	4.7%	6.6%	4.2%
Southern Africa	42%	11%	9.5%	15%	9.5%	6.4%	2.4%	1.9%	2.3%	0.9%	40%	11%	9.3%	15%	11%	6.9%	2.4%	1.9%	2.5%	1.0%

On top of the United Nations forecast of population, we also rely on data related to the propensity[10] to fly to estimate the future number of passengers, hence the future traffic demand. These data originate from the UK CAA[11] (surveys conducted recently at Heathrow airport) and from the DGAC

[10] Propensity to fly is the annual number of flights generated per thousand population.
[11] CAA UK surveys available at http://www.caa.co.uk/surveys
DGAC France surveys available at http://www.developpement-durable.gouv.fr/Enquete-Nationale-des-Passagers,33482.html

France (propensity data collected over 10 French airports).

Figure 29. Propensity to fly per age group.

Source: UK CAA and French DGAC passenger surveys (2010-2013) and UN population forecast (2012 Revision)
Comments: Evolution of propensity to fly based on an average of the surveys.
Units: Flight Factor (%passengers/%population) per age bracket. Data last updated: 03/12/2014.
Note: base, high and low scenario values are identical

Age Bracket	Actual	Base
	2014	2021
Age 0 to 14	0.14	0.13
Age 15 to 19	0.66	0.64
Age 20 to 24	1.60	1.61
Age 25 to 34	1.83	1.76
Age 35 to 44	1.61	1.69
Age 45 to 54	1.27	1.26
Age 55 to 59	1.22	1.36
Age 60 to 64	1.04	1.26
Age 65 to 74	0.64	0.65
Age 75+	0.16	0.14

3.5 High-Speed Train Network

As the high-speed train (HST) model had not been revisited in 10 years in the forecast, and more recent data is now available, a recalibration of the HST component in the forecast was performed in 2014. The model has been enhanced to obtain more accuracy, namely with the introduction of the distance as a third variable (previously only rail travel times and air/rail share were used). We have validated this enhanced model and demonstrated it improves the flight forecast. The high-speed train model recalibration study report has been reviewed and agreed by the SUG members at the end of 2014 (see Ref. 3).

The HST travel times (input data) have been updated for this 7-year forecast. A review of current state of projects has been conducted; the principal source of the HST data being the International Union of Railways (UIC[12]), the European Commission (TEN-T[13]) and local websites for specific projects (e.g. Réseau Ferré de France[14]) or Stakeholder-supplied information (DGAC France, DFS Germany and DHMI Turkey). The rail projects listed here are only the ones for which improvements in travel time will be found within the forecast horizon.

Figure 30. High-Speed Train Times that change during the forecast.

Source: Actuals from on-line timetables. Plans from UIC, TEN-T and elsewhere.
Units: Travel time (minutes). Data last updated: 17/02/2015 Distances estimated from airport locations.

			Distance	Rail Time (mins)							Speed (km/h)						
			Km	2014	2015	2016	2017	2018	2020	2021	2014	2015	2016	2017	2018	2020	2021
Amsterdam	London	B	359	277	.	240	.	.	.	.	78	.	90	.	.	.	.
Ankara	Sivas	B	354	720	.	.	120	.	.	.	30	.	.	177	.	.	.
	Bursa	B	318	240	.	.	135	.	.	.	79	.	.	141	.	.	.
	Izmir-Adnan	B	519	900	.	.	.	210	.	.	35	.	.	.	148	.	.
Barcelona	Lyon	B	530	460	312	.	180	.	.	.	69	102	.	177	.	.	.
Brussels	Luxembourg	B	176	135	.	.	90	.	.	.	78	.	.	117	.	.	.
	Strasbourg	B	337	270	.	.	180	.	.	.	75	.	.	112	.	.	.
Copenhagen	Hamburg	B	286	270	.	.	.	.	.	180	64	.	.	.	.	.	95
Erfurt	Leipzig	B	102	72	.	.	39	.	.	.	85	.	.	156	.	.	.
	Munchen	B	307	300	.	.	.	150	.	.	61	.	.	.	123	.	.
	Nurnberg	B	165	172	.	.	.	66	.	.	57	.	.	.	150	.	.
Frankfurt	Bern	B	348	230	.	.	.	.	200	.	91	.	.	.	.	105	.
	Bale Mulhouse	B	274	170	.	.	.	.	140	.	97	.	.	.	.	118	.
	Paris	B	444	230	.	.	215	.	.	.	116	.	.	124	.	.	.
	Stuttgart	B	154	70	.	.	.	53	.	.	132	.	.	.	175	.	.

[12] UIC website: http://www.uic.org/
[13] European Commission TEN-T projects: http://ec.europa.eu/transport/themes/infrastructure/ten-t-implementation/priority-projects/
[14] Réseau Ferré de France website: http://www.rff.fr/

			Distance	Rail Time (mins)							Speed (km/h)						
			Km	2014	2015	2016	2017	2018	2020	2021	2014	2015	2016	2017	2018	2020	2021
Istanbul	Ankara	B	335	225	180	.	.	.	.	.	89	112	.	.	.	.	.
	Konya	B	454	300	205	.	.	.	.	.	91	133	.	.	.	.	.
	Sivas	B	682	1260	.	.	300	.	.	.	32	.	.	136	.	.	.
	Bursa	B	84	240	.	.	105	.	.	.	21	.	.	48	.	.	.
Karlsruhe	Bern	B	239	180	.	.	.	.	150	.	80	.	.	.	.	96	.
	Bale Mulhouse	B	166	100	.	.	.	.	69	.	100	.	.	.	.	145	.
Koln/Bonn	Bale Mulhouse	B	361	230	.	.	.	.	200	.	94	.	.	.	.	108	.
Leipzig	Frankfurt	B	310	210	.	.	180	.	.	.	89	.	.	103	.	.	.
	Munchen	B	354	345	.	.	.	190	.	.	62	.	.	.	112	.	.
Lille	Rennes	B	448	237	.	.	200	.	.	.	114	.	.	135	.	.	.
Madrid	Bilbao	B	327	300	.	.	.	.	.	130	65	.	.	.	.	.	151
	Bordeaux	B	543	495	.	.	.	.	.	260	66	.	.	.	.	.	125
	San Sebastian	B	363	300	.	.	.	.	.	135	73	.	.	.	.	.	161
	Santiago	B	476	330	.	.	.	180	.	.	87	.	.	.	159	.	.
	Vigo	B	455	372	.	.	.	230	.	.	73	.	.	.	119	.	.
Munchen	Berlin	B	481	360	.	.	.	245	.	.	80	.	.	.	118	.	.
	Zurich	B	260	250	.	.	.	.	195	.	62	.	.	.	.	80	.
Paris	Barcelona	B	824	375	.	.	345	.	.	.	132	.	.	143	.	.	.
	Bordeaux	B	519	182	.	.	.	125	.	.	171	.	.	.	249	.	.
	Brest	B	511	250	.	.	180	.	.	.	123	.	.	170	.	.	.
	Madrid	B	1062	595	.	.	565	.	.	445	107	.	.	113	.	.	143
	Montpellier	B	600	210	.	.	180	.	.	.	171	.	.	200	.	.	.
	Munchen	B	675	360	.	.	330	.	.	.	113	.	.	123	.	.	.
	Rennes	B	326	127	.	.	90	.	.	.	154	.	.	217	.	.	.
	Stuttgart	B	490	220	.	.	190	.	.	.	134	.	.	155	.	.	.
	Toulouse	B	596	296	.	.	.	243	.	.	121	.	.	.	147	.	.
Strasbourg	Luxembourg	B	162	130	.	.	85	.	.	.	75	.	.	114	.	.	.
	Lille	B	405	240	.	.	150	.	.	.	101	.	.	162	.	.	.
	Paris	B	381	140	.	110	.	.	.	.	163	.	208	.	.	.	.
TOURS ST S	Bordeaux	B	314	155	.	.	.	90	.	.	122	.	.	.	210	.	.
Warsaw	Gdansk	B	290	254	180	.	.	.	.	.	69	97	.	.	.	.	.
	Krakow	B	251	181	146	.	.	.	.	.	83	103	.	.	.	.	.
	Wroclaw	B	305	314	222	.	.	.	.	.	58	82	.	.	.	.	.
Zurich	Milan	B	221	220	.	.	.	.	160	.	60	.	.	.	.	83	.

3.6 Emission Trading Schemes

The aviation industry has joined the EU Emission Trading Scheme (ETS) in 2012. In April 2013, the EU decided to temporarily suspend enforcement of the EU ETS requirements for flights operated in 2010, 2011, and 2012 from or to non-European countries, while continuing to apply the legislation to flights within and between countries in Europe. In autumn 2013, the International Civil Aviation Organization (ICAO) Assembly, mandated by the EU, reached an agreement to tackle aviation emissions globally. The ICAO Assembly agreed to develop by 2016 a global market-based mechanism addressing international aviation emissions and apply it by 2020. Considering the fact that the scope of the EU ETS application and its impact are currently reduced, the fact that carbon prices are now very low (around 5 euros/tonne in 2014), we have estimated that its impact on flight demand is small relative to the uncertainty within the 7-year horizon of this forecast. This component has therefore been de-activated.

3.7 Airline schedules

The schedules data originating from the February 2015 sample of INNOVATA LLC are given here for indication. Surprisingly high growth rates in some States and for specific months do not give us sufficient confidence to use them in the forecast. This component, which must be consistently run for all States, has thus been de-activated. Some adjustments were however added in the ‘Events and Trends’ (see Section 3.9.2) to take into account some extra boost for the Summer 2015.

Figure 31. Outlook based on published schedules (Source: INNOVATA, February 2015).

Scheduled Departure Growth	Schedule Reference Date										
	01FEB15										
	FEB15	MAR15	APR15	MAY15	JUN15	JUL15	AUG15	SEP15	OCT15	NOV15	DEC15
Albania	-8%	-6%	2%	7%	1%	-4%	3%	2%	-15%	-6%	-11%
Armenia	-13%	-10%	-16%	-28%	-34%	-35%	-35%	-16%	-14%	-25%	-13%
Austria	-4%	-1%	5%	5%	5%	5%	4%	5%	7%	-1%	-9%
Azerbaijan	-2%	-3%	-5%	-7%	-11%	-11%	-12%	-6%	-2%	-7%	-5%
Belarus	13%	13%	14%	12%	10%	9%	10%	9%	9%	6%	7%
Belgium/Luxembourg	7%	4%	6%	4%	4%	3%	4%	5%	6%	2%	8%
Bosnia-Herzegovina	2%	2%	1%	-3%	-2%	2%	2%	4%	8%	14%	11%
Bulgaria	5%	5%	5%	-3%	-6%	-4%	-6%	1%	10%	11%	2%
Canary Islands	5%	4%	1%	5%	6%	3%	3%	7%	1%	-11%	-12%
Croatia	9%	9%	4%	5%	3%	1%	2%	3%	11%	22%	21%
Cyprus	0%	4%	3%	-2%	-5%	-7%	-8%	-7%	-3%	16%	22%
Czech Republic	-3%	-4%	-1%	-1%	2%	6%	6%	6%	6%	3%	5%
Denmark	-1%	1%	6%	2%	1%	4%	5%	2%	3%	-4%	-1%
Estonia	17%	13%	10%	12%	11%	11%	10%	17%	7%	-4%	2%
FYROM	13%	12%	-5%	-7%	-3%	3%	3%	1%	7%	14%	14%
Finland	-3%	-3%	-1%	-3%	-3%	1%	-2%	-0%	2%	-10%	-7%
France	-2%	-1%	2%	2%	1%	1%	5%	2%	4%	6%	5%
Georgia	-2%	6%	9%	1%	2%	2%	-1%	8%	13%	17%	19%
Germany	1%	2%	8%	5%	7%	6%	6%	6%	7%	5%	4%
Greece	6%	7%	8%	5%	5%	3%	4%	8%	13%	41%	44%
Hungary	7%	7%	7%	7%	7%	6%	6%	7%	7%	7%	7%
Iceland	0%	1%	6%	9%	8%	7%	10%	29%	35%	31%	33%
Ireland	6%	7%	2%	3%	7%	5%	4%	4%	4%	7%	9%
Italy	2%	3%	4%	4%	1%	0%	1%	3%	6%	13%	15%
Latvia	-4%	3%	11%	14%	13%	10%	10%	15%	22%	-3%	-8%
Lisbon FIR	11%	12%	7%	8%	8%	3%	4%	6%	6%	0%	-3%
Lithuania	17%	14%	16%	14%	14%	7%	11%	12%	12%	5%	2%
Malta	1%	-1%	3%	7%	6%	2%	7%	9%	12%	24%	27%
Moldova	25%	30%	30%	24%	21%	21%	20%	18%	16%	-1%	-0%
Morocco	5%	5%	6%	8%	6%	6%	0%	2%	1%	-2%	-5%
Netherlands	4%	4%	4%	4%	3%	3%	3%	2%	3%	1%	3%
Norway	-3%	-5%	6%	-4%	-1%	-4%	-2%	-1%	-2%	-9%	-4%
Poland	11%	9%	16%	13%	11%	10%	10%	8%	10%	-2%	-1%
Romania	14%	13%	14%	12%	8%	7%	9%	8%	7%	7%	10%
Santa Maria FIR	-2%	-0%	9%	4%	-0%	-15%	-16%	2%	4%	-2%	-2%
Serbia&Montenegro	9%	12%	5%	3%	-3%	-2%	-1%	-1%	6%	1%	-5%
Slovakia	14%	15%	22%	25%	33%	41%	43%	33%	24%	16%	22%
Slovenia	-1%	4%	9%	10%	9%	11%	11%	14%	13%	7%	4%
Spain	3%	5%	5%	5%	4%	3%	3%	5%	10%	24%	30%
Sweden	3%	1%	7%	3%	3%	2%	5%	4%	1%	-10%	-0%
Switzerland	3%	4%	8%	7%	5%	5%	6%	5%	6%	3%	-3%
Tunisia	9%	3%	12%	8%	1%	1%	0%	4%	4%	13%	10%
Turkey	6%	8%	7%	7%	5%	7%	4%	6%	7%	5%	6%
Ukraine	-26%	-20%	1%	-5%	-5%	-9%	-7%	3%	5%	10%	20%
UK	6%	6%	3%	2%	2%	3%	3%	2%	2%	6%	14%
ESRA08	2%	3%	5%	4%	3%	3%	4%	4%	5%	6%	8%

3.8 Airports

The assumptions shown in Figure 32 represent the expected traffic switches within the forecast period (not varied by scenario). These assumptions are based on information from the news and/or information received from STATFOR User Group members.

- The closure of Berlin/Tegel (EDDT), with traffic moving to the new airport Berlin/Brandenburg (EDDB) as of September 2017.
- Also, the new (third) airport at Istanbul expected to be operational from October 2017 has been modelled in this forecast as a progressive increase in the capacity of LTBA[15] (Istanbul/Atatürk)

[15] For technical reasons the additional capacity available from the 3rd airport is currently considered under LTBA (because name and

until the end of the forecast horizon. We assumed that, LTBA will continue to operate (lesser extent) after the third airport will open.

Figure 32. Airport traffic switch.

Source: EUROCONTROL Data and analysis
Comments: Updated for MTF14b inputs
Units: Airport Traffic Switching. Data last updated: 15/01/2015

				Low		Base		High	
				2017	2018	2017	2018	2017	2018
Traffic Type	Traffic Between	And Region	Move To						
All	EDDT	-	EDDB	25%	100%	25%	100%	25%	100%

The forecast also takes airport capacity into account. The airport capacity model used in the 7-year forecast is based on 'effective annual capacity' figures that are applied to the forecasted total annual traffic demand at the airports and reduce the final forecasted number of movements to be within the annual capacity limits of the airports. A comprehensive set of capacity data has been gathered through the EUROCONTROL Network Manager Airport Unit's online tool named the 'Airport Corner'. The information coming directly from the airports and validated by the EUROCONTROL Airport Unit is deemed to be complete, realistic, reliable and of high quality. For incomplete information, the dataset has been completed by using direct information from Stakeholders. The data collection process for this forecast covers a set of 108 airports, including the major ones. Over the next 7 years, the capacity of the system is expected to increase by 5.6%. To respect the commercial sensitivity of this airport information, it is not published.

3.9 Events and Trends

The 'events and trends' assumptions consist of adjustments to arrival, departure, internal, overflight traffic (IFR movements) and also en-route service units. The assumptions are listed in Figure 33, where they are expressed as 'cumulative' change: so a 1.01 figure in the year 2015 only would mean increase growth by 1% in 2015 and decrease it in 2016 (with a total cumulative effect of 0 over the full period of the forecast).

The effects considered are described in the remainder of this section.

3.9.1 TRAFFIC PATTERNS

The economic crisis in **Russia** observed since the second half of 2014 has already a major impact on traffic flows to and from Russia. In December 2014, these flows were already down by 14% compared to the same period last year. Important declines in arrival/departures traffic to and from Russia (down to -25% in the second half of June 2014) have been foreseen until end of 2016.

Since **Egypt** traffic is recovering, a recovery scenario has been developed to get back to flight levels of 2010 by the end of 2016.

On the other hand, we have not adjusted for:

- Airspace unavailability (**Ukraine** and **Libya, Iraq**) which led to changes in traffic patterns. Since most of these route changes have been observed in the traffic trends from the second half of 2014 (as discussed in Section 2.1), no specific adjustment has been made to any of the States affected by the re-routings. Lacking any indication of when there might be a re-opening of the routes in Ukraine, we assumed there will be no restoration of pre-crisis traffic patterns ("normal" routings). This means that the routing patterns observed in Eastern Europe since April 2014 will be used until the end of the forecast (2021).
- The impact of the **KFOR Sector airspace** re-opening for civil traffic since April 2014. Aircraft operators seem to have adopted quickly the more efficient routings that were made available, so the effect is already in our baseline data.

location not yet known).

- The **Hungarian Free Route Airspace** (HUFRA) put in place by HungaroControl since 5 February 2015 and aiming at abolishing the entire fixed route network in the Budapest FIR, thus enabling aircraft to use the airspace freely, without any restrictions. The consequence of the new traffic management concept like HUFRA is that aircraft can take the shortest possible flight path between the entry and exit points in Hungary's airspace. Detailed simulations conducted at EUROCONTROL/DNM/OPL based on a scenario to compare the distance flown with/without HUFRA (same traffic, with shortest routing scenario) showed no impact on the number of flights but some on the average distance flown (see Section 3.10).

3.9.2 AIRLINE CAPACITIES & FAILURES

As indicated in Section 3.7, the full schedules coming from INNOVATA data (February 2015) have not been used in this forecast. Instead, specific, local adjustments for the **Summer 2015** have been included based on company reports for 2015, news and preliminary slot bookings from the recent slot conference, and schedules where these could be cross-validated against these other sources,

Here are the additional traffic foreseen next Summer15:

- Greece (A/D/I): +20% per month,
- Italy (A/D): +4% per month,
- Spain (A/D): +7% per month,
- Spain (I): +3.5% per month,
- UK (A/D/I): +1% per month,
- Ireland (A/D/I): +3% per month,
- Netherlands (A/D/I): +4% per month.

Some adjustments have been made to model the impact of a **failure** and its recovery (namely Cyprus Airways declared bankrupt on January 9 2015 and EuroLOT in Poland suspending operations from the beginning of April 2015). Such events are modelled by short-term impacts on the concerned flows that are phased to change at each change of schedule to assume a return to previous traffic levels within 1 year as other companies respond. In 2014, we observed some other failures from the following European airlines with very small market share: Air Alps (Austria), Central Connect (Czech Republic), Snowbird (Finland), Livingston (Italy), Small Planet Airlines (Italy), Bingo (Poland), 4You (Poland), Fly Romania (Romania), Fly Olympic (Sweden), AviaTrans K (Ukraine).

3.9.3 SPORT EVENTS

EURO2016 (European football cup) to be held in **France** from 10 June to 10 July 2016 (9 sites) is likely to have a small impact on traffic in France. In accordance with estimates from the DGAC/France, STATFOR derived expected impact based on the EURO2008 and EURO2012 historical data. French Arrivals/Departures and Internal flows are expected to see 0.1% and 0.08% additional traffic respectively.

EURO2020 (European football cup) to be held in **13 different European countries** (Azerbaijan, Belgium, Denmark, Germany, Hungary, Ireland, Italy, Netherlands, Romania, Russia, Scotland, Spain, UK holding the final and semi-finals) during the middle of 2020 is likely to have a small impact on traffic in those countries. We derived expected impact based on the EURO2008 (co-organised by Austria and Switzerland) historical data. Since most of the extra flights are generated during the final and semi-finals, 80% of the total impact was attributed to the UK. The rest of the impact was split between the other countries.

Excluded:

No adjustment for the Summer Olympics in Brazil in August 2016.

Figure 33. Events and Trends assumptions by Traffic Zone.

Source: STATFOR analysis and modelling
Comments: Consolidation includes: trends from STF and future events such as EU Accession, Euro16 football cup
Units: Growth index (Baseline Year=1.0). Data last updated: 25/02/2015

			2015	2016	2017	2018	2019	2020	2021
Azerbaijan	Total: Arr/Dep	H	.	.	.	.	.	1.003	.
		B	.	.	.	.	.	1.001	.
		L	.	.	.	.	.	1.001	.
Belgium/Luxembourg	Total: Arr/Dep	H	.	.	.	.	.	1.000	.
		B	.	.	.	.	.	1.000	.
		L	.	.	.	.	.	1.000	.
Cyprus	Total: Arr/Dep	H	0.979	.	.	.	.	.	.
		B	0.958	.	.	.	.	.	.
		L	0.917	.	.	.	.	.	.
Denmark	Total: Arr/Dep	H	.	.	.	.	.	1.001	.
		B	.	.	.	.	.	1.000	.
		L	.	.	.	.	.	1.000	.
Egypt	Total: Arr/Dep	H	1.257	1.580	1.580	1.580	1.580	1.580	1.580
		B	1.257	1.580	1.580	1.580	1.580	1.580	1.580
		L	1.129	1.290	1.290	1.290	1.290	1.290	1.290
France	Total: Internal	H	.	1.002	.	.	.	.	.
		B	.	1.001	.	.	.	.	.
		L	.	1.000	.	.	.	.	.
	Total: Arr/Dep	H	.	1.002	.	.	.	.	.
		B	.	1.001	.	.	.	.	.
		L	.	1.001	.	.	.	.	.
Germany	Total: Arr/Dep	H	.	.	.	.	.	1.000	.
		B	.	.	.	.	.	1.000	.
		L	.	.	.	.	.	1.000	.
Greece	Total: Internal	H	1.100	1.100	1.100	1.100	1.100	1.100	1.100
		B	1.100	1.100	1.100	1.100	1.100	1.100	1.100
		L	1.100	1.100	1.100	1.100	1.100	1.100	1.100
	Total: Arr/Dep	H	1.100	1.100	1.100	1.100	1.100	1.100	1.100
		B	1.100	1.100	1.100	1.100	1.100	1.100	1.100
		L	1.100	1.100	1.100	1.100	1.100	1.100	1.100
Hungary	Total: Arr/Dep	H	.	.	.	.	.	1.001	.
		B	.	.	.	.	.	1.000	.
		L	.	.	.	.	.	1.000	.
Ireland	Total: Internal	H	1.020	1.020	1.020	1.020	1.020	1.020	1.020
		B	1.020	1.020	1.020	1.020	1.020	1.020	1.020
		L	1.020	1.020	1.020	1.020	1.020	1.020	1.020
	Total: Arr/Dep	H	1.020	1.020	1.020	1.020	1.020	1.020	1.020
		B	1.020	1.020	1.020	1.020	1.020	1.020	1.020
		L	1.020	1.020	1.020	1.020	1.020	1.020	1.020
Italy	Total: Arr/Dep	H	1.017	1.017	1.017	1.017	1.017	1.017	1.017
		B	1.017	1.017	1.017	1.017	1.017	1.017	1.017
		L	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Netherlands	Total: Internal	H	1.027	1.027	1.027	1.027	1.027	1.027	1.027
		B	1.027	1.027	1.027	1.027	1.027	1.027	1.027
		L	1.027	1.027	1.027	1.027	1.027	1.027	1.027
	Total: Arr/Dep	H	1.027	1.027	1.027	1.027	1.027	1.027	1.027
		B	1.027	1.027	1.027	1.027	1.027	1.027	1.027
		L	1.027	1.027	1.027	1.027	1.027	1.027	1.027
Poland	Total: Internal	H	0.977	0.999	.	.	.	.	.
		B	0.954	0.998	.	.	.	.	.
		L	0.908	0.995	.	.	.	.	.
Romania	Total: Arr/Dep	H	.	.	.	.	.	1.001	.
		B	.	.	.	.	.	1.000	.
		L	.	.	.	.	.	1.000	.
Russian Federation	Total: Arr/Dep	H	0.888	0.833	0.833	0.833	0.833	0.833	0.833
		B	0.775	0.665	0.665	0.665	0.665	0.665	0.665
		L	0.663	0.498	0.498	0.498	0.498	0.498	0.498

Spain	**Total: Internal**	**H**	1.018	1.018	1.018	1.018	1.018	1.018	1.018
		B	1.018	1.018	1.018	1.018	1.018	1.018	1.018
		L	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	Total: Arr/Dep	**H**	1.035	1.035	1.035	1.035	1.035	1.035	1.035
		B	1.035	1.035	1.035	1.035	1.035	1.035	1.035
		L	1.000	1.000	1.000	1.000	1.000	1.000	1.000
UK	**Total: Internal**	**H**	1.007	1.007	1.007	1.007	1.007	1.007	1.007
		B	1.007	1.007	1.007	1.007	1.007	1.007	1.007
		L	1.007	1.007	1.007	1.007	1.007	1.007	1.007
	Total: Arr/Dep	**H**	1.007	1.007	1.007	1.007	1.007	1.016	1.007
		B	1.007	1.007	1.007	1.007	1.007	1.012	1.007
		L	1.007	1.007	1.007	1.007	1.007	1.009	1.007

3.10 TSU adjustment

3.10.1 ADUSTMENTS TO PAST DATA

As mentioned in Section 2.2 the total en-route service units (TSU) data recorded in December 2014 and January 2015 in the CRCO database have been corrected to compensate for the underestimated values in the system. The adjustments are summarised in the Figure 34.

Figure 34. Adjustments to CRCO historical data.

Source: EUROCONTROL Data and analysis
Comments: Manual corrections to TSU data for a few States.
Units: Growth index. Data last updated: 24/02/2015

TSU Adjustment applied to compensate for underestimation	Month	
	DEC14	JAN15
Italy	2.5%	2.1%
United Kingdom	3%	2.4%

3.10.2 ADUSTMENTS TO FUTURE

The Hungarian Free Route Airspace (HUFRA) put in place in February 2015 is expected in EUROCONTROL/DNM/OPL simulations to slightly decrease the average distance flown over the whole NM area. However, when measuring the impact at Hungarian ACC level, a slight increase in average distance flown is observed. This is linked to the fact that aircraft operators are likely to optimise a flight plan as a whole and might find a shorter route overall but flying longer via Hungarian airspace. The calculated adjustment in the service unit forecast for the 2015 period is a 1.6% increase for Hungary.

4. GROWTH IN IFR FLIGHTS TO 2021

The new forecast is for 11.4 million IFR movements (±0.9 million) in Europe in 2021, accounting for 19% more than in 2014. The first year of the forecast expects +1.5% (±1 pp), a downward revision on previous forecast. The economic outlook in the Scandinavian countries (including Finland) and in Russia has strongly deteriorated in the first years of the forecast. This has a negative impact on European flight growth overall and is not compensated by the solid growth rates expected for this Summer in Southern countries. In parallel, the various airspace unavailabilities (e.g. Eastern Ukraine, Libya) since the second half of 2014 have significantly changed the traffic patterns adding to the disparities in growth within the surrounding countries for 2015. It is to be noted that, the recent fall in oil price has not yet translated into a reduction on ticket prices, thus not specifically boosted passenger demand.

Over the 2014-2021 period, European flight growth is expected to be back at around 2.5% per year. The 2008 peak of traffic of 10.1 million flights is expected to be reached again by 2017 (9-year hiatus), this is one year later compared to the September 2014 forecast publication. Traffic in Europe shows higher annual flight growth rates in 2016 and 2020 but these are due to the extra growth from the leap year effect. The new Istanbul airport, expected to be operational from end 2017, will partially lift the constraints in the 2017-2018 horizon.

Any user of the forecast is strongly advised to consider the low-to-high ranges.

Figure 35. Summary of the forecast for Europe.

ESRA08		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	AAGR 2021/ 2014	RP1 2014/2011 AAGR	RP2 2019/2014 AAGR
IFR Flight Movements (Thousands)	H	.	.	.	.	9,834	10,228	10,675	11,089	11,487	11,957	12,332	**3.6%**	**.**	**3.6%**
	B	9,784	9,548	9,447	9,604	9,750	10,039	10,310	10,588	10,852	11,166	11,397	**2.5%**	**-0.6%**	**2.5%**
	L	.	.	.	.	9,638	9,803	9,876	10,001	10,124	10,263	10,343	**1.1%**	**.**	**1.1%**
Annual Growth (compared to previous year)	H	.	.	.	.	2.4%	4.0%	4.4%	3.9%	3.6%	4.1%	3.1%	**3.6%**	**.**	**3.6%**
	B	3.1%	-2.4%	-1.1%	1.7%	1.5%	3.0%	2.7%	2.7%	2.5%	2.9%	2.1%	**2.5%**	**-0.6%**	**2.5%**
	L	.	.	.	.	0.4%	1.7%	0.8%	1.3%	1.2%	1.4%	0.8%	**1.1%**	**.**	**1.1%**

Annexes B, C and D give the details of forecast traffic and growth per State and aggregate areas (FAB, EU28 etc.).

4.1 Short-term outlook (2015-2016)

Since the previous forecast was finalised in September, we observe more stability for most GDP forecast in Europe, but not consistently and some specific local events have changed the GDP forecasts in Russia and the Scandinavian countries (including Finland). At European level, the traffic forecasts for 2015 is affected negatively with a lower growth of 1.5% (±1 pp) compared to previous forecast (1.5% corresponds to the lower end of the September 2014 forecast). 2016 remains mostly unchanged with a growth of 3% (±1.2 pp).

If the economic forecast has hardly changed overall for Europe (see Section 3.1), some specific local events have strongly affected the GDP forecast in Russia and the Scandinavian countries (including Finland). So, this weak economic outlook for 2015 combined with the mixed traffic trends since the beginning of the Winter Schedules lead to a moderate growth for 2015. The main area in which there is more clarity than in September is in airlines' intentions for the Summer 15 season where we observe significant boost for Southern Europe.

Southern Europe

South-European States have seen upwards revision in their short-term traffic forecasts:

- High expected summer growth in Greece, Italy and Spain explain the upward revision of their

forecasts in 2015 (respectively 10%, 2% and 4.1%). Greece overflights are also positively influenced by the recovery of traffic in Egypt.

- Canary Islands and Azores forecasts have however been revised downwards as the shift in tourist flows from Egypt to Spanish/Portuguese Islands tails off with recovery of traffic in Egypt.
- Forecast for Malta has strongly been revised downwards in 2015 to -4.5% as the closure of the Libyan airspace has resulted in continuing overflight losses with respect to the North-South flows (e.g., North-West Europe to South Africa).
- Turkey remains the biggest European contributor to the network growth. Traffic forecast for Turkey is set for slightly lower growth of 5% (±1.4 pp) in 2015 and 6.6% (±1.8 pp) for 2016.

North-West Europe

Out of the five busiest European States, the forecast for Germany has been revised downwards compared to the September 2014 forecast due to the revision of its economic growth. It is now expected to see 0.9% (±0.9 pp) in 2015. This forecast foresees a 2% drop in overflights for 2015, which, we believe, is likely to capture the impact of the 14% increase in unit rates in Germany. Partly linked to this, is the relatively high growth rates expected in Belgium/Luxembourg for 2015.

For France, the relative optimism in traffic growth observed during Summer 2014 did not keep pace with the beginning of the Winter Schedules and the forecast shows a downward revision (-0.8 pp) to 1.3% (±1 pp) in 2015. Internal traffic is still under pressure in this State.

Flight forecast for UK remains constant compared to the September 2014 forecast with a growth expected to equal 1.9% (±0.7 pp) in 2015.

Eastern Europe

The airspace unavailability over Eastern Ukraine causes severe reductions in Ukraine (a decline of 58% is expected for 2015, related to losses in all flows). Moldova is also highly affected by the re-routing avoiding this airspace (-49% in 2015). Belarus is also affected but to a lesser extent (-4.3% in 2015).

Northern Europe

All Scandinavian countries (including Finland) are currently suffering from some economic troubles which caused the downward revision of their GDP forecasts for 2015. This had a strong impact on their arrivals, departures and internal traffic. Norway sees the highest revision of its forecast (currently -3.2% versus 2.5% in the September 2014 forecast). As for Sweden, Finland and Denmark, the revision of their forecast ranges from -4.4pp to -3.4pp.

Europe as a whole

In the short-term, flights in Europe are expected to grow to a moderate rate of 1.5% (±1 pp) in 2015 (Figure 36). This is a 0.9 pp downwards revision compared to the September 2014 forecast explained by the pressure in the Scandinavian countries (including Finland) and the economic crisis in Russia negatively affecting overflights in Europe. In 2016, traffic in Europe is expected to increase by 3% (±1.2 pp), a slight upward revision of 0.2 pp on the previous forecast. This high growth rate is among other things due to the extra growth from the leap year effect. Traffic growth rates are expected to be more homogeneous across Europe (Figure 37).

Figure 36. State forecast details for 2015.

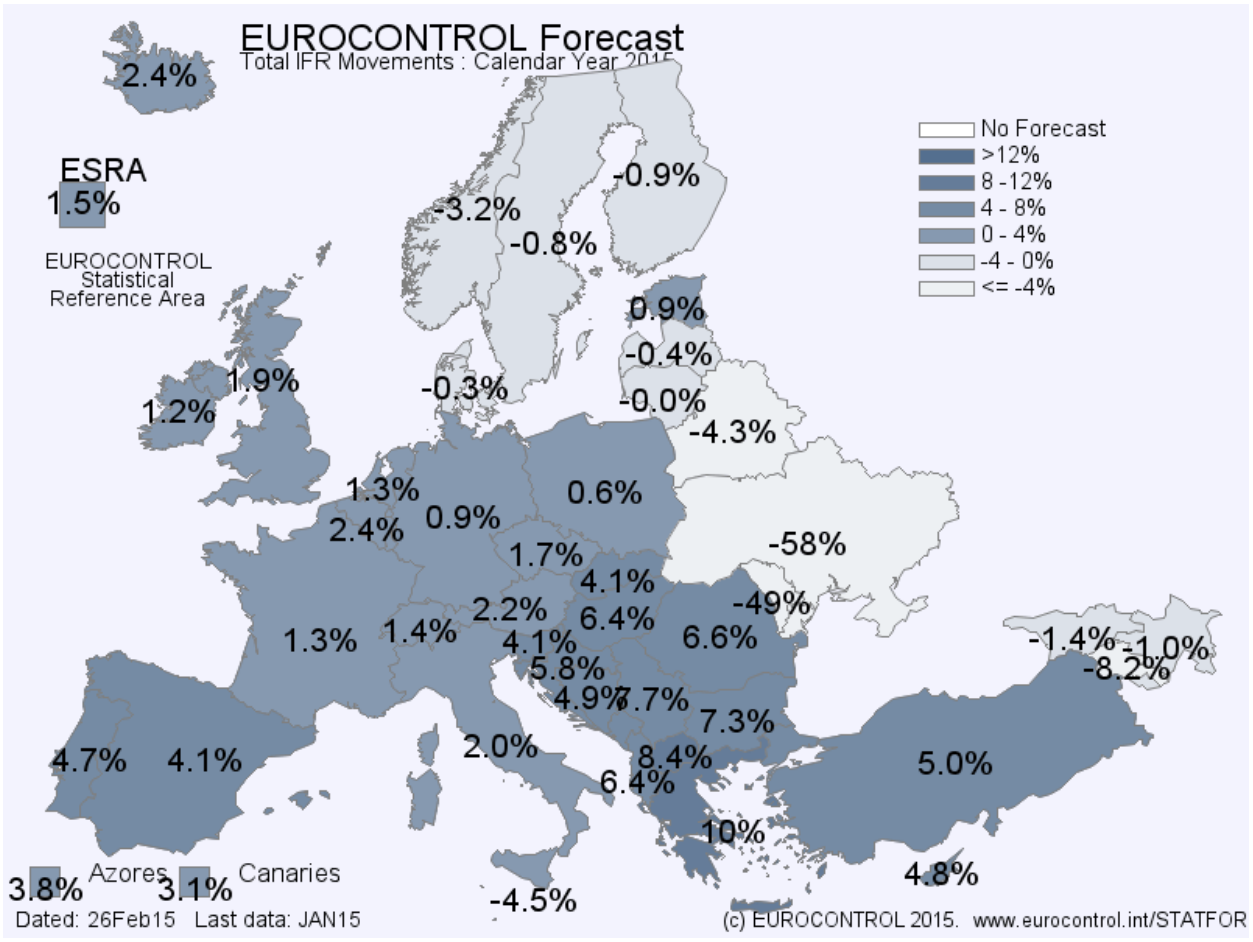
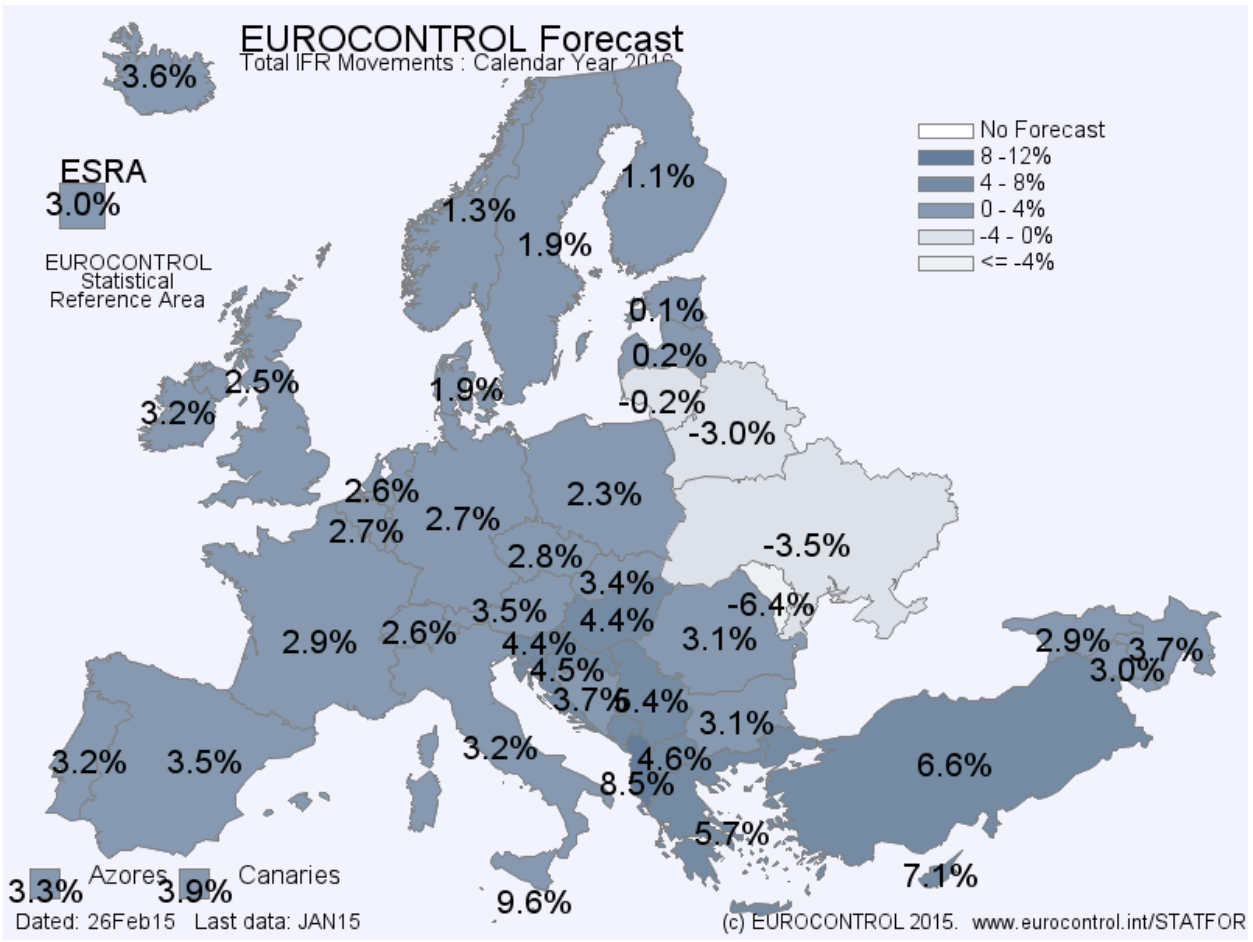


Figure 37. State forecast details for 2016.



4.2 Medium-term outlook (up to 2021)

After 2016, the traffic growth in Europe stabilises at around 2.5% increase per year, showing higher rates in 2016 and 2020 but these are due to the extra growth from the leap year effect. In fact, when comparing the average annual traffic growth rates, the growth rate of 2.8% per year in the 2016-2018 horizon will slow down in 2019 (+2.5%) due to the lack of capacity in the European network because of the airport capacity constraints placed upon the European network. The new airport in Istanbul, to open in October 2017 will partially lift the constraints and growth rates in 2017 and 2018 but the effects of the capacity constraints will be felt again as of 2019 with an average annual growth of 2.6% in the 2019-2021 horizon.

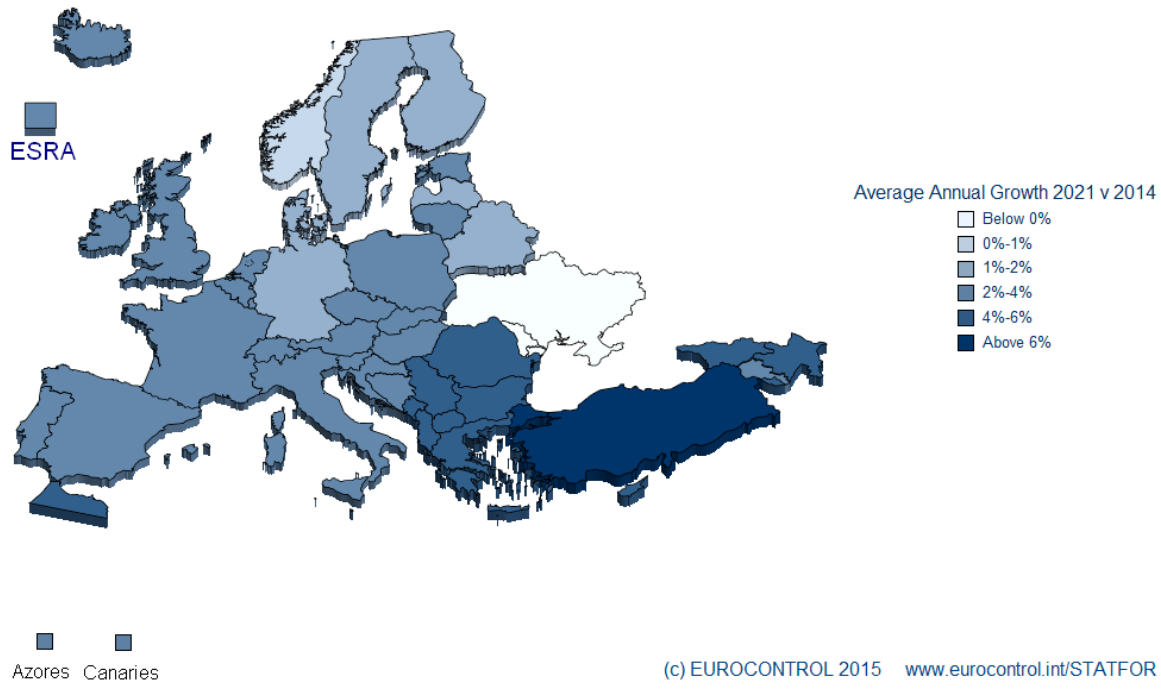
Any user of the forecast is strongly advised to use the forecast range (low-growth to high-growth) as an indicator of risk. By 2021, the high-growth scenario has 0.9 million more and low-growth scenario 1.1 million fewer flights than the base scenario. This forecast includes downside risks (e.g. capacity reductions in response to weaker demand) and upside risks (e.g. current high load factors might not be able to absorb the passenger demand). It is to be noted that, this forecast assumes[16] no return to "normal" routing will happen by the end of the seven-year horizon (2021). That being said, there is a probability that some flights through Ukraine will be restored, which would result in significant variations in the forecast results. The risks are discussed in Section 6.

As Figure 38 and Figure 39 show, the growth is not uniform across Europe. While the growth (in percentage terms) is much weaker in the more mature markets of Western Europe, it is still the busiest States (France, Germany, Spain followed by UK, Italy and Belgium/Luxembourg) which will see the greatest number of extra flights per day (Figure 39). Turkey will both see the fastest growth rates (6.0% as average annual growth rate over the 7 years) and the highest number of extra flights per day (2,330 additional flights per day in 2021), being the biggest contributor to the growth in Europe.

Figure 40 shows the corresponding Figure 38 at functional airspace block level (FAB). Danube FAB is expected to have the highest average annual growth rate (4.1%, ±1.7 pp) over the next seven years. Blue Med FAB and South West FAB are the busiest European FABs with respectively 3.4% and 3% AAGR. NEFAB and DK-SE FAB will experience more limited average annual growth rates of respectively 1% and 1.6% by 2021.

Annexes C and D give the details of forecast traffic and growth per State and areas (FAB, EU28…).

Figure 38. Average Annual Growth per State, 2021 v 2014.



[16] Assumptions in this document are purely for forecasting purposes and do not represent any policy of the Agency.

Figure 39. Number of additional movements per day for each State (2021 v 2014).

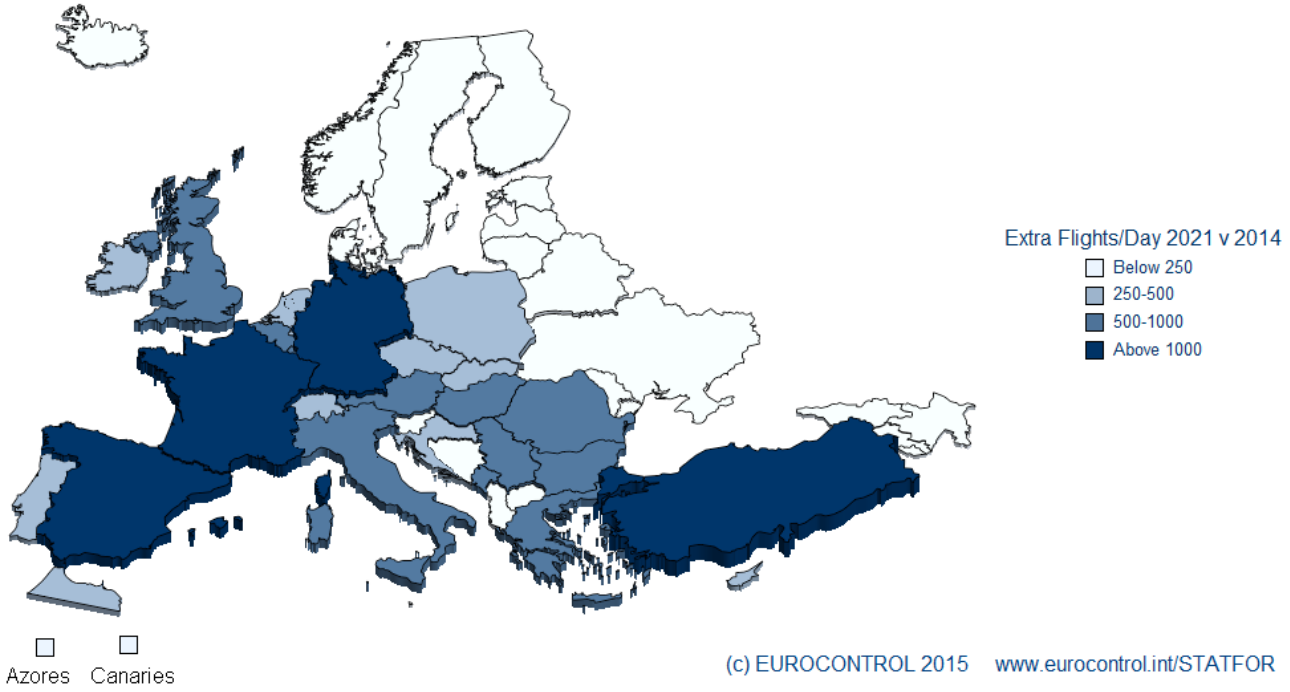
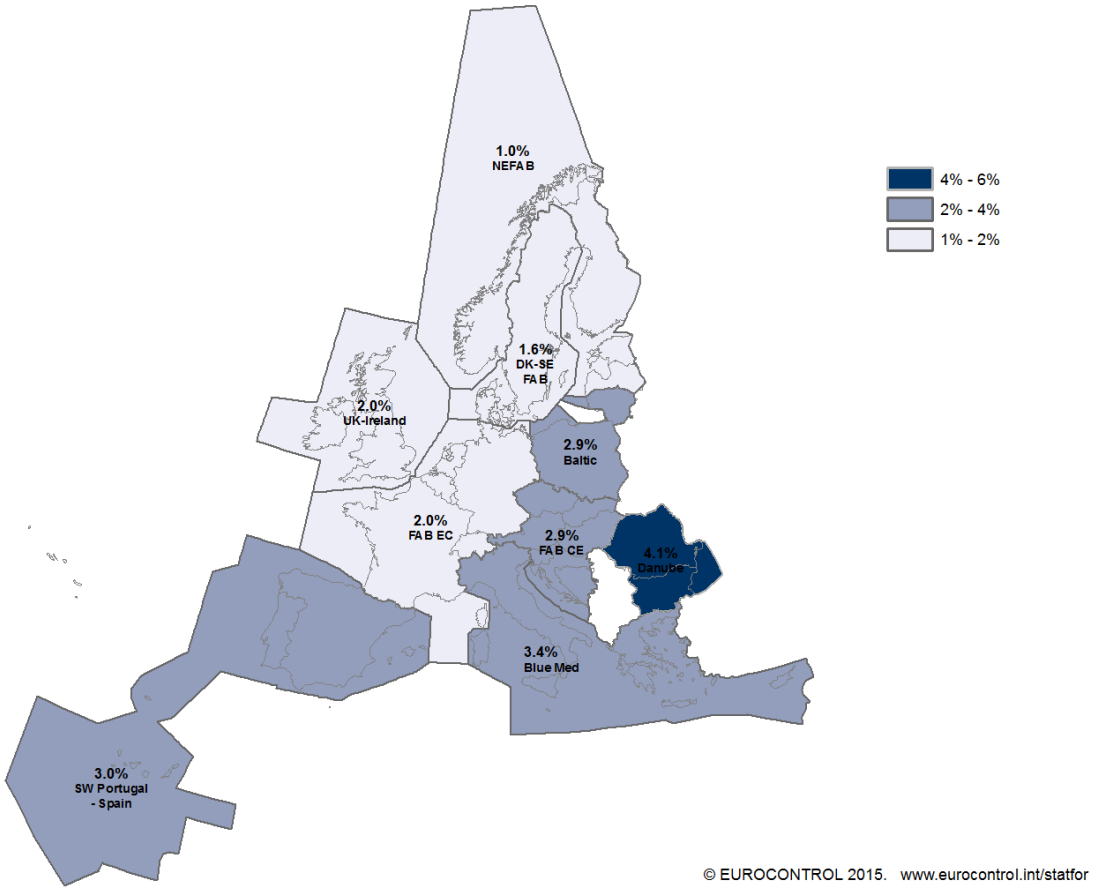


Figure 40. Average Annual Growth per FAB, 2021 v 2014.

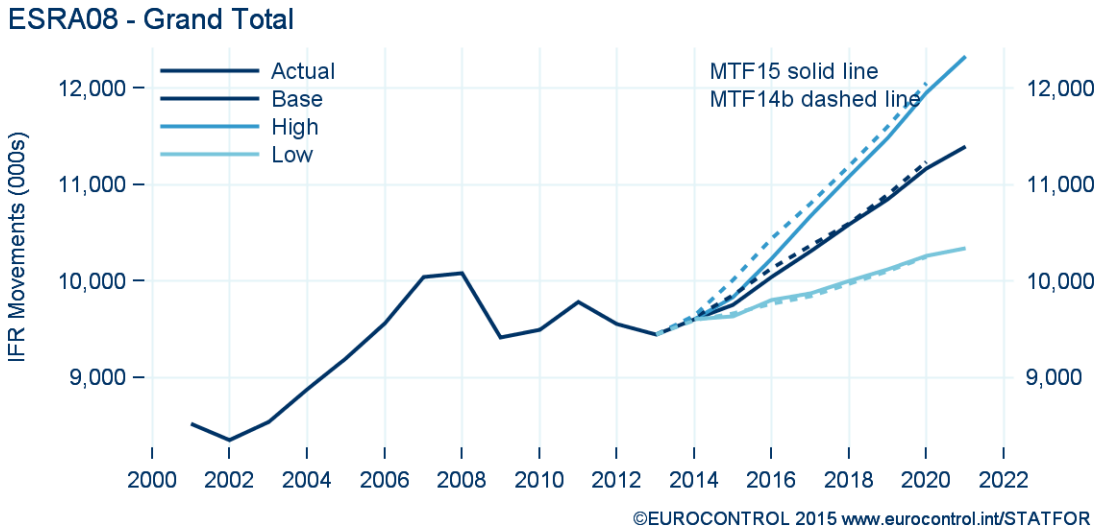


4.3 Comparison with previous forecast

Globally, the baseline forecast is slightly lower than the September 2014 forecast. Moreover, the uncertainty around high-and low-scenario has been reduced in the first years.

Figure 41 illustrates that the current forecast (MTF15) for total Europe remains quite well aligned even if slightly lower than the previous seven-year forecast issued in September 2014 (MTF14b), especially for the high and base scenarios. The first two years of the forecast show narrower low-to-high ranges because the uncertainty has now been reduced in the short-term.

Figure 41. For total Europe, current forecast is slightly lower than previous forecast (dated September 2014), with narrower short-term uncertainty.



4.4 High-Speed train effect

Expansion of the high-speed train network reduces flight growth by just 0.6% over 7 years, though the local effects are more significant.

In the forecast model, reductions in travel time for high-speed train led to reductions in the number of flights on the same city pair (see methodology document, Ref. 2). The high-speed train lines' improvements taken into account in this forecast are detailed in Section 3.5. The number of IFR movements that are lost to rail because of improvements in the high-speed train (HST) network are summarised in Figure 42. By 2021, it is now assessed that around 72,000 flights will be removed from the network. The effect is around 0.6% in total over the 7 years; which is small on the scale of the network as a whole (see Section 4.5 for the effect of capacity constraints). However, on specific city-pairs, the effect can be quite large, especially at the end of the horizon. Overall, the effect is larger than in the February 2014 forecast, under the old methodology.

As far as the States are concerned, France and Turkey will see the largest impacts in terms of flights: respectively a reduction of nearly 21,200 flights and 22,400 flights lost to train in 2021 which corresponds to 5.5% and 3.8% of their internal traffic. Development of HST in Germany will also have a large impact, with around 10,600 flights left to train in 2021, corresponding to around 3.2% of the internal traffic removed.

Figure 42. Impact of High-Speed Train. (Reduction in flights when High-Speed train network development is taken into account. Note that the HST impact is assessed on forecasts excluding capacity constraints).

	Change in IFR Movements (000s)							Percentage Change						
	2015	2016	2017	2018	2019	2020	2021	2015	2016	2017	2018	2019	2020	2021
High	0.2	9.3	16.6	26.5	47.1	66.7	71.2	0.0%	0.1%	0.2%	0.2%	0.4%	0.5%	0.5%
Base	0.9	11.5	20.9	41.2	58.7	63.1	71.7	0.0%	0.1%	0.2%	0.4%	0.5%	0.5%	0.6%
Low	0.9	11.2	20.1	39.4	55.1	58.5	65.7	0.0%	0.1%	0.2%	0.4%	0.5%	0.6%	0.6%

		Change in IFR Movements (000s)							Percentage Change						
		2015	2016	2017	2018	2019	2020	2021	2015	2016	2017	2018	2019	2020	2021
Base	Belgium/Lux	.	.	.	0.2	0.2	0.2	0.2	.	.	.	0.1%	0.1%	0.1%	0.1%
	Denmark	.	.	.	.	.	.	0.3	.	.	.	.	.	.	0.2%
	France	.	0.4	4.8	14.7	20.9	21.1	21.2	.	0.0%	0.5%	1.5%	2.1%	2.1%	2.1%
	Germany	.	.	0.6	4.9	9.1	9.7	10.6	.	.	0.1%	0.4%	0.8%	0.8%	0.9%
	Italy	.	.	.	.	.	0.3	0.7	.	.	.	.	.	0.0%	0.1%
	Netherlands	.	0.9	1.9	2.0	2.0	2.1	2.1	.	0.3%	0.6%	0.6%	0.6%	0.6%	0.6%
	Poland	0.9	3.1	3.2	3.3	3.4	3.6	3.8	0.5%	1.8%	1.7%	1.7%	1.7%	1.7%	1.7%
	Spain	.	.	0.4	1.8	3.6	3.6	6.8	.	.	0.1%	0.2%	0.5%	0.4%	0.8%
	Switzerland	.	.	.	.	.	0.6	1.4	.	.	.	.	.	0.2%	0.5%
	Turkey	.	6.1	8.0	12.4	17.4	19.9	22.4	.	0.9%	1.0%	1.5%	1.9%	2.0%	2.1%
	UK	.	0.9	1.9	2.0	2.0	2.1	2.1	.	0.1%	0.2%	0.2%	0.2%	0.2%	0.2%

4.5 Airport Capacity impact

Constraints at airports mean that demand for less than 200 thousand flights cannot be accommodated by 2021, which is a 1.7% reduction in growth over the period. Compared to previous estimates of the impact, the main change is in the forecast volume of traffic not in the capacity values.

Airports provide their capacity plans to EUROCONTROL through the Airport Unit of the Network Manager. The published forecast is constrained by these capacity plans (see Section 3.8). We calculate the effects of airport capacity constraints by comparing the published forecast with a what-if? forecast that removes capacity constraints. The results are shown in Figure 43.

In the base scenario, by 2021 around 198,000 flights cannot take place because the departure or arrival airport has reached its capacity. That is 1.7% of demand, so represents about 0.2% per year reduction in flight growth. This assumes that airports are able to deliver the capacity plans that they have, which has not always been the case.

Industry responds to constraints in a number of ways: airlines by up-gauging aircraft, or by growing or moving elsewhere; airports by expanding or enhancing their infrastructure; governments by investing in alternative modes, for example. The mitigation report (Ref. 4) from *Challenges of Growth 2013* considered these mitigation options in more detail, at the 2035 horizon. In practice, this implies that some of these unaccommodated flights may be accommodated by other means that are beyond the scope of the present report to analyse.

Compared to the February 2014 forecast (Ref. 5) constraints have a higher impact at seven years ahead (1.7% in 2021, versus 1.3% in 2020 last year), but at the shared 2020 horizon have a similar impact: 1.3% in the base scenario which is 5,000 flights more in this forecast compared to February 2014 forecast.

Figure 43. Impact of airport constraints. (Reduction in IFR flights when airport constraints are taken into account.)

	Change in IFR Movements (000s)							Percentage Change						
	2015	2016	2017	2018	2019	2020	2021	2015	2016	2017	2018	2019	2020	2021
High	36.8	62.9	86.9	136.5	202.7	259.3	343.3	0.4%	0.6%	0.8%	1.2%	1.7%	2.1%	2.7%
Base	28.0	38.3	46.6	68.3	111.6	149.5	197.7	0.3%	0.4%	0.4%	0.6%	1.0%	1.3%	1.7%
Low	20.3	17.8	14.0	22.3	36.9	65.7	88.2	0.2%	0.2%	0.1%	0.2%	0.4%	0.6%	0.8%

5. SERVICE UNIT GROWTH TO 2021

In 2015, 136.8 million en-route service units (TSU) are expected to be produced in the CRCO14 area, corresponding to a growth of 3.6% (±1.3 pp) compared to 2014. This is a small revision downwards compared to the September 2014 forecast, owing to the downward revision in the flight forecast and the slower-than-expected trends in service units recorded since the start of the Winter timetable. The downward revision of TSU is more limited (-0.3 pp) than in the flight forecast (-0.9 pp) as the average weight factor is expected to continue to increase. After 2015, a relative stability in the growth rates around 3% per year is expected and this forecast falls within the high-low forecast range published in September 2014 across the horizon. In 2021, the growth rate is forecasted to fall at 2.5% as, similarly to the flight forecast, airport capacity will constrain growth in Europe.

Over the 7-year horizon, growth rates are expected to gradually decelerate from 3.6% in 2015 to slightly below 3% in 2021 (when adjusting for the calendar effects of the leap years).

For States involved in the Performance Scheme (RP2Region area), the 2015 forecast has been revised downwards by 0.7 percentage point to 2.8% (compared to the September 2014 forecast publication). During the second review period (2015-2019), the TSU are expected to grow by 3% (±1.4 pp) per year, on average.

The average annual growth rate of 3% for the States in the Performance Scheme over the 2015-2019 period is in line with the most-likely scenario published in the reference forecast of February 2014.

For some States, due to the implementation of ABACUS, the CRCO experiences some delays in the processing of flight messages for flight operated from November 2014. Consequently, there is a risk that the forecast produced may undercount en-route service units. This is an upside risk.

5.1 En-route Service units (TSU)

In 2015, following the downward revision in the flight forecast, en-route service units are also expected to end slightly below the base scenario of the September 2014 forecast (Ref. 1). The factors causing the downward revision in the 2015 flight forecast (see Section 4) have also weighed on the service units forecast:

- Some of the busiest European States have seen a recent slowdown in their service units (France, Germany, Italy), as well as some North European States (Denmark, Sweden); however, there is a risk that some of this apparent slowdown is due to the delay experienced by the CRCO in processing the backlog of flights;
- Since April 2014, the declines in traffic (especially overflights) and service units in Ukraine and Moldova (see Section 2.1) continued and the drop in average distance flown and average weight factor worsened;
- The re-routings due to airspace unavailability in Ukraine (see Section 2.1), if continuing to boost the service units for most of the States (see below) had nevertheless a negative impact in some others (Poland, Czech Republic, Slovakia, Lithuania, Latvia) owing to declining average weight factors or average distance flown or both. These effects are expected to level off from 2016 onwards based on the assumption the airspace unavailability will remain during the 7 years;
- A downward revision of the average distance flown for States related to North/South Atlantic traffic, led to downward revisions in the service unit forecasts for Lisbon FIR, Ireland and Canary Islands (this might also be linked to the counter effect of the jet stream changing patterns in 2014 effects).

The events and trends influencing the forecast have not all had a negative impact on Service Units:

- The above-mentioned re-routings due to airspace unavailability in Ukraine led to upwards revisions in Turkey, Bulgaria, Hungary and Austria owing to important upwards revisions of average weight factors in these States;
- The re-routings due to airspace unavailability in Libya, shifting the North-to-South flows over Malta increased the average distance flown in the State (although weight factors slightly declined) which resulted in an upwards revision of the forecast. These flows have notably been re-routed through Greece which increased the service unit trends hence the forecast for 2015.

Overall, service units are still growing faster than flights because of the continuing trend in increasing weight factors (see Section 2.1) observed in the past years and the relative stability in average distance flown.

In 2015, 136.8 million en-route service units are expected to be produced in the CRCO14 area, corresponding to a 3.6% growth (±1.3 pp). In 2016, service units are expected to grow at the same rate as in 2015: +3.6% (±1.2 pp) when the leap year effect[17] is removed.

From 2017 onwards, average annual growth rates[18] are forecasted to gradually decelerate to just below 3%. A more moderate growth rate in 2021 is explained by the fact the airport constraints will have an important impact on the European network (see Section 4.5), limiting the accommodated demand in Europe. By 2021, the TSU are expected to reach 165.5 million in the CRCO14 region representing a baseline average growth of 3.3% per year from 2014 and a total growth of 25% (compared to 2014). By 2021, the high-growth scenario has 15.3 million more TSU than the base scenario and the low-growth scenario has 16.2 less TSU than the base scenario in the CRCO14 area (corresponding to +9% and -10% in terms of growth, respectively).

For those States participating in the Performance Scheme (RP2Region), 114.8 million en-route service units are expected to be produced in 2015 corresponding to a growth of 2.8% (±1.3 pp) on 2014, a slightly lower rate than in CRCO14 region as the scope is reduced (and dynamic States like Turkey are excluded). During the second review period (RP2) covering 2015-2019, the en-route service units are expected to growth by 3% (±1.4 pp) per year, on average. This is in line with the RP2 growth rates published in the forecast (September 2014, see Ref. 5).

Figure 44. Summary of forecast of total service units in Europe.

Total en-route service units		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2021/ 2013 Total Growth	RP1 2014/ 2011 AAGR	RP2 2019/ 2014 AAGR
Total service units (thousands) CRCO11*	H	.	.	.	.	137,672	144,517	151,793	158,721	165,526	173,305	179,558	37%	.	4.7%
	B	123,211	121,589	124,162	131,379	136,052	141,347	145,907	150,687	155,313	160,452	164,413	25%	2.2%	3.4%
	L	.	.	.	.	134,311	137,840	139,488	141,891	144,261	146,712	148,326	13%	.	1.9%
Total service units (thousands) CRCO14*	H	.	.	.	.	138,481	145,379	152,740	159,753	166,648	174,523	180,872	37%	.	4.8%
	B	123,939	122,298	124,910	132,130	136,834	142,159	146,778	151,621	156,310	161,516	165,540	25%	2.2%	3.4%
	L	.	.	.	.	135,067	138,601	140,286	142,731	145,143	147,636	149,288	13%	.	1.9%
Total service units (thousands) RP1Region†	H	.	.	.	.	114,202	119,448	124,952	130,283	135,482	141,485	146,081	33%	.	4.3%
	B	105,126	103,572	105,235	109,910	112,921	116,915	120,262	123,819	127,300	131,195	134,047	22%	1.5%	3.0%
	L	.	.	.	.	111,539	114,128	115,149	116,790	118,426	120,182	121,215	10%	.	1.5%
Total service units (thousands) RP2Region†	H	.	.	.	.	116,070	121,415	127,020	132,447	137,741	143,848	148,532	33%	.	4.3%
	B	106,761	105,251	106,930	111,670	114,758	118,823	122,230	125,852	129,396	133,359	136,264	22%	1.5%	3.0%
	L	.	.	.	.	113,344	115,968	117,008	118,681	120,348	122,135	123,188	10%	.	1.5%

Total en-route service units		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	AAGR 2021/ 2013	RP1 2014/ 2011 AAGR	RP2 2019/ 2014 AAGR
Annual Growth CRCO11*	H	.	.	.	.	4.8%	5.0%	5.0%	4.6%	4.3%	4.7%	3.6%	4.6%	.	4.7%
	B	5.0%	-1.3%	2.1%	5.8%	3.6%	3.9%	3.2%	3.3%	3.1%	3.3%	2.5%	3.3%	2.2%	3.4%
	L	.	.	.	.	2.2%	2.6%	1.2%	1.7%	1.7%	1.7%	1.1%	1.7%	.	1.9%
Annual Growth CRCO14*	H	.	.	.	.	4.8%	5.0%	5.1%	4.6%	4.3%	4.7%	3.6%	4.6%	.	4.8%
	B	5.0%	-1.3%	2.1%	5.8%	3.6%	3.9%	3.2%	3.3%	3.1%	3.3%	2.5%	3.3%	2.2%	3.4%
	L	.	.	.	.	2.2%	2.6%	1.2%	1.7%	1.7%	1.7%	1.1%	1.8%	.	1.9%
Annual Growth RP1Region†	H	.	.	.	.	3.9%	4.6%	4.6%	4.3%	4.0%	4.4%	3.2%	4.1%	.	4.3%
	B	4.5%	-1.5%	1.6%	4.4%	2.7%	3.5%	2.9%	3.0%	2.8%	3.1%	2.2%	2.9%	1.5%	3.0%
	L	.	.	.	.	1.5%	2.3%	0.9%	1.4%	1.4%	1.5%	0.9%	1.4%	.	1.5%
Annual Growth RP2Region†	H	.	.	.	.	3.9%	4.6%	4.6%	4.3%	4.0%	4.4%	3.3%	4.2%	.	4.3%
	B	4.6%	-1.4%	1.6%	4.4%	2.8%	3.5%	2.9%	3.0%	2.8%	3.1%	2.2%	2.9%	1.5%	3.0%
	L	.	.	.	.	1.5%	2.3%	0.9%	1.4%	1.4%	1.5%	0.9%	1.4%	.	1.5%

* CRCO11 designates the sum over all the States participating in the Multilateral Route Charges System in 2012 of all TSU either measured or forecasted for the corresponding year. CRCO14 designates CRCO11+Georgia who joined Eurocontrol in 2014. See Annex A.

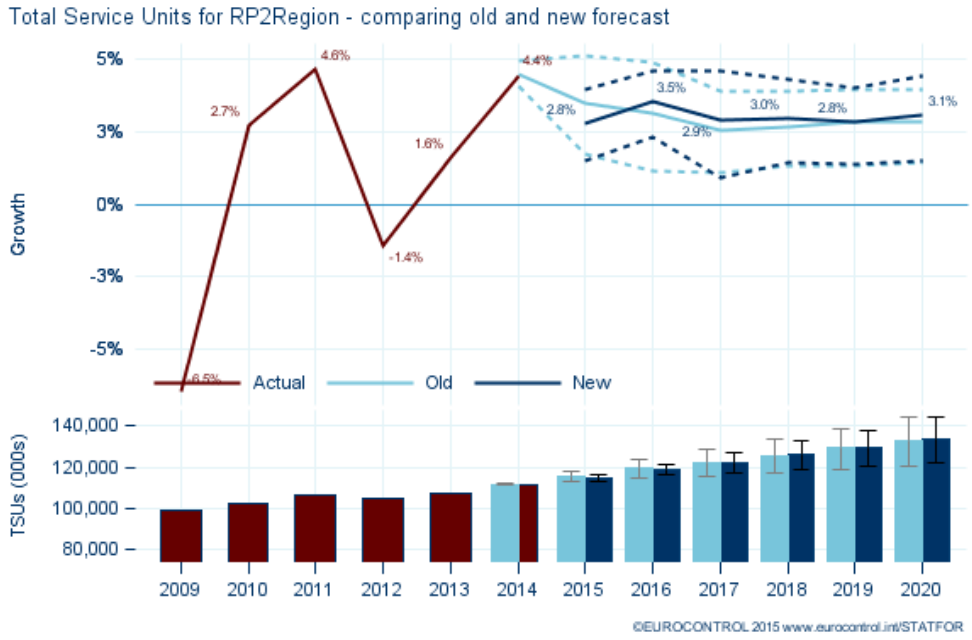
† RP1Region stands for the sum over all the 30 States that were involved in the EU-wide performance target setting minus Croatia (28 EU Member States plus Norway and Switzerland minus Croatia). RP2Region is RP1Region plus Croatia.

[17] Total en-route service units in Figure 44 are expressed in yearly totals and not average dailies.

[18] When adjusting the calendar effects due to the leap year (in 2016/2017 and 2020/2021).

Figure 45 compares the evolution of the forecasts between the September 2014 forecast and this forecast for the States involved in the Performance Scheme. Overall, the forecasts are quite in line, as accelerating growth in weight factors has counterbalanced the downward revision in the flight forecast in the first year. The first year of the TSU forecast has been revised downwards by 0.3 pp, as explained above. As from 2016 onwards, growth rates have been marginally revised upwards until 2020.

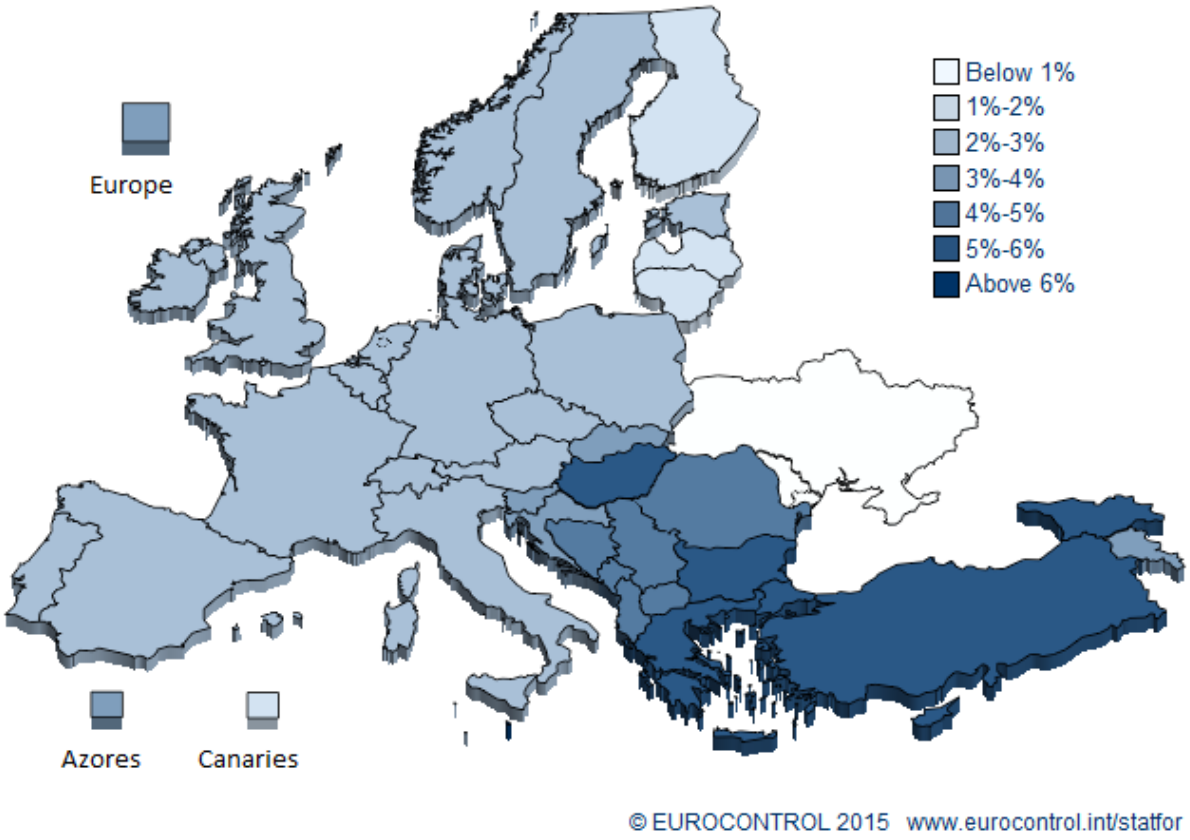
Figure 45. Comparison 2014-2020 of the forecast between the current forecast (new) and the September 2014 forecast (old) for RP2Region.



Any user of this seven-year forecast is reminded to consult the entire forecast range (low-growth to high-growth) as an indicator of risk. Despite the revisions to the CRCO14 forecast just described, the 2020 base forecast is well within the low-to-high range of the previous forecast (Figure 45). This forecast includes downside risks (e.g. the economic indicators could further worsen) and upside risks (e.g. high load factors could trigger higher traffic numbers sooner-than-expected). Section 6 elaborates further on risks.

The average annual growth figures per State can be found in Figure 46. The detailed forecasts for each State are available in Annexes E, F and G. Note that the definition “CRCO14” is new to the report and stands for EUROCONTROL Member States participating in the Multilateral Route Charges System in 2014 (see Annex A). Note that RP2Region, in the en-route service units tables, can be compared the SES-RP2 region in the IFR movements traffic tables: both zones are covering the same area.

Figure 46. Average annual growth of service units between 2014 and 2021.



5.2 Terminal Navigation Service units (TNSU)

This TNSU forecast is based on the 2015-2021 IFR flight forecast (Section 4) and uses the CRCO flight database for all States except for Estonia which provided STATFOR with its own data, to capture the necessary information about weight of the aircraft. More details about the TNSU forecast method can be found in Ref. 2. The definition of the Terminal Charging Zones (TCZ) is based on the known list of airports per TCZ for RP2 (see Annex A). The detailed results per TCZ are given in Annex H.

The expected average annual growth rate for RP2 is 2.9% (±1.3 pp) and; by 2021, after the end of the reference period, 8.9 million TNSU are expected for the whole region (Figure 47).

Figure 47. Total Terminal Navigation Service Units generated in the RP2Region area.

RP2 Region[19]		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	AAGR 2021/ 2014	RP1 2014/ 2011 AAGR	RP2 2019/ 2014 AAGR
Terminal Navigation Service Units (millions)	H	.	.	.	.	7.5	7.8	8.2	8.5	8.9	9.3	9.6	**4.1%**	**.**	**4.0%**
	B	7.4	7.2	7.2	7.3	7.4	7.7	7.9	8.1	8.4	8.7	8.9	**2.9%**	**-0.5%**	**2.9%**
	L	.	.	.	.	7.4	7.5	7.6	7.7	7.8	8.0	8.0	**1.5%**	**.**	**1.5%**
Annual growth (compared to previous year)	H					3.1%	4.4%	4.3%	4.5%	3.9%	4.8%	3.5%	**4.1%**	**.**	**4.0%**
	B	8.6%	-1.9%	-0.1%	0.6%[20]	2.4%	3.4%	2.7%	3.1%	2.9%	3.4%	2.3%	**2.9%**	**-0.5%**	**2.9%**
	L					1.3%	2.2%	0.9%	1.5%	1.4%	1.7%	1.1%	**1.5%**	**.**	**1.5%**

[19] RP2Region is defined by 35 Terminal Charging Zones covering 30 States in the second period of the Performance Scheme (RP2), details can be found in Annex A.
[20] Due to changes in the charging zone between first and second reference period, this is not comparable.

6. RISK TO THE FORECAST GROWTH

Users of the forecasts are strongly advised to use the forecast range (low-growth to high-growth) as an indicator of risk. These flight and service unit forecasts are prepared in conditions of large changes in traffic routings. For many individual States, these are the biggest risks for traffic growth.

The main sources of uncertainty in the intermediate forecast are as follows.

In percentage terms for individual States, the biggest risks concern the **route choices** of airlines, which are generally downside risks for some States and simultaneously upside risks for others, balancing out across Europe as a whole:

- By 2021 there is a significant probability that *some* flights through **Ukraine** will be restored. Section 4.4 in Ref. 1 discusses the impact of this risk, which ranges from +38% to -15% in terms of flights.
- Closure of **Libyan airspace** has reduced Maltese overflights as well as re-routed traffic to southern Africa. It is not clear when normal patterns will be restored.
- **Unit rates** are one of the many factors that influence an airline's choice of route. Proposed, large changes in rates for 2015 could lead to low single-figure percentage changes in flight counts. Section 4.5 in Ref. 1 discusses the impact of this risk, if Germany was to increase its Unit Rates by 30% in 2015. Actually, the increase in 2015 is 14.4% (on 2014 rates), less than initially expected.
- Currently, the **Syrian conflict** is having an important impact on overflights across South-East Europe. We have not included an end to this in our scenario, though clearly at some point this network disruption will clear and the overflight changes reverse. Section 4.4 in the February 2014 forecast (Ref. 5) described a detailed what-if? study of this risk. Avoidance of Iraq and to a lesser extent Sinai is less significant for the forecast.
- Previous years have seen persistent (many months) reduction in *en route* capacity as a result of the introduction of **new ATC systems**. This results in tactical and strategic re-routing of traffic, enough to affect annual totals. More changes are on the way, presenting further risks, for example Spain, Norway and Turkey have changes planned.
- The **jet stream** influences route choice too, though this is more usually an effect over days or weeks than over the whole year. 2014 saw an unusual pattern for the jet stream, leading to more southerly routings than in the past. We have not adjusted the data for this, but our time series forecast methods naturally result in some response during 2015.
- More generally, future **network changes** (e.g., new routes) and airlines' changing choice of routes are not modelled by the forecast.
- En-route service unit data: As already mentioned, the CRCO experiences some delays in the processing of flight messages billed for route charges. A backlog of approximately 15,000 flights is still pending for manual processing. This is therefore an upside risk in the en-route service unit forecast.

The **economic forecasts** used here were updated in January 2015. The economic outlook remains uncertain and 2014 was yet another year in which initial optimism has dwindled as the year has gone on. The low scenario provides some guidance here. Economic risks are to some extent synchronised, so do not balance out across Europe as routing risks do. Recent days have seen a renewal of uncertainty in the Eurozone, which represents an additional downside risk for the forecast.

Two States, Turkey and Russia, have been the predominant drivers of flight growth in recent years. This makes growth sensitive to the continued expansion of these **two economies**. Sanctions on Russia, and Russia's response to them, are significant for the downward revision of the forecast overall (see Section 2). This could improve, but could easily get worse, representing on balance a downside risk.

On the other hand, there are growing competitive pressures for expansion, especially for low-cost carriers, so as **aircraft deliveries** accelerate we could see more rapid expansion, although in our view this is likely to be localised. The high scenario provides some guidance for this, but only for

local, not widespread application.

Load factors remain at or near record highs (Section 2). As traffic begins to grow again, this means that load factors might be able to absorb less of the passenger growth than they have in past years. From the present position, the recovery would then come more rapidly than anticipated. This is therefore an upside risk.

We analysed the current **airline schedules**, but did not find them as a whole credible indicators of Summer traffic, so excluded them from this forecast. In parts, where we could cross-validate against other information, we used partial information. Nevertheless, airlines are likely to adapt their plans as the Winter progresses and the Summer season begins. This is on balance an upside downside risk.

Tourism trends are quite variable. The forecast does not identify which will be the new holiday "destination of preference" in a given year.

Oil prices remain changeable investment. With fuel accounting for 25-35% or even more of costs of the airlines, this can have an effect on fares and cost of travel for customer (see Section 2.1). As already discussed, there will be a lag before many airlines benefit from the recent fall in the oil price. STATFOR's analysis of the relationship between evolution of oil price and air traffic growth suggests that a 50% fall in the price of oil could mean a 7-10% fall in ticket prices which translates to a 2-3% increase in passenger demand, and approximately 1% increase in number of flights.

Terrorist attacks, wars and natural disasters. Following the February 2014 forecast publication, in which a further volcanic eruption or pandemic were mentioned as some of the risks, both have occurred. The impact on air traffic could be a temporary one, or more significant. In the case of the volcanic eruption, Bárðarbunga did not have an impact on traffic; and, for Ebola, the situation is slowly improving and the direct impact on flights should remain quite limited.

7. GLOSSARY

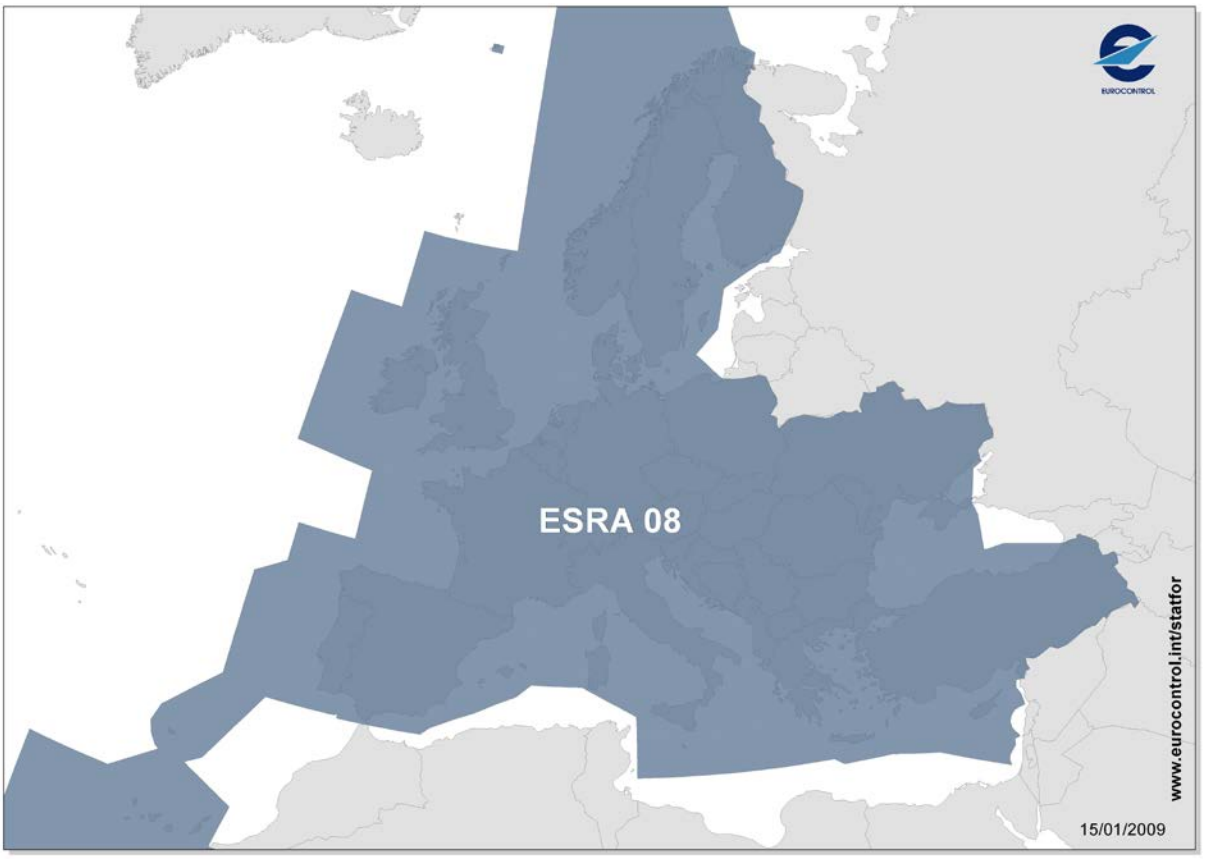
AAGR	Average annual growth
ACC	Area Control Centre
AEA	Association of European Airlines
AIRAC	Aeronautical Information and Regulation and Control
ATFCM	Air Traffic Flow and Capacity Management
A/D	Arrival / Departure traffic
A/D/I	Arrival / Departure / Internal traffic
B	(in tables) Baseline Scenario
CFMU	Central Flow Management Unit
CRCO	Central Route Charges Office
CRCO11	States participating to the Multilateral Route Charges System up to 2014
CRCO14	Current States participating to the Multilateral Route Charges System
ESRA	Eurocontrol Statistical Reference Area (see Annex A.1)
ETS	Emission Trading Scheme
EU	European Union (28 States): EU27 plus Croatia.
FAB	Functional Airspace Block
FDPS	Flight Data Processing System
FIR	Flight Information Region
GDP	Gross Domestic Product
H	(in tables) High-Growth Scenario
HST	High-Speed Train
I	Internal traffic
ICAO	International Civil Aviation Organisation
IFR	Instrument Flight Rules
L	(in tables) Low-Growth Scenario
MTF	Medium-Term (Seven-Year) Forecast
MTF14	February 2014 publication of the MTF
MTF14b	September 2014 publication of the MTF
MTF15	February 2015 publication of the MTF (this document)
MTOW	Maximum Take-Off Weight
NM	Network Manager
NMB	Network Management Board
OE	Oxford Economics Ltd
pp	percentage point
PS	Provisional Council
PScheme	See RP1Region (no longer used)
RP1	First Period of Reference (2012-2014) for the Performance Scheme of the SES
RP2	Second Period of Reference (2015-2019) for the Performance Scheme of the SES
RP1Region	States involved in the Performance scheme first period of reference (EU27, Norway and Switzerland)
RP2Region	States involved in the Performance scheme second period of reference (EU28, Norway and Switzerland)
SES-RP2	Single European Sky, referring to the States involved in the second period of reference
SID	STATFOR Interactive Dashboard
STATFOR	Eurocontrol Statistics and Forecast Service
STF	Short-Term Forecast
SUG	STATFOR User Group
TCZ	Terminal Charging Zone (a grouping of airports)
TNSU	Terminal Navigation Service Units
TR	Traffic Region (a grouping of TZs)
TSU	Total En-Route Service Units
TZ	Traffic Zone (≈State, except for Spain, Portugal, Belgium and Luxembourg, Serbia and Montenegro)
UIR	Upper Flight Information Region

A. Traffic Region Definitions

ESRA08

The EUROCONTROL Statistical Reference Area (ESRA) is designed to include as much as possible of the ECAC area for which data are available from a range of sources within the Agency. It is used for high-level reports from the Agency, when referring to 'total Europe'. The ESRA changes only slowly with time; a region is added to the ESRA only when there is a full year's data from all sources, so that growth calculations are possible. 'ESRA08' was introduced in the MTF09 report. It is now used as a basis for comparison at European level in the forecasts. Note that the EUROCONTROL forecast includes also regions outside of the ESRA (e.g., Armenia and Latvia), though still within ECAC.

Figure 48. The EUROCONTROL Statistical Reference Area.



ESRA08 consists of 34 traffic zones. Traffic zones are defined by an aggregate of FIRs & UIR of States. These do not take delegation of airspace into account. For individual States, the differences between charging areas and ACCs can have a big impact on overflight counts (and thus on total counts where the total is dominated by overflights). For the ESRA as a whole, there is only a small proportion of overflights, so that the difference between a FIR and an ACC definition is small.

Traffic regions

The traffic regions are defined for statistical convenience and do not reflect an official position of the EUROCONTROL Agency. As far as possible, these regions have been aligned with ICAO statistical and forecast regions.

Traffic flows are described as being to or from one of a number of traffic regions listed in Figure 49. Each traffic region is made up of a number of traffic zones (=States), which are indicated by the first letters of the ICAO location codes for brevity.

As far as "Europe" is concerned, it is split into two regions: ESRA (defined in the previous section) and Other Europe. For flow purposes, ESRA is split into a "North-West" region mostly of mature air traffic markets, a "Mediterranean" region stretching from the Canaries to Turkey and with a significant tourist element, and an Eastern region. The 'Other Europe' region (i.e. non ESRA) includes the States along the border of ESRA and extends from Greenland to the Urals and

Azerbaijan.

The map of the nine traffic regions used in our statistics is displayed in Figure 50.

Figure 49. Regions used in flow statistics as of 31 August 2012.

	ICAO region/country
ESRA North-West	EB, ED, EF, EG, EH, EI, EK, EL, EN, ES, ET, LF, LN, LO, LS
ESRA Mediterranean	GC, LC, LE, LG, LI, LM, LP, LT
ESRA East	BK, EP, LA, LB, LD, LH, LJ, LK, LQ, LR, LU, LW, LY, LZ, UK
Other Europe	BG, BI, EE, EK (Faroe Islands), ENSB (Bodo Oc.), EV, EY, GE, LX, UB, UD, UG, UH, UI, UL, UM, UN, UO, UR, US, UU, UW, Shanwick Oc., Santa Maria FIR
North Atlantic	C, K, P
Mid-Atlantic	M, T
South-Atlantic	S
North-Africa	DA, DT, GM, HE, HL
Southern Africa	D, F, G, H, (except DA, DT, HE, HL, GC, GM)
Middle-East	L, O (except OA, OP)
Asia/Pacific	A, N, P, Y, OA, OP, R, V, W, Z (except ZZZZ), U (except UK and areas in Other Europe)

Figure 50. Map of the Traffic Regions used in flow statistics.

EU28

This 7-year forecast report includes EU28, taking the accession of Croatia into account. It excludes Canaries and Azores.

Functional Airspace Blocks

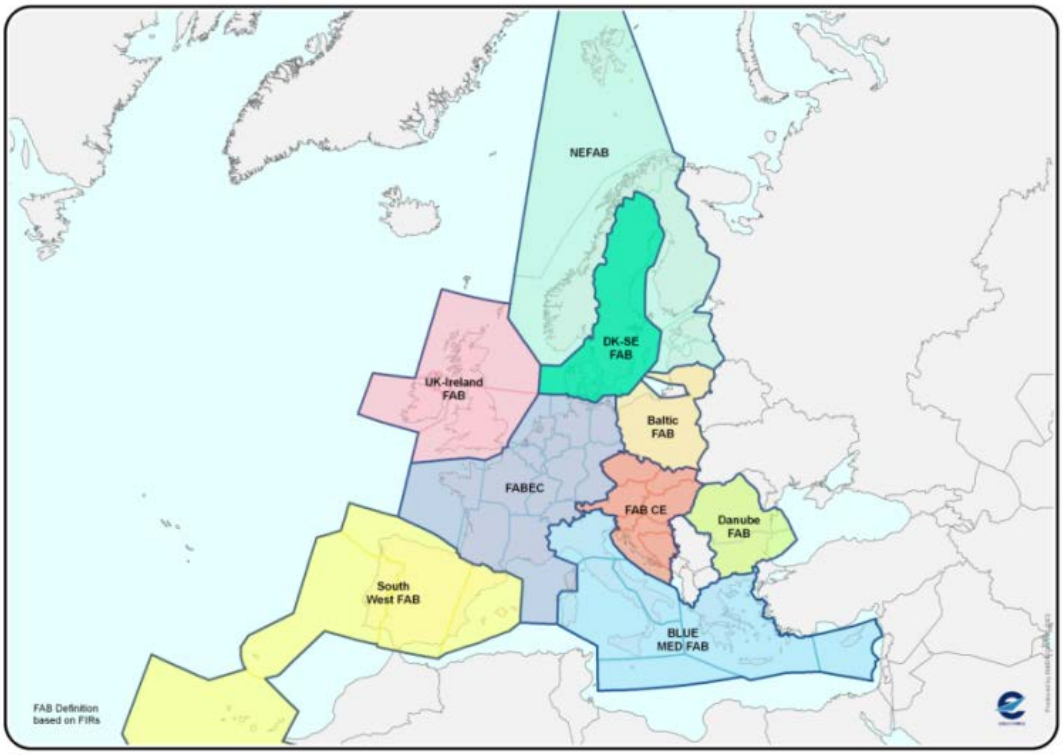
On top of the traffic zones, this report also presents the forecast of IFR movements from 2014 to 2020 for the Functional Airspace Blocks (FAB). A FAB is a block of airspace based on operational requirements regardless of the State boundaries (Figure 51). FAB initiatives (definitions) are now frozen according to the targets defined to improve the performance of the European air traffic management network. STATFOR defines the FABs based on the FIR[21] boundaries. The definition of FAB-FIR is:

[21] Note that the PRU uses the FAB-ANSP definition.

- **UK-Ireland FAB** (Scottish FIR&UIR, London FIR&UIR, Shannon FIR&UIR)
- **Danish-Swedish FAB** (Copenhagen FIR, Sweden FIR)
- **Baltic FAB** (Warszawa FIR, Vilnius FIR&UIR)
- **BLUE MED FAB** (Nicosia FIR&UIR, Athinai FIR&UIR, Brindisi FIR&UIR, Milano FIR&UIR, Roma FIR&UIR, Malta FIR&UIR)
- **Danube FAB** (Sofia FIR, Bucarest FIR)
- **FAB CE** (Zagreb FIR, Budapest FIR, Ljubljana FIR, Praha FIR, Wien FIR, Sarajevo FIR&UIR, Bratislava FIR)
- **FABEC** (Brussels FIR&UIR, Langen FIR, Munchen FIR, Rhein UIR, Hannover UIR, Bremen FIR, Amsterdam FIR, Bordeaux FIR, Reims FIR, Paris FIR, France UIR, Marseille FIR, Brest FIR, Switzerland FIR, Switzerland UIR)
- **North European FAB** (Tallinn FIR, Finland FIR&UIR, Enor FIR, Riga FIR, Bodo Oceanic FIR)
- **South West FAB** (Canarias FIR&UIR, Lisboa FIR, Madrid FIR&UIR, Barcelona FIR&UIR).

The change compared to the previous definition used in the past forecast reports (August 2012-December 2013) consisted in removing the Tirana FIR from BLUE MED FAB as well as the removal of SOTA and NOTA from UK-Ireland FAB. This new definition is in line with the FAB-FIR definition of the Performance Review Unit (PRU) of EUROCONTROL.

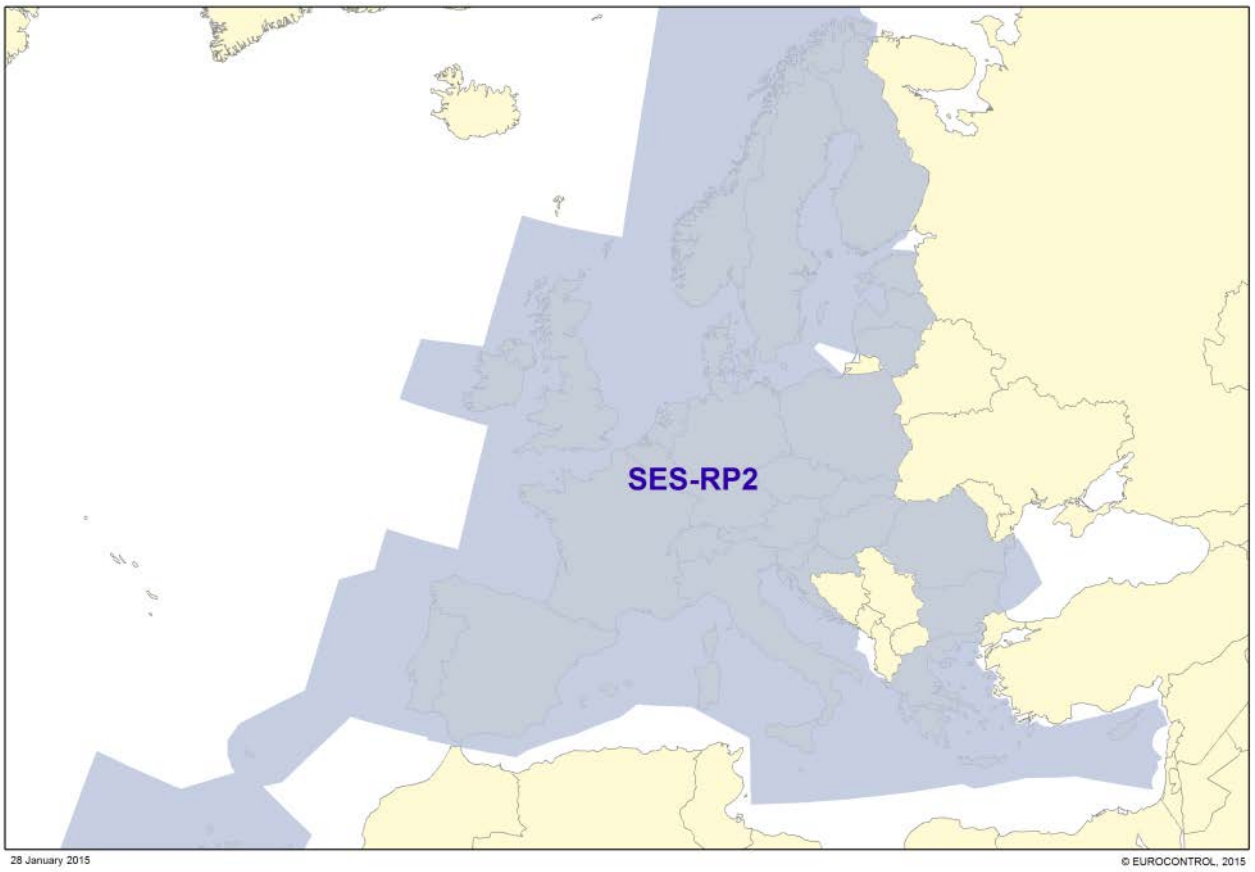
Figure 51. FABs as stipulated by the European Commission (STATFOR update: January 2014). Source: EUROCONTROL PRU



SES-RP2

The SES-RP2 area mentioned in this report is covering the 30 States that are involved in the EU-wide performance target setting for the second period, namely: 28 EU member States plus Norway plus Switzerland. SES-RP2 includes Canarias but not Azores. The SES-RP2 zone is also called RP2Region in our reports.

Figure 56. States within SES-RP2 Region in this report (Performance Scheme Region for the Second Review Period).



The “SES” region presented in previous reports (Traffic Tables of the Annexes) is not reported anymore, as it could introduce some confusion with respect to the SES-RP2 above mentioned.

CRCO11

"CRCO11" refers to the EUROCONTROL Member States participating in the Multilateral Route Charges System in 2012. This list comprises: Albania, Armenia, Austria, Belgium/Luxembourg, Bosnia-Herzegovina, Bulgaria, Canary Islands, Croatia, Cyprus, Czech Republic, Denmark, FYROM, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lisbon FIR, Lithuania, Malta, Moldova, Netherlands, Norway, Poland, Romania, Santa Maria FIR, Serbia-Montenegro-, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, UK.

CRCO14

"CRCO14" refers to the EUROCONTROL Member States participating in the Multilateral Route Charges System in 2014. This list comprises: CRCO11 and Georgia, which joined EUROCONTROL in 2014.

RPRegions

RP1Region and RP2Region are the two regions involved in the Performance Scheme respectively related to First Reference Period (2012-2014) and Second Review Period (2015-2019).

- **RP1Region**: stands for the sum over all the 29 States that were involved in the EU-wide performance target setting for the first period, namely: 28 EU Member States plus Norway plus Switzerland minus Croatia.
- **RP2Region**: stands for the sum over all the 30 States that are involved in the EU-wide performance target setting for the second period, namely: 28 EU Member States plus Norway plus Switzerland. This zone is also called SES-RP2 in this report.

The “PScheme” region presented in previous reports (Traffic Tables of the Annexes) is not reported anymore, as it could introduce some confusion with respect to the RPRegions above mentioned.

Terminal Charging Zones

A “terminal charging zone” is an airport or a group of airports for which a cost-based unit rate is established. The forecast of terminal navigation service units from 2014 shown in Annex G has been produced per TCZ based on the definition submitted by the Stakeholders in their RP2 performance plans.

The list of aerodromes forming the TCZs during RP2 for the 30 States participating in the SES performance scheme (RP2) can be found in Figure 52.

Figure 52. List of aerodromes forming the terminal charging zones (TCZs) in RP2

Austria	
LO_TCZ	LOWG
	LOWI
	LOWK
	LOWL
	LOWS
	LOWW
Belgium	
EB_TCZ_EBAW	EBAW
Belgium	
EB_TCZ_EBBR	EBBR
Belgium	
EB_TCZ_EBCI	EBCI
Belgium	
EB_TCZ_EBLG	EBLG
Belgium	
EB_TCZ_EBOS	EBOS
Bulgaria	
LB_TCZ	LBBG
	LBGO
	LBPD
	LBSF
	LBWN
Croatia	
LD_TCZ	LDZA
Cyprus	
LC_TCZ	LCLK
	LCPH
Czech Republic	
LK_TCZ	LKKV
	LKMT
	LKPR
	LKTB
Denmark	
EK_TCZ	EKCH
Estonia	
EE_TCZ	EETN
	EETU
Finland	
EF_TCZ	EFHK
France	
LF_TCZ	LFAQ
	LFBA
	LFBD
	LFBE
	LFBH
	LFBI
	LFBL
	LFBO
	LFBP
	LFBT
	LFBZ
	LFCR
	LFGJ
	LFJL
	LFJR
	LFKB
	LFKC
	LFKF
	LFKJ
	LFLB
	LFLC
	LFLL
	LFLP
	LFLS
	LFLX
	LFLY
	LFMD
	LFMH
	LFMI
	LFMK
	LFML
	LFMN
	LFMP
	LFMT
	LFMU
	LFMV
	LFOB
	LFOH
	LFOK
	LFOT
	LFPB
	LFPG
	LFPN
	LFPO
	LFQQ
	LFRB
	LFRD
	LFRG
	LFRH
	LFRK
	LFRN
	LFRO
	LFRQ
	LFRS
	LFRZ
	LFSB
	LFSL
	LFST
	LFTH
	LFTW
Germany	EDDB
ED_TCZ	EDDC
	EDDE
	EDDF
	EDDG
	EDDH
	EDDK
	EDDL
	EDDM
	EDDN
	EDDP
	EDDR
	EDDS
	EDDT
	EDDV
	EDDW
Greece	
LG_TCZ	LGAV
Hungary	
LH_TCZ	LHBP
Ireland	
EI_TCZ	EICK
	EIDW
	EINN
Italy	
LI_TCZ_1	LIRF
Italy	
LI_TCZ_2	LIMC
	LIME
	LIML
	LIPZ
Latvia	
EV_TCZ	EVLA
	EVRA
	EVVA
Lithuania	
EY_TCZ	EYKA
	EYPA
	EYSA
	EYVI
Luxembourg	
EL_TCZ	ELLX
Malta	
LM_TCZ	LMML
Netherlands	
EH_TCZ	EHAM
	EHBK
	EHGG
	EHRD
Norway	
EN_TCZ	ENBR
	ENGM
	ENVA
	ENZV
Poland	EPBY
EP_TCZ	EPGD
	EPKK
	EPKT
	EPLB
	EPLL
	EPMO
	EPPO
	EPRA
	EPRZ
	EPSC
	EPWA
	EPWR
	EPZG
Portugal	LPAZ
LP_TCZ	LPFL
	LPFR
	LPHR
	LPMA
	LPPD
	LPPR
	LPPS
	LPPT
Romania	
LR_TCZ	LRBS
	LROP
Slovakia	
LZ_TCZ	LZIB
Slovenia	LJLJ
LJ_TCZ	LJMB
	LJPZ
Spain	GCLP
LE_TCZ	LEBL
	LEMD
	LEMG
	LEPA
Sweden	
ES_TCZ_A	ESSA
Switzerland	
LS_TCZ	LSGG
	LSZH
UK	EGBB
EG_TCZ_B	EGCC
	EGGW
	EGKK
	EGLC
	EGLL
	EGPF
	EGPH
	EGSS

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B. Summary of forecast for ESRA08

Figure 53. Growth in Europe (ESRA08).

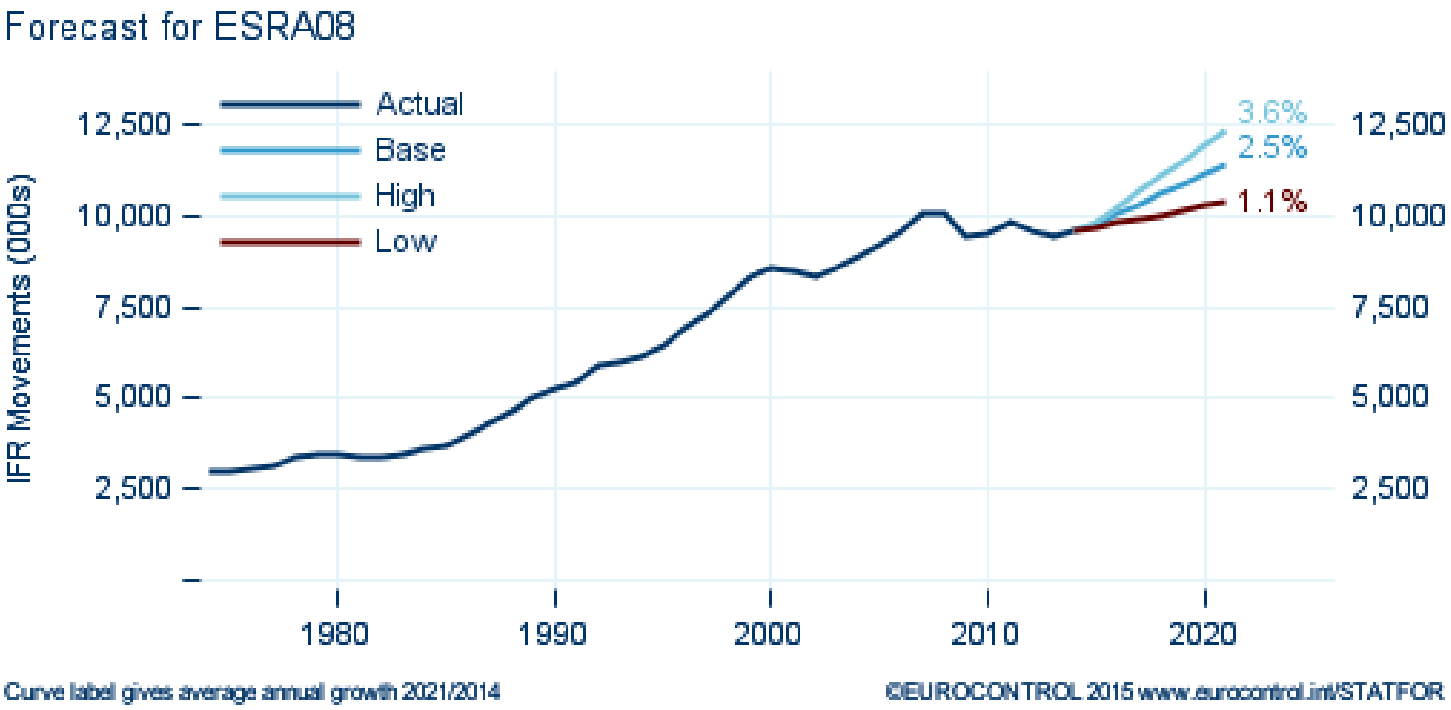

Figure 54. Flights and growth on main flow categories in Europe (ESRA08).

ESRA08		IFR Flight Movements(000s)											Annual Growth											AAGR 2021/ 2014	RP1 2014/ 2011 AAGR	RP2 2019/ 2014 AAGR
		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021			
Total: Internal	H	.	.	.	.	7,596	7,865	8,164	8,430	8,675	8,972	9,193	.	.	.	.	2.1%	3.5%	3.8%	3.3%	2.9%	3.4%	2.5%	**3.1%**	**.**	**3.1%**
	B	7,790	7,514	7,347	7,444	7,545	7,745	7,922	8,100	8,264	8,471	8,608	3.0%	-3.5%	-2.2%	1.3%	1.4%	2.7%	2.3%	2.2%	2.0%	2.5%	1.6%	**2.1%**	**-1.5%**	**2.1%**
	L	.	.	.	.	7,471	7,594	7,628	7,700	7,771	7,857	7,896	.	.	.	.	0.4%	1.6%	0.4%	0.9%	0.9%	1.1%	0.5%	**0.8%**	**.**	**0.9%**
Total: Arr/Dep	H	.	.	.	.	2,079	2,186	2,319	2,452	2,588	2,741	2,877	.	.	.	.	3.4%	5.2%	6.1%	5.7%	5.6%	5.9%	4.9%	**5.3%**	**.**	**5.2%**
	B	1,883	1,916	1,961	2,009	2,050	2,125	2,210	2,300	2,390	2,485	2,567	3.7%	1.7%	2.4%	2.4%	2.0%	3.6%	4.0%	4.1%	3.9%	4.0%	3.3%	**3.6%**	**2.2%**	**3.5%**
	L	.	.	.	.	2,016	2,051	2,087	2,133	2,179	2,225	2,261	.	.	.	.	0.3%	1.8%	1.7%	2.2%	2.2%	2.1%	1.6%	**1.7%**	**.**	**1.6%**
Total: Overflight	H	.	.	.	.	159	177	191	207	225	243	262	.	.	.	.	5.2%	11%	8.2%	8.3%	8.3%	8.3%	7.9%	**8.2%**	**.**	**8.3%**
	B	112	119	139	151	155	168	177	188	199	210	221	-3.4%	6.6%	17%	8.8%	2.8%	8.4%	5.4%	5.9%	5.8%	5.7%	5.2%	**5.6%**	**10.6%**	**5.6%**
	L	.	.	.	.	151	157	162	168	174	180	186	.	.	.	.	-0.3%	4.3%	3.0%	3.8%	3.6%	3.6%	3.1%	**3.0%**	**.**	**2.9%**
Grand Total	H	.	.	.	.	9,834	10,228	10,675	11,089	11,487	11,957	12,332	.	.	.	.	2.4%	4.0%	4.4%	3.9%	3.6%	4.1%	3.1%	**3.6%**	**.**	**3.6%**
	B	9,784	9,548	9,447	9,604	9,750	10,039	10,310	10,588	10,852	11,166	11,397	3.1%	-2.4%	-1.1%	1.7%	1.5%	3.0%	2.7%	2.7%	2.5%	2.9%	2.1%	**2.5%**	**-0.6%**	**2.5%**
	L	.	.	.	.	9,638	9,803	9,876	10,001	10,124	10,263	10,343	.	.	.	.	0.4%	1.7%	0.8%	1.3%	1.2%	1.4%	0.8%	**1.1%**	**.**	**1.1%**

Figure 55. Busiest bi-directional region-to-region flows for ESRA08.

				IFR Flight Movements(000s)											Annual Growth									AAGR 2021/ 2014
				2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	
1	ESRA North-W	ESRA North-W	H	.	.	.	.	3473.5	3537.9	3590.1	3635.7	3668.7	3738.3	3763.3	.	.	.	.	0.2%	1.9%	1.5%	1.3%	0.9%	1.9%	0.7%	**1.2%**
			B	3679.4	3581.4	3491.4	3467.5	3455.8	3500.5	3523.8	3543.8	3563.2	3612.0	3625.8	3.0%	-2.7%	-2.5%	-0.7%	-0.3%	1.3%	0.7%	0.6%	0.5%	1.4%	0.4%	**0.6%**
			L	.	.	.	.	3434.3	3455.6	3437.6	3425.6	3418.4	3429.3	3419.8	.	.	.	.	-1.0%	0.6%	-0.5%	-0.4%	-0.2%	0.3%	-0.3%	**-0.2%**
2	ESRA Mediter	ESRA North-W	H	.	.	.	.	1837.4	1912.0	1994.9	2068.2	2135.7	2210.8	2261.9	.	.	.	.	4.1%	4.1%	4.3%	3.7%	3.3%	3.5%	2.3%	**3.6%**
			B	1674.8	1653.8	1680.2	1765.5	1824.2	1879.1	1925.7	1975.2	2021.9	2073.5	2105.7	6.2%	-1.3%	1.6%	5.1%	3.3%	3.0%	2.5%	2.6%	2.4%	2.6%	1.6%	**2.5%**
			L	.	.	.	.	1799.9	1833.3	1839.6	1859.9	1879.6	1899.0	1906.6	.	.	.	.	1.9%	1.9%	0.3%	1.1%	1.1%	1.0%	0.4%	**1.1%**
3	ESRA Mediter	ESRA Mediter	H	.	.	.	.	1369.7	1444.5	1543.2	1623.6	1701.5	1782.0	1863.4	.	.	.	.	4.3%	5.5%	6.8%	5.2%	4.8%	4.7%	4.6%	**5.1%**
			B	1480.4	1350.0	1266.2	1313.4	1359.5	1418.6	1484.2	1547.6	1601.1	1661.5	1713.1	0.9%	-8.8%	-6.2%	3.7%	3.5%	4.3%	4.6%	4.3%	3.5%	3.8%	3.1%	**3.9%**
			L	.	.	.	.	1343.4	1383.7	1414.0	1454.7	1491.0	1524.5	1548.6	.	.	.	.	2.3%	3.0%	2.2%	2.9%	2.5%	2.2%	1.6%	**2.4%**
4	ESRA East	ESRA North-W	H	.	.	.	.	523.3	551.9	585.3	618.3	650.2	685.3	713.5	.	.	.	.	1.5%	5.5%	6.0%	5.6%	5.1%	5.4%	4.1%	**4.8%**
			B	520.3	520.4	525.8	515.5	518.4	539.9	559.8	581.9	603.1	625.8	643.8	1.9%	0.0%	1.0%	-1.9%	0.6%	4.2%	3.7%	3.9%	3.6%	3.8%	2.9%	**3.2%**
			L	.	.	.	.	513.0	526.7	532.6	543.1	552.6	562.4	568.7	.	.	.	.	-0.5%	2.7%	1.1%	2.0%	1.8%	1.8%	1.1%	**1.4%**
5	ESRA North-W	North Atlant	H	.	.	.	.	297.8	304.6	311.9	320.6	328.6	341.8	349.7	.	.	.	.	-0.6%	2.3%	2.4%	2.8%	2.5%	4.0%	2.3%	**2.2%**
			B	302.0	293.7	292.2	299.4	296.8	302.7	308.2	314.5	320.5	327.8	333.1	4.6%	-2.7%	-0.5%	2.5%	-0.9%	2.0%	1.8%	2.1%	1.9%	2.3%	1.6%	**1.5%**
			L	.	.	.	.	295.6	300.5	303.4	306.8	310.1	314.2	317.0	.	.	.	.	-1.3%	1.7%	1.0%	1.1%	1.1%	1.3%	0.9%	**0.8%**

C. Seven-year flight forecast per state (IFR movements)

This appendix presents the flight forecast details. On top of the Average Annual Growth rates over the 7-year horizon, average annual growth rates over the first reference period (RP1) and the second reference period (RP2) of the Performance Scheme are presented in the tables.

Figure 56. Forecast of the number of IFR flight movements (thousands) per State.

IFR Flight Movements (Thousands)															
		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	AAGR 2021/ 2014	RP1 2014/2011 AAGR	RP2 2019/2014 AAGR
Albania	H	.	.	.	.	213	233	244	255	266	278	288	5.5%	.	.
	B	197	195	201	198	211	229	236	243	251	259	265	4.2%	.	.
	L	.	.	.	.	208	221	223	227	230	234	236	2.5%	.	.
Armenia	H	.	.	.	.	48	51	55	60	65	70	75	5.9%	.	.
	B	57	56	52	51	46	48	51	54	57	61	64	3.5%	.	.
	L	.	.	.	.	45	45	47	49	51	53	55	1.1%	.	.
Austria	H	.	.	.	.	1,189	1,244	1,300	1,354	1,405	1,460	1,505	3.9%	.	4.0%
	B	1,154	1,133	1,114	1,152	1,178	1,219	1,252	1,289	1,322	1,358	1,385	2.7%	-0.1%	2.8%
	L	.	.	.	.	1,163	1,187	1,195	1,212	1,226	1,241	1,249	1.2%	.	1.3%
Azerbaijan	H	.	.	.	.	127	134	146	157	169	183	196	6.4%	.	.
	B	124	130	129	127	126	130	138	147	156	165	174	4.6%	.	.
	L	.	.	.	.	124	126	131	137	142	149	154	2.8%	.	.
Belarus	H	.	.	.	.	266	266	284	300	318	335	351	3.9%	.	.
	B	225	240	255	269	258	250	260	270	281	291	300	1.6%	.	.
	L	.	.	.	.	249	234	239	243	249	254	258	-0.6%	.	.
Belgium/Luxembourg	H	.	.	.	.	1,167	1,208	1,252	1,292	1,329	1,369	1,395	3.0%	.	3.2%
	B	1,091	1,089	1,101	1,133	1,160	1,190	1,216	1,243	1,270	1,301	1,322	2.2%	1.2%	2.3%
	L	.	.	.	.	1,148	1,167	1,171	1,182	1,193	1,206	1,213	1.0%	.	1.0%
Bosnia-Herzegovina	H	.	.	.	.	316	332	350	367	383	401	417	4.9%	.	.
	B	276	268	262	298	313	324	335	347	358	370	379	3.5%	.	.
	L	.	.	.	.	308	315	318	324	330	335	339	1.8%	.	.
Bulgaria	H	.	.	.	.	741	774	827	874	922	975	1,023	5.9%	.	6.2%
	B	539	540	551	683	733	756	789	824	856	890	920	4.3%	8.2%	4.6%
	L	.	.	.	.	723	733	748	767	786	803	817	2.6%	.	2.8%
Canary Islands	H	.	.	.	.	295	311	326	340	354	369	381	4.3%	.	4.5%
	B	298	275	265	284	292	304	311	318	326	333	339	2.6%	-1.6%	2.8%
	L	.	.	.	.	289	296	296	299	301	303	303	0.9%	.	1.2%
Croatia	H	.	.	.	.	555	587	618	648	676	708	734	5.1%	.	5.4%
	B	497	495	492	520	550	574	593	612	631	652	668	3.6%	1.5%	4.0%
	L	.	.	.	.	542	557	562	572	580	590	595	2.0%	.	2.2%
Cyprus	H	.	.	.	.	324	354	383	413	443	477	510	7.6%	.	7.8%
	B	281	270	277	304	319	342	360	379	399	420	440	5.4%	2.6%	5.6%
	L	.	.	.	.	311	324	331	342	352	362	370	2.8%	.	2.9%
Czech Republic	H	.	.	.	.	720	750	790	829	865	906	941	4.3%	.	4.3%
	B	695	679	680	700	712	732	756	779	801	826	845	2.7%	0.2%	2.7%
	L	.	.	.	.	703	713	720	729	738	748	754	1.1%	.	1.1%
Denmark	H	.	.	.	.	621	639	661	681	700	727	745	2.7%	.	2.5%
	B	625	605	618	619	617	629	642	656	669	685	695	1.7%	-0.3%	1.6%
	L	.	.	.	.	611	616	618	623	628	633	635	0.4%	.	0.3%

IFR Flight Movements (Thousands)															
		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	AAGR 2021/ 2014	RP1 2014/2011 AAGR	RP2 2019/2014 AAGR
Estonia	H	.	.	.	.	196	200	211	221	232	244	255	4.2%	.	3.9%
	B	178	189	183	191	193	193	199	205	211	218	223	2.2%	2.4%	2.0%
	L	.	.	.	.	190	187	188	190	193	196	198	0.5%	.	0.2%
FYROM	H	.	.	.	.	160	170	179	188	197	206	215	5.6%	.	.
	B	124	113	113	146	159	166	172	178	184	191	196	4.3%	.	.
	L	.	.	.	.	156	161	163	166	169	173	175	2.6%	.	.
Finland	H	.	.	.	.	248	254	263	272	280	291	299	2.7%	.	2.5%
	B	267	252	243	248	245	248	252	256	261	266	269	1.2%	-2.5%	1.0%
	L	.	.	.	.	243	242	241	242	243	244	244	-0.2%	.	-0.4%
France	H	.	.	.	.	3,008	3,125	3,236	3,342	3,438	3,544	3,618	3.0%	.	3.1%
	B	2,968	2,923	2,902	2,947	2,986	3,073	3,134	3,199	3,265	3,347	3,401	2.1%	-0.2%	2.1%
	L	.	.	.	.	2,948	3,000	3,002	3,021	3,043	3,076	3,090	0.7%	.	0.6%
Georgia	H	.	.	.	.	116	122	134	145	157	169	182	6.6%	.	.
	B	110	108	110	116	114	118	126	134	142	151	159	4.6%	.	.
	L	.	.	.	.	112	113	118	123	129	134	138	2.6%	.	.
Germany	H	.	.	.	.	3,083	3,195	3,309	3,416	3,514	3,627	3,709	2.9%	.	3.0%
	B	3,078	3,018	2,990	3,030	3,059	3,142	3,208	3,274	3,338	3,412	3,459	1.9%	-0.5%	2.0%
	L	.	.	.	.	3,027	3,076	3,087	3,109	3,134	3,162	3,173	0.7%	.	0.7%
Greece	H	.	.	.	.	756	808	850	893	936	984	1,028	6.1%	.	6.7%
	B	656	633	623	678	749	792	818	848	878	910	938	4.8%	1.1%	5.3%
	L	.	.	.	.	738	766	775	790	805	821	834	3.0%	.	3.5%
Hungary	H	.	.	.	.	719	760	805	846	887	935	975	5.5%	.	5.8%
	B	617	589	600	670	713	744	771	799	826	855	879	4.0%	2.8%	4.3%
	L	.	.	.	.	704	725	734	748	762	775	785	2.3%	.	2.6%
Iceland	H	.	.	.	.	150	157	164	171	179	189	198	4.5%	.	.
	B	111	123	131	145	148	154	158	163	169	175	180	3.1%	.	.
	L	.	.	.	.	147	151	153	156	158	162	164	1.8%	.	.
Ireland	H	.	.	.	.	546	568	592	616	641	672	686	3.6%	.	3.6%
	B	523	521	522	537	543	560	575	592	609	629	644	2.6%	0.9%	2.6%
	L	.	.	.	.	539	552	559	568	578	589	597	1.5%	.	1.5%
Italy	H	.	.	.	.	1,730	1,807	1,890	1,969	2,048	2,132	2,202	3.9%	.	4.0%
	B	1,726	1,685	1,648	1,680	1,714	1,769	1,813	1,863	1,911	1,963	2,001	2.5%	-0.9%	2.6%
	L	.	.	.	.	1,689	1,717	1,721	1,739	1,756	1,774	1,782	0.9%	.	0.9%
Latvia	H	.	.	.	.	247	253	266	279	292	307	319	4.0%	.	3.8%
	B	235	233	236	243	242	242	248	254	261	268	273	1.7%	1.0%	1.5%
	L	.	.	.	.	237	233	233	235	237	239	241	-0.1%	.	-0.5%
Lisbon FIR	H	.	.	.	.	507	530	554	577	600	624	643	4.3%	.	4.6%
	B	450	438	449	480	503	519	531	544	557	571	580	2.7%	2.2%	3.0%
	L	.	.	.	.	497	506	507	511	515	519	520	1.2%	.	1.4%
Lithuania	H	.	.	.	.	263	268	284	298	313	329	342	4.2%	.	4.0%
	B	233	236	242	257	257	257	265	273	281	290	296	2.1%	3.3%	1.8%
	L	.	.	.	.	251	245	248	250	254	258	260	0.2%	.	-0.2%
Malta	H	.	.	.	.	98	110	119	129	139	151	162	6.9%	.	6.4%
	B	81	97	109	102	97	107	112	118	124	131	137	4.4%	8.0%	4.1%
	L	.	.	.	.	95	103	105	108	111	114	117	2.0%	.	1.7%

IFR Flight Movements (Thousands)															
		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	AAGR 2021/ 2014	RP1 2014/2011 AAGR	RP2 2019/2014 AAGR
Moldova	H	.	.	.	.	29	27	29	31	33	35	35	-6.4%	.	.
	B	60	64	74	56	29	27	29	30	32	33	34	-6.8%	.	.
	L	.	.	.	.	29	26	27	28	29	29	30	-8.5%	.	.
Morocco	H	.	.	.	.	381	409	443	480	519	563	607	7.8%	.	.
	B	352	324	334	359	377	397	417	438	461	485	507	5.0%	.	.
	L	.	.	.	.	372	385	391	401	411	422	430	2.6%	.	.
Netherlands	H	.	.	.	.	1,158	1,195	1,236	1,276	1,311	1,360	1,385	2.8%	.	2.9%
	B	1,085	1,083	1,109	1,138	1,153	1,183	1,211	1,242	1,268	1,300	1,314	2.1%	1.6%	2.2%
	L	.	.	.	.	1,146	1,169	1,179	1,192	1,204	1,219	1,226	1.1%	.	1.1%
Norway	H	.	.	.	.	603	614	627	636	644	679	692	1.6%	.	0.8%
	B	563	587	610	619	599	607	615	624	629	647	654	0.8%	3.2%	0.3%
	L	.	.	.	.	595	597	595	597	599	602	600	-0.4%	.	-0.7%
Poland	H	.	.	.	.	718	747	791	835	880	928	969	4.7%	.	4.6%
	B	655	684	692	702	706	722	750	780	810	840	865	3.0%	2.3%	2.9%
	L	.	.	.	.	692	695	704	717	730	743	751	1.0%	.	0.8%
Romania	H	.	.	.	.	645	674	718	758	799	846	886	5.8%	.	6.0%
	B	487	487	513	598	638	658	685	714	741	770	795	4.1%	7.1%	4.4%
	L	.	.	.	.	629	638	650	665	681	695	707	2.4%	.	2.6%
Santa Maria FIR	H	.	.	.	.	130	135	140	146	151	157	161	3.8%	.	3.9%
	B	123	118	121	125	129	134	137	140	144	148	151	2.8%	0.5%	2.9%
	L	.	.	.	.	128	131	132	134	135	137	138	1.5%	.	1.7%
Serbia&Montenegro	H	.	.	.	.	602	642	679	713	747	784	817	5.7%	.	.
	B	558	535	518	554	596	629	651	675	698	722	742	4.3%	.	.
	L	.	.	.	.	588	609	617	629	641	653	662	2.6%	.	.
Slovakia	H	.	.	.	.	460	483	513	540	568	599	627	5.3%	.	5.4%
	B	382	381	397	436	454	470	488	507	525	544	559	3.6%	4.5%	3.8%
	L	.	.	.	.	448	456	462	472	481	489	496	1.8%	.	2.0%
Slovenia	H	.	.	.	.	366	386	405	423	441	460	476	4.6%	.	4.8%
	B	353	346	329	348	362	378	389	401	413	426	436	3.3%	-0.5%	3.5%
	L	.	.	.	.	357	367	371	376	382	388	391	1.7%	.	1.9%
Spain	H	.	.	.	.	1,666	1,745	1,831	1,913	1,992	2,075	2,142	4.4%	.	4.7%
	B	1,665	1,557	1,528	1,587	1,652	1,710	1,760	1,813	1,865	1,921	1,960	3.1%	-1.6%	3.3%
	L	.	.	.	.	1,624	1,659	1,670	1,692	1,714	1,737	1,746	1.4%	.	1.5%
Sweden	H	.	.	.	.	739	761	789	816	840	875	899	2.8%	.	2.6%
	B	724	724	730	739	733	747	764	782	797	817	830	1.7%	0.7%	1.5%
	L	.	.	.	.	726	731	733	741	746	753	755	0.3%	.	0.2%
Switzerland	H	.	.	.	.	1,056	1,094	1,133	1,170	1,207	1,243	1,272	3.0%	.	3.2%
	B	1,063	1,045	1,019	1,033	1,047	1,075	1,098	1,123	1,148	1,175	1,193	2.1%	-0.9%	2.1%
	L	.	.	.	.	1,035	1,049	1,052	1,061	1,071	1,080	1,084	0.7%	.	0.7%
Turkey	H	.	.	.	.	1,348	1,457	1,606	1,729	1,853	1,987	2,120	7.6%	.	.
	B	1,039	1,066	1,142	1,269	1,333	1,420	1,525	1,628	1,719	1,817	1,910	6.0%	.	.
	L	.	.	.	.	1,314	1,374	1,434	1,506	1,573	1,632	1,685	4.1%	.	.
Ukraine	H	.	.	.	.	135	133	147	163	178	194	211	-5.5%	.	.
	B	453	466	494	312	132	128	138	149	160	171	183	-7.4%	.	.
	L	.	.	.	.	130	122	128	136	144	151	158	-9.2%	.	.

IFR Flight Movements (Thousands)															
		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	AAGR 2021/ 2014	RP1 2014/2011 AAGR	RP2 2019/2014 AAGR
UK	H	.	.	.	.	2,324	2,402	2,484	2,563	2,631	2,740	2,800	3.1%	.	3.0%
	B	2,241	2,211	2,225	2,269	2,311	2,370	2,418	2,470	2,521	2,585	2,621	2.1%	0.4%	2.1%
	L	.	.	.	.	2,292	2,334	2,348	2,373	2,397	2,429	2,446	1.1%	.	1.1%
ESRA02	H	.	.	.	.	9,742	10,134	10,574	10,980	11,369	11,829	12,196	3.6%	.	.
	B	9,641	9,388	9,297	9,495	9,662	9,949	10,214	10,487	10,744	11,052	11,277	2.5%	.	.
	L	.	.	.	.	9,552	9,717	9,788	9,909	10,029	10,164	10,241	1.1%	.	.
EU27	H	.	.	.	.	9,011	9,352	9,716	10,067	10,403	10,794	11,098	3.4%	.	3.4%
	B	9,036	8,766	8,622	8,783	8,934	9,178	9,386	9,606	9,821	10,075	10,252	2.2%	-0.9%	2.3%
	L	.	.	.	.	8,829	8,963	8,999	9,079	9,162	9,264	9,312	0.8%	.	0.8%
ESRA08	H	.	.	.	.	9,834	10,228	10,675	11,089	11,487	11,957	12,332	3.6%	.	3.6%
	B	9,784	9,548	9,447	9,604	9,750	10,039	10,310	10,588	10,852	11,166	11,397	2.5%	-0.6%	2.5%
	L	.	.	.	.	9,638	9,803	9,876	10,001	10,124	10,263	10,343	1.1%	.	1.1%
Baltic FAB	H	.	.	.	.	799	830	879	930	980	1,033	1,079	4.6%	.	4.5%
	B	741	768	776	788	785	801	832	866	899	932	960	2.9%	2.0%	2.7%
	L	.	.	.	.	770	770	781	796	811	825	834	0.8%	.	0.6%
BLUE MED FAB	H	.	.	.	.	2,399	2,533	2,664	2,792	2,921	3,060	3,183	4.9%	.	5.1%
	B	2,267	2,212	2,194	2,282	2,374	2,475	2,550	2,634	2,717	2,806	2,877	3.4%	0.2%	3.5%
	L	.	.	.	.	2,336	2,394	2,411	2,448	2,483	2,520	2,544	1.6%	.	1.7%
Danube FAB	H	.	.	.	.	877	931	993	1,049	1,106	1,169	1,225	5.7%	.	5.9%
	B	758	746	758	829	868	909	948	988	1,026	1,066	1,101	4.1%	3.0%	4.3%
	L	.	.	.	.	856	882	898	921	943	963	978	2.4%	.	2.6%
FAB CE	H	.	.	.	.	1,994	2,091	2,200	2,303	2,401	2,509	2,602	4.4%	.	4.5%
	B	1,914	1,865	1,854	1,928	1,974	2,045	2,109	2,176	2,238	2,307	2,360	2.9%	0.2%	3.0%
	L	.	.	.	.	1,947	1,988	2,006	2,036	2,064	2,093	2,110	1.3%	.	1.4%
FABEC	H	.	.	.	.	5,709	5,905	6,108	6,300	6,473	6,673	6,813	2.9%	.	3.0%
	B	5,671	5,564	5,499	5,571	5,668	5,811	5,927	6,047	6,164	6,307	6,396	2.0%	-0.6%	2.0%
	L	.	.	.	.	5,608	5,690	5,703	5,740	5,781	5,838	5,860	0.7%	.	0.7%
NEFAB	H	.	.	.	.	1,015	1,036	1,068	1,096	1,124	1,179	1,209	2.3%	.	1.8%
	B	988	1,001	1,012	1,030	1,004	1,014	1,031	1,049	1,064	1,091	1,105	1.0%	1.4%	0.6%
	L	.	.	.	.	993	991	989	993	997	1,003	1,003	-0.4%	.	-0.6%
South West FAB	H	.	.	.	.	1,734	1,815	1,904	1,989	2,071	2,157	2,228	4.4%	.	4.7%
	B	1,823	1,644	1,591	1,650	1,719	1,778	1,829	1,884	1,938	1,995	2,035	3.0%	-3.3%	3.3%
	L	.	.	.	.	1,691	1,726	1,736	1,759	1,781	1,805	1,815	1.4%	.	1.5%
UK-Ireland FAB	H	.	.	.	.	2,362	2,441	2,525	2,608	2,679	2,790	2,851	3.1%	.	3.1%
	B	2,272	2,238	2,254	2,299	2,349	2,408	2,457	2,512	2,564	2,630	2,668	2.1%	0.4%	2.2%
	L	.	.	.	.	2,330	2,372	2,387	2,413	2,438	2,471	2,489	1.1%	.	1.2%
DK-SE FAB	H	.	.	.	.	1,003	1,033	1,069	1,103	1,133	1,179	1,209	2.7%	.	2.4%
	B	1,008	978	999	1,005	995	1,015	1,037	1,060	1,080	1,107	1,123	1.6%	-0.1%	1.4%
	L	.	.	.	.	986	995	997	1,006	1,013	1,021	1,023	0.3%	.	0.2%
EU28	H	.	.	.	.	9,026	9,367	9,732	10,084	10,421	10,813	11,117	3.4%	.	3.4%
	B	9,050	8,779	8,634	8,797	8,949	9,193	9,401	9,622	9,838	10,092	10,269	2.2%	-0.9%	2.3%
	L	.	.	.	.	8,844	8,978	9,014	9,094	9,177	9,279	9,327	0.8%	.	0.8%
SES-RP2	H	.	.	.	.	9,334	9,678	10,042	10,390	10,725	11,128	11,434	3.3%	.	3.3%
	B	9,344	9,087	8,946	9,114	9,256	9,501	9,709	9,927	10,141	10,400	10,576	2.1%	-0.8%	2.2%
	L	.	.	.	.	9,149	9,282	9,314	9,390	9,470	9,571	9,615	0.8%	.	0.8%

D. Seven-year flight forecast per state (Growth)

This appendix shows the same data as the previous, but presented as growth rather than counts of flights.

Figure 57. Forecast of the IFR flight movements growth per State.

IFR Flights Movements (Growth compared to previous year unless otherwise mentioned)															
		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	AAGR 2021/ 2014	RP1 2014/2011 AAGR	RP2 2019/2014 AAGR
Albania	H	.	.	.	.	7.2%	9.6%	4.8%	4.5%	4.1%	4.5%	3.6%	**5.5%**	.	.
	B	8.7%	-1.1%	2.8%	-1.1%	6.3%	8.5%	3.0%	3.2%	3.0%	3.2%	2.4%	**4.2%**	.	.
	L	.	.	.	.	4.6%	6.4%	0.9%	1.7%	1.6%	1.6%	1.1%	**2.5%**	.	.
Armenia	H	.	.	.	.	-5.5%	5.9%	9.3%	8.5%	8.3%	8.1%	7.4%	**5.9%**	.	.
	B	8.1%	-2.0%	-6.6%	-3.4%	-8.2%	3.0%	6.4%	6.5%	6.2%	6.0%	5.4%	**3.5%**	.	.
	L	.	.	.	.	-11%	0.0%	3.8%	4.4%	4.2%	4.0%	3.4%	**1.1%**	.	.
Austria	H	.	.	.	.	3.2%	4.6%	4.5%	4.1%	3.8%	4.0%	3.1%	**3.9%**	.	**4.0%**
	B	1.5%	-1.8%	-1.7%	3.4%	2.2%	3.5%	2.7%	2.9%	2.6%	2.7%	2.0%	**2.7%**	**-0.1%**	**2.8%**
	L	.	.	.	.	1.0%	2.1%	0.7%	1.4%	1.2%	1.2%	0.6%	**1.2%**	.	**1.3%**
Azerbaijan	H	.	.	.	.	0.3%	5.2%	8.5%	7.8%	7.7%	8.2%	7.2%	**6.4%**	.	.
	B	2.8%	5.4%	-1.3%	-1.2%	-1.0%	3.7%	6.1%	6.2%	6.0%	6.2%	5.5%	**4.6%**	.	.
	L	.	.	.	.	-2.4%	1.9%	3.6%	4.4%	4.2%	4.3%	3.7%	**2.8%**	.	.
Belarus	H	.	.	.	.	-1.3%	0.1%	6.7%	5.8%	5.7%	5.5%	4.9%	**3.9%**	.	.
	B	15%	6.7%	6.2%	5.6%	-4.3%	-3.0%	4.1%	3.9%	3.9%	3.7%	3.1%	**1.6%**	.	.
	L	.	.	.	.	-7.4%	-5.9%	1.8%	2.0%	2.3%	2.1%	1.6%	**-0.6%**	.	.
Belgium/Luxembourg	H	.	.	.	.	3.0%	3.5%	3.6%	3.2%	2.8%	3.1%	1.9%	**3.0%**	.	**3.2%**
	B	5.4%	-0.2%	1.0%	2.9%	2.4%	2.7%	2.1%	2.2%	2.2%	2.5%	1.6%	**2.2%**	**1.2%**	**2.3%**
	L	.	.	.	.	1.4%	1.7%	0.4%	0.9%	1.0%	1.1%	0.5%	**1.0%**	.	**1.0%**
Bosnia-Herzegovina	H	.	.	.	.	5.9%	4.9%	5.5%	4.8%	4.5%	4.7%	3.9%	**4.9%**	.	.
	B	10%	-2.6%	-2.2%	14%	4.9%	3.7%	3.3%	3.4%	3.2%	3.3%	2.5%	**3.5%**	.	.
	L	.	.	.	.	3.4%	2.1%	1.1%	1.8%	1.7%	1.7%	1.1%	**1.8%**	.	.
Bulgaria	H	.	.	.	.	8.5%	4.4%	6.8%	5.7%	5.5%	5.8%	4.9%	**5.9%**	.	**6.2%**
	B	7.1%	0.2%	1.9%	24%	7.3%	3.1%	4.5%	4.4%	3.9%	4.0%	3.3%	**4.3%**	**8.2%**	**4.6%**
	L	.	.	.	.	5.8%	1.4%	2.0%	2.6%	2.5%	2.2%	1.7%	**2.6%**	.	**2.8%**
Canary Islands	H	.	.	.	.	4.1%	5.4%	4.7%	4.3%	4.1%	4.2%	3.4%	**4.3%**	.	**4.5%**
	B	8.2%	-7.7%	-3.4%	6.9%	3.1%	3.9%	2.3%	2.4%	2.3%	2.3%	1.6%	**2.6%**	**-1.6%**	**2.8%**
	L	.	.	.	.	1.9%	2.6%	0.1%	0.8%	0.7%	0.6%	0.1%	**0.9%**	.	**1.2%**
Croatia	H	.	.	.	.	6.8%	5.7%	5.4%	4.8%	4.4%	4.6%	3.8%	**5.1%**	.	**5.4%**
	B	8.4%	-0.4%	-0.6%	5.5%	5.8%	4.5%	3.2%	3.3%	3.1%	3.3%	2.4%	**3.6%**	**1.5%**	**4.0%**
	L	.	.	.	.	4.2%	2.8%	0.9%	1.7%	1.6%	1.6%	1.0%	**2.0%**	.	**2.2%**
Cyprus	H	.	.	.	.	6.6%	9.1%	8.2%	7.6%	7.4%	7.6%	6.9%	**7.6%**	.	**7.8%**
	B	-1.2%	-4.1%	2.8%	9.7%	4.8%	7.1%	5.3%	5.5%	5.2%	5.3%	4.7%	**5.4%**	**2.6%**	**5.6%**
	L	.	.	.	.	2.2%	4.1%	2.3%	3.1%	3.0%	2.9%	2.3%	**2.8%**	.	**2.9%**
Czech Republic	H	.	.	.	.	2.7%	4.1%	5.4%	4.9%	4.3%	4.7%	3.9%	**4.3%**	.	**4.3%**
	B	4.0%	-2.3%	0.0%	3.1%	1.7%	2.8%	3.2%	3.1%	2.8%	3.1%	2.3%	**2.7%**	**0.2%**	**2.7%**
	L	.	.	.	.	0.4%	1.3%	1.0%	1.3%	1.2%	1.3%	0.8%	**1.1%**	.	**1.1%**
Denmark	H	.	.	.	.	0.4%	2.8%	3.5%	3.0%	2.7%	4.0%	2.3%	**2.7%**	.	**2.5%**
	B	5.1%	-3.2%	2.3%	0.0%	-0.3%	1.9%	2.2%	2.1%	1.9%	2.5%	1.4%	**1.7%**	**-0.3%**	**1.6%**
	L	.	.	.	.	-1.2%	0.8%	0.3%	0.8%	0.8%	0.9%	0.2%	**0.4%**	.	**0.3%**

IFR Flights Movements (Growth compared to previous year unless otherwise mentioned)															
		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	AAGR 2021/ 2014	RP1 2014/2011 AAGR	RP2 2019/2014 AAGR
Estonia	H	.	.	.	.	2.7%	2.0%	5.2%	4.7%	4.9%	5.4%	4.4%	**4.2%**	**.**	**3.9%**
	B	14%	6.1%	-3.1%	4.6%	0.9%	0.1%	2.9%	2.8%	3.1%	3.2%	2.6%	**2.2%**	**2.4%**	**2.0%**
	L	.	.	.	.	-0.9%	-1.6%	0.8%	1.1%	1.6%	1.6%	1.1%	**0.5%**	**.**	**0.2%**
FYROM	H	.	.	.	.	9.6%	5.9%	5.5%	4.9%	4.7%	5.0%	4.1%	**5.6%**	**.**	**.**
	B	-0.4%	-9.6%	0.1%	30%	8.4%	4.6%	3.4%	3.5%	3.5%	3.7%	2.9%	**4.3%**	**.**	**.**
	L	.	.	.	.	6.9%	2.9%	1.2%	1.9%	1.9%	2.0%	1.5%	**2.6%**	**.**	**.**
Finland	H	.	.	.	.	0.1%	2.4%	3.4%	3.4%	3.2%	3.9%	2.8%	**2.7%**	**.**	**2.5%**
	B	11%	-5.8%	-3.5%	2.0%	-0.9%	1.1%	1.4%	1.9%	1.7%	2.0%	1.2%	**1.2%**	**-2.5%**	**1.0%**
	L	.	.	.	.	-2.0%	-0.2%	-0.5%	0.4%	0.3%	0.5%	-0.1%	**-0.2%**	**.**	**-0.4%**
France	H	.	.	.	.	2.1%	3.9%	3.6%	3.3%	2.9%	3.1%	2.1%	**3.0%**	**.**	**3.1%**
	B	6.2%	-1.5%	-0.7%	1.6%	1.3%	2.9%	2.0%	2.1%	2.1%	2.5%	1.6%	**2.1%**	**-0.2%**	**2.1%**
	L	.	.	.	.	0.0%	1.8%	0.1%	0.6%	0.7%	1.1%	0.5%	**0.7%**	**.**	**0.6%**
Georgia	H	.	.	.	.	0.4%	4.9%	9.5%	8.3%	8.0%	8.2%	7.3%	**6.6%**	**.**	**.**
	B	16%	-1.7%	2.1%	5.2%	-1.4%	2.9%	6.7%	6.6%	6.1%	6.1%	5.4%	**4.6%**	**.**	**.**
	L	.	.	.	.	-3.2%	0.8%	4.0%	4.7%	4.4%	4.1%	3.5%	**2.6%**	**.**	**.**
Germany	H	.	.	.	.	1.7%	3.6%	3.6%	3.2%	2.9%	3.2%	2.2%	**2.9%**	**.**	**3.0%**
	B	3.2%	-1.9%	-0.9%	1.3%	0.9%	2.7%	2.1%	2.1%	2.0%	2.2%	1.4%	**1.9%**	**-0.5%**	**2.0%**
	L	.	.	.	.	-0.1%	1.6%	0.4%	0.7%	0.8%	0.9%	0.3%	**0.7%**	**.**	**0.7%**
Greece	H	.	.	.	.	12%	6.8%	5.3%	5.0%	4.8%	5.2%	4.5%	**6.1%**	**.**	**6.7%**
	B	0.2%	-3.5%	-1.6%	8.8%	10%	5.7%	3.3%	3.6%	3.5%	3.7%	3.1%	**4.8%**	**1.1%**	**5.3%**
	L	.	.	.	.	8.8%	3.8%	1.2%	2.0%	1.9%	2.0%	1.5%	**3.0%**	**.**	**3.5%**
Hungary	H	.	.	.	.	7.4%	5.7%	5.9%	5.0%	4.9%	5.4%	4.3%	**5.5%**	**.**	**5.8%**
	B	-0.8%	-4.4%	1.9%	12%	6.4%	4.4%	3.7%	3.6%	3.4%	3.5%	2.8%	**4.0%**	**2.8%**	**4.3%**
	L	.	.	.	.	5.2%	2.9%	1.3%	1.9%	1.9%	1.7%	1.2%	**2.3%**	**.**	**2.6%**
Iceland	H	.	.	.	.	3.3%	4.7%	4.7%	4.5%	4.6%	5.6%	4.5%	**4.5%**	**.**	**.**
	B	9.0%	11%	6.8%	11%	2.4%	3.6%	3.1%	3.1%	3.2%	3.7%	3.0%	**3.1%**	**.**	**.**
	L	.	.	.	.	1.5%	2.6%	1.4%	1.7%	1.9%	2.1%	1.6%	**1.8%**	**.**	**.**
Ireland	H	.	.	.	.	1.8%	4.0%	4.2%	4.2%	4.0%	4.9%	2.0%	**3.6%**	**.**	**3.6%**
	B	1.9%	-0.4%	0.3%	2.8%	1.2%	3.2%	2.7%	2.9%	3.0%	3.3%	2.4%	**2.6%**	**0.9%**	**2.6%**
	L	.	.	.	.	0.4%	2.4%	1.2%	1.6%	1.7%	1.9%	1.3%	**1.5%**	**.**	**1.5%**
Italy	H	.	.	.	.	3.0%	4.5%	4.6%	4.2%	4.0%	4.1%	3.3%	**3.9%**	**.**	**4.0%**
	B	0.8%	-2.3%	-2.2%	1.9%	2.0%	3.2%	2.5%	2.7%	2.6%	2.7%	1.9%	**2.5%**	**-0.9%**	**2.6%**
	L	.	.	.	.	0.5%	1.7%	0.2%	1.1%	1.0%	1.0%	0.4%	**0.9%**	**.**	**0.9%**
Latvia	H	.	.	.	.	1.7%	2.4%	5.4%	4.8%	4.8%	5.0%	4.0%	**4.0%**	**.**	**3.8%**
	B	9.8%	-1.0%	1.3%	2.8%	-0.4%	0.2%	2.5%	2.5%	2.6%	2.6%	2.0%	**1.7%**	**1.0%**	**1.5%**
	L	.	.	.	.	-2.3%	-1.8%	0.2%	0.7%	1.0%	1.0%	0.5%	**-0.1%**	**.**	**-0.5%**
Lisbon FIR	H	.	.	.	.	5.6%	4.5%	4.6%	4.2%	3.9%	4.0%	3.0%	**4.3%**	**.**	**4.6%**
	B	4.8%	-2.7%	2.6%	6.8%	4.7%	3.2%	2.4%	2.5%	2.4%	2.5%	1.7%	**2.7%**	**2.2%**	**3.0%**
	L	.	.	.	.	3.5%	1.8%	0.1%	0.8%	0.8%	0.8%	0.2%	**1.2%**	**.**	**1.4%**
Lithuania	H	.	.	.	.	2.2%	2.1%	5.8%	5.0%	5.1%	4.9%	4.1%	**4.2%**	**.**	**4.0%**
	B	13%	1.0%	2.8%	6.1%	-0.0%	-0.2%	3.2%	2.9%	3.2%	3.0%	2.3%	**2.1%**	**3.3%**	**1.8%**
	L	.	.	.	.	-2.2%	-2.4%	0.9%	1.0%	1.6%	1.4%	0.9%	**0.2%**	**.**	**-0.2%**
Malta	H	.	.	.	.	-3.2%	12%	8.5%	8.1%	8.0%	8.4%	7.7%	**6.9%**	**.**	**6.4%**
	B	-15%	20%	13%	-6.8%	-4.5%	9.6%	5.2%	5.4%	5.3%	5.4%	4.7%	**4.4%**	**8.0%**	**4.1%**
	L	.	.	.	.	-6.2%	7.4%	2.1%	2.9%	2.9%	2.9%	2.3%	**2.0%**	**.**	**1.7%**

IFR Flights Movements (Growth compared to previous year unless otherwise mentioned)															
		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	AAGR 2021/ 2014	RP1 2014/2011 AAGR	RP2 2019/2014 AAGR
Moldova	H	.	.	.	.	-49%	-6.4%	7.3%	7.7%	6.0%	6.0%	0.9%	**-6.4%**	.	.
	B	11%	5.7%	16%	-24%	-49%	-6.4%	5.7%	5.8%	4.5%	4.5%	4.0%	**-6.8%**	.	.
	L	.	.	.	.	-49%	-9.7%	2.6%	4.2%	2.8%	2.9%	2.4%	**-8.5%**	.	.
Morocco	H	.	.	.	.	6.1%	7.4%	8.3%	8.1%	8.2%	8.5%	8.0%	**7.8%**	.	.
	B	3.9%	-8.1%	3.3%	7.6%	4.8%	5.4%	4.9%	5.2%	5.1%	5.2%	4.6%	**5.0%**	.	.
	L	.	.	.	.	3.4%	3.5%	1.7%	2.6%	2.5%	2.5%	2.0%	**2.6%**	.	.
Netherlands	H	.	.	.	.	1.8%	3.2%	3.4%	3.3%	2.7%	3.7%	1.8%	**2.8%**	.	**2.9%**
	B	7.2%	-0.2%	2.4%	2.6%	1.3%	2.6%	2.4%	2.6%	2.1%	2.5%	1.1%	**2.1%**	**1.6%**	**2.2%**
	L	.	.	.	.	0.7%	2.0%	0.9%	1.1%	1.0%	1.2%	0.6%	**1.1%**	.	**1.1%**
Norway	H	.	.	.	.	-2.6%	2.0%	2.1%	1.3%	1.4%	5.4%	1.9%	**1.6%**	.	**0.8%**
	B	4.9%	4.2%	4.0%	1.4%	-3.2%	1.3%	1.3%	1.3%	0.9%	2.9%	1.1%	**0.8%**	**3.2%**	**0.3%**
	L	.	.	.	.	-3.9%	0.3%	-0.3%	0.3%	0.3%	0.5%	-0.2%	**-0.4%**	.	**-0.7%**
Poland	H	.	.	.	.	2.3%	4.1%	5.8%	5.7%	5.4%	5.4%	4.4%	**4.7%**	.	**4.6%**
	B	9.4%	4.6%	1.1%	1.4%	0.6%	2.3%	3.9%	4.0%	3.8%	3.7%	3.0%	**3.0%**	**2.3%**	**2.9%**
	L	.	.	.	.	-1.3%	0.4%	1.3%	1.8%	1.9%	1.7%	1.1%	**1.0%**	.	**0.8%**
Romania	H	.	.	.	.	7.8%	4.6%	6.5%	5.5%	5.4%	5.8%	4.8%	**5.8%**	.	**6.0%**
	B	3.8%	-0.0%	5.3%	17%	6.6%	3.1%	4.2%	4.1%	3.8%	3.9%	3.3%	**4.1%**	**7.1%**	**4.4%**
	L	.	.	.	.	5.2%	1.4%	1.8%	2.4%	2.3%	2.1%	1.6%	**2.4%**	.	**2.6%**
Santa Maria FIR	H	.	.	.	.	4.5%	4.1%	3.7%	3.8%	3.6%	3.8%	2.9%	**3.8%**	.	**3.9%**
	B	4.3%	-3.9%	2.7%	2.7%	3.8%	3.3%	2.4%	2.6%	2.6%	2.7%	1.9%	**2.8%**	**0.5%**	**2.9%**
	L	.	.	.	.	2.7%	2.3%	0.9%	1.3%	1.3%	1.4%	0.8%	**1.5%**	.	**1.7%**
Serbia&Montenegro	H	.	.	.	.	8.7%	6.6%	5.7%	5.1%	4.8%	5.0%	4.1%	**5.7%**	.	.
	B	2.7%	-4.1%	-3.1%	6.9%	7.7%	5.4%	3.5%	3.7%	3.4%	3.6%	2.8%	**4.3%**	.	.
	L	.	.	.	.	6.1%	3.6%	1.3%	2.0%	1.9%	1.9%	1.3%	**2.6%**	.	.
Slovakia	H	.	.	.	.	5.5%	4.9%	6.2%	5.4%	5.1%	5.6%	4.5%	**5.3%**	.	**5.4%**
	B	3.1%	-0.3%	4.4%	9.8%	4.1%	3.4%	3.9%	3.9%	3.5%	3.6%	2.9%	**3.6%**	**4.5%**	**3.8%**
	L	.	.	.	.	2.6%	1.7%	1.5%	2.0%	1.9%	1.8%	1.3%	**1.8%**	.	**2.0%**
Slovenia	H	.	.	.	.	5.1%	5.5%	4.9%	4.4%	4.2%	4.4%	3.5%	**4.6%**	.	**4.8%**
	B	7.5%	-2.0%	-4.8%	5.8%	4.1%	4.4%	3.0%	3.1%	2.9%	3.1%	2.3%	**3.3%**	**-0.5%**	**3.5%**
	L	.	.	.	.	2.7%	2.8%	0.9%	1.6%	1.5%	1.5%	0.9%	**1.7%**	.	**1.9%**
Spain	H	.	.	.	.	5.0%	4.7%	4.9%	4.5%	4.2%	4.1%	3.3%	**4.4%**	.	**4.7%**
	B	3.6%	-6.5%	-1.9%	3.9%	4.1%	3.5%	2.9%	3.0%	2.9%	3.0%	2.0%	**3.1%**	**-1.6%**	**3.3%**
	L	.	.	.	.	2.3%	2.2%	0.6%	1.3%	1.3%	1.3%	0.6%	**1.4%**	.	**1.5%**
Sweden	H	.	.	.	.	0.0%	2.9%	3.7%	3.4%	2.9%	4.2%	2.7%	**2.8%**	.	**2.6%**
	B	9.1%	-0.1%	0.9%	1.2%	-0.8%	1.9%	2.2%	2.4%	1.9%	2.5%	1.6%	**1.7%**	**0.7%**	**1.5%**
	L	.	.	.	.	-1.8%	0.7%	0.3%	1.0%	0.7%	0.8%	0.3%	**0.3%**	.	**0.2%**
Switzerland	H	.	.	.	.	2.2%	3.6%	3.6%	3.3%	3.1%	3.0%	2.3%	**3.0%**	.	**3.2%**
	B	3.6%	-1.7%	-2.4%	1.4%	1.4%	2.6%	2.1%	2.3%	2.3%	2.3%	1.5%	**2.1%**	**-0.9%**	**2.1%**
	L	.	.	.	.	0.2%	1.4%	0.2%	0.9%	0.9%	0.9%	0.3%	**0.7%**	.	**0.7%**
Turkey	H	.	.	.	.	6.2%	8.1%	10%	7.7%	7.2%	7.2%	6.7%	**7.6%**	.	.
	B	7.6%	2.6%	7.1%	11%	5.0%	6.6%	7.4%	6.7%	5.6%	5.7%	5.1%	**6.0%**	.	.
	L	.	.	.	.	3.5%	4.6%	4.4%	5.0%	4.5%	3.8%	3.2%	**4.1%**	.	.
Ukraine	H	.	.	.	.	-57%	-1.6%	11%	10%	9.4%	9.2%	8.3%	**-5.5%**	.	.
	B	5.5%	2.9%	6.0%	-37%	-58%	-3.5%	8.0%	8.2%	7.3%	7.2%	6.5%	**-7.4%**	.	.
	L	.	.	.	.	-58%	-5.8%	5.0%	6.2%	5.4%	5.3%	4.7%	**-9.2%**	.	.

IFR Flights Movements (Growth compared to previous year unless otherwise mentioned)															
		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	AAGR 2021/ 2014	RP1 2014/2011 AAGR	RP2 2019/2014 AAGR
UK	H	.	.	.	.	2.4%	3.3%	3.4%	3.2%	2.7%	4.1%	2.2%	**3.1%**	**.**	**3.0%**
	B	2.8%	-1.4%	0.6%	2.0%	1.9%	2.5%	2.0%	2.2%	2.1%	2.6%	1.4%	**2.1%**	**0.4%**	**2.1%**
	L	.	.	.	.	1.0%	1.8%	0.6%	1.1%	1.0%	1.3%	0.7%	**1.1%**	**.**	**1.1%**
ESRA02	H	.	.	.	.	2.6%	4.0%	4.3%	3.8%	3.5%	4.0%	3.1%	**3.6%**	**.**	**.**
	B	2.9%	-2.6%	-1.0%	2.1%	1.8%	3.0%	2.7%	2.7%	2.5%	2.9%	2.0%	**2.5%**	**.**	**.**
	L	.	.	.	.	0.6%	1.7%	0.7%	1.2%	1.2%	1.3%	0.8%	**1.1%**	**.**	**.**
EU27	H	.	.	.	.	2.6%	3.8%	3.9%	3.6%	3.3%	3.8%	2.8%	**3.4%**	**.**	**3.4%**
	B	2.6%	-3.0%	-1.6%	1.9%	1.7%	2.7%	2.3%	2.3%	2.2%	2.6%	1.8%	**2.2%**	**-0.9%**	**2.3%**
	L	.	.	.	.	0.5%	1.5%	0.4%	0.9%	0.9%	1.1%	0.5%	**0.8%**	**.**	**0.8%**
ESRA08	H	.	.	.	.	2.4%	4.0%	4.4%	3.9%	3.6%	4.1%	3.1%	**3.6%**	**.**	**3.6%**
	B	3.1%	-2.4%	-1.1%	1.7%	1.5%	3.0%	2.7%	2.7%	2.5%	2.9%	2.1%	**2.5%**	**-0.6%**	**2.5%**
	L	.	.	.	.	0.4%	1.7%	0.8%	1.3%	1.2%	1.4%	0.8%	**1.1%**	**.**	**1.1%**
Baltic FAB	H	.	.	.	.	1.5%	3.8%	6.0%	5.8%	5.4%	5.4%	4.5%	**4.6%**	**.**	**4.5%**
	B	9.2%	3.6%	1.0%	1.5%	-0.3%	2.0%	4.0%	4.0%	3.8%	3.7%	3.0%	**2.9%**	**2.0%**	**2.7%**
	L	.	.	.	.	-2.2%	0.0%	1.4%	1.9%	1.9%	1.7%	1.1%	**0.8%**	**.**	**0.6%**
BLUE MED FAB	H	.	.	.	.	5.1%	5.6%	5.2%	4.8%	4.6%	4.8%	4.0%	**4.9%**	**.**	**5.1%**
	B	-0.1%	-2.4%	-0.8%	4.0%	4.0%	4.3%	3.0%	3.3%	3.1%	3.3%	2.5%	**3.4%**	**0.2%**	**3.5%**
	L	.	.	.	.	2.4%	2.5%	0.7%	1.5%	1.4%	1.5%	0.9%	**1.6%**	**.**	**1.7%**
Danube FAB	H	.	.	.	.	5.8%	6.2%	6.6%	5.6%	5.4%	5.7%	4.8%	**5.7%**	**.**	**5.9%**
	B	3.3%	-1.5%	1.5%	9.5%	4.6%	4.8%	4.3%	4.2%	3.8%	3.9%	3.2%	**4.1%**	**3.0%**	**4.3%**
	L	.	.	.	.	3.2%	3.1%	1.9%	2.5%	2.3%	2.1%	1.6%	**2.4%**	**.**	**2.6%**
FAB CE	H	.	.	.	.	3.4%	4.9%	5.2%	4.7%	4.3%	4.5%	3.7%	**4.4%**	**.**	**4.5%**
	B	2.7%	-2.6%	-0.6%	4.0%	2.4%	3.6%	3.1%	3.2%	2.9%	3.1%	2.3%	**2.9%**	**0.2%**	**3.0%**
	L	.	.	.	.	1.0%	2.1%	0.9%	1.5%	1.4%	1.4%	0.8%	**1.3%**	**.**	**1.4%**
FABEC	H	.	.	.	.	2.5%	3.4%	3.4%	3.1%	2.8%	3.1%	2.1%	**2.9%**	**.**	**3.0%**
	B	4.4%	-1.9%	-1.2%	1.3%	1.7%	2.5%	2.0%	2.0%	1.9%	2.3%	1.4%	**2.0%**	**-0.6%**	**2.0%**
	L	.	.	.	.	0.7%	1.5%	0.2%	0.6%	0.7%	1.0%	0.4%	**0.7%**	**.**	**0.7%**
NEFAB	H	.	.	.	.	-1.5%	2.2%	3.1%	2.6%	2.5%	4.9%	2.6%	**2.3%**	**.**	**1.8%**
	B	7.0%	1.3%	1.1%	1.8%	-2.5%	1.0%	1.6%	1.8%	1.4%	2.6%	1.3%	**1.0%**	**1.4%**	**0.6%**
	L	.	.	.	.	-3.6%	-0.3%	-0.2%	0.5%	0.4%	0.6%	-0.0%	**-0.4%**	**.**	**-0.6%**
South West FAB	H	.	.	.	.	5.1%	4.6%	4.9%	4.5%	4.2%	4.2%	3.3%	**4.4%**	**.**	**4.7%**
	B	3.3%	-9.8%	-3.3%	3.7%	4.2%	3.4%	2.9%	3.0%	2.8%	3.0%	2.0%	**3.0%**	**-3.3%**	**3.3%**
	L	.	.	.	.	2.5%	2.1%	0.6%	1.3%	1.2%	1.3%	0.5%	**1.4%**	**.**	**1.5%**
UK-Ireland FAB	H	.	.	.	.	2.7%	3.3%	3.5%	3.3%	2.7%	4.2%	2.2%	**3.1%**	**.**	**3.1%**
	B	2.5%	-1.5%	0.7%	2.0%	2.1%	2.5%	2.1%	2.2%	2.1%	2.6%	1.4%	**2.1%**	**0.4%**	**2.2%**
	L	.	.	.	.	1.3%	1.8%	0.6%	1.1%	1.0%	1.4%	0.7%	**1.1%**	**.**	**1.2%**
DK-SE FAB	H	.	.	.	.	-0.2%	3.0%	3.5%	3.1%	2.7%	4.1%	2.5%	**2.7%**	**.**	**2.4%**
	B	5.7%	-3.0%	2.2%	0.6%	-1.0%	2.0%	2.1%	2.3%	1.8%	2.5%	1.4%	**1.6%**	**-0.1%**	**1.4%**
	L	.	.	.	.	-1.9%	0.9%	0.2%	0.9%	0.7%	0.8%	0.2%	**0.3%**	**.**	**0.2%**
EU28	H	.	.	.	.	2.6%	3.8%	3.9%	3.6%	3.3%	3.8%	2.8%	**3.4%**	**.**	**3.4%**
	B	2.6%	-3.0%	-1.7%	1.9%	1.7%	2.7%	2.3%	2.3%	2.2%	2.6%	1.8%	**2.2%**	**-0.9%**	**2.3%**
	L	.	.	.	.	0.5%	1.5%	0.4%	0.9%	0.9%	1.1%	0.5%	**0.8%**	**.**	**0.8%**
SES-RP2	H	.	.	.	.	2.4%	3.7%	3.8%	3.5%	3.2%	3.8%	2.7%	**3.3%**	**.**	**3.3%**
	B	2.7%	-2.7%	-1.6%	1.9%	1.6%	2.7%	2.2%	2.2%	2.2%	2.6%	1.7%	**2.1%**	**-0.8%**	**2.2%**
	L	.	.	.	.	0.4%	1.5%	0.3%	0.8%	0.9%	1.1%	0.5%	**0.8%**	**.**	**0.8%**

E. State by state two-year en-route service unit forecast by State

Figure 58. Forecast Summary: Annual total en-route service units 2015-2016.

	Charging Area	2014 Actual TSU	2015 STATFOR Forecast TSU	2015/2014 Forecast Growth	2016 STATFOR Forecast TSU	2016/2015 Forecast Growth	2015 States Forecast TSU	2015 STATFOR/ States
EB	Belgium/Luxembourg	2,362,038	2,435,804	3.1%	2,510,280	3.1%	2,370,804	2.7%
ED	Germany[A]	12,880,783	12,962,233	0.6%	13,345,993	3.0%	12,568,000	3.1%
LF	France	18,496,754	18,822,721	1.8%	19,541,139	3.8%	18,487,000	1.8%
EG	UK	9,979,403	10,153,036	1.7%	10,411,102	2.5%	10,244,000	-0.9%
EH	Netherlands	2,767,312	2,788,838	0.8%	2,867,367	2.8%	2,806,192	-0.6%
EI	Ireland	3,922,499	3,916,103	-0.2%	4,042,275	3.2%	4,000,000	-2.1%
LS	Switzerland	1,427,068	1,458,923	2.2%	1,500,225	2.8%	1,418,755	2.8%
LP	Lisbon FIR	3,019,611	3,123,104	3.4%	3,232,646	3.5%	3,095,250	0.9%
LO	Austria	2,645,392	2,759,540	4.3%	2,865,961	3.9%	2,693,000	2.5%
LE	Spain	8,767,769	9,016,612	2.8%	9,339,312	3.6%	8,880,000	1.5%
GC	Canary Islands	1,491,781	1,453,610	-2.6%	1,531,370	5.3%	1,531,000	-5.1%
AZ	Santa Maria FIR	4,166,099	4,437,429	6.5%	4,564,178	2.9%	4,265,957	4.0%
LG	Greece	4,617,799	5,056,096	9.5%	5,468,104	8.1%	4,231,888	19.5%
LT	Turkey	12,808,849	13,941,413	8.8%	14,825,946	6.3%	13,065,897	6.7%
LM	Malta	727,375	776,253	6.7%	877,892	13.1%	609,000	27.5%
LI	Italy	8,313,546	8,461,774	1.8%	8,776,975	3.7%	9,014,000	-6.1%
LC	Cyprus	1,454,224	1,542,797	6.1%	1,650,358	7.0%	1,395,081	10.6%
LH	Hungary	2,406,153	2,669,032	10.9%	2,841,354	6.5%	2,457,201	8.6%
EN	Norway	2,220,734	2,312,289	4.1%	2,346,477	1.5%	2,287,878	1.1%
EK	Denmark	1,532,003	1,549,432	1.1%	1,579,999	2.0%	1,553,000	-0.2%
LJ	Slovenia	459,206	475,150	3.5%	499,350	5.1%	481,500	-1.3%
LR	Romania	4,181,845	4,482,001	7.2%	4,600,888	2.7%	4,012,887	11.7%
LK	Czech Republic	2,393,408	2,431,105	1.6%	2,491,485	2.5%	2,548,000	-4.6%
ES	Sweden	3,284,841	3,337,718	1.6%	3,402,253	1.9%	3,257,000	2.5%
LZ	Slovakia	1,044,343	1,059,787	1.5%	1,091,191	3.0%	1,114,110	-4.9%
LD	Croatia	1,760,424	1,837,480	4.4%	1,908,147	3.8%	1,763,000	4.2%
LB	Bulgaria	2,743,606	3,110,576	13.4%	3,269,584	5.1%	2,627,000	18.4%
LW	FYROM	246,466	272,610	10.6%	289,324	6.1%	249,000	9.5%
LU	Moldova	131,067	34,776	-73.5%	27,680	-20.4%	130,000	-73.2%
EF	Finland	795,764	822,144	3.3%	825,143	0.4%	792,600	3.7%
LA	Albania	468,799	503,452	7.4%	549,412	9.1%	487,926	3.2%
LQ	Bosnia-Herzegovina	782,870	858,504	9.7%	914,187	6.5%	857,608	0.1%
UD	Armenia	142,478	132,572	-7.0%	138,431	4.4%	156,000	-15.0%
LY	Serbia-Montenegro-KFOR[B]	1,751,706	1,915,992	9.4%	2,018,147	5.3%	1,767,274	8.4%
EP	Poland	3,930,688	3,886,034	-1.1%	3,953,103	1.7%	4,362,840	-10.9%
EY	Lithuania	487,217	481,204	-1.2%	480,181	-0.2%	490,928	-2.0%
EE	Estonia	789,855	803,220	1.7%	802,921	-0.0%	801,215	0.3%
EV	Latvia[C]	766,861	773,408	0.9%	769,668	-0.5%	802,000	-3.6%
UK	Ukraine[D]	2,771,498	860,275	-69.0%	619,473	-28.0%	.	.
UG	Georgia	751,536	782,890	4.2%	811,891	3.7%	716,513	9.3%
	Charging Area	**2014 Actual TSU**	**2015 STATFOR Forecast TSU**	**2015/2014 Forecast Growth**	**2016 STATFOR Forecast TSU**	**2016/2015 Forecast Growth**	**2015 States Forecast TSU**	**2015 STATFOR /States**
	CRCO88	**71,926,509**	**73,327,951**	**1.9%**	**75,751,846**	**3.3%**	**72,359,958**	**1.3%**
	ESRA02	**123,048,160**	**127,500,383**	**3.6%**	**132,523,996**	**3.9%**	**123,948,999**	**2.9%**
	CRCO11	**131,378,779**	**136,051,550**	**3.6%**	**141,347,124**	**3.9%**	**132,873,575**	**2.4%**
	CRCO14	**132,130,315**	**136,834,439**	**3.6%**	**142,159,014**	**3.9%**	**133,590,088**	**2.4%**
	RP1Region	**109,909,877**	**112,920,541**	**2.7%**	**116,914,593**	**3.5%**	**110,932,128**	**1.8%**
	RP2Region	**111,670,300**	**114,758,022**	**2.8%**	**118,822,741**	**3.5%**	**112,695,128**	**1.8%**
	Total	**135,691,668**	**138,497,935**	**2.1%**	**143,581,409**	**3.7%**	**134,391,303**	**3.1%[E]**

(A) Includes service units for flight segments performed as Operational Air Traffic. 74,675 service units concerned for 2014. Estimated number for the coming years is 75.000 per year.

(B) The charging zone over Serbia and Montenegro has been renamed Serbia-Montenegro-KFOR (following the change in the naming convention, see Final Minutes of the 103rd Session of the enlarged Committee dated 19-20.11.2014).

(C) Latvia has only joined EUROCONTROL member States in 2011. Before that date, only yearly data was available for the TSU.

(D) Ukraine is not part of the CRCO but has asked STATFOR to produce an individual forecast for them as they did not have this capacity in 2012. In the TOTAL column the 2015 States forecast and the percentage difference between, the 2015 States and STATFOR forecast does not account for Ukraine.

(E) Percentage corrected for missing State Forecasts for Ukraine (only Total): it represents the difference between the total state forecast and total STATFOR forecast for all countries but Ukraine.

Figure 59. Forecast Summary: Annual chargeable en-route service units 2015-2016.

	Charging Area	2014 Actual TSU	2015 STATFOR Forecast TSU	2016 STATFOR Forecast TSU	2014 Actual Exempted SU in %	2014 Actual Exempted SU in %	2015 Chargeable SU Estimate	2016 Chargeable SU Estimate
EB	Belgium/Luxembourg	2,362,038	2,435,804	2,510,280	1.0%	99.0%	2,412,100	2,485,800
ED	Germany[A]	12,880,783	12,962,233	13,345,993	1.0%	99.0%	12,827,900	13,207,700
LF	France	18,496,754	18,822,721	19,541,139	0.9%	99.1%	18,649,800	19,361,600
EG	UK	9,979,403	10,153,036	10,411,102	1.4%	98.6%	10,008,500	10,262,900
EH	Netherlands	2,767,312	2,788,838	2,867,367	1.3%	98.7%	2,752,600	2,830,100
EI	Ireland	3,922,499	3,916,103	4,042,275	1.3%	98.7%	3,866,400	3,990,900
LS	Switzerland	1,427,068	1,458,923	1,500,225	0.3%	99.7%	1,454,800	1,496,000
LP	Lisbon FIR	3,019,611	3,123,104	3,232,646	1.1%	98.9%	3,088,000	3,196,300
LO	Austria	2,645,392	2,759,540	2,865,961	0.4%	99.6%	2,749,100	2,855,100
LE	Spain	8,767,769	9,016,612	9,339,312	1.0%	99.0%	8,929,800	9,249,400
GC	Canary Islands	1,491,781	1,453,610	1,531,370	0.9%	99.1%	1,440,500	1,517,600
AZ	Santa Maria FIR	4,166,099	4,437,429	4,564,178	2.3%	97.7%	4,336,000	4,459,900
LG	Greece	4,617,799	5,056,096	5,468,104	2.2%	97.8%	4,942,500	5,345,300
LT	Turkey	12,808,849	13,941,413	14,825,946	1.1%	98.9%	13,794,400	14,669,600
LM	Malta	727,375	776,253	877,892	3.5%	96.5%	748,800	846,900
LI	Italy	8,313,546	8,461,774	8,776,975	1.8%	98.2%	8,313,600	8,623,300
LC	Cyprus	1,454,224	1,542,797	1,650,358	1.5%	98.5%	1,520,200	1,626,200
LH	Hungary	2,406,153	2,669,032	2,841,354	1.5%	98.5%	2,627,700	2,797,400
EN	Norway	2,220,734	2,312,289	2,346,477	1.0%	99.0%	2,288,800	2,322,700
EK	Denmark	1,532,003	1,549,432	1,579,999	0.7%	99.3%	1,538,500	1,568,900
LJ	Slovenia	459,206	475,150	499,350	0.4%	99.6%	473,200	497,300
LR	Romania	4,181,845	4,482,001	4,600,888	1.5%	98.5%	4,417,000	4,534,100
LK	Czech Republic	2,393,408	2,431,105	2,491,485	2.2%	97.8%	2,376,800	2,435,800
ES	Sweden	3,284,841	3,337,718	3,402,253	0.4%	99.6%	3,323,300	3,387,500
LZ	Slovakia	1,044,343	1,059,787	1,091,191	1.6%	98.4%	1,042,500	1,073,400
LD	Croatia	1,760,424	1,837,480	1,908,147	0.2%	99.8%	1,833,400	1,903,900
LB	Bulgaria	2,743,606	3,110,576	3,269,584	1.3%	98.7%	3,068,800	3,225,600
LW	FYROM	246,466	272,610	289,324	0.0%	100.0%	272,500	289,200
LU	Moldova	131,067	34,776	27,680	0.1%	99.9%	34,700	27,700
EF	Finland	795,764	822,144	825,143	0.7%	99.3%	816,000	819,000
LA	Albania	468,799	503,452	549,412	0.6%	99.4%	500,300	545,900
LQ	Bosnia-Herzegovina	782,870	858,504	914,187	0.1%	99.9%	858,000	913,600
UD	Armenia	142,478	132,572	138,431	0.1%	99.9%	132,500	138,300
LY	Serbia-Montenegro-KFOR[B]	1,751,706	1,915,992	2,018,147	0.1%	99.9%	1,914,300	2,016,300
EP	Poland	3,930,688	3,886,034	3,953,103	0.5%	99.5%	3,864,900	3,931,600
EY	Lithuania	487,217	481,204	480,181	0.7%	99.3%	478,000	477,000
EE	Estonia	789,855	803,220	802,921	0.0%	100.0%	803,100	802,800
EV	Latvia	766,861	773,408	769,668	0.7%	99.3%	767,600	763,900
UK	Ukraine	2,771,498	860,275	619,473	0.3%	99.7%	857,800	617,700
UG	Georgia	751,536	782,890	811,891	5.1%	94.9%	742,700	770,200
	CRCO88	**71,926,509**	**73,327,951**	**75,751,846**	**1.1%**	**98.9%**	**72,517,200**	**74,914,300**
	ESRA02	**123,048,160**	**127,500,383**	**132,523,996**	**1.2%**	**98.8%**	**125,955,000**	**130,917,700**
	CRCO11	**131,378,779**	**136,051,550**	**141,347,124**	**1.2%**	**98.8%**	**134,470,300**	**139,704,300**
	CRCO14	**132,130,315**	**136,834,439**	**142,159,014**	**1.2%**	**98.8%**	**135,213,100**	**140,474,600**
	RP1Region	**109,909,877**	**112,920,541**	**116,914,593**	**1.2%**	**98.8%**	**111,597,700**	**115,545,000**
	RP2Region	**111,670,300**	**114,758,022**	**118,822,741**	**1.2%**	**98.8%**	**113,430,900**	**117,448,600**
	Total	**135,691,668**	**138,497,935**	**143,581,409**	**1.2%**	**98.8%**	**136,891,800**	**141,916,300**

(A) Includes service units for flight segments performed as Operational Air Traffic. 74,675 service units concerned for 2014. Estimated number for the coming years is 75.000 per year.

(B) The charging zone over Serbia and Montenegro has been renamed Serbia-Montenegro-KFOR (following the change in the naming convention, see Final Minutes of the 103rd Session of the enlarged Committee dated 19-20.11.2014).

F. Seven-year en-route service units forecast per State (service units)

Figure 60. Forecast of the total number of en-route service units (thousands) per State.

Total en-route Service Units (Thousands)															
		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2021/ 2014 Total Growth	RP1 2014/ 2011 AAGR	RP2 2019/ 2014 AAGR
Albania	H	.	.	.	.	511	563	590	616	641	670	694	48%	.	.
	B	448	443	456	469	503	549	565	584	601	621	636	36%	.	.
	L	.	.	.	.	495	531	536	545	554	563	569	21%	.	.
Armenia	H	.	.	.	.	138	147	160	174	188	203	218	53%	.	.
	B	170	154	149	142	133	138	147	157	166	177	186	31%	.	.
	L	.	.	.	.	127	130	135	141	147	153	158	11%	.	.
Austria	H	.	.	.	.	2,796	2,936	3,063	3,187	3,306	3,436	3,542	34%	.	4.6%
	B	2,519	2,469	2,456	2,645	2,760	2,866	2,938	3,021	3,097	3,181	3,243	23%	1.6%	3.2%
	L	.	.	.	.	2,721	2,788	2,802	2,838	2,871	2,905	2,923	10%	.	1.7%
Belgium / Luxembourg	H	.	.	.	.	2,458	2,553	2,654	2,752	2,842	2,942	3,010	27%	.	3.8%
	B	2,212	2,232	2,277	2,362	2,436	2,510	2,576	2,645	2,715	2,794	2,851	21%	2.2%	2.8%
	L	.	.	.	.	2,412	2,463	2,484	2,518	2,554	2,595	2,621	11%	.	1.6%
Bosnia-Herzegovina	H	.	.	.	.	879	952	1,014	1,069	1,120	1,174	1,220	56%	.	.
	B	717	680	654	783	859	914	954	991	1,024	1,059	1,086	39%	.	.
	L	.	.	.	.	838	875	893	912	928	944	954	22%	.	.
Bulgaria	H	.	.	.	.	3,159	3,367	3,600	3,809	4,021	4,257	4,469	63%	.	7.9%
	B	2,019	2,020	2,058	2,744	3,111	3,270	3,425	3,582	3,729	3,884	4,019	46%	10.8%	6.3%
	L	.	.	.	.	3,061	3,164	3,240	3,335	3,425	3,506	3,570	30%	.	4.5%
Canary Islands	H	.	.	.	.	1,479	1,581	1,654	1,724	1,794	1,869	1,932	30%	.	3.8%
	B	1,666	1,599	1,516	1,492	1,454	1,531	1,567	1,606	1,643	1,682	1,709	15%	-3.6%	2.0%
	L	.	.	.	.	1,428	1,482	1,485	1,498	1,509	1,518	1,520	2%	.	0.2%
Croatia	H	.	.	.	.	1,868	1,967	2,068	2,164	2,259	2,363	2,451	39%	.	5.1%
	B	1,634	1,679	1,695	1,760	1,837	1,908	1,968	2,033	2,096	2,164	2,217	26%	2.5%	3.5%
	L	.	.	.	.	1,805	1,841	1,859	1,891	1,922	1,953	1,973	12%	.	1.8%
Cyprus	H	.	.	.	.	1,562	1,696	1,842	1,980	2,128	2,287	2,444	68%	.	7.9%
	B	1,347	1,303	1,327	1,454	1,543	1,650	1,745	1,841	1,940	2,042	2,139	47%	2.6%	5.9%
	L	.	.	.	.	1,520	1,591	1,636	1,687	1,741	1,791	1,834	26%	.	3.7%
Czech Republic	H	.	.	.	.	2,468	2,561	2,688	2,809	2,920	3,046	3,152	32%	.	4.1%
	B	2,305	2,305	2,374	2,393	2,431	2,491	2,568	2,643	2,712	2,791	2,852	19%	1.3%	2.5%
	L	.	.	.	.	2,393	2,418	2,441	2,472	2,502	2,534	2,554	7%	.	0.9%
Denmark	H	.	.	.	.	1,565	1,607	1,668	1,723	1,776	1,856	1,906	24%	.	3.0%
	B	1,470	1,429	1,524	1,532	1,549	1,580	1,621	1,661	1,699	1,750	1,781	16%	1.4%	2.1%
	L	.	.	.	.	1,533	1,551	1,565	1,584	1,603	1,626	1,638	7%	.	0.9%
Estonia	H	.	.	.	.	817	832	874	914	959	1,009	1,053	33%	.	4.0%
	B	704	725	741	790	803	803	826	849	876	904	927	17%	3.9%	2.1%
	L	.	.	.	.	790	775	781	790	803	816	825	4%	.	0.3%
FYROM	H	.	.	.	.	276	296	313	328	343	360	375	52%	.	.
	B	194	174	178	246	273	289	300	310	321	333	343	39%	.	.
	L	.	.	.	.	269	282	286	291	297	303	308	25%	.	.

Total en-route Service Units (Thousands)															
		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2021/ 2014 Total Growth	RP1 2014/ 2011 AAGR	RP2 2019/ 2014 AAGR
Finland	**H**	.	.	.	.	836	849	876	907	936	974	1,003	**26%**	.	**3.3%**
	B	832	790	770	796	822	825	838	856	872	893	906	**14%**	**-1.5%**	**1.8%**
	L	.	.	.	.	808	801	801	807	812	819	821	**3%**	.	**0.4%**
France	**H**	.	.	.	.	18,956	19,847	20,677	21,474	22,215	23,042	23,648	**28%**	.	**3.7%**
	B	17,691	17,515	17,900	18,497	18,823	19,541	20,044	20,573	21,102	21,711	22,128	**20%**	**1.5%**	**2.7%**
	L	.	.	.	.	18,662	19,177	19,300	19,526	19,759	20,040	20,193	**9%**	.	**1.3%**
Georgia	**H**	.	.	.	.	809	862	948	1,033	1,121	1,219	1,314	**75%**	.	.
	B	728	709	747	752	783	812	871	934	997	1,063	1,127	**50%**	.	.
	L	.	.	.	.	757	762	798	840	882	924	962	**28%**	.	.
Germany	**H**	.	.	.	.	13,050	13,545	14,045	14,521	14,961	15,476	15,841	**23%**	.	**3.0%**
	B	12,740	12,513	12,570	12,881	12,962	13,346	13,645	13,953	14,249	14,587	14,810	**15%**	**0.4%**	**2.0%**
	L	.	.	.	.	12,866	13,122	13,187	13,307	13,430	13,569	13,629	**6%**	.	**0.8%**
Greece	**H**	.	.	.	.	5,155	5,673	5,989	6,315	6,643	7,008	7,342	**59%**	.	**7.5%**
	B	4,546	4,358	4,216	4,618	5,056	5,468	5,668	5,894	6,117	6,360	6,567	**42%**	**0.5%**	**5.8%**
	L	.	.	.	.	4,950	5,231	5,307	5,424	5,538	5,658	5,750	**25%**	.	**3.7%**
Hungary	**H**	.	.	.	.	2,718	2,939	3,154	3,337	3,514	3,710	3,875	**61%**	.	**7.9%**
	B	2,067	2,023	2,101	2,406	2,669	2,841	2,986	3,117	3,235	3,356	3,454	**44%**	**5.2%**	**6.1%**
	L	.	.	.	.	2,618	2,738	2,815	2,890	2,957	3,016	3,057	**27%**	.	**4.2%**
Ireland	**H**	.	.	.	.	3,957	4,106	4,261	4,438	4,613	4,834	4,932	**26%**	.	**3.3%**
	B	3,771	3,806	3,813	3,922	3,916	4,042	4,141	4,263	4,386	4,529	4,635	**18%**	**1.3%**	**2.3%**
	L	.	.	.	.	3,875	3,978	4,023	4,092	4,163	4,245	4,302	**10%**	.	**1.2%**
Italy	**H**	.	.	.	.	8,592	8,986	9,422	9,858	10,286	10,745	11,135	**34%**	.	**4.3%**
	B	8,370	8,139	8,117	8,314	8,462	8,777	9,025	9,305	9,577	9,869	10,095	**21%**	**-0.2%**	**2.9%**
	L	.	.	.	.	8,322	8,548	8,596	8,717	8,831	8,954	9,023	**9%**	.	**1.2%**
Latvia	**H**	.	.	.	.	786	795	836	875	916	962	1,001	**30%**	.	**3.6%**
	B	702	707	734	767	773	770	789	808	829	850	867	**13%**	**3.0%**	**1.6%**
	L	.	.	.	.	761	746	748	753	761	768	773	**1%**	.	**-0.2%**
Lisbon FIR	**H**	.	.	.	.	3,156	3,303	3,459	3,609	3,757	3,913	4,039	**34%**	.	**4.5%**
	B	2,821	2,782	2,877	3,020	3,123	3,233	3,316	3,406	3,493	3,588	3,655	**21%**	**2.3%**	**3.0%**
	L	.	.	.	.	3,088	3,158	3,172	3,205	3,236	3,270	3,285	**9%**	.	**1.4%**
Lithuania	**H**	.	.	.	.	490	501	530	557	586	615	640	**31%**	.	**3.8%**
	B	420	430	451	487	481	480	496	511	528	544	556	**14%**	**5.1%**	**1.6%**
	L	.	.	.	.	472	460	465	470	478	485	490	**0%**	.	**-0.4%**
Malta	**H**	.	.	.	.	799	924	1,012	1,102	1,198	1,303	1,410	**94%**	.	**10.5%**
	B	506	641	735	727	776	878	937	998	1,059	1,124	1,185	**63%**	**12.9%**	**7.8%**
	L	.	.	.	.	754	831	863	899	933	968	998	**37%**	.	**5.1%**
Moldova	**H**	.	.	.	.	37	30	32	35	37	39	40	**-69%**	.	.
	B	195	206	240	131	35	28	29	31	33	34	35	**-73%**	.	.
	L	.	.	.	.	32	24	25	26	27	28	28	**-78%**	.	.
Netherlands	**H**	.	.	.	.	2,815	2,918	3,022	3,127	3,220	3,352	3,426	**24%**	.	**3.1%**
	B	2,595	2,587	2,702	2,767	2,789	2,867	2,938	3,014	3,081	3,161	3,206	**16%**	**2.2%**	**2.2%**
	L	.	.	.	.	2,761	2,815	2,843	2,880	2,912	2,951	2,971	**7%**	.	**1.0%**
Norway	**H**	.	.	.	.	2,345	2,408	2,504	2,589	2,675	2,823	2,919	**31%**	.	**3.8%**
	B	1,713	1,846	2,051	2,221	2,312	2,346	2,412	2,471	2,527	2,618	2,674	**20%**	**9.0%**	**2.6%**
	L	.	.	.	.	2,279	2,283	2,308	2,336	2,363	2,400	2,418	**9%**	.	**1.3%**

Total en-route Service Units (Thousands)															
		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2021/ 2014 Total Growth	RP1 2014/ 2011 AAGR	RP2 2019/ 2014 AAGR
Poland	H	.	.	.	.	3,930	4,052	4,271	4,476	4,717	4,957	5,158	31%	.	3.7%
	B	3,676	3,854	3,984	3,931	3,886	3,953	4,083	4,211	4,374	4,523	4,641	18%	2.3%	2.2%
	L	.	.	.	.	3,841	3,852	3,890	3,938	4,023	4,089	4,128	5%	.	0.5%
Romania	H	.	.	.	.	4,551	4,708	4,997	5,265	5,544	5,864	6,143	47%	.	5.8%
	B	3,533	3,575	3,752	4,182	4,482	4,601	4,785	4,980	5,168	5,370	5,545	33%	5.8%	4.3%
	L	.	.	.	.	4,410	4,483	4,561	4,671	4,781	4,883	4,963	19%	.	2.7%
Santa Maria FIR	H	.	.	.	.	4,508	4,657	4,828	5,012	5,198	5,405	5,567	34%	.	4.5%
	B	3,983	3,874	4,021	4,166	4,437	4,564	4,686	4,816	4,950	5,095	5,202	25%	1.5%	3.5%
	L	.	.	.	.	4,364	4,462	4,518	4,583	4,651	4,726	4,775	15%	.	2.2%
Serbia-Montenegro-KFOR	H	.	.	.	.	1,951	2,085	2,196	2,302	2,406	2,521	2,620	50%	.	.
	B	1,831	1,719	1,639	1,752	1,916	2,018	2,088	2,162	2,233	2,310	2,372	35%	.	.
	L	.	.	.	.	1,879	1,943	1,969	2,008	2,045	2,083	2,109	20%	.	.
Slovakia	H	.	.	.	.	1,078	1,126	1,186	1,250	1,312	1,386	1,448	39%	.	4.7%
	B	900	922	985	1,044	1,060	1,091	1,125	1,169	1,209	1,253	1,289	23%	5.1%	3.0%
	L	.	.	.	.	1,041	1,054	1,062	1,086	1,106	1,126	1,141	9%	.	1.1%
Slovenia	H	.	.	.	.	483	515	539	563	586	611	631	38%	.	5.0%
	B	425	425	411	459	475	499	514	530	545	562	575	25%	2.6%	3.5%
	L	.	.	.	.	467	482	486	494	502	509	514	12%	.	1.8%
Spain	H	.	.	.	.	9,093	9,511	9,984	10,442	10,884	11,351	11,727	34%	.	4.4%
	B	9,099	8,444	8,447	8,768	9,017	9,339	9,618	9,922	10,212	10,525	10,745	23%	-1.2%	3.1%
	L	.	.	.	.	8,922	9,132	9,197	9,330	9,454	9,585	9,647	10%	.	1.5%
Sweden	H	.	.	.	.	3,383	3,492	3,628	3,764	3,887	4,070	4,193	28%	.	3.4%
	B	3,185	3,126	3,209	3,285	3,338	3,402	3,485	3,583	3,664	3,769	3,839	17%	1.0%	2.2%
	L	.	.	.	.	3,291	3,309	3,328	3,375	3,410	3,449	3,467	6%	.	0.8%
Switzerland	H	.	.	.	.	1,476	1,530	1,586	1,639	1,692	1,745	1,785	25%	.	3.5%
	B	1,431	1,399	1,385	1,427	1,459	1,500	1,534	1,570	1,607	1,646	1,673	17%	-0.1%	2.4%
	L	.	.	.	.	1,440	1,466	1,472	1,486	1,501	1,517	1,523	7%	.	1.0%
Turkey	H	.	.	.	.	14,119	15,203	16,514	17,653	18,811	20,095	21,346	67%	.	.
	B	9,618	9,813	10,637	12,809	13,941	14,826	15,734	16,633	17,465	18,369	19,216	50%	.	.
	L	.	.	.	.	13,752	14,400	14,899	15,494	16,067	16,594	17,062	33%	.	.
UK	H	.	.	.	.	10,250	10,586	10,932	11,275	11,594	12,040	12,277	23%	.	3.0%
	B	9,860	9,608	9,755	9,979	10,153	10,411	10,617	10,839	11,057	11,328	11,481	15%	0.4%	2.1%
	L	.	.	.	.	10,052	10,230	10,289	10,381	10,470	10,590	10,636	7%	.	1.0%
Ukraine	H	.	.	.	.	947	745	828	914	1,002	1,095	1,188	-57%	.	.
	B	4,465	4,588	4,931	2,771	860	619	669	725	779	837	892	-68%	.	.
	L	.	.	.	.	774	494	519	552	583	615	646	-77%	.	.
ESRA02	H	.	.	.	.	128,987	135,422	142,195	148,652	154,952	162,203	168,009	37%	.	.
	B	115,248	113,602	116,097	123,048	127,500	132,524	136,784	141,263	145,558	150,369	154,069	25%	.	.
	L	.	.	.	.	125,897	129,302	130,851	133,123	135,324	137,626	139,144	13%	.	.
BLUE MED FAB	H	.	.	.	.	16,108	17,279	18,263	19,254	20,255	21,343	22,331	48%	.	6.0%
	B	14,770	14,441	14,395	15,113	15,837	16,773	17,375	18,038	18,693	19,395	19,986	32%	0.8%	4.3%
	L	.	.	.	.	15,547	16,200	16,403	16,727	17,042	17,371	17,606	16%	.	2.4%
Baltic FAB	H	.	.	.	.	4,420	4,553	4,802	5,033	5,303	5,572	5,798	31%	.	3.7%
	B	4,096	4,284	4,434	4,418	4,367	4,433	4,580	4,723	4,901	5,067	5,197	18%	2.6%	2.1%
	L	.	.	.	.	4,313	4,312	4,355	4,408	4,501	4,574	4,618	5%	.	0.4%

Total en-route Service Units (Thousands)															
		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2021/ 2014 Total Growth	RP1 2014/ 2011 AAGR	RP2 2019/ 2014 AAGR
Danube FAB	H	.	.	.	.	7,710	8,075	8,596	9,074	9,565	10,121	10,612	53%	.	6.7%
	B	5,551	5,595	5,810	6,925	7,593	7,870	8,210	8,562	8,897	9,254	9,564	38%	7.6%	5.1%
	L	.	.	.	.	7,471	7,647	7,801	8,006	8,205	8,389	8,534	23%	.	3.4%
FAB CE	H	.	.	.	.	12,290	12,997	13,712	14,380	15,016	15,726	16,319	42%	.	5.5%
	B	10,567	10,503	10,676	11,492	12,091	12,612	13,053	13,504	13,918	14,366	14,716	28%	2.8%	3.9%
	L	.	.	.	.	11,883	12,196	12,359	12,584	12,786	12,988	13,115	14%	.	2.2%
FABEC	H	.	.	.	.	38,755	40,392	41,985	43,513	44,930	46,557	47,710	26%	.	3.4%
	B	36,669	36,246	36,834	37,934	38,469	39,765	40,737	41,755	42,754	43,899	44,667	18%	1.1%	2.4%
	L	.	.	.	.	38,141	39,043	39,286	39,716	40,157	40,671	40,937	8%	.	1.1%
NEFAB	H	.	.	.	.	4,784	4,884	5,090	5,285	5,486	5,769	5,977	31%	.	3.7%
	B	3,952	4,068	4,296	4,573	4,711	4,744	4,865	4,984	5,103	5,265	5,375	18%	5.0%	2.2%
	L	.	.	.	.	4,638	4,605	4,638	4,686	4,740	4,804	4,837	6%	.	0.7%
South West FAB	H	.	.	.	.	13,728	14,395	15,096	15,776	16,435	17,133	17,698	33%	.	4.4%
	B	13,586	12,825	12,840	13,279	13,593	14,103	14,501	14,933	15,347	15,795	16,109	21%	-0.8%	2.9%
	L	.	.	.	.	13,438	13,772	13,855	14,033	14,199	14,374	14,452	9%	.	1.3%
UK-Ireland FAB	H	.	.	.	.	14,206	14,692	15,193	15,713	16,207	16,875	17,209	24%	.	3.1%
	B	13,632	13,414	13,568	13,902	14,069	14,453	14,758	15,101	15,443	15,857	16,116	16%	0.7%	2.1%
	L	.	.	.	.	13,927	14,207	14,312	14,473	14,632	14,834	14,938	7%	.	1.0%
DK-SE FAB	H	.	.	.	.	4,948	5,099	5,296	5,487	5,663	5,926	6,099	27%	.	3.3%
	B	4,655	4,555	4,732	4,817	4,887	4,982	5,106	5,244	5,363	5,519	5,620	17%	1.1%	2.2%
	L	.	.	.	.	4,825	4,860	4,893	4,959	5,014	5,075	5,105	6%	.	0.8%
CRCO88	H	.	.	.	.	73,993	77,072	80,165	83,201	86,076	89,406	91,726	28%	.	3.7%
	B	70,390	68,828	69,718	71,927	73,328	75,752	77,620	79,626	81,592	83,827	85,338	19%	0.7%	2.6%
	L	.	.	.	.	72,590	74,272	74,772	75,644	76,510	77,509	78,024	8%	.	1.2%
CRCO11	H	.	.	.	.	137,672	144,517	151,793	158,721	165,526	173,305	179,558	37%	.	4.7%
	B	123,211	121,589	124,162	131,379	136,052	141,347	145,907	150,687	155,313	160,452	164,413	25%	2.2%	3.4%
	L	.	.	.	.	134,311	137,840	139,488	141,891	144,261	146,712	148,326	13%	.	1.9%
CRCO14	H	.	.	.	.	138,481	145,379	152,740	159,753	166,648	174,523	180,872	37%	.	4.8%
	B	123,939	122,298	124,910	132,130	136,834	142,159	146,778	151,621	156,310	161,516	165,540	25%	2.2%	3.4%
	L	.	.	.	.	135,067	138,601	140,286	142,731	145,143	147,636	149,288	13%	.	1.9%
RP1Region	H	.	.	.	.	114,202	119,448	124,952	130,283	135,482	141,485	146,081	33%	.	4.3%
	B	105,126	103,572	105,235	109,910	112,921	116,915	120,262	123,819	127,300	131,195	134,047	22%	1.5%	3.0%
	L	.	.	.	.	111,539	114,128	115,149	116,790	118,426	120,182	121,215	10%	.	1.5%
RP2Region	H	.	.	.	.	116,070	121,415	127,020	132,447	137,741	143,848	148,532	33%	.	4.3%
	B	106,761	105,251	106,930	111,670	114,758	118,823	122,230	125,852	129,396	133,359	136,264	22%	1.5%	3.0%
	L	.	.	.	.	113,344	115,968	117,008	118,681	120,348	122,135	123,188	10%	.	1.5%
Total	H	.	.	.	.	140,245	146,956	154,442	161,582	168,609	176,628	183,113	35%	.	4.4%
	B	129,108	127,611	130,582	135,692	138,498	143,581	148,274	153,195	157,965	163,257	167,360	23%	1.7%	3.1%
	L	.	.	.	.	136,631	139,870	141,586	144,074	146,530	149,067	150,759	11%	.	1.5%

G. Seven-year en-route service units forecast per State (growth)

This appendix presents the same data as the previous, but presented as growth rather than counts of service units.

Figure 61. Forecast of the total en-route service units growth per State.

Growth in Total En Route Service Units															
		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	AAGR 2021/ 2014	RP1 2014/ 2011 AAGR	RP2 2019/ 2014 AAGR
Albania	H	.	.	.	.	8.9%	10.4%	4.6%	4.5%	4.1%	4.5%	3.6%	5.8%	.	.
	B	10.8%	-1.0%	2.9%	2.9%	7.4%	9.1%	2.9%	3.2%	3.0%	3.2%	2.4%	4.4%	.	.
	L	.	.	.	.	5.7%	7.2%	0.9%	1.7%	1.6%	1.7%	1.1%	2.8%	.	.
Armenia	H	.	.	.	.	-3.3%	6.4%	9.0%	8.6%	8.2%	8.1%	7.3%	6.2%	.	.
	B	16.1%	-9.5%	-2.9%	-4.5%	-7.0%	4.4%	6.3%	6.6%	6.2%	6.0%	5.4%	3.9%	.	.
	L	.	.	.	.	-10.6%	2.3%	3.8%	4.5%	4.2%	4.0%	3.4%	1.5%	.	.
Austria	H	.	.	.	.	5.7%	5.0%	4.3%	4.1%	3.7%	4.0%	3.1%	4.3%	.	**4.6%**
	B	2.9%	-2.0%	-0.5%	7.7%	4.3%	3.9%	2.5%	2.8%	2.5%	2.7%	1.9%	3.0%	**1.6%**	**3.2%**
	L	.	.	.	.	2.8%	2.5%	0.5%	1.3%	1.2%	1.2%	0.6%	1.4%	.	**1.7%**
Belgium/ Luxembourg	H	.	.	.	.	4.0%	3.9%	4.0%	3.7%	3.3%	3.5%	2.3%	3.5%	.	**3.8%**
	B	4.6%	0.9%	2.0%	3.7%	3.1%	3.1%	2.6%	2.7%	2.7%	2.9%	2.0%	2.7%	**2.2%**	**2.8%**
	L	.	.	.	.	2.1%	2.1%	0.9%	1.3%	1.5%	1.6%	1.0%	1.5%	.	**1.6%**
Bosnia-Herzegovina	H	.	.	.	.	12.2%	8.3%	6.5%	5.4%	4.8%	4.8%	3.9%	6.5%	.	.
	B	12.5%	-5.1%	-3.8%	19.7%	9.7%	6.5%	4.4%	3.8%	3.4%	3.4%	2.6%	4.8%	.	.
	L	.	.	.	.	7.0%	4.4%	2.1%	2.1%	1.8%	1.7%	1.1%	2.9%	.	.
Bulgaria	H	.	.	.	.	15.1%	6.6%	6.9%	5.8%	5.6%	5.9%	5.0%	7.2%	.	**7.9%**
	B	9.7%	0.1%	1.9%	33.3%	13.4%	5.1%	4.7%	4.6%	4.1%	4.2%	3.5%	5.6%	**10.8%**	**6.3%**
	L	.	.	.	.	11.6%	3.4%	2.4%	2.9%	2.7%	2.4%	1.8%	3.8%	.	**4.5%**
Canary Islands	H	.	.	.	.	-0.9%	6.9%	4.6%	4.3%	4.1%	4.2%	3.4%	3.8%	.	**3.8%**
	B	8.2%	-4.0%	-5.2%	-1.6%	-2.6%	5.3%	2.3%	2.5%	2.3%	2.3%	1.6%	2.0%	**-3.6%**	**2.0%**
	L	.	.	.	.	-4.3%	3.8%	0.2%	0.8%	0.7%	0.6%	0.1%	0.3%	.	**0.2%**
Croatia	H	.	.	.	.	6.1%	5.3%	5.1%	4.7%	4.4%	4.6%	3.7%	4.8%	.	**5.1%**
	B	12.6%	2.7%	0.9%	3.9%	4.4%	3.8%	3.1%	3.3%	3.1%	3.3%	2.5%	3.4%	**2.5%**	**3.5%**
	L	.	.	.	.	2.6%	2.0%	1.0%	1.7%	1.6%	1.6%	1.0%	1.6%	.	**1.8%**
Cyprus	H	.	.	.	.	7.4%	8.6%	8.6%	7.5%	7.5%	7.5%	6.9%	7.7%	.	**7.9%**
	B	-0.3%	-3.3%	1.8%	9.6%	6.1%	7.0%	5.7%	5.5%	5.4%	5.3%	4.7%	5.7%	**2.6%**	**5.9%**
	L	.	.	.	.	4.5%	4.7%	2.8%	3.1%	3.2%	2.9%	2.4%	3.4%	.	**3.7%**
Czech Republic	H	.	.	.	.	3.1%	3.8%	5.0%	4.5%	3.9%	4.3%	3.5%	4.0%	.	**4.1%**
	B	5.2%	-0.0%	3.0%	0.8%	1.6%	2.5%	3.1%	2.9%	2.6%	2.9%	2.2%	2.5%	**1.3%**	**2.5%**
	L	.	.	.	.	-0.0%	1.0%	1.0%	1.3%	1.2%	1.3%	0.8%	0.9%	.	**0.9%**
Denmark	H	.	.	.	.	2.1%	2.7%	3.8%	3.3%	3.1%	4.5%	2.7%	3.2%	.	**3.0%**
	B	4.2%	-2.8%	6.6%	0.5%	1.1%	2.0%	2.6%	2.4%	2.3%	3.0%	1.8%	2.2%	**1.4%**	**2.1%**
	L	.	.	.	.	0.1%	1.2%	0.9%	1.2%	1.2%	1.4%	0.8%	1.0%	.	**0.9%**
Estonia	H	.	.	.	.	3.4%	1.8%	5.1%	4.6%	4.9%	5.3%	4.3%	4.2%	.	**4.0%**
	B	12.3%	2.9%	2.3%	6.6%	1.7%	-0.0%	2.9%	2.8%	3.1%	3.2%	2.6%	2.3%	**3.9%**	**2.1%**
	L	.	.	.	.	-0.0%	-1.9%	0.8%	1.2%	1.6%	1.6%	1.1%	0.6%	.	**0.3%**
FYROM	H	.	.	.	.	12.0%	7.3%	5.6%	4.8%	4.7%	4.9%	4.1%	6.2%	.	.
	B	5.9%	-10.2%	1.9%	38.8%	10.6%	6.1%	3.7%	3.4%	3.5%	3.7%	2.9%	4.8%	.	.
	L	.	.	.	.	9.2%	4.7%	1.5%	1.8%	2.0%	2.1%	1.5%	3.2%	.	.

Growth in Total En Route Service Units															
		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	AAGR 2021/ 2014	RP1 2014/ 2011 AAGR	RP2 2019/ 2014 AAGR
Finland	**H**	.	.	.	.	5.0%	1.6%	3.2%	3.5%	3.2%	4.1%	3.0%	3.4%	.	**3.3%**
	B	12.6%	-5.1%	-2.5%	3.3%	3.3%	0.4%	1.6%	2.2%	1.9%	2.3%	1.5%	1.9%	**-1.5%**	**1.8%**
	L	.	.	.	.	1.6%	-0.9%	-0.1%	0.8%	0.6%	0.9%	0.3%	0.5%	.	**0.4%**
France	**H**	.	.	.	.	2.5%	4.7%	4.2%	3.9%	3.5%	3.7%	2.6%	3.6%	.	**3.7%**
	B	6.3%	-1.0%	2.2%	3.3%	1.8%	3.8%	2.6%	2.6%	2.6%	2.9%	1.9%	2.6%	**1.5%**	**2.7%**
	L	.	.	.	.	0.9%	2.8%	0.6%	1.2%	1.2%	1.4%	0.8%	1.3%	.	**1.3%**
Georgia	**H**	.	.	.	.	7.7%	6.5%	9.9%	9.0%	8.6%	8.7%	7.8%	8.3%	.	.
	B	10.5%	-2.5%	5.4%	0.6%	4.2%	3.7%	7.3%	7.3%	6.7%	6.7%	6.0%	6.0%	.	.
	L	.	.	.	.	0.7%	0.7%	4.7%	5.3%	5.0%	4.7%	4.1%	3.6%	.	.
Germany	**H**	.	.	.	.	1.3%	3.8%	3.7%	3.4%	3.0%	3.4%	2.4%	3.0%	.	**3.0%**
	B	3.6%	-1.8%	0.5%	2.5%	0.6%	3.0%	2.2%	2.3%	2.1%	2.4%	1.5%	2.0%	**0.4%**	**2.0%**
	L	.	.	.	.	-0.1%	2.0%	0.5%	0.9%	0.9%	1.0%	0.4%	0.8%	.	**0.8%**
Greece	**H**	.	.	.	.	11.6%	10.1%	5.6%	5.4%	5.2%	5.5%	4.8%	6.8%	.	**7.5%**
	B	2.1%	-4.2%	-3.3%	9.5%	9.5%	8.1%	3.7%	4.0%	3.8%	4.0%	3.2%	5.2%	**0.5%**	**5.8%**
	L	.	.	.	.	7.2%	5.7%	1.5%	2.2%	2.1%	2.2%	1.6%	3.2%	.	**3.7%**
Hungary	**H**	.	.	.	.	13.0%	8.1%	7.3%	5.8%	5.3%	5.6%	4.4%	7.0%	.	**7.9%**
	B	-1.2%	-2.1%	3.8%	14.5%	10.9%	6.5%	5.1%	4.4%	3.8%	3.7%	2.9%	5.3%	**5.2%**	**6.1%**
	L	.	.	.	.	8.8%	4.6%	2.8%	2.7%	2.3%	2.0%	1.4%	3.5%	.	**4.2%**
Ireland	**H**	.	.	.	.	0.9%	3.8%	3.8%	4.2%	3.9%	4.8%	2.0%	3.3%	.	**3.3%**
	B	4.3%	0.9%	0.2%	2.9%	-0.2%	3.2%	2.5%	2.9%	2.9%	3.3%	2.3%	2.4%	**1.3%**	**2.3%**
	L	.	.	.	.	-1.2%	2.7%	1.1%	1.7%	1.7%	2.0%	1.4%	1.3%	.	**1.2%**
Italy	**H**	.	.	.	.	3.4%	4.6%	4.9%	4.6%	4.3%	4.5%	3.6%	4.3%	.	**4.3%**
	B	-2.9%	-2.8%	-0.3%	2.4%	1.8%	3.7%	2.8%	3.1%	2.9%	3.1%	2.3%	2.8%	**-0.2%**	**2.9%**
	L	.	.	.	.	0.1%	2.7%	0.6%	1.4%	1.3%	1.4%	0.8%	1.2%	.	**1.2%**
Latvia	**H**	.	.	.	.	2.5%	1.2%	5.2%	4.7%	4.7%	5.0%	4.0%	3.9%	.	**3.6%**
	B	10.8%	0.7%	3.8%	4.5%	0.9%	-0.5%	2.5%	2.4%	2.6%	2.6%	2.0%	1.8%	**3.0%**	**1.6%**
	L	.	.	.	.	-0.7%	-2.0%	0.3%	0.7%	1.0%	1.0%	0.5%	0.1%	.	**-0.2%**
Lisbon FIR	**H**	.	.	.	.	4.5%	4.7%	4.7%	4.4%	4.1%	4.2%	3.2%	4.2%	.	**4.5%**
	B	7.5%	-1.4%	3.4%	5.0%	3.4%	3.5%	2.6%	2.7%	2.5%	2.7%	1.9%	2.8%	**2.3%**	**3.0%**
	L	.	.	.	.	2.3%	2.3%	0.4%	1.0%	1.0%	1.1%	0.4%	1.2%	.	**1.4%**
Lithuania	**H**	.	.	.	.	0.7%	2.1%	5.9%	5.1%	5.1%	4.9%	4.1%	4.0%	.	**3.8%**
	B	13.2%	2.3%	4.9%	8.1%	-1.2%	-0.2%	3.3%	3.0%	3.3%	3.0%	2.3%	1.9%	**5.1%**	**1.6%**
	L	.	.	.	.	-3.1%	-2.5%	1.1%	1.2%	1.7%	1.4%	0.9%	0.1%	.	**-0.4%**
Malta	**H**	.	.	.	.	9.8%	15.8%	9.4%	8.9%	8.7%	8.8%	8.2%	9.9%	.	**10.5%**
	B	3.9%	26.8%	14.7%	-1.1%	6.7%	13.1%	6.7%	6.5%	6.2%	6.1%	5.4%	7.2%	**12.9%**	**7.8%**
	L	.	.	.	.	3.6%	10.2%	3.9%	4.1%	3.8%	3.7%	3.1%	4.6%	.	**5.1%**
Moldova	**H**	.	.	.	.	-71.6%	-18.5%	6.5%	8.5%	5.6%	5.7%	2.1%	-15.6%	.	.
	B	7.4%	5.7%	16.8%	-45.5%	-73.5%	-20.4%	5.8%	7.1%	4.3%	4.4%	3.9%	-17.0%	.	.
	L	.	.	.	.	-75.7%	-25.2%	3.5%	5.6%	2.9%	2.9%	2.5%	-19.7%	.	.
Netherlands	**H**	.	.	.	.	1.7%	3.6%	3.6%	3.4%	3.0%	4.1%	2.2%	3.1%	.	**3.1%**
	B	4.8%	-0.3%	4.4%	2.4%	0.8%	2.8%	2.4%	2.6%	2.2%	2.6%	1.4%	2.1%	**2.2%**	**2.2%**
	L	.	.	.	.	-0.2%	1.9%	1.0%	1.3%	1.1%	1.3%	0.7%	1.0%	.	**1.0%**
Norway	**H**	.	.	.	.	5.6%	2.7%	4.0%	3.4%	3.3%	5.5%	3.4%	4.0%	.	**3.8%**
	B	8.2%	7.8%	11.1%	8.3%	4.1%	1.5%	2.8%	2.5%	2.2%	3.6%	2.2%	2.7%	**9.0%**	**2.6%**
	L	.	.	.	.	2.6%	0.2%	1.1%	1.2%	1.2%	1.5%	0.7%	1.2%	.	**1.3%**

Growth in Total En Route Service Units															
		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	AAGR 2021/ 2014	RP1 2014/ 2011 AAGR	RP2 2019/ 2014 AAGR
Poland	H	.	.	.	.	-0.0%	3.1%	5.4%	4.8%	5.4%	5.1%	4.0%	4.0%	.	3.7%
	B	11.0%	4.8%	3.4%	-1.3%	-1.1%	1.7%	3.3%	3.1%	3.8%	3.4%	2.6%	2.4%	2.3%	2.2%
	L	.	.	.	.	-2.3%	0.3%	1.0%	1.2%	2.2%	1.6%	1.0%	0.7%	.	0.5%
Romania	H	.	.	.	.	8.8%	3.5%	6.1%	5.4%	5.3%	5.8%	4.8%	5.6%	.	5.8%
	B	3.5%	1.2%	4.9%	11.5%	7.2%	2.7%	4.0%	4.1%	3.8%	3.9%	3.3%	4.1%	5.8%	4.3%
	L	.	.	.	.	5.5%	1.6%	1.7%	2.4%	2.4%	2.1%	1.6%	2.5%	.	2.7%
Santa Maria FIR	H	.	.	.	.	8.2%	3.3%	3.7%	3.8%	3.7%	4.0%	3.0%	4.2%	.	4.5%
	B	7.8%	-2.7%	3.8%	3.6%	6.5%	2.9%	2.7%	2.8%	2.8%	2.9%	2.1%	3.2%	1.5%	3.5%
	L	.	.	.	.	4.7%	2.2%	1.3%	1.4%	1.5%	1.6%	1.0%	2.0%	.	2.2%
Serbia-Montenegro-KFOR	H	.	.	.	.	11.4%	6.9%	5.3%	4.8%	4.5%	4.8%	3.9%	5.9%	.	.
	B	0.6%	-6.1%	-4.7%	6.9%	9.4%	5.3%	3.5%	3.6%	3.3%	3.5%	2.7%	4.4%	.	.
	L	.	.	.	.	7.3%	3.4%	1.4%	2.0%	1.8%	1.8%	1.2%	2.7%	.	.
Slovakia	H	.	.	.	.	3.3%	4.5%	5.3%	5.4%	5.0%	5.6%	4.5%	4.8%	.	4.7%
	B	5.2%	2.4%	6.9%	6.0%	1.5%	3.0%	3.1%	4.0%	3.4%	3.7%	2.9%	3.1%	5.1%	3.0%
	L	.	.	.	.	-0.3%	1.3%	0.8%	2.2%	1.9%	1.9%	1.3%	1.3%	.	1.1%
Slovenia	H	.	.	.	.	5.2%	6.5%	4.7%	4.4%	4.1%	4.3%	3.4%	4.7%	.	5.0%
	B	16.3%	0.1%	-3.3%	11.7%	3.5%	5.1%	2.8%	3.2%	2.9%	3.1%	2.3%	3.3%	2.6%	3.5%
	L	.	.	.	.	1.6%	3.3%	0.8%	1.7%	1.5%	1.6%	0.9%	1.6%	.	1.8%
Spain	H	.	.	.	.	3.7%	4.6%	5.0%	4.6%	4.2%	4.3%	3.3%	4.2%	.	4.4%
	B	5.3%	-7.2%	0.0%	3.8%	2.8%	3.6%	3.0%	3.2%	2.9%	3.1%	2.1%	2.9%	-1.2%	3.1%
	L	.	.	.	.	1.8%	2.4%	0.7%	1.5%	1.3%	1.4%	0.6%	1.4%	.	1.5%
Sweden	H	.	.	.	.	3.0%	3.2%	3.9%	3.8%	3.3%	4.7%	3.0%	3.5%	.	3.4%
	B	7.9%	-1.8%	2.6%	2.4%	1.6%	1.9%	2.4%	2.8%	2.2%	2.9%	1.9%	2.3%	1.0%	2.2%
	L	.	.	.	.	0.2%	0.5%	0.6%	1.4%	1.0%	1.1%	0.5%	0.8%	.	0.8%
Switzerland	H	.	.	.	.	3.4%	3.7%	3.7%	3.3%	3.2%	3.1%	2.3%	3.2%	.	3.5%
	B	1.5%	-2.3%	-1.0%	3.0%	2.2%	2.8%	2.3%	2.3%	2.3%	2.4%	1.6%	2.3%	-0.1%	2.4%
	L	.	.	.	.	0.9%	1.8%	0.4%	0.9%	1.0%	1.0%	0.4%	0.9%	.	1.0%
Turkey	H	.	.	.	.	10.2%	7.7%	8.6%	6.9%	6.6%	6.8%	6.2%	7.6%	.	.
	B	7.8%	2.0%	8.4%	20.4%	8.8%	6.3%	6.1%	5.7%	5.0%	5.2%	4.6%	6.0%	.	.
	L	.	.	.	.	7.4%	4.7%	3.5%	4.0%	3.7%	3.3%	2.8%	4.2%	.	.
UK	H	.	.	.	.	2.7%	3.3%	3.3%	3.1%	2.8%	3.9%	2.0%	3.0%	.	3.0%
	B	4.0%	-2.6%	1.5%	2.3%	1.7%	2.5%	2.0%	2.1%	2.0%	2.4%	1.4%	2.0%	0.4%	2.1%
	L	.	.	.	.	0.7%	1.8%	0.6%	0.9%	0.9%	1.1%	0.4%	0.9%	.	1.0%
Ukraine	H	.	.	.	.	-65.8%	-21.3%	11.1%	10.5%	9.6%	9.3%	8.5%	-11.4%	.	.
	B	6.6%	2.8%	7.5%	-43.8%	-69.0%	-28.0%	8.1%	8.3%	7.5%	7.3%	6.7%	-14.9%	.	.
	L	.	.	.	.	-72.1%	-36.2%	5.2%	6.3%	5.7%	5.5%	5.0%	-18.8%	.	.
ESRA02	H	.	.	.	.	4.8%	5.0%	5.0%	4.5%	4.2%	4.7%	3.6%	4.5%	.	.
	B	4.7%	-1.4%	2.2%	6.0%	3.6%	3.9%	3.2%	3.3%	3.0%	3.3%	2.5%	3.3%	.	.
	L	.	.	.	.	2.3%	2.7%	1.2%	1.7%	1.7%	1.7%	1.1%	1.8%	.	.
BLUE MED FAB	H	.	.	.	.	6.6%	7.3%	5.7%	5.4%	5.2%	5.4%	4.6%	5.7%	.	6.0%
	B	-1.0%	-2.2%	-0.3%	5.0%	4.8%	5.9%	3.6%	3.8%	3.6%	3.8%	3.0%	4.1%	0.8%	4.3%
	L	.	.	.	.	2.9%	4.2%	1.2%	2.0%	1.9%	1.9%	1.4%	2.2%	.	2.4%
Baltic FAB	H	.	.	.	.	0.1%	3.0%	5.5%	4.8%	5.4%	5.1%	4.0%	4.0%	.	3.7%
	B	11.2%	4.6%	3.5%	-0.4%	-1.1%	1.5%	3.3%	3.1%	3.8%	3.4%	2.6%	2.3%	2.6%	2.1%
	L	.	.	.	.	-2.4%	-0.0%	1.0%	1.2%	2.1%	1.6%	1.0%	0.6%	.	0.4%

Growth in Total En Route Service Units															
		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	AAGR 2021/ 2014	RP1 2014/ 2011 AAGR	RP2 2019/ 2014 AAGR
Danube FAB	**H**	.	.	.	.	11.3%	4.7%	6.5%	5.6%	5.4%	5.8%	4.9%	6.3%	.	**6.7%**
	B	5.7%	0.8%	3.8%	19.2%	9.6%	3.7%	4.3%	4.3%	3.9%	4.0%	3.4%	4.7%	**7.6%**	**5.1%**
	L	.	.	.	.	7.9%	2.3%	2.0%	2.6%	2.5%	2.2%	1.7%	3.0%	.	**3.4%**
FAB CE	**H**	.	.	.	.	6.9%	5.8%	5.5%	4.9%	4.4%	4.7%	3.8%	5.1%	.	**5.5%**
	B	5.3%	-0.6%	1.6%	7.6%	5.2%	4.3%	3.5%	3.5%	3.1%	3.2%	2.4%	3.6%	**2.8%**	**3.9%**
	L	.	.	.	.	3.4%	2.6%	1.3%	1.8%	1.6%	1.6%	1.0%	1.9%	.	**2.2%**
FABEC	**H**	.	.	.	.	2.2%	4.2%	3.9%	3.6%	3.3%	3.6%	2.5%	3.3%	.	**3.4%**
	B	5.0%	-1.2%	1.6%	3.0%	1.4%	3.4%	2.4%	2.5%	2.4%	2.7%	1.7%	2.4%	**1.1%**	**2.4%**
	L	.	.	.	.	0.5%	2.4%	0.6%	1.1%	1.1%	1.3%	0.7%	1.1%	.	**1.1%**
NEFAB	**H**	.	.	.	.	4.6%	2.1%	4.2%	3.8%	3.8%	5.1%	3.6%	3.9%	.	**3.7%**
	B	10.3%	2.9%	5.6%	6.5%	3.0%	0.7%	2.5%	2.5%	2.4%	3.2%	2.1%	2.3%	**5.0%**	**2.2%**
	L	.	.	.	.	1.4%	-0.7%	0.7%	1.0%	1.1%	1.4%	0.7%	0.8%	.	**0.7%**
South West FAB	**H**	.	.	.	.	3.4%	4.9%	4.9%	4.5%	4.2%	4.2%	3.3%	4.2%	.	**4.4%**
	B	6.1%	-5.6%	0.1%	3.4%	2.4%	3.8%	2.8%	3.0%	2.8%	2.9%	2.0%	2.8%	**-0.8%**	**2.9%**
	L	.	.	.	.	1.2%	2.5%	0.6%	1.3%	1.2%	1.2%	0.5%	1.2%	.	**1.3%**
UK-Ireland FAB	**H**	.	.	.	.	2.2%	3.4%	3.4%	3.4%	3.1%	4.1%	2.0%	3.1%	.	**3.1%**
	B	4.1%	-1.6%	1.1%	2.5%	1.2%	2.7%	2.1%	2.3%	2.3%	2.7%	1.6%	2.1%	**0.7%**	**2.1%**
	L	.	.	.	.	0.2%	2.0%	0.7%	1.1%	1.1%	1.4%	0.7%	1.0%	.	**1.0%**
DK-SE FAB	**H**	.	.	.	.	2.7%	3.1%	3.9%	3.6%	3.2%	4.6%	2.9%	3.4%	.	**3.3%**
	B	6.7%	-2.1%	3.9%	1.8%	1.5%	1.9%	2.5%	2.7%	2.3%	2.9%	1.8%	2.2%	**1.1%**	**2.2%**
	L	.	.	.	.	0.2%	0.7%	0.7%	1.3%	1.1%	1.2%	0.6%	0.8%	.	**0.8%**
CRCO88	**H**	.	.	.	.	2.9%	4.2%	4.0%	3.8%	3.5%	3.9%	2.6%	3.5%	.	**3.7%**
	B	5.1%	-2.2%	1.3%	3.2%	1.9%	3.3%	2.5%	2.6%	2.5%	2.7%	1.8%	2.5%	**0.7%**	**2.6%**
	L	.	.	.	.	0.9%	2.3%	0.7%	1.2%	1.1%	1.3%	0.7%	1.2%	.	**1.2%**
CRCO11	**H**	.	.	.	.	4.8%	5.0%	5.0%	4.6%	4.3%	4.7%	3.6%	4.6%	.	**4.7%**
	B	5.0%	-1.3%	2.1%	5.8%	3.6%	3.9%	3.2%	3.3%	3.1%	3.3%	2.5%	3.3%	**2.2%**	**3.4%**
	L	.	.	.	.	2.2%	2.6%	1.2%	1.7%	1.7%	1.7%	1.1%	1.7%	.	**1.9%**
CRCO14	**H**	.	.	.	.	4.8%	5.0%	5.1%	4.6%	4.3%	4.7%	3.6%	4.6%	.	**4.8%**
	B	5.0%	-1.3%	2.1%	5.8%	3.6%	3.9%	3.2%	3.3%	3.1%	3.3%	2.5%	3.3%	**2.2%**	**3.4%**
	L	.	.	.	.	2.2%	2.6%	1.2%	1.7%	1.7%	1.7%	1.1%	1.8%	.	**1.9%**
RP1Region	**H**	.	.	.	.	3.9%	4.6%	4.6%	4.3%	4.0%	4.4%	3.2%	4.1%	.	**4.3%**
	B	4.5%	-1.5%	1.6%	4.4%	2.7%	3.5%	2.9%	3.0%	2.8%	3.1%	2.2%	2.9%	**1.5%**	**3.0%**
	L	.	.	.	.	1.5%	2.3%	0.9%	1.4%	1.4%	1.5%	0.9%	1.4%	.	**1.5%**
RP2Region	**H**	.	.	.	.	3.9%	4.6%	4.6%	4.3%	4.0%	4.4%	3.3%	4.2%	.	**4.3%**
	B	4.6%	-1.4%	1.6%	4.4%	2.8%	3.5%	2.9%	3.0%	2.8%	3.1%	2.2%	2.9%	**1.5%**	**3.0%**
	L	.	.	.	.	1.5%	2.3%	0.9%	1.4%	1.4%	1.5%	0.9%	1.4%	.	**1.5%**
Total	**H**	.	.	.	.	3.4%	4.8%	5.1%	4.6%	4.3%	4.8%	3.7%	4.4%	.	**4.4%**
	B	5.1%	-1.2%	2.3%	3.9%	2.1%	3.7%	3.3%	3.3%	3.1%	3.3%	2.5%	3.0%	**1.7%**	**3.1%**
	L	.	.	.	.	0.7%	2.4%	1.2%	1.8%	1.7%	1.7%	1.1%	1.5%	.	**1.5%**

H. Terminal Navigation Service Unit Forecast

This appendix presents the forecast of the terminal navigation service units based on the terminal charging zones definition for RP2 and the use of a 0.7 exponent in the terminal service unit definition (to be used as of 2015). Any user of this terminal navigation service units forecast should be aware that the definitions of charging zones might change in the course of the forthcoming months as States and FABs are reviewing their performance plans for RP2.

Note that compared to the February forecast, the historical values up to 2013 have been reconstructed based on CRCO flight information with the TCZ definitions and the exponent used to compute the TNSU as applicable by States according to their RP1 performance plans. For some specific States, in order to keep consistency in growth in the transition between RP1 and RP2, the history of TCZ was changed from the original RP1 definition according to the footnotes in the Figure 62**.**

Figure 62. Exponents for Weight Coefficient and Number of Airport used in TNSU forecast for RP1 and RP2.

TCZ (as in RP2 definition)	Weight Coefficient Exponents				Number of Airports			
	2011	2012	2013	2014	2011	2012	2013	2014
EB TCZ EBAW	0.7	0.7	0.7	0.7	1	1	1	1
EB TCZ EBBR[22]	0.9	0.85	0.8	0.7	1	1	1	1
EB TCZ EBCI	0.7	0.7	0.7	0.7	1	1	1	1
EB TCZ EBLG	0.7	0.7	0.7	0.7	1	1	1	1
EB TCZ EBOS	0.7	0.7	0.7	0.7	1	1	1	1
ED TCZ	0.7	0.7	0.7	0.7	16	16	16	16
EE TCZ	0.5	0.5	0.7	0.7	2	2	2	2
EF TCZ	0.7	0.7	0.7	0.7	1	1	1	1
EG TCZ B[23]	0.7	0.7	0.7	0.7	9	9	9	9
EH TCZ	0.7	0.7	0.7	0.7	4	4	4	4
EI TCZ	0.9	0.8	0.8	0.7	3	3	3	3
EK TCZ	0.7	0.7	0.7	0.7	1	1	1	1
EL TCZ	0.7	0.7	0.7	0.7	1	1	1	1
EN TCZ	0.9	0.9	0.9	0.7	4	4	4	4
EP TCZ	0.7	0.7	0.7	0.7	11	13	13	14
ES TCZ A	0.7	0.7	0.7	0.7	1	1	1	1
EV TCZ	0.7	0.7	0.7	0.7	3	3	3	3
EY TCZ	0.5	0.7	0.7	0.7	4	4	4	4
LB TCZ	0.5	0.7	0.7	0.7	5	5	5	5
LC TCZ[24]	0.7	0.7	0.7	0.7	2	2	2	2
LD TCZ[25]	0.7	0.7	0.7	0.7	1	1	1	1
LE TCZ[26]	0.9	0.9	0.9	0.7	5	5	5	5
LF TCZ	0.9	0.8	0.8	0.7	61	61	60	60
LG TCZ	0.7	0.7	0.7	0.7	1	1	1	1
LH TCZ	0.7	0.7	0.7	0.7	1	1	1	1
LI TCZ 1[27]	0.7	0.7	0.7	0.7	1	1	1	1
LI TCZ 2	0.7	0.7	0.7	0.7	4	4	4	4
LJ TCZ	0.7	0.7	0.7	0.7	3	3	3	3
LK TCZ	0.7	0.7	0.7	0.7	4	4	4	4
LM TCZ[28]		0.7	0.7	0.7	-	1	1	1
LO TCZ	0.7	0.7	0.7	0.7	6	6	6	6
LP TCZ	0.7	0.7	0.7	0.7	9	9	9	9
LR TCZ	0.7	0.7	0.7	0.7	1	1	2	2
LS TCZ	0.65	0.65	0.65	0.7	2	2	2	2
LZ TCZ[29]	0.7	0.7	0.7	0.7	1	1	1	1

[22] Belgium: EB_TCZ_EBBR was the only TCZ in RP1 ; the 4 other TCZs in Belgium were added to the history table with an exponent of 0.7

[23] UK: RP1 originally with 2 TCZs with a total of 13 airports. Modified to equal RP2 structure with 1 TCZ (EG_TCZ_B) composed by 9 airports

[24] Cyprus: history with 0.7 has been reconstructed from 2012

[25] Croatia: only part of the SES since 2014 but a history has been reconstructed with 0.7 coefficient

[26] Spain: only 5 airports considered for RP1 history instead of the original 12. The original exponent of 0.9 of RP1 was kept

[27] Italy: RP1 originally composed by 1 TCZ with 47 airports. RP1 history modified to 2 TCZs with a total of 5 airports with 0.7 exponent

[28] Malta: history reconstructed with 0.7 exponent from 2012

[29] Slovakia: only 1 airport considered instead of the original 6 in the RP1. History of 0.7 rebuild from 2010

Figure 63. Forecast of the total number of Terminal service units (thousands) per Terminal Charging Zone.

Terminal Navigation Service Units (thousands)																
			2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	AAGR 2021/ 2014	RP1 2014/ 2011 AAGR	RP2 2019/ 2014 AAGR
Austria	LO_TCZ	H	.	.	.	.	175.5	182.1	189.5	198.5	208.2	216.8	223.6	3.3%	.	3.1%
		B	184.1	179.1	175.5	178.4	173.4	178.7	183.7	190.0	195.2	201.7	208.0	2.2%	-1.0%	1.8%
		L	.	.	.	.	171.5	173.7	174.7	177.7	180.1	182.8	184.6	0.5%	.	0.2%
Belgium	EB_TCZ_EBAW	H	.	.	.	.	2.2	2.2	2.3	2.4	2.5	2.6	2.7	6.8%	.	8.0%
		B	2.1	1.9	1.9	1.7	2.1	2.2	2.3	2.3	2.4	2.4	2.5	5.7%	-6.8%	7.1%
		L	.	.	.	.	2.1	2.1	2.2	2.2	2.3	2.3	2.3	4.4%	.	6.2%
	EB_TCZ_EBBR	H	.	.	.	.	153.5	160.5	168.9	176.0	181.7	184.1	186.5	3.5%	.	4.4%
		B	158.3	150.8	142.3	146.6	152.5	158.0	163.1	168.9	174.6	180.5	185.6	3.4%	-2.5%	3.6%
		L	.	.	.	.	150.9	154.3	156.2	158.9	161.9	165.0	167.3	1.9%	.	2.0%
	EB_TCZ_EBCI	H	.	.	.	.	30.6	32.5	34.6	36.7	39.0	41.5	43.7	6.5%	.	6.8%
		B	25.0	27.9	30.2	28.1	30.4	31.9	33.3	34.8	36.4	38.2	39.7	5.1%	4.0%	5.3%
		L	.	.	.	.	30.0	31.1	31.9	32.8	33.7	34.6	35.4	3.4%	.	3.7%
	EB_TCZ_EBLG	H	.	.	.	.	26.7	28.3	30.4	33.8	36.0	38.7	40.7	7.4%	.	7.8%
		B	27.3	23.5	22.9	24.7	26.5	27.8	29.4	32.4	33.9	35.7	37.6	6.2%	-3.3%	6.5%
		L	.	.	.	.	26.3	27.2	28.1	29.3	30.6	33.2	34.4	4.8%	.	4.4%
	EB_TCZ_EBOS	H	.	.	.	.	2.6	2.7	2.9	3.1	3.3	3.5	3.7	6.4%	.	6.6%
		B	3.5	3.4	3.2	2.4	2.6	2.7	2.8	2.9	3.1	3.3	3.4	5.1%	-11.8%	5.3%
		L	.	.	.	.	2.5	2.6	2.7	2.8	2.8	2.9	3.1	3.7%	.	3.1%
Bulgaria	LB_TCZ	H	.	.	.	.	45.9	48.6	52.6	57.0	61.5	67.6	72.9	7.4%	.	6.8%
		B	41.1	41.5	41.7	44.2	45.1	46.7	49.2	52.2	55.0	58.5	61.4	4.8%	2.5%	4.5%
		L	.	.	.	.	44.2	44.7	45.9	47.7	49.5	51.3	53.4	2.7%	.	2.3%
Croatia	LD_TCZ	H	.	.	.	.	17.1	17.8	18.8	19.6	20.1	21.1	22.0	4.4%	.	4.3%
		B	16.7	16.0	15.8	16.3	16.8	17.4	17.9	18.5	19.0	19.2	19.6	2.7%	-0.8%	3.1%
		L	.	.	.	.	16.5	16.9	17.0	17.4	17.7	18.0	18.0	1.4%	.	1.7%
Cyprus	LC_TCZ	H	.	.	.	.	41.0	44.5	47.6	51.1	55.0	60.3	65.1	7.2%	.	6.6%
		B	43.9	42.5	39.0	40.0	40.2	42.3	44.1	45.9	48.1	50.9	53.8	4.3%	-3.1%	3.8%
		L	.	.	.	.	38.7	40.6	41.3	42.2	43.2	44.5	45.6	1.9%	.	1.6%
Czech Republic	LK_TCZ	H	.	.	.	.	69.9	74.9	83.1	91.2	100.8	111.0	120.3	7.4%	.	6.7%
		B	84.4	75.3	73.7	72.9	68.8	71.7	76.3	81.2	86.0	91.0	95.5	3.9%	-4.8%	3.4%
		L	.	.	.	.	67.4	69.0	70.7	73.0	75.3	77.5	79.7	1.3%	.	0.6%
Denmark	EK_TCZ	H	.	.	.	.	153.4	159.6	165.2	173.2	179.2	186.5	192.1	3.2%	.	3.0%
		B	145.3	143.7	148.1	154.5	152.1	156.9	159.8	165.4	169.7	175.3	178.8	2.1%	2.1%	1.9%
		L	.	.	.	.	150.7	153.1	153.6	156.1	157.7	159.1	159.8	0.5%	.	0.4%
Estonia	EE_TCZ	H	.	.	.	.	15.3	16.4	17.8	19.3	21.1	22.3	24.2	7.0%	.	6.9%
		B	16.0	18.9	14.6	15.1	15.2	15.7	16.6	17.4	18.2	19.1	20.3	4.3%	-1.9%	3.8%
		L	.	.	.	.	14.9	15.1	15.4	15.7	16.2	16.8	17.1	1.8%	.	1.4%
Finland	EF_TCZ	H	.	.	.	.	99.8	104.3	109.4	117.0	124.1	133.6	138.9	4.9%	.	4.5%
		B	107.1	97.6	97.9	99.4	98.8	101.3	103.8	109.7	112.7	116.2	118.7	2.6%	-2.5%	2.5%
		L	.	.	.	.	97.8	98.9	99.1	100.5	101.9	105.4	106.5	1.0%	.	0.5%
France	LF_TCZ	H	.	.	.	.	1048.8	1090.6	1126.4	1165.3	1196.7	1228.3	1251.7	2.8%	.	3.0%
		B	1145.6	1092.7	1090.7	1031.1	1043.8	1077.0	1096.6	1122.4	1146.3	1181.7	1208.5	2.3%	-3.4%	2.1%
		L	.	.	.	.	1034.3	1053.7	1054.7	1057.1	1062.0	1077.8	1089.9	0.8%	.	0.6%
Germany	ED_TCZ	H	.	.	.	.	1349.9	1401.7	1449.0	1503.5	1548.4	1599.2	1645.6	3.3%	.	3.4%
		B	1311.6	1295.5	1282.3	1311.6	1340.4	1378.0	1405.7	1438.3	1468.0	1509.3	1535.8	2.3%	0.0%	2.3%
		L	.	.	.	.	1326.9	1351.4	1356.2	1370.1	1386.3	1404.8	1413.9	1.1%	.	1.1%
Greece	LG_TCZ	H	.	.	.	.	96.6	101.1	106.3	112.0	118.4	125.0	130.8	6.2%	.	6.6%
		B	96.4	83.0	74.5	86.0	95.7	99.2	102.4	106.4	110.7	116.0	119.8	4.8%	-3.7%	5.2%
		L	.	.	.	.	94.4	96.6	97.6	99.2	101.3	103.9	106.1	3.0%	.	3.3%
Hungary	LH_TCZ	H	.	.	.	.	53.9	58.1	63.0	67.7	74.6	80.5	85.4	7.7%	.	8.0%
		B	59.0	49.6	49.2	50.7	53.1	56.1	58.7	61.3	64.0	67.7	70.4	4.8%	-4.9%	4.8%
		L	.	.	.	.	52.3	54.0	54.7	55.8	57.0	58.4	59.2	2.2%	.	2.4%
Ireland	EI_TCZ	H	.	.	.	.	143.2	151.0	160.1	170.9	182.2	194.4	197.6	5.3%	.	5.8%
		B	136.0	129.5	136.7	137.5	142.0	147.9	153.2	160.3	167.6	176.2	182.3	4.1%	0.4%	4.0%
		L	.	.	.	.	140.5	144.4	147.2	150.9	155.1	160.3	163.9	2.5%	.	2.4%

Terminal Navigation Service Units (thousands)																
			2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	AAGR 2021/ 2014	RP1 2014/ 2011 AAGR	RP2 2019/ 2014 AAGR
Italy	LI_TCZ_1	H	.	.	.	.	225.2	234.1	244.6	255.5	265.7	278.5	288.8	4.1%	.	4.0%
		B	225.7	217.7	210.0	218.5	223.2	229.3	233.9	239.3	245.1	251.2	255.3	2.2%	-1.1%	2.3%
		L	.	.	.	.	220.0	222.6	221.1	222.0	222.7	223.8	223.5	0.3%	.	0.4%
	LI_TCZ_2	H	.	.	.	.	284.9	297.4	310.8	324.7	338.7	354.4	367.0	4.2%	.	4.2%
		B	292.1	285.7	275.3	275.1	282.0	291.2	298.4	306.4	314.5	323.1	329.9	2.6%	-2.0%	2.7%
		L	.	.	.	.	277.8	281.8	282.3	285.6	288.6	291.3	292.1	0.9%	.	1.0%
Latvia	EV_TCZ	H	.	.	.	.	32.7	34.2	36.7	39.3	42.8	45.4	48.1	6.3%	.	6.4%
		B	32.2	31.5	32.4	31.4	31.8	32.4	33.2	33.9	34.8	35.7	36.2	2.1%	-0.8%	2.1%
		L	.	.	.	.	31.3	30.7	30.3	30.2	30.0	30.1	30.2	-0.6%	.	-0.9%
Lisbon FIR	LP_TCZ	H	.	.	.	.	203.2	212.6	223.6	233.8	243.9	255.6	264.7	4.7%	.	4.9%
		B	177.5	175.7	180.3	191.8	201.4	208.1	213.3	219.1	225.9	232.3	236.9	3.1%	2.6%	3.3%
		L	.	.	.	.	199.2	203.3	204.0	206.2	208.4	210.7	211.8	1.4%	.	1.7%
Lithuania	EY_TCZ	H	.	.	.	.	25.2	28.0	30.7	33.3	36.2	39.7	43.1	9.0%	.	8.9%
		B	17.8	19.2	21.0	23.6	24.7	27.0	28.5	30.3	32.3	34.2	35.7	6.1%	9.9%	6.5%
		L	.	.	.	.	24.2	25.1	26.5	27.5	28.6	29.6	30.5	3.7%	.	3.9%
Luxembourg	EL_TCZ	H	.	.	.	.	41.3	43.8	46.5	49.1	51.8	54.8	56.9	5.5%	.	5.8%
		B	35.3	34.9	37.3	39.0	40.9	43.1	44.7	46.8	48.8	50.8	52.9	4.5%	3.4%	4.6%
		L	.	.	.	.	40.5	41.8	42.7	43.8	45.1	46.7	47.6	2.9%	.	2.9%
Malta	LM_TCZ	H	.	.	.	.	25.6	27.4	29.6	32.4	34.8	37.6	41.7	8.3%	.	7.8%
		B	.	20.7	22.7	23.9	25.1	26.4	27.7	28.9	30.5	32.1	33.4	4.9%	5.1%	5.0%
		L	.	.	.	.	24.6	25.5	25.7	26.3	26.9	27.5	28.1	2.3%	.	2.4%
Netherlands	EH_TCZ	H	.	.	.	.	358.8	371.3	383.4	397.8	408.3	421.8	426.3	2.6%	.	2.7%
		B	339.0	339.2	345.0	356.6	358.9	371.5	383.7	397.4	407.4	420.3	424.3	2.5%	1.7%	2.7%
		L	.	.	.	.	358.8	371.0	379.1	386.0	391.9	399.7	404.7	1.8%	.	1.9%
Norway	EN_TCZ	H	.	.	.	.	246.5	254.4	261.3	265.6	269.8	306.4	316.1	3.5%	.	1.7%
		B	229.5	242.4	255.4	247.9	245.4	251.4	257.5	263.7	275.9	288.8	294.5	2.5%	2.6%	2.2%
		L	.	.	.	.	243.7	247.5	249.5	261.8	264.1	267.9	270.5	1.3%	.	1.3%
Poland	EP_TCZ	H	.	.	.	.	169.5	183.5	198.5	216.9	233.5	252.9	268.7	8.0%	.	8.3%
		B	133.7	148.9	149.9	156.4	167.4	179.0	190.6	204.1	217.6	230.9	242.0	6.4%	5.4%	6.8%
		L	.	.	.	.	164.8	173.8	178.7	185.0	190.8	196.4	200.7	3.6%	.	4.1%
Romania	LR_TCZ	H	.	.	.	.	55.0	58.8	63.3	68.1	72.7	78.4	84.0	7.6%	.	7.6%
		B	37.1	45.1	47.3	50.3	54.6	57.3	60.0	63.2	66.4	69.7	72.6	5.4%	10.7%	5.7%
		L	.	.	.	.	54.1	55.8	57.0	58.6	60.3	62.2	64.2	3.5%	.	3.7%
Slovakia	LZ_TCZ	H	.	.	.	.	9.0	10.1	11.1	12.6	13.5	14.7	15.8	9.6%	.	10.2%
		B	9.9	8.7	8.6	8.3	8.8	9.6	10.2	10.9	11.6	12.6	13.3	7.0%	-5.7%	6.9%
		L	.	.	.	.	8.6	9.0	9.3	9.8	10.2	10.5	10.9	4.0%	.	4.2%
Slovenia	LJ_TCZ	H	.	.	.	.	11.6	12.0	13.1	14.0	15.0	16.2	17.2	6.5%	.	6.2%
		B	12.5	11.1	11.3	11.1	11.4	11.9	12.1	13.0	13.8	14.1	14.8	4.2%	-3.9%	4.5%
		L	.	.	.	.	11.1	11.5	11.7	11.7	12.0	12.6	13.0	2.3%	.	1.6%
Spain	LE_TCZ	H	.	.	.	.	690.6	725.2	763.3	803.0	841.0	881.5	919.1	5.0%	.	5.2%
		B	776.8	725.6	700.4	651.2	684.8	711.1	734.9	760.8	786.9	815.8	836.9	3.6%	-5.7%	3.9%
		L	.	.	.	.	671.3	688.4	696.3	709.5	721.4	734.5	742.4	1.9%	.	2.1%
Sweden	ES_TCZ_A	H	.	.	.	.	136.9	142.2	148.0	154.4	159.6	166.8	172.0	3.5%	.	3.3%
		B	121.9	121.7	128.6	135.6	136.0	140.1	143.5	147.2	150.7	155.3	158.4	2.2%	3.6%	2.1%
		L	.	.	.	.	134.8	137.3	137.6	138.9	140.6	142.4	143.4	0.8%	.	0.7%
Switzerland	LS_TCZ	H	.	.	.	.	268.6	280.0	294.5	309.1	322.8	336.4	350.4	4.2%	.	4.2%
		B	251.4	254.4	252.1	262.2	266.7	275.5	284.8	295.3	306.9	318.2	326.5	3.2%	1.4%	3.2%
		L	.	.	.	.	263.5	269.1	271.6	277.3	283.2	289.0	292.4	1.6%	.	1.6%
UK	EG_TCZ_B	H	.	.	.	.	1184.8	1231.1	1274.4	1317.3	1354.8	1428.4	1485.2	3.8%	.	3.5%
		B	1080.5	1079.6	1106.0	1142.7	1179.6	1218.9	1248.0	1277.1	1307.2	1345.8	1368.8	2.6%	1.9%	2.7%
		L	.	.	.	.	1171.5	1201.8	1217.4	1235.8	1254.5	1276.5	1292.6	1.8%	.	1.9%

Figure 64. Forecast of the total number of Terminal service units (growth) per Terminal Charging Zone.

This appendix presents the same data as the previous, but presented as growth rather than counts of terminal navigation service units.

Terminal Navigation Service Units (Growth)																
			2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	AAGR 2021/ 2014	RP1 2014/ 2011 AAGR	RP2 2019/ 2014 AAGR
Austria	LO_TCZ	H	.	.	.	.	-1.6%	3.8%	4.0%	4.8%	4.9%	4.1%	3.1%	3.3%	.	3.1%
		B	1.9%	-2.7%	-2.0%	1.6%	-2.8%	3.1%	2.8%	3.5%	2.7%	3.3%	3.2%	2.2%	-1.0%	1.8%
		L	.	.	.	.	-3.8%	1.3%	0.6%	1.7%	1.3%	1.5%	1.0%	0.5%	.	0.2%
Belgium	EB_TCZ_EBAW	H	.	.	.	.	28.0%	3.5%	3.2%	3.4%	2.9%	5.9%	2.2%	6.8%	.	8.0%
		B	.	-9.6%	-1.5%	-11.0%	27.0%	2.8%	2.5%	2.7%	2.0%	2.8%	3.1%	5.7%	-6.8%	7.1%
		L	.	.	.	.	25.0%	1.6%	1.8%	2.0%	1.6%	1.3%	1.3%	4.4%	.	6.2%
	EB_TCZ_EBBR	H	.	.	.	.	4.8%	4.6%	5.2%	4.2%	3.2%	1.3%	1.3%	3.5%	.	4.4%
		B	.	-4.7%	-5.6%	3.0%	4.1%	3.6%	3.2%	3.6%	3.3%	3.4%	2.8%	3.4%	-2.5%	3.6%
		L	.	.	.	.	2.9%	2.3%	1.2%	1.7%	1.9%	2.0%	1.4%	1.9%	.	2.0%
	EB_TCZ_EBCI	H	.	.	.	.	8.9%	6.2%	6.4%	6.3%	6.2%	6.4%	5.4%	6.5%	.	6.8%
		B	.	12.0%	8.3%	-7.0%	8.2%	5.0%	4.4%	4.6%	4.5%	5.0%	3.9%	5.1%	4.0%	5.3%
		L	.	.	.	.	6.9%	3.7%	2.6%	2.8%	2.7%	2.7%	2.1%	3.4%	.	3.7%
	EB_TCZ_EBLG	H	.	.	.	.	7.8%	6.1%	7.5%	11.0%	6.5%	7.6%	5.2%	7.4%	.	7.8%
		B	.	-14.0%	-2.6%	8.1%	7.1%	5.1%	5.6%	10.0%	4.6%	5.4%	5.3%	6.2%	-3.3%	6.5%
		L	.	.	.	.	6.1%	3.6%	3.3%	4.3%	4.3%	8.8%	3.5%	4.8%	.	4.4%
	EB_TCZ_EBOS	H	.	.	.	.	9.0%	6.3%	6.2%	8.0%	5.3%	5.4%	5.2%	6.4%	.	6.6%
		B	.	-2.6%	-7.5%	-26.0%	9.0%	4.2%	4.3%	4.7%	6.9%	4.3%	3.7%	5.1%	-11.8%	5.3%
		L	.	.	.	.	6.5%	3.4%	3.0%	3.2%	3.1%	3.3%	5.0%	3.7%	.	3.1%
Bulgaria	LB_TCZ	H	.	.	.	.	3.9%	5.7%	8.3%	8.5%	7.8%	9.9%	7.8%	7.4%	.	6.8%
		B	4.2%	0.9%	0.5%	6.1%	2.0%	3.5%	5.4%	6.1%	5.3%	6.5%	4.8%	4.8%	2.5%	4.5%
		L	.	.	.	.	0.0%	1.1%	2.7%	3.8%	4.0%	3.6%	3.9%	2.7%	.	2.3%
Croatia	LD_TCZ	H	.	.	.	.	4.4%	4.4%	5.4%	4.7%	2.4%	5.0%	4.1%	4.4%	.	4.3%
		B	3.2%	-4.5%	-1.0%	3.5%	2.8%	3.3%	3.1%	3.7%	2.5%	1.0%	2.4%	2.7%	-0.8%	3.1%
		L	.	.	.	.	0.7%	2.4%	1.0%	2.1%	1.7%	1.9%	0.0%	1.4%	.	1.7%
Cyprus	LC_TCZ	H	.	.	.	.	2.6%	8.4%	6.9%	7.5%	7.5%	9.7%	7.9%	7.2%	.	6.6%
		B	.	-3.1%	-8.3%	2.5%	0.6%	5.1%	4.4%	4.0%	4.9%	5.8%	5.7%	4.3%	-3.1%	3.8%
		L	.	.	.	.	-3.3%	4.9%	1.8%	2.4%	2.2%	2.9%	2.6%	1.9%	.	1.6%
Czech Republic	LK_TCZ	H	.	.	.	.	-4.2%	7.2%	11.0%	9.7%	11.0%	10.0%	8.4%	7.4%	.	6.7%
		B	2.0%	-11.0%	-2.1%	-1.0%	-5.7%	4.2%	6.4%	6.4%	5.9%	5.9%	4.9%	3.9%	-4.8%	3.4%
		L	.	.	.	.	-7.5%	2.4%	2.5%	3.2%	3.1%	3.0%	2.8%	1.3%	.	0.6%
Denmark	EK_TCZ	H	.	.	.	.	-0.7%	4.0%	3.5%	4.9%	3.4%	4.1%	3.0%	3.2%	.	3.0%
		B	5.0%	-1.1%	3.1%	4.3%	-1.6%	3.1%	1.9%	3.5%	2.6%	3.3%	2.0%	2.1%	2.1%	1.9%
		L	.	.	.	.	-2.4%	1.5%	0.3%	1.7%	1.0%	0.9%	0.5%	0.5%	.	0.4%
Estonia	EE_TCZ	H	.	.	.	.	1.6%	7.1%	8.3%	8.3%	9.5%	6.0%	8.1%	7.0%	.	6.9%
		B	24.0%	18.0%	-23.0%	3.4%	0.8%	3.2%	5.8%	5.0%	4.8%	4.6%	6.3%	4.3%	-1.9%	3.8%
		L	.	.	.	.	-1.3%	1.3%	2.0%	2.1%	3.0%	3.6%	2.0%	1.8%	.	1.4%
Finland	EF_TCZ	H	.	.	.	.	0.5%	4.4%	4.9%	7.0%	6.0%	7.6%	4.0%	4.9%	.	4.5%
		B	15.0%	-8.9%	0.4%	1.5%	-0.6%	2.5%	2.5%	5.7%	2.7%	3.1%	2.1%	2.6%	-2.5%	2.5%
		L	.	.	.	.	-1.6%	1.1%	0.2%	1.3%	1.4%	3.5%	1.0%	1.0%	.	0.5%
France	LF_TCZ	H	.	.	.	.	1.7%	4.0%	3.3%	3.5%	2.7%	2.6%	1.9%	2.8%	.	3.0%
		B	4.7%	-4.6%	-0.2%	-5.5%	1.2%	3.2%	1.8%	2.3%	2.1%	3.1%	2.3%	2.3%	-3.4%	2.1%
		L	.	.	.	.	0.3%	1.9%	0.1%	0.2%	0.5%	1.5%	1.1%	0.8%	.	0.6%
Germany	ED_TCZ	H	.	.	.	.	2.9%	3.8%	3.4%	3.8%	3.0%	3.3%	2.9%	3.3%	.	3.4%
		B	4.5%	-1.2%	-1.0%	2.3%	2.2%	2.8%	2.0%	2.3%	2.1%	2.8%	1.8%	2.3%	0.0%	2.3%
		L	.	.	.	.	1.2%	1.8%	0.4%	1.0%	1.2%	1.3%	0.7%	1.1%	.	1.1%
Greece	LG_TCZ	H	.	.	.	.	12.0%	4.6%	5.2%	5.3%	5.7%	5.6%	4.6%	6.2%	.	6.6%
		B	-7.1%	-14.0%	-10.0%	15.0%	11.0%	3.6%	3.3%	3.9%	4.0%	4.8%	3.3%	4.8%	-3.7%	5.2%
		L	.	.	.	.	9.8%	2.3%	1.0%	1.6%	2.1%	2.6%	2.0%	3.0%	.	3.3%
Hungary	LH_TCZ	H	.	.	.	.	6.3%	7.8%	8.4%	7.4%	10.0%	8.0%	6.1%	7.7%	.	8.0%
		B	5.4%	-16.0%	-0.9%	3.1%	4.8%	5.6%	4.6%	4.4%	4.5%	5.7%	4.0%	4.8%	-4.9%	4.8%
		L	.	.	.	.	3.1%	3.3%	1.2%	2.0%	2.2%	2.4%	1.5%	2.2%	.	2.4%
Ireland	EI_TCZ	H	.	.	.	.	4.1%	5.4%	6.1%	6.8%	6.6%	6.7%	1.7%	5.3%	.	5.8%
		B	-1.2%	-4.7%	5.5%	0.6%	3.2%	4.2%	3.6%	4.6%	4.6%	5.1%	3.4%	4.1%	0.4%	4.0%
		L	.	.	.	.	2.1%	2.8%	1.9%	2.5%	2.8%	3.4%	2.2%	2.5%	.	2.4%

Terminal Navigation Service Units (Growth)																
			2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	AAGR 2021/ 2014	RP1 2014/ 2011 AAGR	RP2 2019/ 2014 AAGR
Italy	LI_TCZ_1	H	.	.	.	.	3.1%	4.0%	4.5%	4.5%	4.0%	4.8%	3.7%	4.1%	.	4.0%
		B	-0.5%	-3.6%	-3.5%	4.0%	2.2%	2.7%	2.0%	2.3%	2.4%	2.5%	1.6%	2.2%	-1.1%	2.3%
		L	.	.	.	.	0.7%	1.2%	-0.7%	0.4%	0.3%	0.5%	-0.1%	0.3%	.	0.4%
	LI_TCZ_2	H	.	.	.	.	3.6%	4.4%	4.5%	4.5%	4.3%	4.6%	3.6%	4.2%	.	4.2%
		B	3.7%	-2.2%	-3.7%	-0.1%	2.5%	3.3%	2.5%	2.7%	2.6%	2.7%	2.1%	2.6%	-2.0%	2.7%
		L	.	.	.	.	1.0%	1.4%	0.2%	1.2%	1.0%	1.0%	0.3%	0.9%	.	1.0%
Latvia	EV_TCZ	H	.	.	.	.	4.4%	4.4%	7.5%	7.1%	8.9%	6.0%	6.0%	6.3%	.	6.4%
		B	.	-2.3%	2.9%	-3.2%	1.4%	1.7%	2.6%	2.2%	2.5%	2.5%	1.7%	2.1%	-0.8%	2.1%
		L	.	.	.	.	-0.3%	-1.7%	-1.3%	-0.3%	-0.8%	0.4%	0.3%	-0.6%	.	-0.9%
Lisbon FIR	LP_TCZ	H	.	.	.	.	5.9%	4.6%	5.2%	4.6%	4.3%	4.8%	3.6%	4.7%	.	4.9%
		B	1.7%	-1.0%	2.6%	6.4%	5.0%	3.3%	2.5%	2.7%	3.1%	2.8%	2.0%	3.1%	2.6%	3.3%
		L	.	.	.	.	3.8%	2.1%	0.3%	1.0%	1.1%	1.2%	0.5%	1.4%	.	1.7%
Lithuania	EY_TCZ	H	.	.	.	.	7.0%	11.0%	9.4%	8.5%	8.9%	9.6%	8.6%	9.0%	.	8.9%
		B	6.4%	8.0%	9.5%	12.0%	4.9%	9.0%	5.5%	6.4%	6.7%	5.8%	4.6%	6.1%	9.9%	6.5%
		L	.	.	.	.	2.4%	4.1%	5.3%	4.0%	4.0%	3.6%	2.9%	3.7%	.	3.9%
Luxembourg	EL_TCZ	H	.	.	.	.	6.1%	6.1%	6.1%	5.5%	5.6%	5.7%	3.9%	5.5%	.	5.8%
		B	2.1%	-1.0%	6.8%	4.4%	5.1%	5.1%	3.7%	4.8%	4.2%	4.2%	4.1%	4.5%	3.4%	4.6%
		L	.	.	.	.	4.0%	3.3%	2.0%	2.8%	2.9%	3.5%	1.9%	2.9%	.	2.9%
Malta	LM_TCZ	H	.	.	.	.	6.9%	7.0%	8.2%	9.2%	7.6%	8.1%	11.0%	8.3%	.	7.8%
		B	.	.	9.7%	5.6%	5.0%	5.2%	4.6%	4.5%	5.6%	5.1%	4.2%	4.9%	5.1%	5.0%
		L	.	.	.	.	2.9%	3.3%	1.1%	2.1%	2.2%	2.5%	2.2%	2.3%	.	2.4%
Netherlands	EH_TCZ	H	.	.	.	.	0.6%	3.5%	3.3%	3.7%	2.6%	3.3%	1.1%	2.6%	.	2.7%
		B	7.3%	0.0%	1.7%	3.4%	0.6%	3.5%	3.3%	3.6%	2.5%	3.2%	1.0%	2.5%	1.7%	2.7%
		L	.	.	.	.	0.6%	3.4%	2.2%	1.8%	1.5%	2.0%	1.3%	1.8%	.	1.9%
Norway	EN_TCZ	H	.	.	.	.	-0.5%	3.2%	2.7%	1.6%	1.6%	14.0%	3.2%	3.5%	.	1.7%
		B	7.5%	5.6%	5.4%	-2.9%	-1.0%	2.4%	2.4%	2.4%	4.6%	4.7%	2.0%	2.5%	2.6%	2.2%
		L	.	.	.	.	-1.7%	1.6%	0.8%	4.9%	0.9%	1.4%	1.0%	1.3%	.	1.3%
Poland	EP_TCZ	H	.	.	.	.	8.4%	8.2%	8.2%	9.3%	7.6%	8.3%	6.2%	8.0%	.	8.3%
		B	3.3%	11.0%	0.7%	4.4%	7.0%	7.0%	6.5%	7.1%	6.6%	6.1%	4.8%	6.4%	5.4%	6.8%
		L	.	.	.	.	5.4%	5.4%	2.8%	3.5%	3.2%	2.9%	2.2%	3.6%	.	4.1%
Romania	LR_TCZ	H	.	.	.	.	9.5%	6.7%	7.7%	7.6%	6.7%	7.9%	7.1%	7.6%	.	7.6%
		B	-4.9%	22.0%	4.8%	6.4%	8.5%	5.0%	4.6%	5.3%	5.1%	5.0%	4.2%	5.4%	10.7%	5.7%
		L	.	.	.	.	7.5%	3.2%	2.1%	2.8%	2.8%	3.2%	3.2%	3.5%	.	3.7%
Slovakia	LZ_TCZ	H	.	.	.	.	8.7%	12.0%	9.8%	14.0%	7.1%	8.7%	7.3%	9.6%	.	10.2%
		B	-3.3%	-12.0%	-1.7%	-3.4%	5.8%	9.2%	6.4%	7.1%	5.9%	9.3%	5.3%	7.0%	-5.7%	6.9%
		L	.	.	.	.	3.7%	4.3%	3.7%	5.5%	3.7%	3.4%	3.5%	4.0%	.	4.2%
Slovenia	LJ_TCZ	H	.	.	.	.	4.3%	3.3%	9.5%	6.7%	7.5%	7.5%	6.2%	6.5%	.	6.2%
		B	0.4%	-11.0%	1.4%	-1.7%	2.9%	3.9%	1.7%	7.4%	6.4%	2.6%	4.9%	4.2%	-3.9%	4.5%
		L	.	.	.	.	0.3%	3.1%	1.5%	0.5%	2.6%	4.8%	3.2%	2.3%	.	1.6%
Spain	LE_TCZ	H	.	.	.	.	6.0%	5.0%	5.3%	5.2%	4.7%	4.8%	4.3%	5.0%	.	5.2%
		B	4.1%	-6.6%	-3.5%	-7.0%	5.2%	3.8%	3.3%	3.5%	3.4%	3.7%	2.6%	3.6%	-5.7%	3.9%
		L	.	.	.	.	3.1%	2.5%	1.2%	1.9%	1.7%	1.8%	1.1%	1.9%	.	2.1%
Sweden	ES_TCZ_A	H	.	.	.	.	0.9%	3.9%	4.0%	4.4%	3.4%	4.5%	3.1%	3.5%	.	3.3%
		B	13.0%	-0.2%	5.7%	5.5%	0.3%	3.0%	2.4%	2.6%	2.4%	3.0%	2.0%	2.2%	3.6%	2.1%
		L	.	.	.	.	-0.6%	1.9%	0.2%	0.9%	1.3%	1.3%	0.7%	0.8%	.	0.7%
Switzerland	LS_TCZ	H	.	.	.	.	2.5%	4.3%	5.2%	5.0%	4.4%	4.2%	4.2%	4.2%	.	4.2%
		B	6.9%	1.2%	-0.9%	4.0%	1.7%	3.3%	3.4%	3.7%	3.9%	3.7%	2.6%	3.2%	1.4%	3.2%
		L	.	.	.	.	0.5%	2.1%	0.9%	2.1%	2.1%	2.1%	1.2%	1.6%	.	1.6%
UK	EG_TCZ_B	H	.	.	.	.	3.7%	3.9%	3.5%	3.4%	2.9%	5.4%	4.0%	3.8%	.	3.5%
		B	3.9%	-0.1%	2.5%	3.3%	3.2%	3.3%	2.4%	2.3%	2.4%	3.0%	1.7%	2.6%	1.9%	2.7%
		L	.	.	.	.	2.5%	2.6%	1.3%	1.5%	1.5%	1.8%	1.3%	1.8%	.	1.9%

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