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EUROCONTROL SEVEN-YEAR FORECAST SEPTEMBER 2017

Flight Movements and Service Units 2017-2023

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EXECUTIVE SUMMARY

This report presents the September 2017 update of the EUROCONTROL seven-year flight and service units forecast. It replaces the February 2017 report (Ref. 1). This update uses the most-recent traffic statistics and economic forecasts, and more up-to-date information in terms of traffic trends and recent air-industry related events.

IFR Movements

- **Intense growth of flights in the Russian Federation, owing to a faster economic recovery; together with busiest ever traffic levels in Europe during summer led to an uplift of the forecast. The upwards revision for the whole 7-year horizon is higher over the first two years.**
- **As a consequence, for Europe:**
 - **the base flight forecast for 2017 is now for 4.5% (± 0.4 pp), in line with the 2017 high-scenario of the February 2017 publication (Ref. 1),**
 - **the flight forecast for 2018 expects a growth of 2.8% ranging from 1% to 4.6%, covering the uncertainty surrounding the forecast (eg. recent airline failures and capacity cuts represent a downside risk).**
- **From 2019 onwards, European flight growth is expected to remain stable at around 1.7% per year over the 2019-2023 period,**
- **By 2023, the base forecast in Europe foresees 12 million IFR flight movements, 17% more than in 2016. IFR flight movements would reach 13.2 million by 2023 in the high-growth scenario whereas they would amount to 10.8 million only in the low-growth scenario.**

Any user of the forecast is strongly advised to use the forecast range (low-growth to high-growth) as an indicator of risk.

The stronger than foreseen recovery of the economic outlook of the Russian Federation highly influenced the upward revision of this forecast. Macro stability and oil prices are the main drivers of this recovery, which enables the Russian Federation to grow now at the fastest pace in almost five years after a two-year-long recession. The Russian Federation was the biggest contributor of growth in Europe (ECAC area) during the summer with flows increasing by 32%. The most noticeable change was the recovery of traffic with Turkey with an increase of 610%, which strongly affected overflights in eastern Europe States.

The growth of flows between north- and south-west Europe during the summer months was in line with the high scenario of the forecast published in February 2017. The expected dwindling effect foreseen as of the summer 2017 in the previous forecast did not happen. We observed, on the contrary, very strong demand with growth rates averaging 5%, with airlines adapting their summer schedule accordingly.

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Moreover, the Foreign Offices of some of the European States have changed their travel advices for this summer leading to promising signs of recovery of European flows to Egypt and Tunisia. These flows represent about 150 flights extra per day for the network since they have not suppressed traffic towards other touristic destinations in southern Europe.

Looking further ahead, the uncertainty surrounding the economic outlook remains high. Worldwide geopolitical tensions, potential negative impact of the fragmentation of Europe as well as recent announcement of airline failures and capacity cuts are also considered as possible downside risks in the forecast. We believe that these uncertainties are captured in the forecast range (low-growth to high-growth).

At European level (ECAC area), the flight growth for 2017 has been revised upwards to 4.5% (± 0.4 pp), consistent with the high growth scenario of the February 2017 forecast. For 2018, a growth of 2.8% is foreseen (± 1.8 pp). From 2019 onwards, European flight growth is expected to remain stable at around 1.7% per year over the 2019-2023 period; with airport capacity in The Netherlands, Turkey and UK increasingly constraining growth in Europe. The forecast is for 12.0 million IFR flight movements (± 1.2 million) in Europe in 2023, 17% more than in 2016.

Figure 1. Summary of flight forecast for Europe (ECAC¹).

ECAC		2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	AAGR 2023/2016	AAGR RP2 2019/2014
IFR Flight Movements (Thousands)	H	.	.	.	.	10,694	11,188	11,610	12,066	12,447	12,825	13,208	3.8%	3.5%
	B	9,603	9,770	9,923	10,197	10,651	10,947	11,177	11,394	11,562	11,758	11,957	2.3%	2.7%
	L	.	.	.	.	10,611	10,723	10,714	10,776	10,772	10,798	10,823	0.9%	1.9%
Annual Growth (compared to previous year unless otherwise mentioned)	H	.	.	.	.	4.9%	4.6%	3.8%	3.9%	3.2%	3.0%	3.0%	3.8%	3.5%
	B	-1.1%	1.7%	1.6%	2.8%	4.5%	2.8%	2.1%	1.9%	1.5%	1.7%	1.7%	2.3%	2.7%
	L	.	.	.	.	4.1%	1.0%	-0.1%	0.6%	-0.0%	0.2%	0.2%	0.9%	1.9%

Total En-route Service Units

The combination of strong flight growth during the summer over western Europe and the recovery of the Russian traffic also led to an overall stronger growth in the total en-route service units (TSU). As a consequence, 152.5 million service units are forecasted in 2017 for the EUROCONTROL member States (CRCO14), corresponding to a 6.3% (± 0.3 pp) growth on 2016. The TSU forecast has been revised upwards by 2.1 percentage points (pp) compared to the February 2017 forecast (Ref. 1).

The stronger TSU growth trends observed in the summer 2017 are expected to last over the winter 2017/2018. This led to an upward revision of en-route service units by +1.5pp for 2018. For the CRCO14 grouping, TSU are now foreseen to reach 158.9 million service units in 2018, thus a growth of 4.2% (± 1.6 pp). However, for the following years, the impact of

¹ ECAC is the European Civil Aviation Conference. See Annex 1 for a definition.

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these strong trends should fade out and service units annual growth should stabilise around 2.2%. The total en-route service units in the participating EUROCONTROL member states (CRCO14) are expected to reach 177.8 million in 2023, which represents an average annual growth rate of 3.1% and a total growth of 24% compared to 2016.

Figure 2. Summary of forecast of total service units in Europe.

Total en-route service units (Thousands)		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Total Growth 2023/2016	RP2 AAGR 2019/2014
CRCO14*	H	.	.	.	.	.	152,969	161,817	169,056	176,674	183,389	190,015	196,760	37%	5.1%
	B	122,298	124,910	132,130	137,689	143,439	152,481	158,879	163,046	166,982	170,315	174,012	177,785	24%	4.3%
	L	.	.	.	.	.	151,999	155,999	156,632	158,199	158,860	159,920	160,967	12%	3.5%
RP2Region†	H	.	.	.	.	.	127,361	134,020	139,700	145,638	150,874	155,923	161,014	34%	4.6%
	B	105,251	106,930	111,670	115,063	120,208	126,970	131,658	134,777	137,709	140,166	142,891	145,692	21%	3.8%
	L	.	.	.	.	.	126,583	129,331	129,492	130,459	130,728	131,324	131,933	10%	3.0%
Total en-route service units (Growth)		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	AAGR 2023/2016	RP2 AAGR 2019/2014
CRCO14*	H	.	.	.	.	.	6.6%	5.8%	4.5%	4.5%	3.8%	3.6%	3.5%	4.6%	5.1%
	B	-1.3%	2.1%	5.8%	4.2%	4.2%	6.3%	4.2%	2.6%	2.4%	2.0%	2.2%	2.2%	3.1%	4.3%
	L	.	.	.	.	.	6.0%	2.6%	0.4%	1.0%	0.4%	0.7%	0.7%	1.7%	3.5%
RP2Region†	H	.	.	.	.	.	6.0%	5.2%	4.2%	4.3%	3.6%	3.3%	3.3%	4.3%	4.6%
	B	-1.4%	1.6%	4.4%	3.0%	4.5%	5.6%	3.7%	2.4%	2.2%	1.8%	1.9%	2.0%	2.8%	3.8%
	L	.	.	.	.	.	5.3%	2.2%	0.1%	0.7%	0.2%	0.5%	0.5%	1.3%	3.0%

* CRCO14 designates the sum over all the states participating in the Multilateral Route Charges System in 2014 of all TSU either measured or forecasted for the corresponding year.

† RP2 series includes service units for flight segments performed as Operational Air Traffic (OAT) for Germany.

Terminal Navigation Service Units

The countries participating to the Performance Scheme in the Second Reference Period (RP2) are expected to reach 8.3 million Terminal Navigation Service Units (TNSU) by the end of 2017, thus a growth of 5.1% (± 0.4 pp). This forecast has been revised upwards by 1.2 percentage points when compared to the February 2017 version (Ref. 1).

The average annual growth between 2016 and 2023 will stand at 2.8% per year to reach 9.5 million by 2023.

Figure 3. Summary of forecast for the terminal navigation service units in the RP2 Region area.

RP2 Region		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	AAGR 2023/2016	RP2 AAGR 2019/2014
TNSU Total (Thousands)	H	.	.	.	.	.	8,286.3	8,697.7	9,069.4	9,500.4	9,871.8	10,231.8	10,583.3	4.4%	4.5%
	B	7,234.3	7,223.5	7,266.7	7,484.2	7,855.0	8,252.6	8,509.6	8,727.0	8,935.5	9,116.4	9,310.3	9,513.0	2.8%	3.7%
	L	.	.	.	.	.	8,220.3	8,327.7	8,342.9	8,416.8	8,448.7	8,506.1	8,564.9	1.2%	2.8%
TNSU Annual (Growth)	H	5.5%	5.0%	4.3%	4.8%	3.9%	3.6%	3.4%	4.4%	4.5%
	B	-1.9%	-0.1%	0.6%	3.0%	5.0%	5.1%	3.1%	2.6%	2.4%	2.0%	2.1%	2.2%	2.8%	3.7%
	L	4.7%	1.3%	0.2%	0.9%	0.4%	0.7%	0.7%	1.2%	2.8%

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Any user of these forecasts is strongly advised to use the forecast range (low-growth to high-growth) as an indicator of risk. These are discussed in Section 6.

The EUROCONTROL 7-year forecast will be next updated in February 2018.

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Network Manager

**EUROCONTROL SEVEN-YEAR FORECAST
SEPTEMBER 2017****DOCUMENT APPROVAL**

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**EUROCONTROL SEVEN-YEAR FORECAST
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1 INTRODUCTION

1.1 CONTEXT

This document presents an update of the 7-year forecast published by EUROCONTROL in February this year (Ref. 1). This forecast update is produced every year, in particular to allow the capacity-planning process to use the most up-to-date information. To achieve this, the EUROCONTROL Statistics and Forecast Service (STATFOR) refreshes mid-year the main inputs to the forecast.

The forecast describes the annual number of IFR flight movements, annual number of total en-route service units and annual number of terminal navigation service units up to 2023.

For this update, three sets of the inputs have been revised: the assumptions on economic growth have been updated using economic forecasts available mid-August; the traffic (IFR movements and service units) baseline has been re-aligned to take into account annual traffic to the end of August; the adjustments and assumptions have been refreshed to better reflect the effects of the different traffic disruptions. For all other inputs and assumptions, see the description in Section 3 of Ref. 1.

The forecast method is similar to the one used in the EUROCONTROL 7-year forecast published in February 2017. An overview of the forecast method is given in the Section 1.2.

This document contains a presentation of the latest traffic trends (Section 2), a presentation of the forecast inputs and assumptions (Section 3). The flights (Section 4) and Service Units (Section 5) forecasts to 2023 are then discussed. Section 6 indicates the main risks surrounding the forecast. A presentation of the geographical definitions can be found in Annex 1. Forecast details for Europe as a whole are presented in Annex 2. Annual total forecasts per States for IFR flights, en-route service units and terminal navigation service units can be found in Annex 3 to Annex 9. The IFR flights forecasts per State (with details per flows) are provided via the STATFOR Interactive Dashboard (Ref. 2).

The next 7-year outlook, covering 2018 to 2024 period, will be published in February 2018.

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1.2 FORECAST METHOD

For the new forecast process introduced in 2014, we have produced a completely revised set of documentation on the forecast methods (Ref. 3). 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 and refreshed in September. 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:

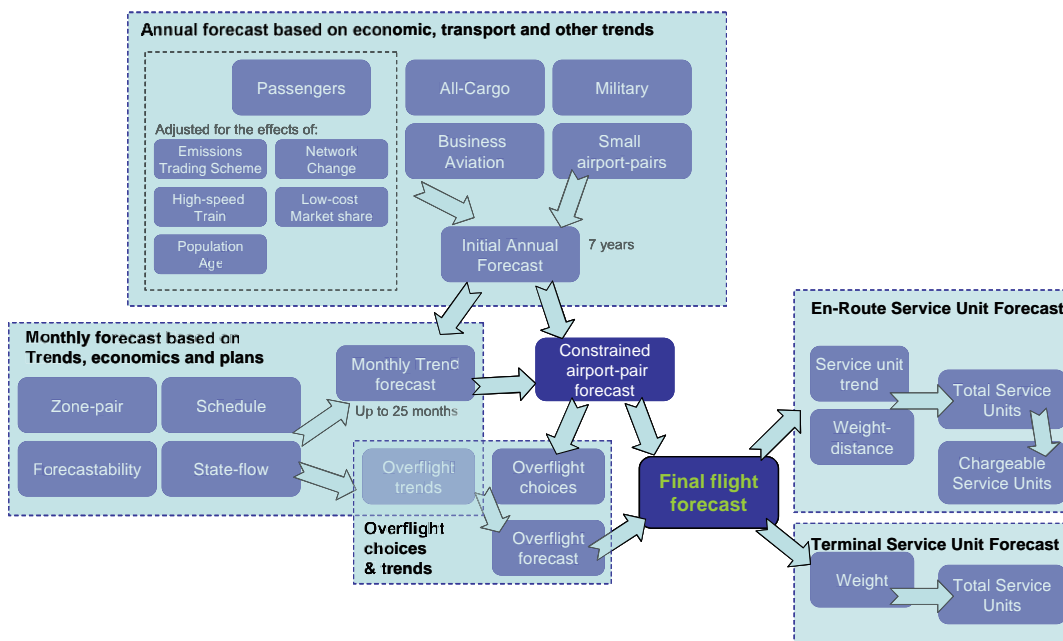
- **Economic growth** forecasts obtained from external specialists, and which in recent years have been very variable; growth has slowed, but there is nothing in our data to show that flight growth has decoupled from economic growth;
- **Regulation**, e.g., rules on visas, open skies, airport funding, aviation taxes;
- **Overflight** patterns since, for the majority of States, most of their flights are overflights. A crisis such as that in Ukraine 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.

Overall, the components of the forecast can be grouped into five elements as in Figure 4.

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- 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.

Figure 4. The components of the STATFOR seven-year forecast.



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.

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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:

- Since the February 2014 forecast, the key relationships with economic growth, including introducing more specific country-pair flow relationships where these make statistical sense. This re-calibration process is described in Ref. 4.
- Since the February 2015 forecast, the key relationships with high-speed train growth. This re-calibration process is described in Ref. 5.
- Since the February 2016 forecast, we have switched to reporting based on the whole of the ECAC region in place of the smaller 'ESRA08'. So 'Europe' in this report refers to the total of all ECAC member States. For more details see Annex 1.
- Since the September 2016 forecast, we have re-calibrated our seats-to-flights models to take into account the trend to put more thinner seats into aircraft.

2 FLIGHT & SERVICE UNITS TRENDS IN 2017

Traffic levels for the year to date (January-August) in Europe recorded peak values finally surpassing the 2008 previous record high.

Since the beginning of 2017 average daily flights in Europe (ECAC area) remained 4.5% above the 2016 traffic levels (compared with January to August 2016). Growth in the summer months (May to August) was particularly strong and averaged at around 5%.

The continued improvement of Eurozone economic indicators along with relatively low oil prices since the beginning of the year benefited to all market segments. The low-cost segment remained the main driver of growth with contributing to half of the additional flights. The all-cargo segment had the fastest growth rate and surged to 8.9% owing primarily to the increase of flows within Europe.

Turkey, severely affected by political unrest and terrorist attacks throughout 2016, has resumed adding flights to the network since June.

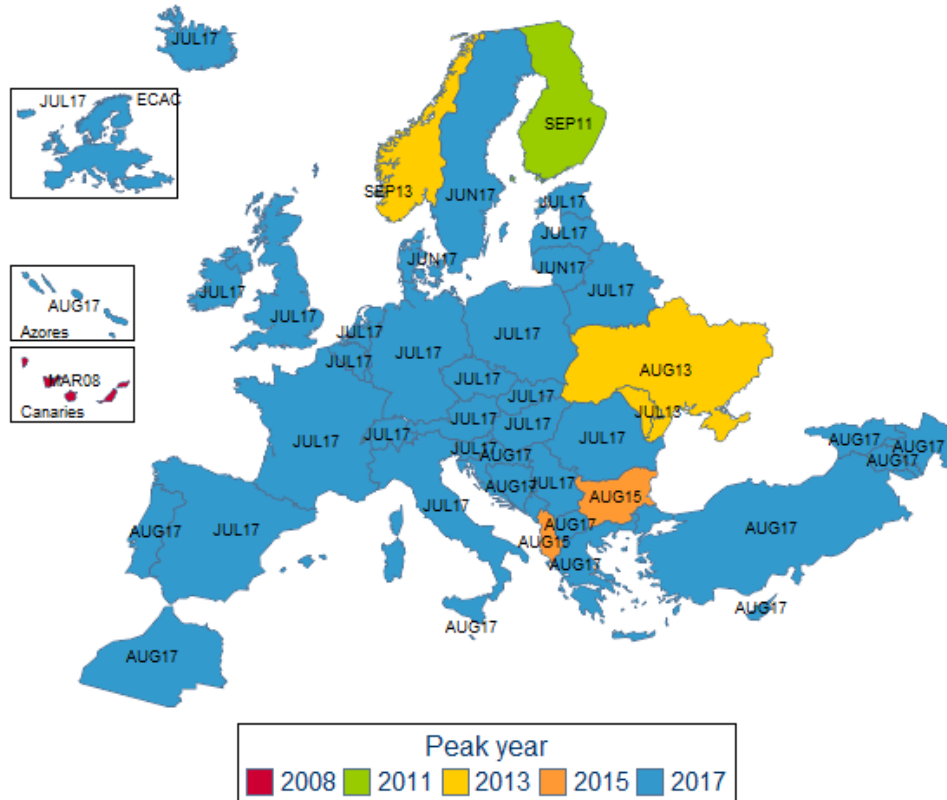
Outside Europe, adverse travel advice to North-Africa was alleviated and led to promising signs of recovery of European flows to Egypt and to Tunisia. Flows between the Russian Federation and Europe have increased, namely due to the resumption of flights with Turkey when the ban on charter flights was no longer in force.

2.1 IFR MOVEMENTS

Since the beginning of 2017 (January-August), European traffic remained on average 4.5% above the 2016 traffic levels. Such rate of growth has not been seen since 2011. Average daily flights for the period reached 29,264 and exceeded January-August 2008 numbers by 2.6%. A vast majority of the States surpassed their peak traffic in July 2017 as shown in Figure 5.

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Figure 5. Most of the States recorded their peak traffic levels in summer 2017 (all traffic flows).



The average growth rates of February² (3%) and April (3.3%, Easter effect) were the weakest months over the January-August period. During the first quarter of 2017, the average growth rate reached 4.4%.

Growth in the summer months (May-August) was particularly strong and averaged at 4.9% compared with May-August 2016. The months of July and August both hit the record number of more than one million flights in Europe (ECAC).

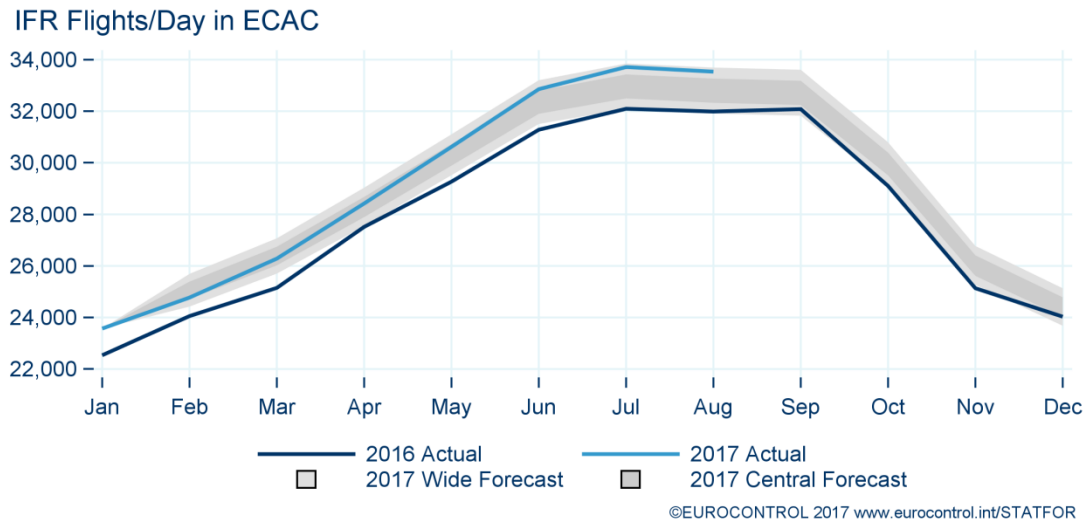
As shown in Figure 6, the actual IFR flight traffic for 2017 was in line with the February 2017 forecast until May and grew at or even faster than the high-growth forecast from June onwards.

All market segments contributed to this growth, helped by relatively low oil prices and healthy Eurozone economic indicators.

² Like-for-like comparison.

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Figure 6. Summer 2017 (May to August) growth rate was 4.9% above summer 2016 and faster or at the high-growth forecast.



2.1.1 BIGGEST CHANGES IN SUMMER 2017

Figure 7 shows the top 15 busiest flows over Summer 2017 (May to August) with growth vs summer 2016.

Strong growth was recorded on flows between north- and south-west Europe, especially on flows to/from Spain, Italy, Portugal³, as well as Greece.

Flows from/to North-Atlantic have also contributed to strong growth over Iceland and the UK. The jet stream led to more northerly routings than in a year ago.

Dynamic internal flow in Italy owing primarily to all-cargo flights which increased by 63%, low-cost flights were up 10.6% and business aviation flights grew 7.8%. With 930 flights per day (+4%), Italy's internal flow was the busiest in Europe during the summer (vs. summer 2016).

On the other hand, flows between north-west and Turkey declined⁴.

³ Flows between UK and Spain (874 flights/day, +9%), Germany and Spain (552 flights/day, +4%), UK and Italy (390 flights/day, +7%), UK and Greece (217 flights/day, +8%), UK and Portugal (203 flights/day, +13%), Germany and Greece (199 flights/day, +13%), Germany and Portugal (108 flights/day, +17%).

⁴ Flows between Germany and Turkey (-8%).

EUROCONTROL SEVEN-YEAR FORECAST SEPTEMBER 2017

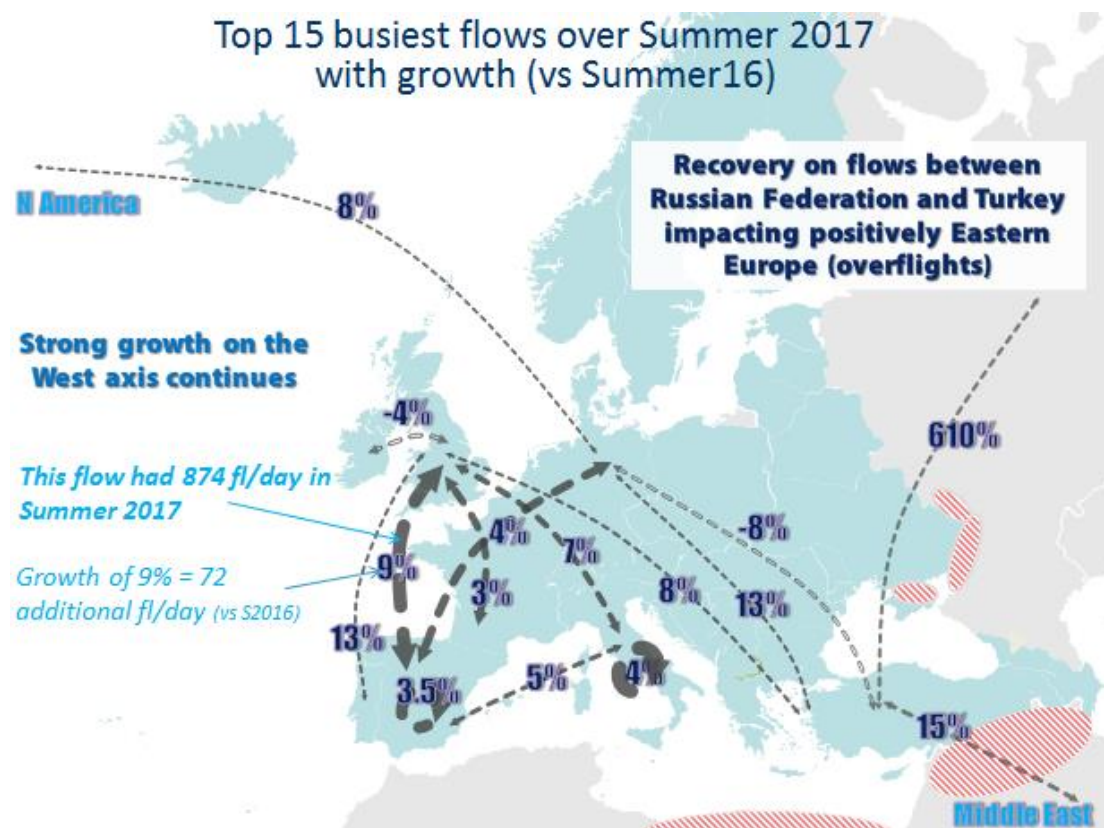
Recovery of traffic between Europe (namely Turkey) and the Russian Federation

The most noticeable change was the recovery of traffic between Turkey and the Russian Federation which increased by 610% over the summer owing mostly to the resumption of charter flights (127 flights/day). Overall, there was a 32% increase on flows between Europe and the Russian Federation during the summer (vs. summer 2016).

Recovery of traffic in Eastern European states

States like Armenia, Moldova, FYROM and Ukraine, which recorded huge declines in traffic in 2016 following the traffic decrease between the Russian Federation to Turkey and Egypt, posted record growth in their overflight flow. The recovery of traffic between western Europe and the Russian Federation also had a positive impact on overflights of Central European states. Some changes in routing were observed over the Adriatic States due to the implementation of free-route airspace operations introduced at the end of 2016.

Figure 7. Top 15 busiest flows over Summer 2017 with growth (vs. summer 2016) (Schematic routing shown).

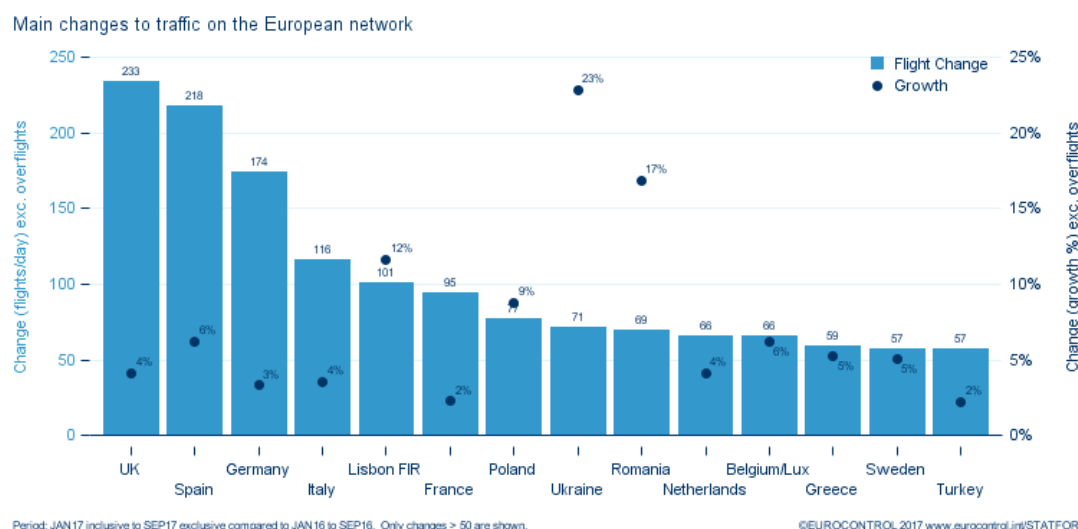


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2.1.2 NETWORK CONTRIBUTORS

Figure 8 shows the main contributors to the local traffic growth (arrivals and departures, excluding overflights) for January to August 2017 (vs. January to August 2016).

Figure 8. In 2017 (January-August) most of the States have added traffic to the network (vs. same period in 2016) with Turkey back as a contributor to traffic.



The top three contributors to the network's local traffic growth (excluding overflights) were the United Kingdom (+233 daily flights), Spain (+218 daily flights) and Germany (+174 daily flights) thanks to strong growth within Western Europe.

Italy added 116 daily flights thanks to its flow to/from north-west Europe (UK, Germany, the Netherlands and Belgium/Luxembourg: +42 flights/day). Portugal (excluding Azores) added 111 daily flights and saw its international arrivals/departures and internal flows increasing by 12% thanks to traffic to/from north-west Europe (UK, Germany, Switzerland, France, the Netherlands: +50 flights/day).

Ukraine's local traffic was up 23% thanks to flow to/from Egypt and Turkey contributing to 22 extra daily flights and its Eastern European flow which added 21 daily flights to the network. A dynamic internal flow in Romania which added 14 daily flights along with a strong Western European flow (mainly to/from UK and Germany) which added 35 daily flights led to a 17% growth of the state's local traffic.

Flows to/from Turkey which have been in decline since April 2016 returned to the positive in April 2017 partly due to the recovery of flights to/from the Russian Federation (+143 flights/day, up 840%) while flows between Turkey and Europe remained weak, down 9% compared with January to August 2016.

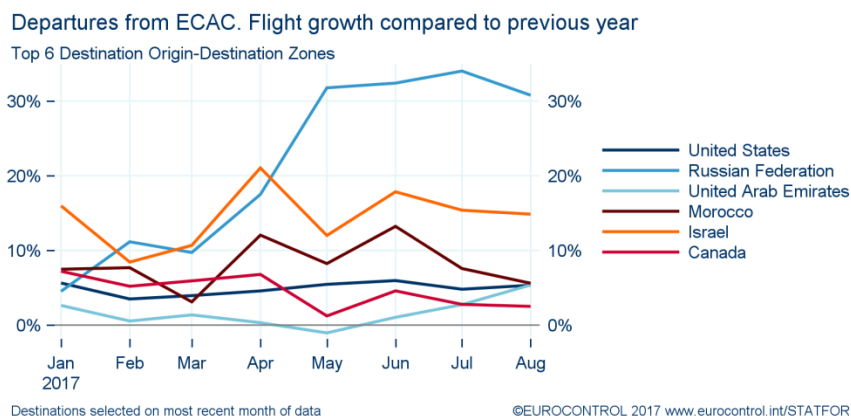
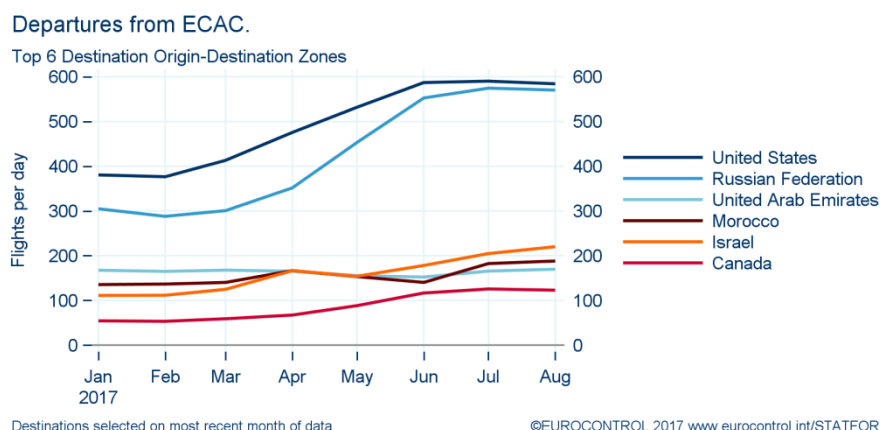
EUROCONTROL SEVEN-YEAR FORECAST SEPTEMBER 2017

Though not shown on Figure 8, two states recorded fewer flights during the period January to August 2017 (vs. same period last year) and these were Norway (-27 daily flights) owing to its weak internal flow and Denmark (-14 daily flights) owing to a weak international arrivals/departures flow to north-west Europe (Germany, UK, Sweden, Norway, the Netherlands: -24 flights/day).

2.1.3 EXTRA-EUROPEAN PARTNERS

As shown on the left hand side of Figure 9, the United States remained the main external partner with 494 departures per day on average, an increase of 4.7% during the January-August period compared with the same period in 2016. This flow represented 18% of all departures from Europe to states outside Europe. The Russian Federation was next with 426 departures per day and recorded the best progression with an increase of 23% on the same period in 2016. However, the levels of traffic in July 2017 in Russia were not yet back to the record levels of June 2014 (still ~14% below).

Figure 9. The United States was still the non-European destination adding the most flights in Jan-Aug 2017 with the Russian Federation coming closer from June onwards.



With 164 daily flights on average and a small increase of 1.2% on January-August 2016, the United Arab Emirates were the third external partner.

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Flows between Morocco and Europe have been recovering since November 2016 and increased by 7.6% to 156 daily departures on average during the period January-August 2017. France remained Morocco's main European partner followed by Spain, Belgium/Luxembourg and Italy.

Israel was the fifth extra European partner with 159 average daily departures, an increase of 15% on 2016 (January-August) with Eastern European states (Cyprus, Greece, Turkey, Poland, Romania, Serbia & Montenegro and Ukraine) adding the most flights to the flow.

Turning to flows between Europe and North-African states (Tunisia and Egypt) that were impacted by security concerns affecting tourism last year, improvements were observed as follows in 2017 (January-August):

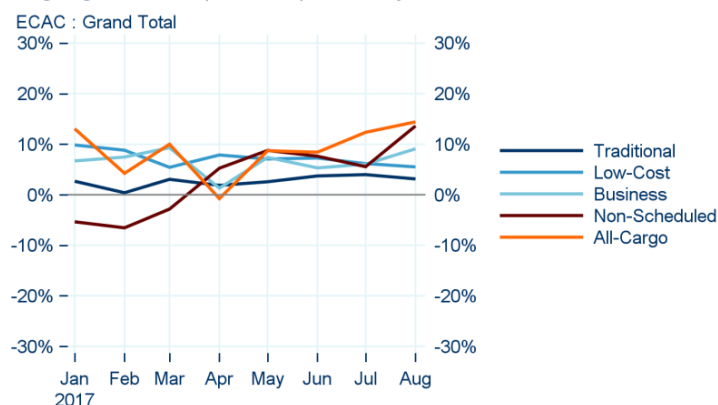
- Tunisian flows have been recovering since September 2016 and increased by 12% to 64 daily departures on average in 2017. France, Germany, Belgium/Luxembourg, Czech Republic and Italy added the most flights to the flow.
- Egyptian flows have been recovering since January 2017 and increased by 37% to 92 daily departures on average. Germany, Ukraine, Italy, Poland and Czech Republic added the most flights to the flow.

2.1.4 AIRLINE-INDUSTRY

Figure 10 shows the traffic development per market segment. The sustained traffic growth rates throughout the year (January-August) had a positive effect on all market segments (Figure 10). The low-cost segment remained the main driver of growth as it added 595 flights per day on average and recorded a 7.1% growth rate.

Figure 10. The low-cost segment remained the main driver of flight growth in 2017 (Jan-Aug) but the All-Cargo segment had the fastest growth since May.

Flight growth compared to previous year



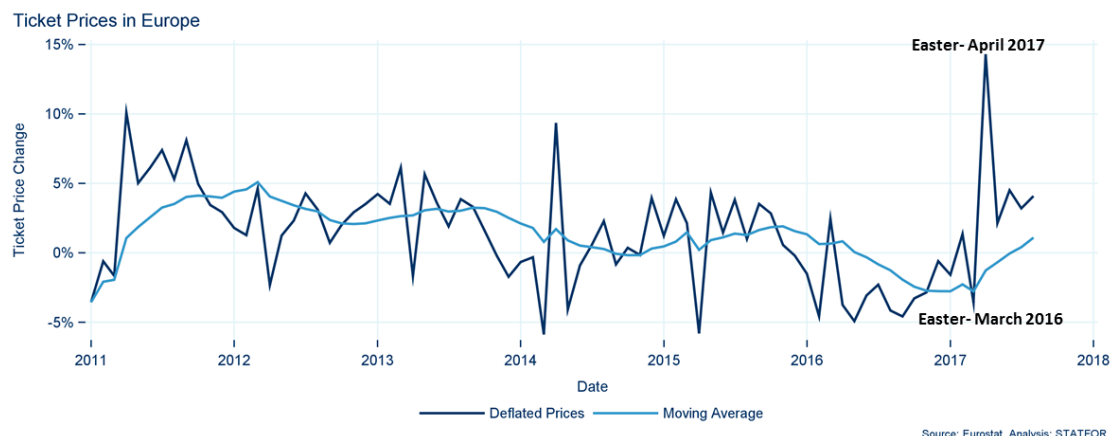
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The all-cargo segment recorded the fastest growth rate and jumped to an overall 8.9% growth owing to a 10.4% increase of flows within Europe. The business aviation segment posted an average growth rate of 6.5%. The charter segment surged to a 5.3% growth rate, boosted by the recovery of flows mainly between Turkey and the Russian Federation (affected by the Russian ban on charter flights until August last year) and to a lesser extent to flows between Europe (mainly Ukraine) and Egypt. Finally, the traditional scheduled segment grew steadily at a rate of 2.7% in 2017 (January-August) compared with the same period last year. Traditional carriers as part of their restructuring process were still involved in transferring short-haul flights to their low-cost subsidiary (e.g. Lufthansa to Eurowings).

Compared with the period January to August 2016, airline ticket prices in Europe were on average 3.1% more expensive in 2017. The trough in March (-3.6%) and peak in April (+14.3%) were the result of the Easter shift (Figure 11).

Figure 11. In 2017 (January-August), the trend in ticket price changes (air travel) in Europe increased by 3.1% compared with the year before, on a 12-month trailing average. Note that, on this graph, ticket prices are deflated by overall consumer prices



As Figure 12 shows, oil prices were €44 per barrel in August 2016. In 2017 (January-August) oil prices fluctuated from €51 per barrel during the first quarter of 2017 down to €47 per barrel during the second quarter and reached their lowest in July and August at €43 per barrel on average. For 2017, IATA forecasts an average oil price of €48 per barrel.

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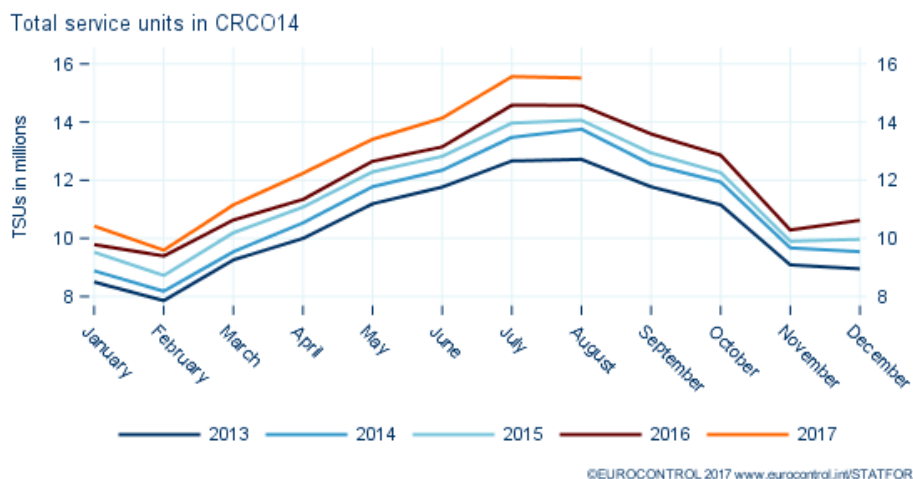
Figure 12. In 2017 (January-August), oil prices averaged out at €48 per barrel from €41 for 2016 as a whole.



2.2 EN-ROUTE SERVICE UNITS

Following the particular strong growth of the flights throughout Europe during the summer months, the total en-route service units (TSU) for the CRCO14 region increased by 6.2% over the January to August period from 96.1 million in 2016 period to 102 million this year. Such an increase is above the high-growth scenario (+5.5% expected for 2017) published in the February 2017 forecast (Ref. 1) and over the high-growth scenario (5.8% expected for 2017) forecasted in May 2017 (Ref.6).

Figure 13. Evolution of total service units recorded in CRCO14 area from January 2013 to August 2017.



The TSU growth was particularly strong in western Europe thanks to the strength of the exchanges between north-west and south-west Europe. As mentioned in Section 2.1.2, UK, Spain, Germany, Portugal and France have been amongst the main contributors to the network growth in terms of flights. Similarly, over the January to

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August 2017 period, UK and Portugal (Lisbon FIR) recorded each a growth above 9% in TSU. Spain, Germany and France respectively recorded TSU growth of 6.7%, 6.2% and 5.4% (compared to the January to August 2016 period). In the UK and Germany in particular, the high TSU growth rate, greater than that of the flights, can be associated with simultaneous increase of the average distance flown (overflights) because of changes in the flow patterns. Indeed, in the UK, the transatlantic flights were, over the last months, flying more 'north-about' trajectories than in the past. This pattern in the transatlantic flows has, on the other hand, negatively affected Ireland whose TSU remained stable during the first eight months of 2017 compared to the same period in 2016.

In eastern Europe, TSU growth was also stronger than expected in the February 2017 forecast following the recovery of the flights between the Russian Federation and Europe (namely Turkey), and owing to a recovery of traffic towards Egypt. As a result, TSU growth for Ukraine is currently above the high scenario of the February forecast recording a TSU growth of +26.2% for the first eight months of the year (vs 2016). The strong flight growth generated by the recovery of traffic between the Russian Federation and Turkey also boosted TSU growth for Armenia where record growth figures have been observed since the beginning of 2017 (+77.7%). Such a growth is also a counter-effect of the huge decline in Armenian overflights of April 2016 due to losses on flows between the Middle-East and the Russian Federation as some Middle-East carriers had briefly shifted their routes eastwards through Azerbaijan⁵. In particular, April 2017 saw a TSU growth of +182.7% compared to April 2016 and May and June 2017 TSU growth were over +100% compared to the same months in 2016.

In south-east Europe, both flights and TSU recorded sustained growth rates thanks to:

- a strong demand from/to north-west Europe, and;
- the implementation of free-route airspace (FRA) operations in the south-east axis region (SEAFRA and SAXFRA) introduced at the end of 2016.

As a result, TSU growth rate increased by +8.7% in Greece, +12.3% in Cyprus and the TSU growth for Slovenia, Bosnia-Herzegovina, Serbia, and FYROM grew respectively by +5.5%, +17.5%, +5.1% and +21.1% since the beginning of the year (compared to the same period in 2016).

That being said, these TSU growth rates did not always mimic those of the flights as changes of the routing patterns in the region associated to the FRA implementation also modified the average distance flown and sometimes of the weights of overflights in the concerned countries. Croatia is an extreme example of this, recording a TSU

⁵ Due to tensions in the Nagorno-Karabakh region.

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decline of 1% despite a 7.9% increase of its total flights. Indeed, the change in routings resulted in a reduction of the average distance flown (-5.2%) as flights flew more eastern trajectories, clipping the country on a shorter route. More generally, flights opted for more eastern routes, thus less along the Adriatic coast. Albania consequently saw its TSU declining by 0.3%.

3 FORECAST INPUTS AND ASSUMPTIONS

The forecast is driven by past trends and by scenario assumptions for the future. Since the previous forecast published in February 2017, the economic forecast remained mainly unchanged at European and at State level. Moreover, the Foreign Offices have changed their travel advices for this summer leading to promising signs of recovery of European flows to Egypt, Tunisia and Turkey. The airspace unavailability over Ukraine, Libya, and Near-East are still generating changes in routings in Eastern Europe. Lacking any indication of when there might be a re-opening of these airspaces, we assumed that the current routing patterns will be used until the end of the forecast (2023).

The forecast is derived from historical traffic data and a set of scenario assumptions. All the input assumptions made in the February forecast (e.g., load factors evolution, demographics, high-speed rail network development etc, see Ref. 1) have been reused, except for the economic growth forecast, airport information and the specific events and traffic trends. Sections 3.1, 3.2 and 3.3 describe how they influence the forecast.

As usual, there are three scenarios presented in this forecast. The “Base” scenario represents the most-likely development of the traffic and is an intermediate point between a “Low” scenario (weak growth) and a “High” scenario (strong growth).

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 forecasts of April 2017 and July 2017 have been used respectively for Germany and Ireland. All other States or region GDP forecast data in this report originate from the August 2017 update of the OE forecast. The high- and low-growth scenarios are based on fixed offsets⁶ from these forecasts.

3.1.1 ECONOMIC FORECAST FOR EUROPE

Figure 14 illustrates how the recent economic forecast for EU countries (indicated as MTF17b) has changed since the preparation of the February flight forecast (indicated as MTF17).

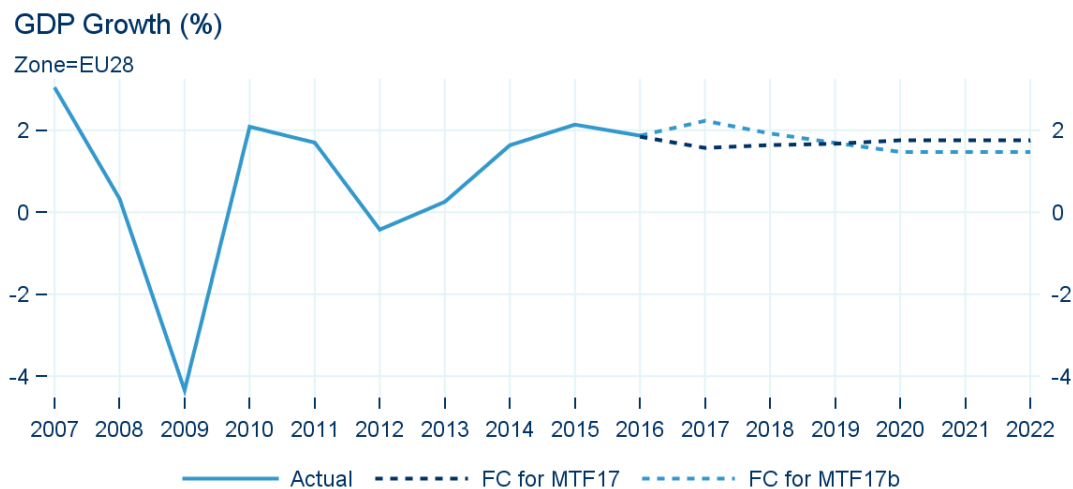
⁶ +1%, -1% for early years and big States, +1.5%, -1.5% for early years and small States, +0.5%, -0.5% for late years and big States, +0.8%, -0.8% for late years and small States.

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The European (EU28) economy has entered its fifth year of recovery, which is now reaching all EU Member States. The Eurozone has emerged as a bright spot in global growth this year with GDP (above 2%) expanding slightly higher than had been expected in previous forecast (MTF17). This is expected to continue next year.

The uncertainty surrounding the economic outlook remains high. Overall, risks have slightly increased explaining the downward revision of the forecast as of 2020. External risks are linked, for instance, to future US economic and trade policy and broader geopolitical tensions. China's economic adjustment, the health of the banking sector in Europe, the upcoming negotiations with the UK on the country's exit from the EU, and the impact of the political crisis in Spain after the disputed Catalan vote for independence are also considered as possible downside risks in the forecast.

Figure 14. EU GDP growth forecast has been revised upwards across the 2017-2018 horizon and then downwards as of 2020 since the OE January 2017 update used in MTF17.



3.1.2 DETAILS PER STATE

The GDP forecasts are shown for all forecasted states and groupings in Figure 15 as well as for certain non-European states in Figure 16. For all other States, the economic growth of the traffic region is used and shown in Figure 17.

Figure 15. GDP Growth by Traffic Zone.

Source: 2005-2023 from Oxford Economics Ltd (Aug 2017); Forecast of Irish (July 2017) / German (April 2017) Governments

Comments: Real GDP Growth in Euro. Units: Growth per year. Data last updated: 28/08/2017

	Actual			Base						
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Albania	1.8%	2.6%	3.5%	3.7%	4.1%	4.1%	4.1%	4.1%	4.1%	4.1%
Armenia	3.6%	3.0%	-6.0%	4.3%	3.0%	3.5%	4.3%	4.3%	4.3%	4.3%
Austria	0.8%	0.8%	1.6%	2.7%	2.1%	1.7%	1.2%	1.2%	1.2%	1.2%

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	Actual			Base						
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Azerbaijan	2.7%	1.1%	-2.4%	1.5%	2.6%	2.9%	3.4%	3.4%	3.4%	3.4%
Belarus	4.1%	-3.8%	-2.8%	0.8%	1.2%	1.5%	2.2%	2.2%	2.2%	2.2%
Belgium/Luxembourg	1.6%	1.5%	1.2%	1.7%	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%
Bosnia-Herzegovina	1.1%	3.2%	2.9%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Bulgaria	1.5%	3.6%	3.4%	3.3%	2.2%	2.0%	2.1%	2.1%	2.1%	2.1%
Canary Islands	1.4%	3.2%	3.2%	3.2%	2.7%	2.4%	1.5%	1.5%	1.5%	1.5%
Croatia	-0.5%	2.2%	2.7%	2.7%	2.0%	2.0%	1.8%	1.8%	1.8%	1.8%
Cyprus	-1.5%	1.7%	2.8%	2.7%	2.3%	2.2%	1.8%	1.8%	1.8%	1.8%
Czech Republic	2.7%	5.4%	2.5%	3.5%	2.9%	2.5%	2.0%	2.0%	2.0%	2.0%
Denmark	1.7%	1.6%	1.7%	2.1%	1.8%	1.8%	1.6%	1.6%	1.6%	1.6%
Estonia	2.8%	1.4%	1.7%	3.1%	3.7%	4.0%	3.8%	3.8%	3.8%	3.8%
FYROM	3.6%	3.8%	2.4%	3.0%	3.7%	3.3%	2.9%	2.9%	2.9%	2.9%
Finland	-0.6%	-0.0%	1.9%	2.5%	1.9%	1.7%	1.5%	1.5%	1.5%	1.5%
France	1.0%	1.0%	1.1%	1.8%	1.8%	1.6%	1.3%	1.3%	1.3%	1.3%
Georgia	4.2%	2.9%	2.7%	3.7%	5.0%	5.1%	4.4%	4.4%	4.4%	4.4%
Germany	1.6%	1.5%	1.9%	1.5%	1.6%	1.4%	1.4%	1.4%	1.4%	1.4%
Greece	0.4%	-0.3%	-0.0%	0.9%	2.1%	2.1%	2.5%	2.5%	2.5%	2.5%
Hungary	3.9%	3.1%	1.9%	3.7%	3.0%	1.9%	1.5%	1.5%	1.5%	1.5%
Iceland	1.9%	4.1%	7.2%	5.1%	3.9%	3.0%	2.6%	2.6%	2.6%	2.6%
Ireland	8.3%	26%	5.2%	4.3%	3.7%	3.1%	2.7%	2.5%	2.5%	2.5%
Italy	0.2%	0.7%	1.0%	1.3%	1.0%	1.0%	0.9%	0.9%	0.9%	0.9%
Latvia	2.1%	2.7%	2.0%	3.4%	3.3%	3.2%	2.9%	2.9%	2.9%	2.9%
Lisbon FIR	0.9%	1.6%	1.4%	2.9%	2.2%	1.6%	1.0%	1.0%	1.0%	1.0%
Lithuania	3.5%	1.8%	2.3%	3.5%	3.3%	3.3%	2.2%	2.2%	2.2%	2.2%
Malta	8.3%	7.3%	5.0%	3.6%	3.0%	2.6%	2.1%	2.1%	2.1%	2.1%
Moldova	4.8%	-0.2%	4.1%	4.3%	3.7%	3.7%	3.8%	3.8%	3.8%	3.8%
Morocco	2.6%	4.5%	1.2%	4.0%	3.9%	4.1%	4.0%	4.0%	4.0%	4.0%
Netherlands	1.4%	2.3%	2.1%	2.2%	1.9%	1.4%	1.1%	1.1%	1.1%	1.1%
Norway	1.9%	1.6%	1.0%	1.1%	1.4%	2.0%	1.7%	1.7%	1.7%	1.7%
Poland	3.2%	3.9%	2.7%	3.9%	3.2%	3.4%	2.5%	2.5%	2.5%	2.5%
Romania	3.2%	4.0%	4.8%	4.8%	2.0%	1.7%	1.6%	1.6%	1.6%	1.6%
Santa Maria FIR	0.9%	1.6%	1.4%	2.9%	2.2%	1.6%	1.0%	1.0%	1.0%	1.0%
Serbia&Montenegro	-1.8%	0.8%	2.8%	2.8%	2.9%	3.0%	3.0%	3.0%	3.0%	3.0%
Slovakia	2.6%	3.8%	3.3%	3.0%	2.9%	2.8%	2.2%	2.2%	2.2%	2.2%
Slovenia	2.9%	2.0%	2.7%	3.9%	2.5%	2.8%	2.8%	2.8%	2.8%	2.8%
Spain	1.4%	3.2%	3.2%	3.2%	2.7%	2.4%	1.5%	1.5%	1.5%	1.5%
Sweden	2.7%	3.8%	3.0%	3.5%	2.5%	1.8%	1.4%	1.4%	1.4%	1.4%
Switzerland	2.0%	0.8%	1.3%	1.5%	2.1%	1.8%	1.6%	1.6%	1.6%	1.6%
Turkey	5.2%	6.1%	2.9%	4.0%	3.5%	3.5%	3.1%	3.1%	3.1%	3.1%
UK	3.1%	2.2%	1.8%	1.7%	1.5%	1.6%	2.2%	2.2%	2.2%	2.2%
Ukraine	-6.6%	-9.8%	2.3%	2.1%	2.8%	3.0%	2.4%	2.4%	2.4%	2.4%
EU	1.6%	2.1%	1.9%	2.2%	1.9%	1.7%	1.5%	1.5%	1.5%	1.5%

Figure 16. GDP Growth by Origin-Destination Zone.

Source: 1993-2004 from STATFOR records. 2005 onwards from Oxford Economics Ltd, Aug17.

Comments: Real GDP Growth in Euro. Units: Growth per year. Data last updated: 28/08/2017

	Actual			Base						
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Brazil	0.5%	-3.8%	-3.6%	0.4%	2.2%	3.2%	2.6%	2.6%	2.6%	2.6%
China	7.3%	6.9%	6.7%	6.8%	6.2%	5.8%	5.2%	5.2%	5.2%	5.2%
India	7.0%	7.5%	7.9%	6.9%	7.4%	7.1%	6.4%	6.4%	6.4%	6.4%
Israel	3.2%	2.6%	4.0%	3.5%	3.7%	3.9%	3.9%	3.9%	3.9%	3.9%
South Africa	1.7%	1.3%	0.3%	0.5%	1.4%	1.7%	2.5%	2.5%	2.5%	2.5%

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Figure 17. GDP Growth by Traffic Region.

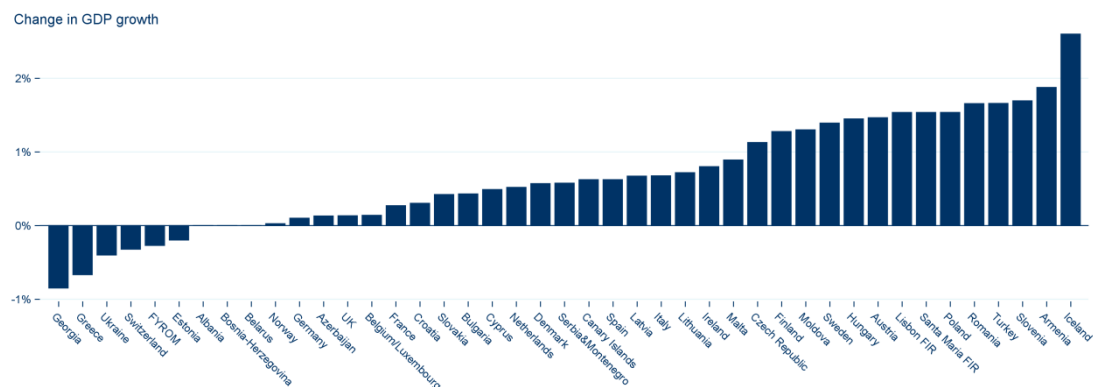
Source: 2005 onwards updated from Oxford Economics Ltf, Aug17

Comments: Real GDP Growth. Units: Growth per year. Data last updated: 28/08/2017

	Actual			Base						
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Asia/Pacific	1.8%	1.9%	2.0%	2.4%	2.3%	2.2%	2.0%	2.0%	2.0%	2.0%
ESRA East	2.8%	3.8%	2.9%	3.7%	2.9%	2.8%	2.2%	2.2%	2.2%	2.2%
ESRA Mediterranean	1.5%	2.5%	2.0%	2.4%	2.1%	2.0%	1.7%	1.7%	1.7%	1.7%
ESRA North-West	2.0%	2.1%	1.8%	2.1%	1.9%	1.6%	1.5%	1.5%	1.5%	1.5%
Mid-Atlantic	2.3%	2.9%	2.1%	2.4%	2.4%	2.5%	2.5%	2.5%	2.5%	2.5%
Middle-East	1.9%	0.9%	3.9%	1.3%	3.0%	3.8%	3.8%	3.8%	3.8%	3.8%
North Atlantic	2.6%	2.7%	1.5%	2.1%	2.3%	1.8%	1.5%	1.5%	1.5%	1.5%
North-Africa	-2.9%	1.2%	2.6%	10%	5.7%	2.9%	4.1%	4.1%	4.1%	4.1%
Other Europe	1.2%	-2.2%	-0.2%	1.6%	1.6%	1.5%	1.6%	1.6%	1.6%	1.6%
South-Atlantic	-0.2%	1.4%	-1.2%	1.0%	3.0%	3.6%	3.1%	3.1%	3.1%	3.1%
Southern Africa	6.2%	4.3%	1.7%	3.2%	4.1%	4.6%	5.1%	5.1%	5.1%	5.1%

Figure 18 shows a state-by-state comparison of the change in GDP growth between the current and the previous forecast for 2017.

Figure 18. GDP growth change per State in 2017 between this forecast (MTF17b) and the previous one (MTF17).



The economic growth in Iceland in 2017 has been revised upwards thanks to strong tourism activity and domestic demand. The economic recovery observed in the Eurasian Development Bank (EDB) member states in the first half of 2017 has also triggered a positive revision of the 2017 GDP forecast. The GDP growth forecast for Russia has slightly moved upwards and more significant revision has been made for Armenia. Slovenia economic outlook remains on solid footing and continues to be one of the fastest growing countries in the Eurozone. The Turkish economy has recovered faster than expected from the shocks of 2016 thanks to numerous government measures.

On the other side, the economic growth in Georgia has been revised downward despite an improving external environment. The lower growth forecast of Greece

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reflects a six-month delay in achieving the latest bailout monitored by the EU and International Monetary Fund.

GDP multipliers or 'elasticities' convert economic growth into growth in passenger. The multipliers per traffic region pairs are the same as those used in the February 2017 forecast (Ref. 1).

Figure 19: GDP Multipliers per Traffic Region Pair

Source: STATFOR Analysis and modelling

Comments: MTF17b Inputs. See Doc499 for discussion.

Units: Multiplier (Elasticity). Data last updated: 16/01/2017

Note: Elasticity reduced by 1.1 for all domestic flights within States in Europe.

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

Figure 20: 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: 16/01/2017

	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 AIRPORTS

Since the opening date of the new Berlin/Brandenburg (EDDB) terminal and surrounding infrastructure is uncertain, and based on information provided by DFS, the forecast now implies no traffic shift from Berlin/Tegel to Brandenburg within the next seven years.

Also, the new (third) airport at Istanbul expected to be operational end of October 2018 has been modelled in this forecast as a progressive increase in the capacity of

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LTBA⁷ (Istanbul/Atatürk) until the end of the forecast horizon. We assumed that LTBA will continue to operate (lesser extent) after the third airport will open.

3.3 EVENTS AND TRENDS

The 'events and trends' assumptions consist of adjustments to arrival, departure, internal, overflight traffic (IFR movements). The assumptions are listed in Figure 21, where they are expressed as 'cumulative' change: so a 1.01 figure in the year 2017 only would mean increase growth by 1% in 2017 and decrease it in 2018 (with a total cumulative effect of 0 over the full period of the forecast).

The forecast has taken into account the following events falling into the 7-year horizon:

- Sport events: WORLDCUP 2018 and EURO 2020;
- Boost on north Atlantic flows (United States and Canada) to account for the new low-cost long-haul operations;
- Impact of the partnership between Thomas Cook Belgium and Brussels Airlines.

Some other adjustments have been made based on best information received from internal and external experts for the next 16 months.

3.3.1 SPORT EVENTS

WORLDCUP 2018 (Worldwide football cup) is going to be held in Russia from 14 June to 15 July 2018 with the final in Moscow. We derived an expected impact based on previous similar events.

EURO2020 (European football cup) is going 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 and is likely to have a small impact on traffic in those countries. We used the EURO2008 (co-organised by Austria and Switzerland) historical data to estimate the boost for the different countries. 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. The adjusted factor is too small to be noticed in Figure 21.

The WORLDCUP 2022 to be held in Qatar and the OLYMPICS 2020 to be held in Tokyo are not modelled due to their limited impact.

⁷ For technical reasons the additional capacity available from the 3rd airport is currently considered under LTBA.

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3.3.2 LOW-COST LONG-HAUL

To account for the expansion of low-cost airlines (Norwegian, WOW Air, ...) into long-haul routes, an assumption has been developed to increase the arrivals/departures on the north Atlantic flow until the end of the forecast period by 1pp.

3.3.3 PARTNERSHIP THOMAS COOK BELGIUM AND BRUSSELS AIRLINES

A new partnership between Thomas Cook Belgium and Brussels Airlines is likely to increase the frequency on some destinations already offered by Brussels Airlines but also to generate new long-distance flights to sunny destinations in North America, the Caribbean, Africa and Asia over the next three years.

Figure 21: Events and Trends assumptions by Traffic Zone⁸.

Source: STATFOR analysis and modelling Units: Growth index (Baseline Year=1.0). Data last updated: 25/09/2017

			2017	2018	2019	2020	2021	2022	2023
Austria	Total: Arr/Dep	H	1.001	1.001	1.001	1.001	1.001	1.001	1.001
		B	1.001	1.001	1.001	1.001	1.001	1.001	1.001
		L	1.001	1.001	1.001	1.001	1.001	1.001	1.001
Azerbaijan	Total: Arr/Dep	H	.	.	.	1.000	.	.	.
		B	.	.	.	1.000	.	.	.
		L	.	.	.	1.000	.	.	.
Belgium/Luxembourg	Total: Arr/Dep	H	1.003	1.005	1.005	1.006	1.005	1.005	1.005
		B	1.003	1.005	1.005	1.006	1.005	1.005	1.005
		L	1.003	1.005	1.005	1.006	1.005	1.005	1.005
Canada	Total: Arr/Dep	H	1.010	1.040	1.040	1.040	1.040	1.040	1.040
		B	1.007	1.027	1.027	1.027	1.027	1.027	1.027
		L	1.003	1.013	1.013	1.013	1.013	1.013	1.013
Canary Islands	Total: Arr/Dep	H	1.013	1.029	1.029	1.029	1.029	1.029	1.029
		B	1.013	1.029	1.029	1.029	1.029	1.029	1.029
		L	1.013	1.029	1.029	1.029	1.029	1.029	1.029
Croatia	Total: Arr/Dep	H	0.950	0.883	0.883	0.883	0.883	0.883	0.883
		B	0.950	0.883	0.883	0.883	0.883	0.883	0.883
		L	0.950	0.883	0.883	0.883	0.883	0.883	0.883
Denmark	Total: Arr/Dep	H	.	.	.	1.000	.	.	.
		B	.	.	.	1.000	.	.	.
		L	.	.	.	1.000	.	.	.
Finland	Total: Arr/Dep	H	1.001	1.002	1.002	1.002	1.002	1.002	1.002
		B	1.001	1.002	1.002	1.002	1.002	1.002	1.002
		L	1.001	1.002	1.002	1.002	1.002	1.002	1.002
France	Total: Arr/Dep	H	.	1.008	1.008	1.008	1.008	1.008	1.008
		B	.	1.008	1.008	1.008	1.008	1.008	1.008
		L	.	1.008	1.008	1.008	1.008	1.008	1.008
Germany	Total: Arr/Dep	H	.	1.010	1.010	1.010	1.010	1.010	1.010
		B	.	1.010	1.010	1.010	1.010	1.010	1.010
		L	.	1.010	1.010	1.010	1.010	1.010	1.010

⁸ Values 1.000 hide adjustments significant for one or two months, but not at an annual level.

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			2017	2018	2019	2020	2021	2022	2023
Greece	Total: Arr/Dep	H	0.955	0.883	0.883	0.883	0.883	0.883	0.883
		B	0.955	0.883	0.883	0.883	0.883	0.883	0.883
		L	0.955	0.883	0.883	0.883	0.883	0.883	0.883
Hungary	Total: Arr/Dep	H	.	.	.	1.000	.	.	.
		B	.	.	.	1.000	.	.	.
		L	.	.	.	1.000	.	.	.
Ireland	Total: Arr/Dep	H	.	.	.	1.000	.	.	.
		B	.	.	.	1.000	.	.	.
		L	.	.	.	1.000	.	.	.
Italy	Total: Arr/Dep	H	.	.	.	1.000	.	.	.
		B	.	.	.	1.000	.	.	.
		L	.	.	.	1.000	.	.	.
K Region	Total: Arr/Dep	H	1.010	1.040	1.040	1.040	1.040	1.040	1.040
		B	1.007	1.027	1.027	1.027	1.027	1.027	1.027
		L	1.003	1.013	1.013	1.013	1.013	1.013	1.013
Netherlands	Total: Arr/Dep	H	.	.	.	1.000	.	.	.
		B	.	.	.	1.000	.	.	.
		L	.	.	.	1.000	.	.	.
Romania	Total: Arr/Dep	H	.	.	.	1.000	.	.	.
		B	.	.	.	1.000	.	.	.
		L	.	.	.	1.000	.	.	.
Russian Federation	Total: Arr/Dep	H	.	1.001	.	.	.	.	.
		B	.	1.001	.	.	.	.	.
		L	.	1.002	.	.	.	.	.
Spain	Total: Arr/Dep	H	1.003	1.018	1.018	1.018	1.018	1.018	1.018
		B	1.003	1.018	1.018	1.018	1.018	1.018	1.018
		L	1.003	1.018	1.018	1.018	1.018	1.018	1.018
Sweden	Total: Arr/Dep	H	1.002	1.002	1.002	1.002	1.002	1.002	1.002
		B	1.002	1.002	1.002	1.002	1.002	1.002	1.002
		L	1.002	1.002	1.002	1.002	1.002	1.002	1.002
Turkey	Total: Arr/Dep	H	0.990	1.008	1.008	1.008	1.008	1.008	1.008
		B	0.990	1.008	1.008	1.008	1.008	1.008	1.008
		L	0.990	1.008	1.008	1.008	1.008	1.008	1.008
UK	Total: Arr/Dep	H	.	1.004	1.004	1.005	1.004	1.004	1.004
		B	.	1.004	1.004	1.005	1.004	1.004	1.004
		L	.	1.004	1.004	1.004	1.004	1.004	1.004

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4 GROWTH IN IFR FLIGHTS TO 2023

The first year (2017) of the forecast expects a growth in traffic with 4.5% (± 0.4 pp), an upward revision on previous forecast owing to the recent trends of sustained growth of traffic in western Europe and a stronger than expected recovery of traffic from/to Russian Federation. The same travelling patterns as in 2016 are foreseen in Europe. For 2018, a growth of 2.8% is expected, ranging from 1% to 4.6%, covering the uncertainty surrounding the forecast (eg. recent airline failures and capacity cuts represent a downside risk).

From 2019 onwards, European flight growth is expected to be at around 1.7% per year over the 2019-2023 period. The extra traffic growth in Europe in 2020 is due to the extra growth from the leap year effect. The forecast is for 12 million IFR flight movements (± 1.2 million) in Europe in 2023, 17% more than in 2016.

Figure 22. Summary of the forecast for Europe.

ECAC		2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	AAGR 2023/2016	AAGR RP2 2019/2014
IFR Flight Movements (Thousands)	H	.	.	.	.	10,694	11,188	11,610	12,066	12,447	12,825	13,208	3.8%	3.5%
	B	9,603	9,770	9,923	10,197	10,651	10,947	11,177	11,394	11,562	11,758	11,957	2.3%	2.7%
	L	.	.	.	.	10,611	10,723	10,714	10,776	10,772	10,798	10,823	0.9%	1.9%
Annual Growth (compared to previous year unless otherwise mentioned)	H	.	.	.	.	4.9%	4.6%	3.8%	3.9%	3.2%	3.0%	3.0%	3.8%	3.5%
	B	-1.1%	1.7%	1.6%	2.8%	4.5%	2.8%	2.1%	1.9%	1.5%	1.7%	1.7%	2.3%	2.7%
	L	.	.	.	.	4.1%	1.0%	-0.1%	0.6%	-0.0%	0.2%	0.2%	0.9%	1.9%

This 7-year forecast of IFR movements replaces the February 2017 report (Ref. 1). Any user of the forecast is strongly advised to consider the low-to-high ranges. More detailed results are provided in Annex 2, Annex 3 and Annex 4. The forecast details per States for the 2-year horizon are shown in Figure 23 and Figure 24.

4.1 SHORT-TERM OUTLOOK (2017-2018)

At European level, the traffic forecast for 2017 is now for a 4.5% (± 0.4 pp) flight growth (see Figure 23) consistent with the high growth scenario of the February 2017 forecast. This relatively high revision of 1.6pp is mainly due to intense growth of flights in the Russian Federation, owing to a faster economic recovery as well as busiest ever traffic levels in Europe during summer (see Section 2.1).

The traffic forecast for 2018 has also been slightly revised upwards compared to the February 2017 forecast with a growth of 2.8% (± 1.8 pp). We see both upside risks (e.g. revision of the economic outlook) and downside risks (recent airline failures and capacity cuts). These are captured in the ± 1.8 pp range. For more discussion of the risks, see Section 6.

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North-west axis

The 2017 forecasts of the busiest States have been revised upwards (compared to the previous forecast) thanks to strong growth in international arrival/departures as well as overflights, owing to the low-cost segment dynamism (see Section 2.1 for more details).

The UK and Germany have been strongly contributing to the growth in Europe since the beginning of 2017 thanks to dynamic flows to southern Europe (Spain, Greece, Italy and Portugal). For 2017, their forecasts have been revised respectively by 1.2pp to 4.2% and 0.7pp to 4.2%. An upwards revision is foreseen for 2018 but, to a lesser extent.

Consequently, Belgium/Luxembourg and The Netherlands have experienced strong overflight growth and were therefore also revised upwards for 2017 respectively by 0.9pp to 4.9% and by 1pp to 4.4%, above the high scenario of the February forecast.

South-west axis

For the second year in a row, the north-west Europe travellers seems to have privileged again south-west Europe destinations for their 2017 holidays, as well as Greece. The fear of terrorist attacks was still present in other touristic destinations.

Spain has been part of the top 3 contributors to the network since the beginning of 2017 thanks to extremely strong growth of international arrival/departures from north-west Europe. Its forecast was revised upwards by 1pp in 2017.

Italy and Portugal were also highly revised upwards respectively by 1.2pp and 2.2pp due to extremely dynamic flows to/from north-west Europe. Italy was also positively affected by its dynamic internal segment.

The same trends in Greece and Malta are observed, these States have also seen their forecasts revised upwards.

In 2018, south-west Europe is still expected to grow at a sustained but more moderate pace (averaging 3.5%) among other things due to the recovery of European flows to Egypt and Tunisia.

South-east Axis

As already mentioned in this report (Section 2.1), the stronger than foreseen recovery of the economic outlook of the Russian Federation highly influenced the upward revision of this forecast. The most noticeable change was the recovery of traffic with Turkey. This explains the high upward revision of Turkey (3.6pp) as well

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as the increase of the forecasts of eastern European States (Armenia, Moldova, FYROM) due to record growth in overflight in that region.

4.2 MEDIUM-TERM OUTLOOK (UP TO 2023)

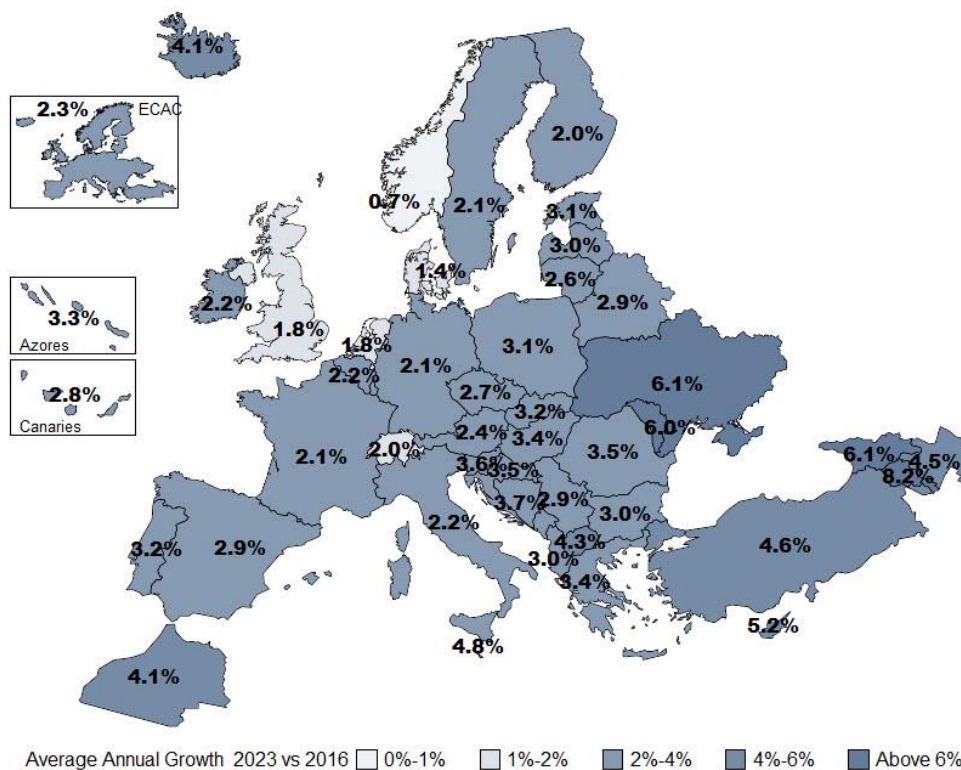
From 2019 onwards, European flight growth is expected to remain stable at around 1.7% per year. There is an extra growth of 0.3pp generated by the leap year effect in 2020.

The forecast is for 12 million IFR flight movements (± 1.2 million) in Europe in 2023, 17% more than in 2016. The high-growth scenario has 1.3 million more and low-growth scenario 1.1 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.

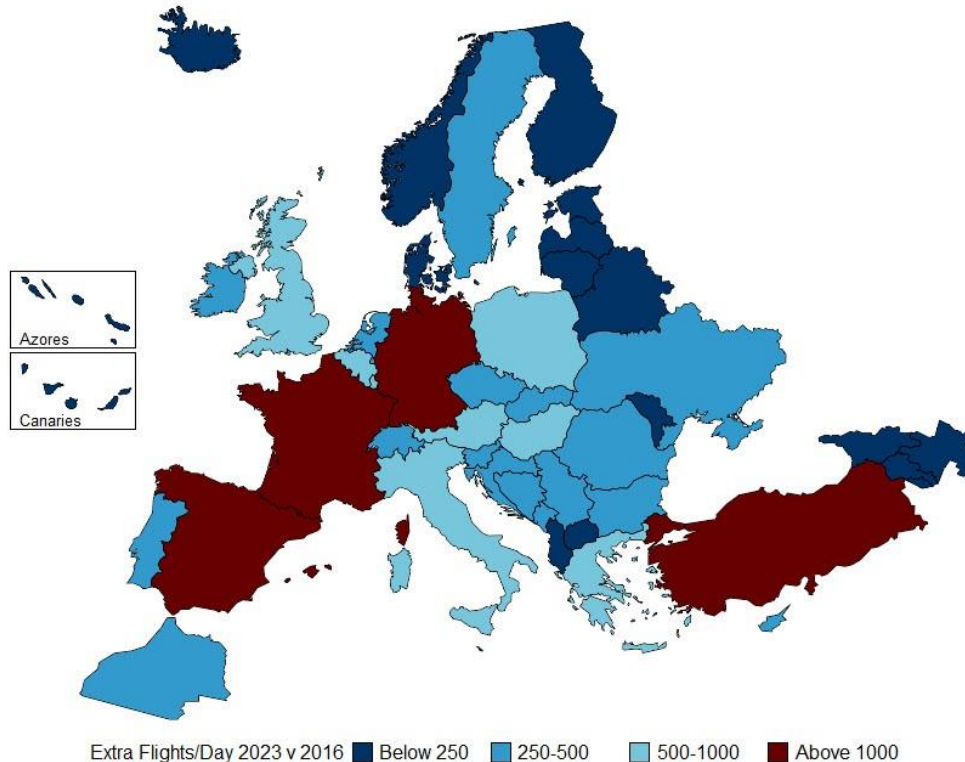
As Figure 25 and Figure 26 show, the growth is not uniform across Europe.

Figure 25. Average Annual Growth per State, 2023 vs 2016 (Base scenario).



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Figure 26. Number of additional movements per day for each State, 2023 vs 2016 (Base scenario).



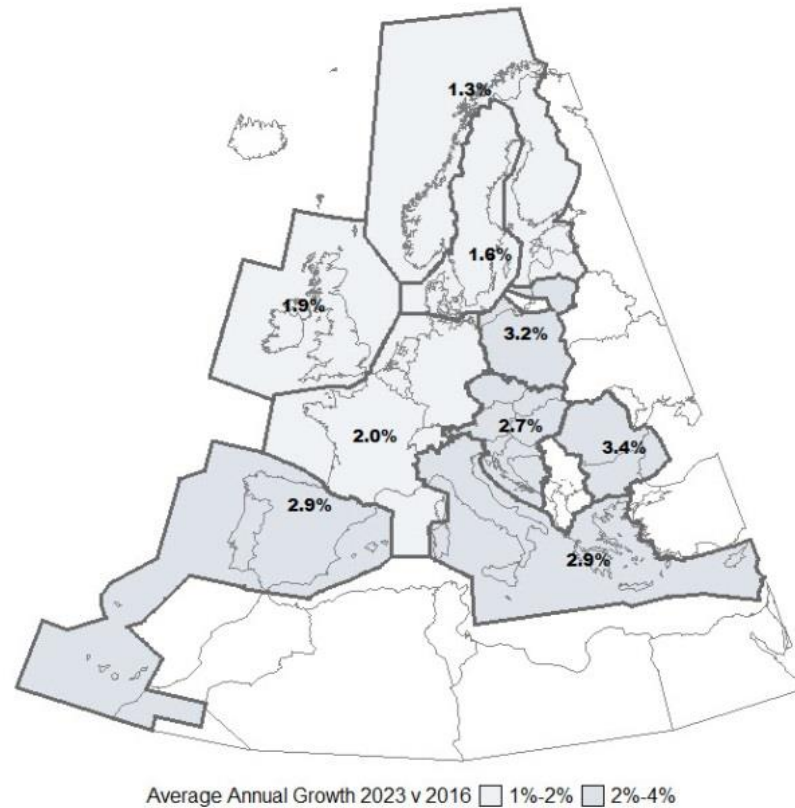
While the growth (in percentage terms) is much weaker in most of the more mature markets of western Europe, it is still the busiest States (France, Turkey, Germany and Spain, followed by UK and Italy) which will see the greatest number of extra flights per day. Turkey will still see one of the fastest growth rates (4.6% as average annual growth rate over the 7 years) and one of the highest number of extra flights per day (1,371 additional flights per day in 2023).

Figure 27 shows the corresponding Figure 25 at Functional Airspace Block level (FAB).

Danube FAB and Baltic FAB are expected to have the highest average annual growth rate (respectively 3.4% and 3.2%) over the next seven years. FABEC and Blue Med FAB are the busiest European FABs with respectively 2,351 and 1,434 additional flights per day in 2023.

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Figure 27. Average Annual Growth per FAB, 2023 vs 2016 (Base scenario).



Annex 3 and Annex 4 give the details of forecast traffic and growth per State and areas (ECAC, FAB, EU28...).

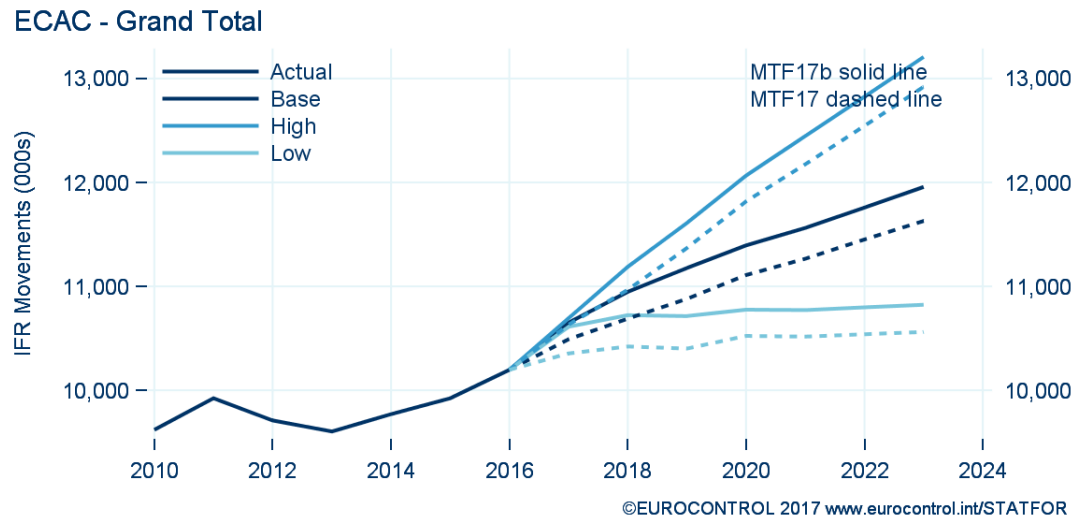
4.3 COMPARISON WITH PREVIOUS FORECAST

Globally, the baseline forecast has been revised upwards over the whole horizon. In 2017 and 2018, the new forecast is aligned with the February 2017 high forecast. Moreover, the first year of the forecast shows narrower low-to-high ranges because the uncertainty has now been reduced in the short-term.

Figure 28 compares the current forecast (MTF17b) for total Europe with the previous seven-year forecast issued in February 2017 (MTF17). As stated earlier, the current forecast (MTF17b) has been revised upwards. The uncertainty has now been reduced for the whole forecast period (narrower low-to-high ranges) and in a much higher extent in the first two years of the forecast.

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Figure 28. For total Europe, current forecast is shifted up compared to the previous forecast (dated February 2017).



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5 SERVICE UNIT GROWTH TO 2023

Thanks to a combination of strong flight growth during the summer over western and southern Europe and the recovery of the Russian traffic, a stronger growth in the service units is expected by the end of the year compared to the February 2017 forecast. In 2017, 152.5 million service units are forecasted in EUROCONTROL member States (CRCO14). This is a 2.1 percentage points revision upwards compared to the February 2017 forecast and represents a growth of 6.3% (± 0.3 pp) compared to 2016.

For Terminal Navigation Service Units in the countries participating to the Performance Scheme in the Second Reference Period (RP2), the forecast for 2017 has also been logically revised upwards by 1.2 percentage point and is expected to reach 8.3 million by the end of 2017, thus a growth of 5.1% (± 0.4 pp). The average annual growth between 2016 and 2023 will stand at 2.8% to reach 9.5 million by 2023.

5.1 EN-ROUTE SERVICE UNITS (TSU)

Because of the strong growth of flights over western and southern parts of Europe and owing to the faster than expected recovery of traffic from/to Russia in Eastern part of Europe, a stronger growth in the service units is expected by the end of the year compared to the February 2017 forecast. This en-route service units growth is further boosted than the flight growth by trends of increasing aircraft weights and often distances. In EUROCONTROL member States (CRCO14), the total en-route service units forecast has been revised upwards by 2.1pp compared to the February 2017 forecast (Ref. 1) to reach 152.5 million service units (TSU) in 2017, thus a growth of 6.3% (± 0.3 pp) compared to 2016.

The upward revision is widespread across Europe. Amongst the greatest revisions upwards in terms of volume of service units, we can find Armenia (+59.6 pp) that benefited from the counter effect of a low traffic in 2016 and Ukraine (+15.6pp) that benefited from the recovery of traffic from Russia. FYROM (+17.2pp) and Bosnia-Herzegovina (+14.2pp) took advantage of both the strength of the flows towards southern Europe (Greece and Cyprus) and of the FRA operations implementation in the region. As a result of stronger than expected traffic demand, Turkish TSU forecast has also been revised upwards (+5.1pp) as well as Greek (+6.4pp) and Cypriot (+7.3pp) ones. The stronger than expected demand growth is expected to continue during this winter.

Amongst the biggest contributors to traffic in Europe during this summer, revisions upwards for UK (+5.1pp), continental Portugal (i.e. Lisbon FIR) (+2.5pp), continental

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Spain (+1.9pp), Germany (+1.5pp) and France (+0.8pp) which 2017 forecast is in line with the summer strong TSU trends.

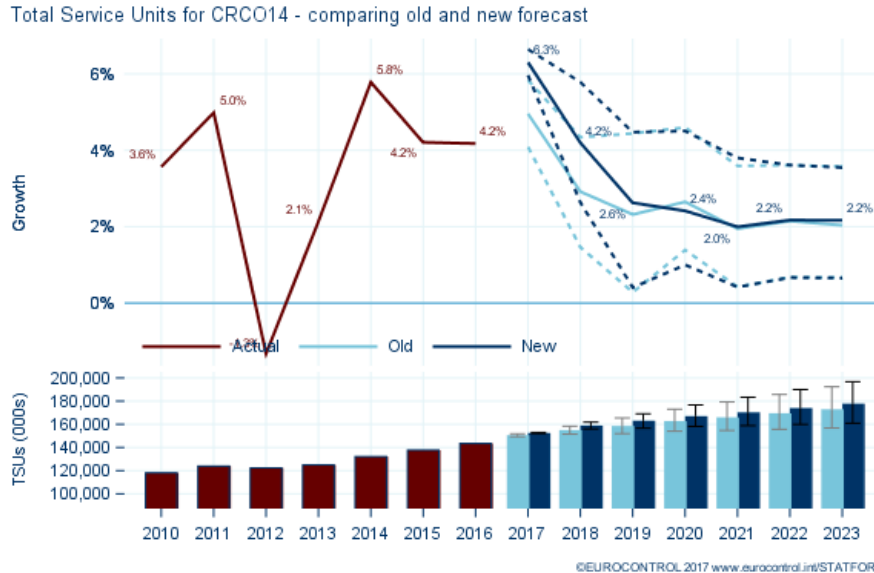
However, a few TSU forecasts for 2017 have been revised downwards, based on the current trends: this is the case for Ireland (-2.2pp), Croatia (-1.3pp) (see Section 2.2), the Czech Republic (-2.3pp), Poland (-2.2pp) and Bulgaria (-0.9pp). The last three States recorded lower overflight trends than expected in the February 2017 forecast, due to the implementation of FRA in south-east Europe changing some flows since the beginning of the year. For the Czech Republic and Poland, the downward revision could also be attributed to flights flying longer distances over Germany as a consequence of a lower unit rate in 2017 but it is difficult to discriminate this specific impact compared to the impact of the FRA implementation in the south-east axis region.

The stronger TSU growth trends observed in the summer 2017 are expected to last over the winter. This has led to an upwards revision of en-route service units by +1.5pp for 2018. For the CRCO14 grouping, TSU are now foreseen to reach 158.9 million service units in 2018, thus a growth of 4.2% (± 1.6 pp). However, for the following years, the impact of these strong trends should fade out and service units annual growth should stabilise around 2.2%. The total en-route service units in the participating EUROCONTROL member states (CRCO14) should reach 177.8 million in 2023, which represents an average annual growth rate of 3.1% and a total growth of 24% compared to 2016. These are greater values than those forecasted in February 2017 as a logical consequence of the stronger growth that are now expected for 2017 and 2018.

Figure 29 compares the evolution of the forecast between the February 2017 forecast and this new forecast release for the CRCO14 grouping. If in 2017 and 2018, TSU have been revised upwards, the strong TSU growth fades out in 2019 and 2020 to match the TSU forecast growth of February 2017 in the following years.

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Figure 29. Comparison of the forecast 2017-2023 between the current September TSU forecast (dark blue) and February 2017 TSU forecast (light blue) for CRCO14 area.



Any user of this seven-year forecast should consult the entire forecast range (low-growth to high-growth) as an indicator of risk. This forecast includes downside risks (e.g. the economic indicators could worsen) and upside risks (e.g. fleet growth of LCC). Section 6 elaborates further on risks.

For the CRCO14 zone, by 2023, the high-growth scenario has 19 million more and low-growth scenario has 17 million fewer TSU than the base scenario (+13% and -12% in terms of growth, respectively). See Figure 30.

The average annual growth figures per State between 2023 and 2016 can be found in Figure 31. The detailed forecasts for each State are in Annex 5 and Annex 7.

Figure 30. Summary of forecast of total service units in Europe.

Total en-route service units (Thousands)		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Total Growth 2023/2016	RP2 AAGR 2019/2014
CRCO14*	H	.	.	.	.	.	152,969	161,817	169,056	176,674	183,389	190,015	196,760	37%	5.1%
	B	122,298	124,910	132,130	137,689	143,439	152,481	158,879	163,046	166,982	170,315	174,012	177,785	24%	4.3%
	L	.	.	.	.	.	151,999	155,999	156,632	158,199	158,860	159,920	160,967	12%	3.5%
RP2Region†	H	.	.	.	.	.	127,361	134,020	139,700	145,638	150,874	155,923	161,014	34%	4.6%
	B	105,251	106,930	111,670	115,063	120,208	126,970	131,658	134,777	137,709	140,166	142,891	145,692	21%	3.8%
	L	.	.	.	.	.	126,583	129,331	129,492	130,459	130,728	131,324	131,933	10%	3.0%
Total en-route service units (Growth)		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	AAGR 2023/2016	RP2 AAGR 2019/2014
CRCO14*	H	6.6%	5.8%	4.5%	4.5%	3.8%	3.6%	3.5%	4.6%	5.1%
	B	-1.3%	2.1%	5.8%	4.2%	4.2%	6.3%	4.2%	2.6%	2.4%	2.0%	2.2%	2.2%	3.1%	4.3%
	L	6.0%	2.6%	0.4%	1.0%	0.4%	0.7%	0.7%	1.7%	3.5%

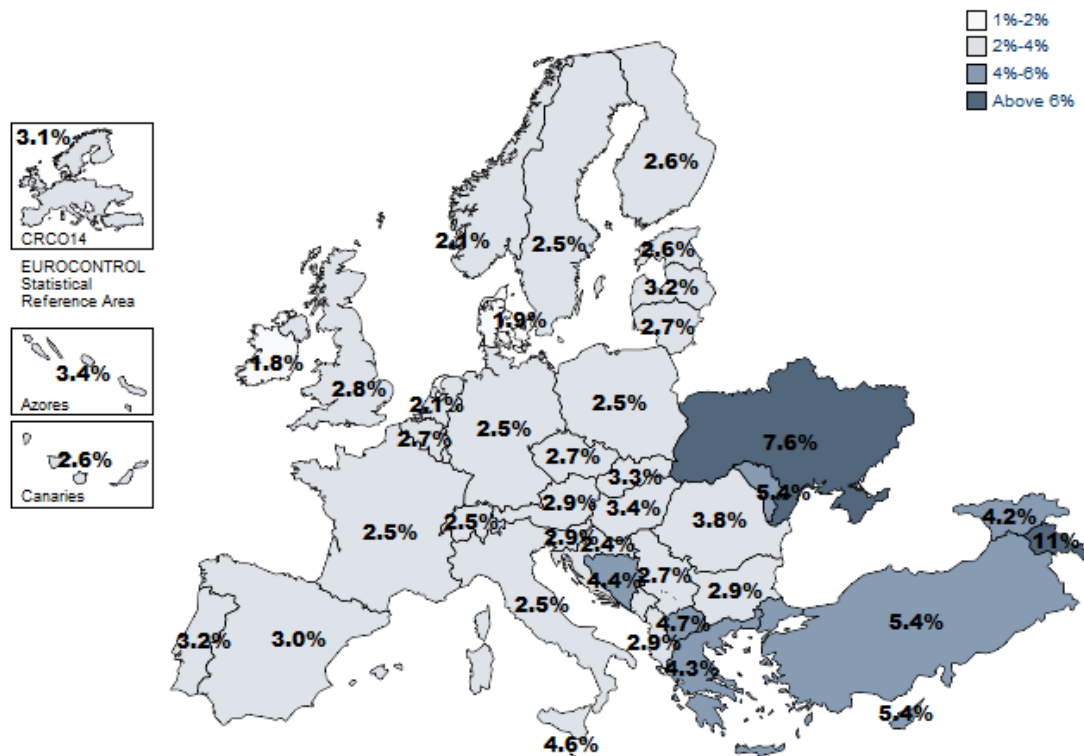
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Total en-route service units (Thousands)		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Total Growth 2023/2016	RP2 AAGR 2019/2014
RP2Region†	H	.	.	.	.	.	6.0%	5.2%	4.2%	4.3%	3.6%	3.3%	3.3%	4.3%	4.6%
	B	-1.4%	1.6%	4.4%	3.0%	4.5%	5.6%	3.7%	2.4%	2.2%	1.8%	1.9%	2.0%	2.8%	3.8%
	L	.	.	.	.	.	5.3%	2.2%	0.1%	0.7%	0.2%	0.5%	0.5%	1.3%	3.0%

* CRCO14 designates the sum over all the states participating in the Multilateral Route Charges System in 2014 of all TSU either measured or forecasted for the corresponding year.

† RP2Region stands for the sum over all the 31 states that were involved in the EU-wide performance target setting (29 EU member states plus Norway and Switzerland). RP2Region series include service units for flight segments performed as Operational Air Traffic (OAT) for Germany.

Figure 31. Average annual growth of en-route service units between 2015 and 2022.



5.2 TERMINAL NAVIGATION SERVICE UNITS (TNSU)

Underlying growth in TNSU is driven by the same factors which influence flight growth (see Section 2.1) with the trend for increasing average weight having an additional effect. This TNSU forecast is based on the 2017-2023 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. 3. The definition of the terminal charging zones (TCZ) is based on the known list of airports per TCZ for RP2 provided by States as available in their RP2 performance plans submitted at the end of 2016 (see Annex 1 for RP2 region

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definition and TCZ list). The detailed results per TCZ are given in Annex 8 and Annex 9.

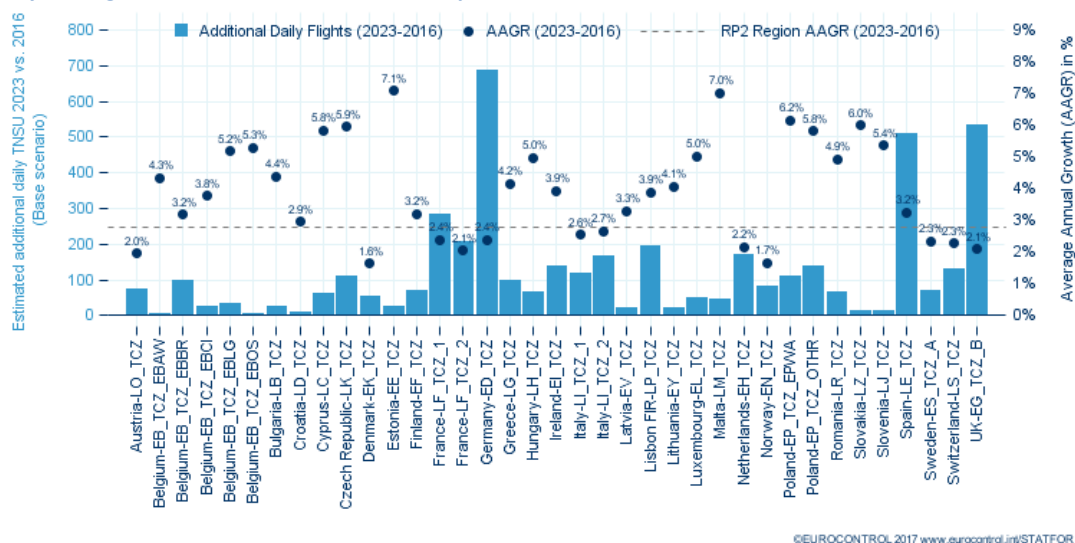
For Terminal Navigation Service Units in the countries participating to the Performance Scheme in the Second Reference Period (RP2), the forecast for 2017 has been revised upwards by 1.2 percentage point and is expected to reach 8.3 million by the end of 2017, thus a growth of 5.1% (± 0.4 pp). Following similar trends as the en-route service units and the flights, TNSU growth has been revised upwards by +0.9pp in 2018 and will then slow down. The average annual growth between 2016 and 2023 will stand at 2.8% to reach 9.5 million by 2023. The expected AAGR during RP2 (i.e. 2019 vs. 2014) is 3.7% (Figure 32).

With the aim of improving the forecast for RP2, the history for RP1 was reconstructed as detailed in the September 2014 forecast report, including for 2014.

Figure 32. Total Terminal Navigation Service Units generated in the RP2Region area as defined.

RP2 Region		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	AAGR 2023/2016	RP2 AAGR 2019/2014
TNSU Total (thousands)	H	.	.	.	.	.	8,286.3	8,697.7	9,069.4	9,500.4	9,871.8	10,231.8	10,583.3	4.4%	4.5%
	B	7,234.3	7,223.5	7,266.7	7,484.2	7,855.0	8,252.6	8,509.6	8,727.0	8,935.5	9,116.4	9,310.3	9,513.0	2.8%	3.7%
	L	.	.	.	.	.	8,220.3	8,327.7	8,342.9	8,416.8	8,448.7	8,506.1	8,564.9	1.2%	2.8%
TNSU Annual Growth (%)	H	.	.	.	.	.	5.5%	5.0%	4.3%	4.8%	3.9%	3.6%	3.4%	4.4%	4.5%
	B	-1.9%	-0.1%	0.6%	3.0%	5.0%	5.1%	3.1%	2.6%	2.4%	2.0%	2.1%	2.2%	2.8%	3.7%
	L	.	.	.	.	.	4.7%	1.3%	0.2%	0.9%	0.4%	0.7%	0.7%	1.2%	2.8%

Figure 33. TNSU 7-year forecast September 2017 overview – Average annual growth and estimated additional daily TNSU generated between 2023 and 2016 per TCZ.



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6 RISKS 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 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 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 2023, there is a significant probability that *some* flights through **Ukraine** will be restored. The past drop in Ukraine overflights generated a significant reduction in both distances and weights of flights, which has generated a greater en-route service units decline than that of the flights. The restoration of some flights over Ukraine might produce the reverse impact and is likely to represent an additional upwards risk on the growth of Ukraine en-route service units.
- 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. For Malta, this has been partly offset by strong growth between Russia and Tunisia.
- 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 nor intensification, though clearly at some point this network disruption will clear and the overflight changes reverse. Avoidance of Iraq and to a lesser extent Sinai is less significant for the forecast.
- The immigration crisis linked to the Syrian and Libyan conflict and the response of the Governments of the 26-country **Schengen area** is also a downside risk. Under the rules governing the open travel area, governments could suspend the Schengen system for two years, which would deter passenger travel, though to an unknown extent.
- 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.
- The **jet stream** influences route choice too, though this is more usually an effect over days or weeks than over the whole year.
- **Unit rates** are one of the many factors that influence an airline's choice of route. Large changes in rates could lead to low single-figure percentage changes in flight counts.
- **Oil prices** remain changeable. With fuel accounting for around 20% of operating costs, this can have an effect on fares and cost of travel for

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customer (see Section 2.1). There is, in the short-term, an upside risk if the airlines start reflecting the fall of fuel costs to the ticket prices (cheaper); the most recent data from Eurostat suggests prices may finally be in decline. On the opposite, a surge in oil prices could lead in an increase of fuel cost, hence an increase of the ticket prices which is a downside risk.

- More generally, future **network changes** (e.g., new routes) and airlines' changing choice of routes are not modelled by the forecast.

The **economic forecasts** used here were updated in August 2017. The economic outlook remains uncertain. 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.

Two States, Turkey and Russia, have been the predominant drivers of flight growth. This makes growth sensitive to the continued expansion of these **two economies**. This could improve, but could easily get worse, representing on balance a downside risk.

The recent **airlines failures** (AirBerlin, Monarch) and the announcement of Ryanair of **capacity cuts** are also 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 very high. 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.

Tourism trends are quite variable. The forecast does not identify which will be the new holiday 'destination of preference' in a given year. Terrorist attacks have led to more variability in tourism destinations. This is more likely a downside risk.

Terrorist attacks, bans of one country on another one, wars and natural disasters. These are impossible to predict. Their impact on air traffic could however be a temporary one, or more significant. Overall, this is a downside risk for the country impacted by the event.

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7 GLOSSARY

AAGR	Average annual growth
AD, A/D	Arrivals/Departures
B	(in tables) Baseline Scenario
CRCO11	States participating to the Multilateral Route Charges System dated 2012. Namely, CRCO11 includes Albania, Armenia, Austria, Belgium/Luxembourg, Belgrade, 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, , Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, UK.
CRCO14	States participating to the Multilateral Route Charges System dated 2014. Namely CRCO14 includes the list of States within CRCO11 plus <i>Georgia</i> .
ECAC	European Civil Aviation Conference (see Annex 1)
ESRA	Eurocontrol Statistical Reference Area (see Annex 1)
EU27	European Union (27 States)
EU28	European Union (28 States): EU27 plus Croatia.
EUROPE	Europe refers to ECAC unless explicitly stated otherwise
FAB	Functional Airspace Block
FIR	Flight Information Region
GDP	Gross Domestic Product
H	(in tables) High-Growth Scenario
I	Internals
ICAO	International Civil Aviation Organisation
IFR	Instrument Flight Rules
KFOR	Kosovo Force
L	(in tables) Low-Growth Scenario
LCC	Low Cost Carriers
MTF	Medium-Term (Seven-Year) Forecast
NM	Network Manager
O	Overflights
OE	Oxford Economics Ltd
pp	percentage point
PScheme	States involved in the Performance scheme first period of reference (EU27, Norway and Switzerland – no longer used)

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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	See PScheme
RP2Region	States involved in the Performance scheme second period of reference (EU28, Norway and Switzerland)
SES	Single European Sky
SID	STATFOR Interactive Dashboard
STATFOR	Eurocontrol Statistics and Forecast Service
TCZ	Terminal Charging Zone (a grouping of airports)
TNSU	Terminal Navigation Service Units
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

Other abbreviations and acronyms used in this document are available in the EUROCONTROL Air Navigation Inter-site Acronym List (AIRIAL) which may be found here:

<http://www.eurocontrol.int/airial/definitionListInit.do?skipLogon=true&glossaryUid=AIRIAL>

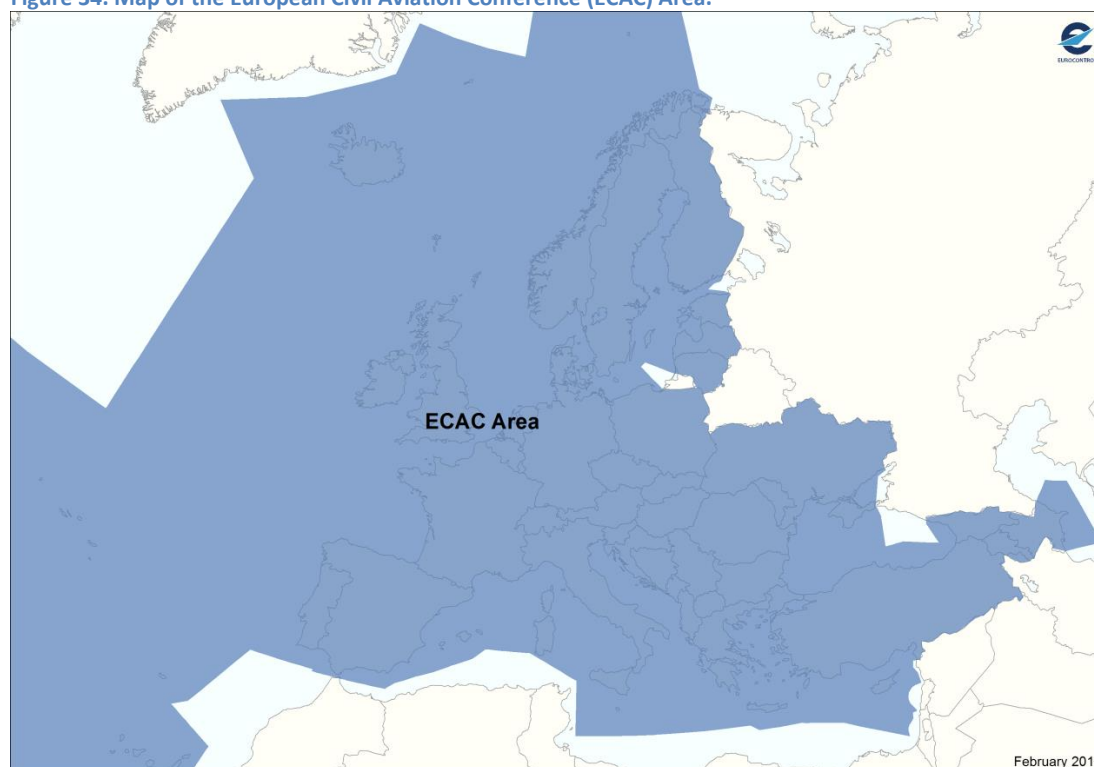
ANNEX 1 TRAFFIC REGION DEFINITIONS

ECAC

The European Civil Aviation Conference (ECAC) is an intergovernmental organization which was established by ICAO and the Council of Europe. ECAC now totals 44 members, including all 28 EU, 31 of the 32 European Aviation Safety Agency member states, and all 41 EUROCONTROL member states.

It is now used as a basis for comparison at European level in the forecasts.

Figure 34. Map of the European Civil Aviation Conference (ECAC) Area.



ESRA08

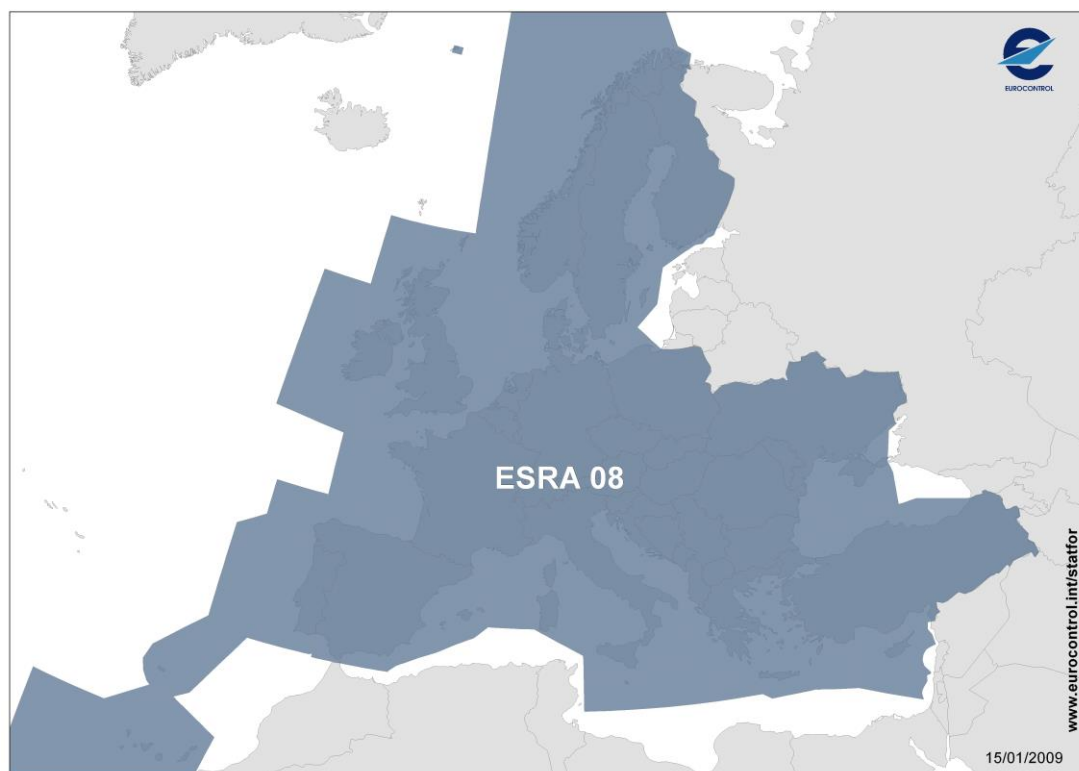
The EUROCONTROL Statistical Reference Area (ESRA) is designed to include as much as possible of the ECAC area for which data are available from a range of sources within the Agency 'ESRA08' was introduced in the MTF09 report. It was used as a basis for comparison at European level in the forecasts up to September 2015.

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

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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.

Figure 35. The EUROCONTROL Statistical Reference Area.



EU28

This 7-year forecast report includes EU28, taking the accession of Croatia into account. The traffic counts exclude Canaries and Azores.

CRCO11

'CRCO11' refers to the sum of all the charging zones formed by the EUROCONTROL Member States participating in the Multilateral Route Charges System in 2012. This list comprises: Albania, Armenia, Austria, Belgium/Luxembourg (one single charging zone), 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 (one single charging zone), Slovakia, Slovenia, Spain (Spain continental only), Sweden, Switzerland, Turkey, UK.

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CRCO14

'CRCO14' refers to the sum of all the charging zones formed by the EUROCONTROL Member States participating in the Multilateral Route Charges System in 2014. This list comprises: CRCO11 and Georgia, which joined EUROCONTROL in 2014.

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 36. 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.

Figure 36. 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)

As far as "Europe" is concerned, it is split into two regions: ESRA (defined in one of 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 37.

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Figure 37. Map of the Traffic Regions used in flow statistics.



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 38). 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 FIR⁹ boundaries. The definition of FAB-FIR is:

- **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,

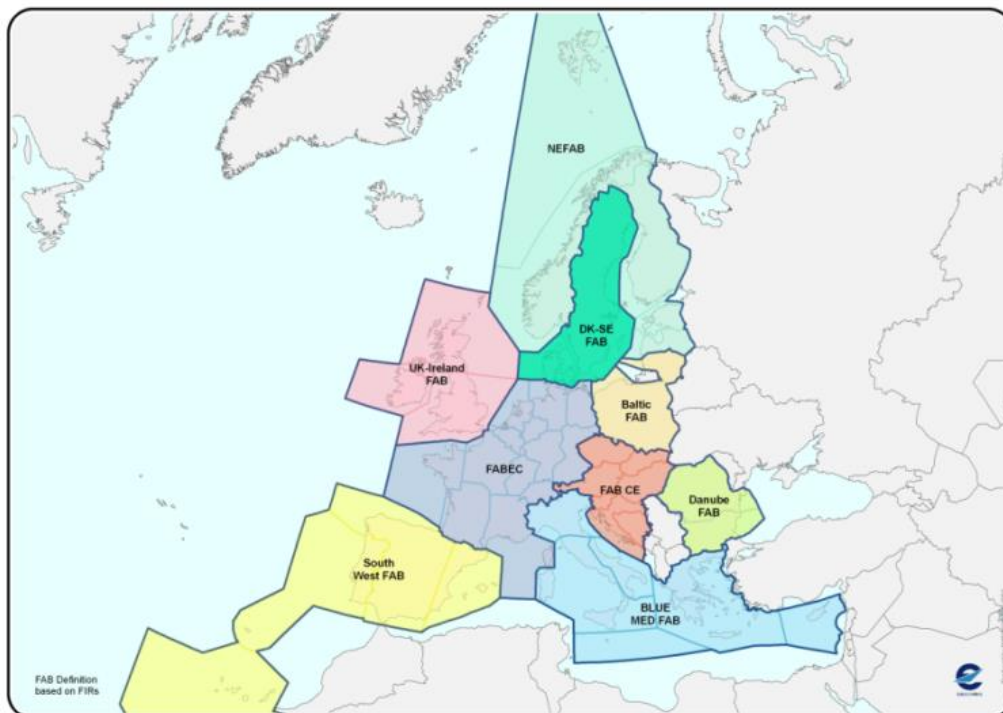
⁹ Note that the PRU uses the FAB-ANSP definition.

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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).

Figure 38. FABs as stipulated by the European Commission.



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.

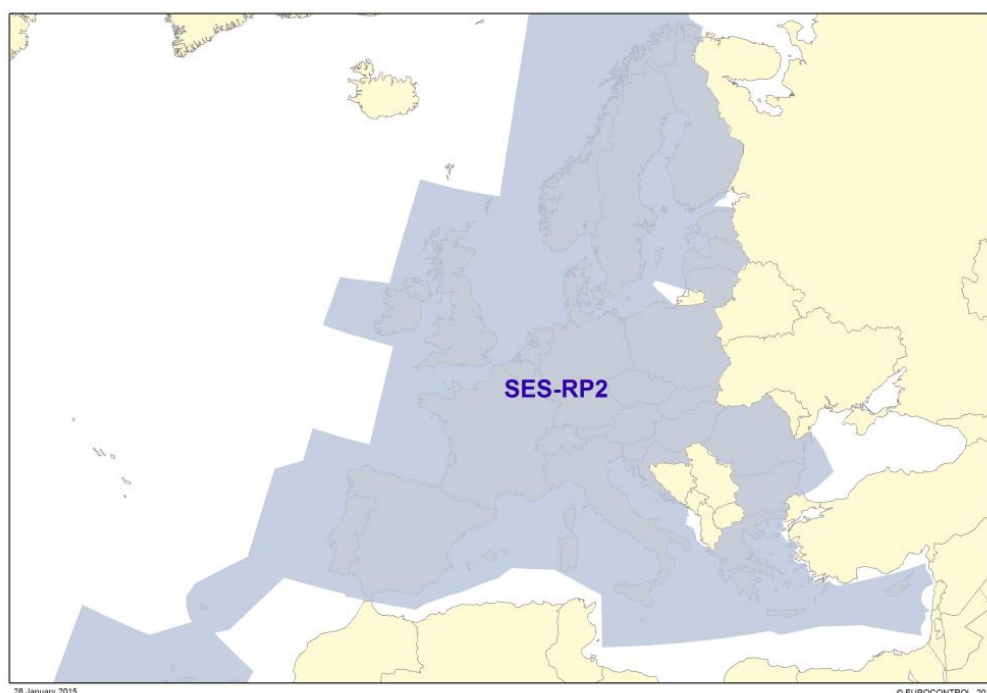
The “PScheme” region presented in previous reports (Traffic Tables of the Annexes) is not reported anymore, as it could introduce some confusion with respect to the RPRegions above mentioned.

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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 39. 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.

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 list of aerodromes forming the TCZs during RP2 for the 30 States participating in the SES performance scheme (RP2) can be found in Figure 40.

The main change in this forecast is the split in two parts of both the Polish TCZ (EP_TCZ) and of the French TCZ (LF_TCZ) to enable to separate the forecast of the main airport(s) of the state from the forecast of all the other airports. The split has also been done for the data of the past years to provide realistic growths of each zone.

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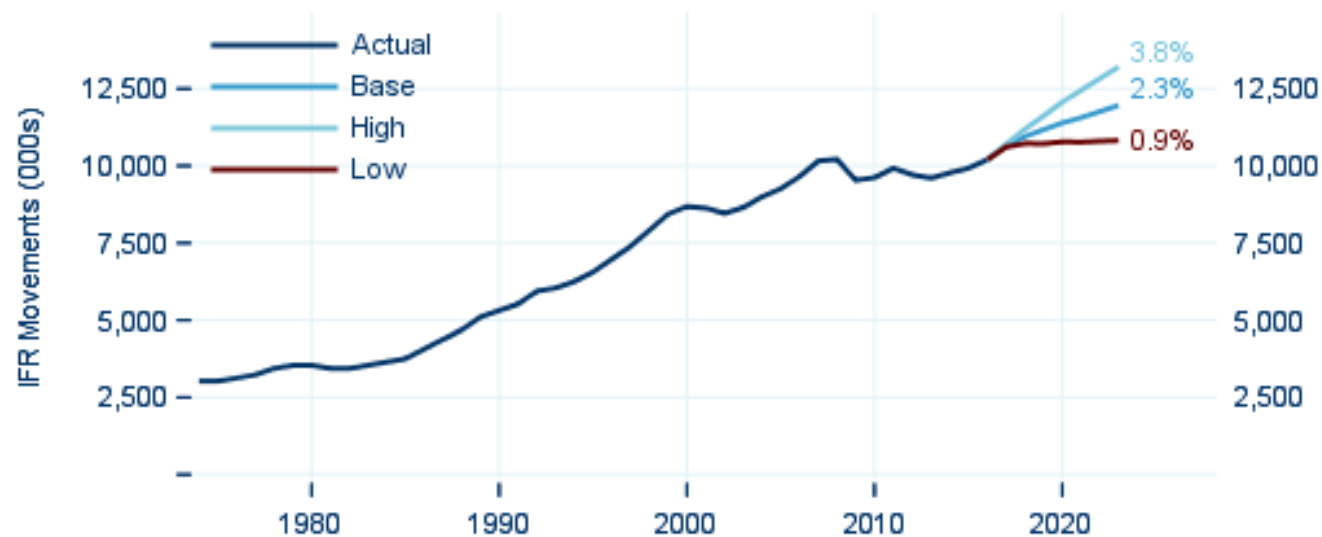
Figure 40. List of aerodromes forming the TCZ in RP2.

Austria		France		Germany		Poland	
LO_TCZ	LOWG LOWI LOWK LOWL LOWS LOWW	LF_TCZ_1	LFPG LFPO	ED_TCZ	EDDB EDDC EDDE EDDF EDDG EDDH EDDK EDDL EDDM EDDN EDDP EDDR EDDS EDDT EDDV EDDW	EP_TCZ_EPWA	EPWA
		France				Poland	
		LF_TCZ_2	LFAQ LFBA LFBD LFBE LFBH LFBJ LFBK LFBO LFBP LFBT LFBZ LFGR LFGJ LFJL LFJR LFKB LFKC LFKF LFKJ LFLB LFLC LFLI LFLP LFLS LFLX LFLY LFMD LFMH LFMI LFMK LFML LFMN LFMP LFMT LFMU LFMV LFOB LFOH LFOK LFOT LFPB LFPN LFQQ LFRB LFRD LFRG LFRH LFRK LFRN LFRQ LFRS LFRZ LFSB LFSD LFSL LFST LFTH LFTW				EPBY EPGD EPKK EPKT EPLB EPLL EPMO EPPO EPRA EPRZ EPSC EPSY EPWR EPZG
Belgium				Greece			
EB_TCZ_EBAW	EBAW			LG_TCZ	LGAV	Portugal	
						LP_TCZ	LPZA LPFL LPFR LPHR LPMA LPPD LPPR LPSS LPPT
Belgium	EBBR			Hungary			
EB_TCZ_EBBR				LH_TCZ	LHBP	Romania	
Belgium	EBCI					LR_TCZ	LRBS LRDP
EB_TCZ_EBCI				Ireland	EICK EIDW EINN		
Belgium	EBLG			EL_TCZ		Slovakia	
EB_TCZ_EBLG						LZ_TCZ	LZIB
Belgium	EBOS			LI_TCZ_1	LIRF		
EB_TCZ_EBOS						Slovenia	
Bulgaria	LBSF			LI_TCZ_2	LIMC LIME LIML LIPZ	LJ_TCZ	LJLJ LJMB LJPZ
LB_TCZ				Latvia		Spain	GCLP LEBL LEMD LEMG LEPA
				EV_TCZ	EVLA EVRA EVVA	LE_TCZ	
Croatia	LDZA LDZL					Sweden	
LD_TCZ				Lithuania	EYKA EYPA EYSA EYVI	ES_TCZ_A	ESSA
Cyprus	LCLK LCPH					Switzerland	
LC_TCZ				Luxembourg		LS_TCZ	LSGG LSZH
				EL_TCZ	ELLX		
Czech Republic	LKKV LKMT LKPR LKTG			Malta		UK	EGBB EGCC EGGW EGKK EGLC EGLL EGPF EGPH EGSS
LK_TCZ				LM_TCZ	LMML	EG_TCZ_B	
Denmark	EKCH						
EK_TCZ				Netherlands	EHAM EHBK EHGG EHRD	UK	EGGW EGKK EGLC EGLL EGSS
				EH_TCZ		EG_TCZ_C	
Estonia	EETN EETU						
EE_TCZ				Norway	ENBR ENGM ENVA ENZV		
Finland				EN_TCZ			
EF_TCZ	EFHK						

ANNEX 2 SUMMARY OF FORECAST FOR ECAC

Figure 41. Growth in Europe (ECAC)

Forecast for ECAC



Curve label gives average annual growth 2023/2016

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Flight Movements and Service Units 2017-2023

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Figure 42. Flights and growth on main flow categories in Europe (ECAC)

ECAC		IFR Flight Movements(000s)											Annual Growth											AAGR 2023/2016	RP2 AAGR 2019/2014
		2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023		
Total: Internal	H	.	.	.	.	8,442	8,786	9,086	9,398	9,653	9,900	10,143	.	.	.	.	3.7%	4.1%	3.4%	3.4%	2.7%	2.6%	2.5%	3.2%	3.4%
	B	7,576	7,681	7,856	8,141	8,409	8,598	8,754	8,895	8,993	9,112	9,230	-2.3%	1.4%	2.3%	3.6%	3.3%	2.2%	1.8%	1.6%	1.1%	1.3%	1.3%	1.8%	2.6%
	L	.	.	.	.	8,379	8,424	8,391	8,413	8,382	8,375	8,366	.	.	.	.	2.9%	0.5%	-0.4%	0.3%	-0.4%	-0.1%	-0.1%	0.4%	1.8%
Total: Arr/Dep	H	.	.	.	.	2,068	2,203	2,313	2,444	2,556	2,673	2,795	.	.	.	.	9.7%	6.6%	5.0%	5.7%	4.6%	4.6%	4.6%	5.8%	3.9%
	B	1,863	1,908	1,890	1,884	2,059	2,156	2,222	2,291	2,352	2,420	2,491	2.7%	2.4%	-0.9%	-0.3%	9.3%	4.7%	3.1%	3.1%	2.7%	2.9%	2.9%	4.1%	3.1%
	L	.	.	.	.	2,052	2,111	2,132	2,166	2,189	2,217	2,246	.	.	.	.	8.9%	2.9%	1.0%	1.6%	1.1%	1.3%	1.3%	2.5%	2.2%
Total: Overflight	H	.	.	.	.	184	199	211	224	237	252	270	.	.	.	.	7.2%	8.0%	6.0%	6.2%	5.9%	6.5%	6.8%	6.6%	3.0%
	B	165	181	177	172	182	193	200	209	217	226	236	14%	9.9%	-2.2%	-3.2%	6.2%	5.8%	3.8%	4.2%	3.8%	4.2%	4.3%	4.6%	2.0%
	L	.	.	.	.	181	188	191	197	201	206	211	.	.	.	.	5.3%	3.8%	1.9%	2.6%	2.2%	2.5%	2.5%	3.0%	1.1%
Grand Total	H	.	.	.	.	10,694	11,188	11,610	12,066	12,447	12,825	13,208	.	.	.	.	4.9%	4.6%	3.8%	3.9%	3.2%	3.0%	3.0%	3.8%	3.5%
	B	9,603	9,770	9,923	10,197	10,651	10,947	11,177	11,394	11,562	11,758	11,957	-1.1%	1.7%	1.6%	2.8%	4.5%	2.8%	2.1%	1.9%	1.5%	1.7%	1.7%	2.3%	2.7%
	L	10,611	10,723	10,714	10,776	10,772	10,798	10,823	4.1%	1.0%	-0.1%	0.6%	-0.0%	0.2%	0.2%	0.9%	1.9%

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Figure 43. Busiest bi-directional region-to-region flows for ECAC

				IFR Movements(000s)										Annual Growth												AAGR 2023/ 2015
				2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	
1	ESRA North-W	ESRA North-W	H	.	.	.	.	3525.6	3595.5	3622.1	3688.7	3734.0	3769.9	3799.4	.	.	.	.	0.9%	2.0%	0.7%	1.8%	1.2%	1.0%	0.8%	1.2%
			B	3491.4	3467.5	3462.4	3493.9	3513.3	3541.1	3554.3	3573.2	3577.7	3589.2	3597.4	-2.5%	-0.7%	-0.1%	0.9%	0.6%	0.8%	0.4%	0.5%	0.1%	0.3%	0.2%	0.4%
			L	.	.	.	.	3502.4	3489.1	3450.3	3438.9	3407.2	3386.6	3363.2	.	.	.	.	0.2%	-0.4%	-1.1%	-0.3%	-0.9%	-0.6%	-0.7%	-0.5%
2	ESRA Mediter	ESRA North-W	H	.	.	.	.	2028.0	2127.6	2217.2	2297.3	2363.9	2428.9	2495.6	.	.	.	.	5.1%	4.9%	4.2%	3.6%	2.9%	2.8%	2.7%	3.7%
			B	1680.2	1765.5	1828.8	1929.8	2019.8	2079.7	2122.3	2158.9	2184.8	2215.4	2246.4	1.6%	5.1%	3.6%	5.5%	4.7%	3.0%	2.0%	1.7%	1.2%	1.4%	1.4%	2.2%
			L	.	.	.	.	2011.8	2033.0	2022.9	2026.2	2018.0	2015.8	2013.8	.	.	.	.	4.2%	1.1%	-0.5%	0.2%	-0.4%	-0.1%	-0.1%	0.6%
3	ESRA Mediter	ESRA Mediter	H	.	.	.	.	1470.1	1557.4	1641.1	1715.4	1783.7	1853.5	1927.3	.	.	.	.	2.9%	5.9%	5.4%	4.5%	4.0%	3.9%	4.0%	4.4%
			B	1266.2	1313.4	1372.7	1428.1	1464.5	1515.7	1565.1	1604.7	1634.1	1668.0	1703.4	-6.2%	3.7%	4.5%	4.0%	2.5%	3.5%	3.3%	2.5%	1.8%	2.1%	2.1%	2.5%
			L	.	.	.	.	1459.6	1480.8	1491.5	1507.7	1509.6	1515.3	1522.1	.	.	.	.	2.2%	1.5%	0.7%	1.1%	0.1%	0.4%	0.4%	0.9%
4	ESRA East	ESRA North-W	H	.	.	.	.	641.0	680.0	722.2	761.4	794.0	824.8	853.6	.	.	.	.	8.3%	6.1%	6.2%	5.4%	4.3%	3.9%	3.5%	5.4%
			B	525.8	515.5	546.5	591.9	637.9	660.8	682.5	702.0	718.2	735.9	753.8	1.0%	-1.9%	6.0%	8.3%	7.8%	3.6%	3.3%	2.9%	2.3%	2.5%	2.4%	3.5%
			L	.	.	.	.	634.9	642.8	643.9	649.6	651.7	655.2	658.5	.	.	.	.	7.3%	1.2%	0.2%	0.9%	0.3%	0.5%	0.5%	1.5%
5	ESRA North-W	North Atlant	H	.	.	.	.	339.4	357.5	363.3	376.0	385.8	392.7	398.9	.	.	.	.	4.4%	5.3%	1.6%	3.5%	2.6%	1.8%	1.6%	3.0%
			B	292.2	299.4	311.2	325.0	338.4	352.5	357.0	361.0	364.7	368.4	372.3	-0.5%	2.5%	3.9%	4.4%	4.1%	4.2%	1.3%	1.1%	1.0%	1.0%	1.0%	2.0%
			L	.	.	.	.	337.3	346.9	347.1	348.9	348.8	349.3	349.8	.	.	.	.	3.8%	2.8%	0.1%	0.5%	-0.0%	0.2%	0.1%	1.1%

EUROCONTROL SEVEN-YEAR FORECAST
SEPTEMBER 2017ANNEX 3 SEVEN-YEAR FLIGHT FORECAST
PER STATE (IFR MOVEMENTS)

This appendix presents the flight forecast details. On top of the average annual growth rates (AAGR) 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 have been added to the tables.

Figure 44. Forecast of the number of IFR Movements (thousands) per State.

IFR Movements (thousands)		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	AAGR 2023/2016	RP2 AAGR 2019/2014
Albania	H	.	.	.	.	.	191	206	217	228	238	249	259	4.8%	.
	B	195	201	198	202	187	190	201	207	213	218	224	230	3.0%	.
	L	.	.	.	.	.	189	196	197	200	202	204	206	1.4%	.
Armenia	H	.	.	.	.	.	55	62	64	66	68	70	72	9.2%	.
	B	56	52	51	42	39	55	61	62	64	65	66	68	8.2%	.
	L	.	.	.	.	.	54	60	61	61	62	63	64	7.3%	.
Austria	H	.	.	.	.	.	1,234	1,295	1,352	1,407	1,452	1,498	1,542	4.0%	3.2%
	B	1,133	1,114	1,152	1,168	1,174	1,229	1,266	1,293	1,319	1,339	1,362	1,386	2.4%	2.3%
	L	.	.	.	.	.	1,224	1,238	1,235	1,241	1,240	1,242	1,244	0.8%	1.4%
Azerbaijan	H	.	.	.	.	.	143	155	164	174	184	195	206	6.2%	.
	B	130	129	127	129	135	142	151	157	164	170	177	184	4.5%	.
	L	.	.	.	.	.	141	148	151	155	159	163	167	3.0%	.
Belarus	H	.	.	.	.	.	293	312	327	342	354	367	379	4.6%	.
	B	240	255	269	263	278	292	305	312	319	325	332	339	2.9%	.
	L	.	.	.	.	.	290	298	297	299	300	302	303	1.3%	.
Belgium/Luxembourg	H	.	.	.	.	.	1,250	1,308	1,354	1,408	1,441	1,471	1,500	3.4%	3.6%
	B	1,089	1,101	1,133	1,165	1,188	1,245	1,283	1,307	1,329	1,346	1,366	1,386	2.2%	2.9%
	L	.	.	.	.	.	1,240	1,257	1,253	1,258	1,256	1,257	1,258	0.8%	2.0%
Bosnia-Herzegovina	H	.	.	.	.	.	358	375	394	413	429	446	463	5.5%	.
	B	268	262	298	311	319	357	366	376	386	394	403	412	3.7%	.
	L	.	.	.	.	.	355	358	359	363	364	367	369	2.1%	.
Bulgaria	H	.	.	.	.	.	782	829	875	923	964	1,008	1,052	4.8%	5.1%
	B	540	551	683	767	758	779	810	836	861	883	908	933	3.0%	4.1%
	L	.	.	.	.	.	775	792	799	812	818	827	836	1.4%	3.2%
Canary Islands	H	.	.	.	.	.	332	356	374	389	402	417	432	4.8%	5.7%
	B	275	265	284	281	310	331	347	355	361	366	371	377	2.8%	4.6%
	L	.	.	.	.	.	329	338	338	337	336	335	334	1.0%	3.6%
Croatia	H	.	.	.	.	.	587	625	657	689	716	744	772	5.2%	4.8%
	B	495	492	520	535	540	584	611	627	643	657	671	687	3.5%	3.8%
	L	582	597	598	604	606	610	614	1.9%	2.8%

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IFR Movements (thousands)		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	AAGR 2023/2016	RP2 AAGR 2019/2014
Cyprus	H	.	.	.	.	.	363	390	418	446	473	503	535	7.5%	6.5%
	B	270	277	304	319	322	361	378	394	411	426	443	461	5.2%	5.3%
	L	.	.	.	.	.	359	368	374	382	389	396	404	3.3%	4.2%
Czech Republic	H	.	.	.	.	.	828	888	931	974	1,011	1,045	1,073	4.3%	5.9%
	B	679	680	700	746	797	824	866	887	907	924	943	963	2.7%	4.8%
	L	.	.	.	.	.	821	845	844	850	851	854	857	1.0%	3.8%
Denmark	H	.	.	.	.	.	652	674	694	721	738	756	774	2.8%	2.3%
	B	605	618	619	626	640	650	662	673	684	690	698	707	1.4%	1.7%
	L	.	.	.	.	.	647	650	647	649	646	644	643	0.1%	0.9%
Estonia	H	.	.	.	.	.	215	227	238	250	259	269	280	4.9%	4.4%
	B	189	183	191	194	200	214	222	227	233	238	243	248	3.1%	3.5%
	L	.	.	.	.	.	213	217	217	218	219	220	221	1.4%	2.5%
FYROM	H	.	.	.	.	.	172	178	186	194	202	209	217	5.9%	.
	B	113	113	146	152	146	172	174	179	183	187	191	196	4.3%	.
	L	.	.	.	.	.	171	171	171	173	174	176	177	2.9%	.
Finland	H	.	.	.	.	.	263	274	281	290	297	304	312	3.4%	2.6%
	B	252	243	248	248	247	262	269	272	275	278	281	284	2.0%	1.9%
	L	.	.	.	.	.	261	264	261	261	259	257	256	0.5%	1.1%
France	H	.	.	.	.	.	3,259	3,429	3,543	3,683	3,773	3,862	3,951	3.4%	3.8%
	B	2,923	2,902	2,947	2,992	3,124	3,245	3,350	3,417	3,480	3,523	3,575	3,625	2.1%	3.0%
	L	.	.	.	.	.	3,232	3,279	3,270	3,281	3,274	3,276	3,277	0.7%	2.1%
Georgia	H	.	.	.	.	.	146	160	170	181	191	201	213	7.8%	.
	B	108	110	116	122	126	146	157	163	170	176	183	190	6.1%	.
	L	.	.	.	.	.	145	154	157	161	165	168	172	4.6%	.
Germany	H	.	.	.	.	.	3,291	3,441	3,558	3,680	3,776	3,870	3,960	3.3%	3.3%
	B	3,018	2,990	3,030	3,080	3,146	3,278	3,373	3,428	3,485	3,526	3,576	3,627	2.1%	2.5%
	L	.	.	.	.	.	3,264	3,306	3,292	3,306	3,301	3,304	3,308	0.7%	1.7%
Greece	H	.	.	.	.	.	751	786	828	873	913	957	1,003	5.3%	4.1%
	B	633	623	678	713	700	747	767	789	813	835	858	883	3.4%	3.1%
	L	.	.	.	.	.	744	749	752	763	769	778	787	1.7%	2.1%
Hungary	H	.	.	.	.	.	828	886	934	982	1,025	1,068	1,111	5.3%	6.9%
	B	589	600	670	744	776	824	866	891	915	936	959	983	3.4%	5.9%
	L	.	.	.	.	.	821	846	850	860	865	872	879	1.8%	4.9%
Iceland	H	.	.	.	.	.	201	211	221	233	243	254	265	5.7%	.
	B	123	131	145	160	180	200	207	214	220	226	232	239	4.1%	.
	L	.	.	.	.	.	200	203	206	209	211	214	217	2.7%	.
Ireland	H	.	.	.	.	.	625	658	672	690	735	758	782	3.6%	4.6%
	B	521	522	537	566	610	622	646	660	669	685	697	710	2.2%	4.2%
	L	620	634	636	642	644	648	651	0.9%	3.5%

EUROCONTROL SEVEN-YEAR FORECAST
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IFR Movements (thousands)		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	AAGR 2023/2016	RP2 AAGR 2019/2014
Italy	H	.	.	.	.	.	1,795	1,893	1,985	2,072	2,145	2,221	2,299	4.1%	3.4%
	B	1,685	1,648	1,680	1,696	1,734	1,788	1,846	1,885	1,924	1,952	1,987	2,022	2.2%	2.3%
	L	.	.	.	.	.	1,781	1,801	1,789	1,793	1,787	1,786	1,786	0.4%	1.3%
Latvia	H	.	.	.	.	.	268	283	296	310	322	333	345	4.9%	4.1%
	B	233	236	243	244	246	267	276	282	287	291	297	302	3.0%	3.0%
	L	.	.	.	.	.	266	269	267	268	267	267	266	1.1%	2.0%
Lisbon FIR	H	.	.	.	.	.	620	658	691	718	742	768	794	5.1%	7.5%
	B	438	449	480	505	559	618	641	655	667	676	687	697	3.2%	6.4%
	L	.	.	.	.	.	615	625	622	622	618	617	615	1.4%	5.3%
Lithuania	H	.	.	.	.	.	276	292	306	320	330	341	352	4.4%	3.5%
	B	236	242	257	260	261	274	285	291	297	301	306	312	2.6%	2.5%
	L	.	.	.	.	.	273	278	277	277	276	276	276	0.8%	1.5%
Malta	H	.	.	.	.	.	117	126	136	147	157	169	183	7.6%	6.0%
	B	97	109	102	102	110	117	122	128	134	140	146	153	4.8%	4.7%
	L	.	.	.	.	.	116	119	121	124	126	129	132	2.7%	3.5%
Moldova	H	.	.	.	.	.	51	56	59	62	66	69	72	8.2%	.
	B	64	74	56	45	42	51	54	56	58	59	61	63	6.0%	.
	L	.	.	.	.	.	51	52	53	53	54	55	55	4.0%	.
Morocco	H	.	.	.	.	.	409	433	468	501	535	572	615	7.0%	.
	B	324	334	359	361	383	407	420	438	455	471	488	507	4.1%	.
	L	.	.	.	.	.	405	408	412	418	422	428	433	1.8%	.
Netherlands	H	.	.	.	.	.	1,300	1,342	1,379	1,416	1,450	1,478	1,506	2.8%	3.9%
	B	1,083	1,109	1,138	1,176	1,241	1,295	1,326	1,349	1,364	1,377	1,392	1,407	1.8%	3.5%
	L	.	.	.	.	.	1,290	1,303	1,299	1,304	1,301	1,302	1,303	0.7%	2.7%
Norway	H	.	.	.	.	.	595	611	621	647	661	676	690	2.0%	0.1%
	B	587	610	619	603	599	594	602	609	615	618	622	627	0.7%	-0.3%
	L	.	.	.	.	.	592	592	588	586	580	576	572	-0.6%	-1.0%
Poland	H	.	.	.	.	.	792	849	900	948	981	1,016	1,051	4.8%	5.1%
	B	684	692	702	699	755	788	825	851	875	894	915	937	3.1%	3.9%
	L	.	.	.	.	.	784	803	805	811	813	817	820	1.2%	2.8%
Romania	H	.	.	.	.	.	670	707	746	786	821	858	895	5.4%	4.5%
	B	487	513	598	635	621	668	690	710	731	748	768	788	3.5%	3.5%
	L	.	.	.	.	.	665	673	677	686	690	696	702	1.8%	2.5%
Santa Maria FIR	H	.	.	.	.	.	166	175	182	190	196	202	209	4.8%	7.9%
	B	118	121	125	136	151	166	171	176	180	183	186	190	3.3%	7.1%
	L	.	.	.	.	.	165	168	169	170	171	172	173	2.0%	6.3%
Serbia&Montenegro	H	.	.	.	.	.	653	689	723	759	788	819	851	4.6%	.
	B	535	518	554	605	619	650	673	691	709	724	741	758	2.9%	.
	L	647	658	660	667	670	675	680	1.3%	.

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IFR Movements (thousands)		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	AAGR 2023/2016	RP2 AAGR 2019/2014
Slovakia	H	.	.	.	.	.	522	559	589	620	647	674	702	5.0%	6.2%
	B	381	398	436	468	498	520	545	561	577	590	605	620	3.2%	5.2%
	L	.	.	.	.	.	517	533	535	541	544	548	552	1.5%	4.2%
Slovenia	H	.	.	.	.	.	386	414	433	453	469	486	502	5.1%	4.5%
	B	346	329	348	347	353	385	405	414	425	433	442	451	3.6%	3.6%
	L	.	.	.	.	.	383	396	396	400	401	403	406	2.0%	2.6%
Spain	H	.	.	.	.	.	1,889	2,001	2,105	2,193	2,272	2,350	2,430	4.7%	5.8%
	B	1,557	1,528	1,587	1,640	1,766	1,881	1,951	2,003	2,048	2,080	2,116	2,156	2.9%	4.8%
	L	.	.	.	.	.	1,873	1,905	1,907	1,917	1,914	1,915	1,921	1.2%	3.7%
Sweden	H	.	.	.	.	.	813	840	864	893	914	937	960	3.2%	3.2%
	B	724	730	739	751	767	810	829	842	855	864	876	889	2.1%	2.6%
	L	.	.	.	.	.	808	817	813	814	811	809	808	0.7%	1.9%
Switzerland	H	.	.	.	.	.	1,110	1,161	1,206	1,252	1,284	1,316	1,343	3.3%	3.1%
	B	1,045	1,019	1,033	1,046	1,069	1,106	1,136	1,158	1,177	1,190	1,208	1,226	2.0%	2.3%
	L	.	.	.	.	.	1,102	1,112	1,107	1,109	1,105	1,105	1,105	0.5%	1.4%
Turkey	H	.	.	.	.	.	1,420	1,551	1,653	1,758	1,855	1,959	2,070	6.5%	.
	B	1,066	1,142	1,269	1,356	1,336	1,414	1,511	1,584	1,648	1,707	1,772	1,836	4.6%	.
	L	.	.	.	.	.	1,408	1,477	1,514	1,556	1,584	1,616	1,646	3.0%	.
Ukraine	H	.	.	.	.	.	234	258	276	292	305	320	335	8.1%	.
	B	466	494	320	213	195	233	250	260	268	276	285	294	6.1%	.
	L	.	.	.	.	.	232	243	245	249	251	254	257	4.1%	.
UK	H	.	.	.	.	.	2,559	2,658	2,722	2,810	2,899	2,967	3,034	3.1%	3.7%
	B	2,211	2,225	2,269	2,322	2,449	2,550	2,616	2,651	2,689	2,720	2,752	2,784	1.8%	3.2%
	L	.	.	.	.	.	2,542	2,571	2,560	2,574	2,574	2,580	2,585	0.8%	2.4%
ESRA02	H	.	.	.	.	.	10,401	10,873	11,276	11,714	12,082	12,445	12,812	3.7%	.
	B	9,388	9,297	9,495	9,667	9,935	10,360	10,641	10,861	11,069	11,229	11,415	11,604	2.2%	.
	L	.	.	.	.	.	10,322	10,425	10,414	10,472	10,466	10,489	10,511	0.8%	.
EU27	H	.	.	.	.	.	9,640	10,067	10,434	10,824	11,150	11,468	11,787	3.6%	3.5%
	B	8,766	8,622	8,783	8,920	9,192	9,601	9,852	10,037	10,217	10,353	10,511	10,675	2.2%	2.7%
	L	.	.	.	.	.	9,564	9,649	9,618	9,655	9,638	9,646	9,657	0.7%	1.8%
ECAC	H	.	.	.	.	.	10,694	11,188	11,610	12,066	12,447	12,825	13,208	3.8%	3.5%
	B	9,709	9,603	9,770	9,923	10,197	10,651	10,947	11,177	11,394	11,562	11,758	11,957	2.3%	2.7%
	L	.	.	.	.	.	10,611	10,723	10,714	10,776	10,772	10,798	10,823	0.9%	1.9%
ESRA08	H	.	.	.	.	.	10,483	10,964	11,374	11,818	12,188	12,554	12,923	3.7%	3.4%
	B	9,548	9,447	9,604	9,752	10,014	10,441	10,729	10,952	11,163	11,325	11,515	11,707	2.3%	2.7%
	L	.	.	.	.	.	10,402	10,509	10,499	10,558	10,552	10,576	10,598	0.8%	1.8%
SES-SJU	H	.	.	.	.	.	10,044	10,480	10,858	11,269	11,611	11,948	12,287	3.6%	3.4%
	B	9,162	9,022	9,192	9,326	9,596	10,004	10,258	10,449	10,636	10,775	10,940	11,109	2.1%	2.6%
	L	9,966	10,049	10,016	10,053	10,032	10,039	10,048	0.7%	1.7%

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IFR Movements (thousands)		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	AAGR 2023/2016	RP2 AAGR 2019/2014
Baltic FAB	H	.	.	.	.	.	897	957	1,014	1,067	1,104	1,142	1,182	5.0%	5.2%
	B	768	776	788	790	843	893	931	959	984	1,005	1,028	1,052	3.2%	4.0%
	L	.	.	.	.	.	889	907	908	914	915	918	921	1.3%	2.9%
BLUE MED FAB	H	.	.	.	.	.	2,514	2,649	2,789	2,924	3,043	3,170	3,303	4.8%	4.1%
	B	2,212	2,194	2,282	2,327	2,371	2,503	2,582	2,648	2,714	2,768	2,830	2,895	2.9%	3.0%
	L	.	.	.	.	.	2,493	2,519	2,515	2,532	2,536	2,548	2,560	1.1%	2.0%
Danube FAB	H	.	.	.	.	.	962	1,025	1,081	1,138	1,188	1,239	1,292	5.2%	5.5%
	B	746	758	829	895	905	958	1,001	1,031	1,060	1,085	1,113	1,142	3.4%	4.5%
	L	.	.	.	.	.	954	978	984	996	1,002	1,011	1,019	1.7%	3.5%
FAB CE	H	.	.	.	.	.	2,174	2,283	2,394	2,503	2,595	2,687	2,775	4.3%	4.4%
	B	1,865	1,854	1,928	2,001	2,060	2,164	2,228	2,282	2,335	2,378	2,426	2,476	2.7%	3.4%
	L	.	.	.	.	.	2,155	2,176	2,174	2,190	2,192	2,200	2,208	1.0%	2.4%
FABEC	H	.	.	.	.	.	6,116	6,369	6,574	6,804	6,973	7,137	7,296	3.2%	3.4%
	B	5,564	5,499	5,571	5,667	5,848	6,091	6,238	6,348	6,453	6,527	6,617	6,706	2.0%	2.6%
	L	.	.	.	.	.	6,067	6,113	6,090	6,112	6,099	6,104	6,106	0.6%	1.8%
NEFAB	H	.	.	.	.	.	1,032	1,065	1,092	1,136	1,163	1,193	1,222	2.8%	1.2%
	B	1,001	1,012	1,030	1,015	1,006	1,028	1,046	1,059	1,073	1,080	1,091	1,102	1.3%	0.6%
	L	.	.	.	.	.	1,025	1,026	1,018	1,016	1,007	1,002	997	-0.1%	-0.2%
South West FAB	H	.	.	.	.	.	2,075	2,197	2,310	2,405	2,490	2,576	2,663	4.7%	6.0%
	B	1,702	1,663	1,727	1,782	1,930	2,066	2,142	2,197	2,244	2,277	2,315	2,357	2.9%	4.9%
	L	.	.	.	.	.	2,058	2,092	2,091	2,100	2,094	2,094	2,098	1.2%	3.9%
UK-Ireland FAB	H	.	.	.	.	.	2,601	2,702	2,767	2,854	2,948	3,019	3,088	3.1%	3.8%
	B	2,238	2,254	2,299	2,358	2,488	2,592	2,658	2,695	2,732	2,765	2,798	2,831	1.9%	3.2%
	L	.	.	.	.	.	2,583	2,612	2,602	2,616	2,615	2,621	2,626	0.8%	2.5%
DK-SE FAB	H	.	.	.	.	.	1,066	1,096	1,127	1,165	1,192	1,221	1,250	2.7%	2.3%
	B	978	999	1,005	1,011	1,035	1,063	1,080	1,097	1,113	1,124	1,138	1,153	1.6%	1.8%
	L	.	.	.	.	.	1,060	1,063	1,058	1,059	1,053	1,051	1,049	0.2%	1.0%
EU28	H	.	.	.	.	.	9,656	10,082	10,450	10,840	11,167	11,487	11,806	3.6%	3.5%
	B	8,779	8,634	8,797	8,934	9,207	9,617	9,867	10,052	10,233	10,369	10,528	10,692	2.2%	2.7%
	L	.	.	.	.	.	9,580	9,663	9,633	9,670	9,653	9,662	9,672	0.7%	1.8%
SES-RP2	H	.	.	.	.	.	9,948	10,378	10,745	11,145	11,474	11,797	12,118	3.5%	3.3%
	B	9,087	8,946	9,114	9,243	9,507	9,908	10,159	10,344	10,525	10,658	10,816	10,978	2.1%	2.6%
	L	.	.	.	.	.	9,871	9,952	9,917	9,951	9,928	9,932	9,938	0.6%	1.7%

ANNEX 4 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 45. Forecast of the IFR Movements growth per State.

IFR Movements (Growth)		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	AAGR 2023/2016	RP2 AAGR 2019/2014
Albania	H	.	.	.	.	.	2.3%	7.5%	5.4%	5.4%	4.4%	4.4%	4.2%	4.8%	.
	B	-1.1%	2.8%	-1.1%	1.8%	-7.5%	1.9%	5.5%	3.0%	3.1%	2.5%	2.7%	2.7%	3.0%	.
	L	.	.	.	.	.	1.4%	3.6%	0.5%	1.5%	0.9%	1.1%	1.1%	1.4%	.
Armenia	H	.	.	.	.	.	41%	12%	3.0%	3.4%	3.0%	3.1%	3.2%	9.2%	.
	B	-2.0%	-6.6%	-3.4%	-17%	-7.6%	40%	11%	2.1%	2.2%	1.9%	2.1%	2.2%	8.2%	.
	L	.	.	.	.	.	40%	10%	1.1%	1.4%	1.1%	1.2%	1.3%	7.3%	.
Austria	H	.	.	.	.	.	5.1%	4.9%	4.4%	4.1%	3.2%	3.2%	2.9%	4.0%	3.2%
	B	-1.8%	-1.7%	3.4%	1.4%	0.6%	4.6%	3.1%	2.1%	2.0%	1.5%	1.7%	1.7%	2.4%	2.3%
	L	.	.	.	.	.	4.2%	1.2%	-0.3%	0.5%	-0.1%	0.2%	0.2%	0.8%	1.4%
Azerbaijan	H	.	.	.	.	.	5.5%	8.3%	6.0%	6.4%	5.5%	5.8%	5.7%	6.2%	.
	B	5.4%	-1.3%	-1.2%	1.4%	5.1%	4.9%	6.5%	4.0%	4.2%	3.8%	4.0%	4.1%	4.5%	.
	L	.	.	.	.	.	4.4%	4.7%	2.0%	2.8%	2.2%	2.5%	2.5%	3.0%	.
Belarus	H	.	.	.	.	.	5.6%	6.5%	4.6%	4.6%	3.5%	3.6%	3.4%	4.6%	.
	B	6.7%	6.2%	5.6%	-2.2%	5.5%	5.1%	4.5%	2.2%	2.3%	1.9%	2.1%	2.2%	2.9%	.
	L	.	.	.	.	.	4.7%	2.6%	-0.3%	0.7%	0.3%	0.5%	0.6%	1.3%	.
Belgium/Luxembourg	H	.	.	.	.	.	5.2%	4.6%	3.6%	4.0%	2.4%	2.0%	2.0%	3.4%	3.6%
	B	-0.2%	1.0%	2.9%	2.8%	2.0%	4.8%	3.1%	1.9%	1.7%	1.3%	1.5%	1.5%	2.2%	2.9%
	L	.	.	.	.	.	4.4%	1.4%	-0.4%	0.4%	-0.1%	0.1%	0.1%	0.8%	2.0%
Bosnia-Herzegovina	H	.	.	.	.	.	12%	4.7%	5.1%	4.8%	3.9%	4.0%	3.9%	5.5%	.
	B	-2.6%	-2.2%	14%	4.2%	2.6%	12%	2.7%	2.6%	2.6%	2.1%	2.3%	2.3%	3.7%	.
	L	.	.	.	.	.	11%	0.9%	0.2%	1.0%	0.5%	0.6%	0.6%	2.1%	.
Bulgaria	H	.	.	.	.	.	3.2%	6.0%	5.5%	5.4%	4.5%	4.5%	4.4%	4.8%	5.1%
	B	0.2%	1.9%	24%	12%	-1.2%	2.7%	4.1%	3.2%	3.0%	2.5%	2.8%	2.8%	3.0%	4.1%
	L	.	.	.	.	.	2.3%	2.2%	0.9%	1.5%	0.8%	1.1%	1.1%	1.4%	3.2%
Canary Islands	H	.	.	.	.	.	7.1%	7.0%	5.1%	3.9%	3.5%	3.6%	3.7%	4.8%	5.7%
	B	-7.7%	-3.4%	6.9%	-0.9%	11%	6.6%	4.8%	2.4%	1.8%	1.3%	1.5%	1.5%	2.8%	4.6%
	L	.	.	.	.	.	6.1%	2.7%	-0.2%	-0.0%	-0.5%	-0.3%	-0.3%	1.0%	3.6%
Croatia	H	.	.	.	.	.	8.6%	6.6%	5.1%	4.8%	3.9%	3.9%	3.8%	5.2%	4.8%
	B	-0.4%	-0.6%	5.5%	3.0%	0.9%	8.2%	4.6%	2.6%	2.6%	2.1%	2.3%	2.3%	3.5%	3.8%
	L	.	.	.	.	.	7.7%	2.6%	0.2%	1.0%	0.4%	0.6%	0.6%	1.9%	2.8%
Cyprus	H	13%	7.5%	7.1%	6.8%	6.1%	6.3%	6.4%	7.5%	6.5%
	B	-4.1%	2.8%	9.7%	4.8%	1.0%	12%	4.9%	4.2%	4.2%	3.7%	3.9%	4.0%	5.2%	5.3%
	L	11%	2.6%	1.6%	2.3%	1.7%	1.9%	1.9%	3.3%	4.2%

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IFR Movements (Growth)		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	AAGR 2023/2016	RP2 AAGR 2019/2014
Czech Republic	H	.	.	.	.	.	3.8%	7.2%	4.9%	4.6%	3.8%	3.4%	2.7%	4.3%	5.9%
	B	-2.3%	0.0%	3.1%	6.5%	6.9%	3.4%	5.0%	2.4%	2.3%	1.9%	2.1%	2.1%	2.7%	4.8%
	L	.	.	.	.	.	2.9%	3.0%	-0.2%	0.7%	0.1%	0.3%	0.3%	1.0%	3.8%
Denmark	H	.	.	.	.	.	1.9%	3.3%	3.1%	3.8%	2.5%	2.4%	2.3%	2.8%	2.3%
	B	-3.2%	2.3%	0.0%	1.3%	2.1%	1.6%	2.0%	1.7%	1.5%	1.0%	1.2%	1.3%	1.4%	1.7%
	L	.	.	.	.	.	1.2%	0.5%	-0.4%	0.2%	-0.5%	-0.2%	-0.1%	0.1%	0.9%
Estonia	H	.	.	.	.	.	7.5%	5.3%	4.7%	5.1%	3.8%	3.9%	3.8%	4.9%	4.4%
	B	6.1%	-3.1%	4.6%	1.2%	3.4%	7.0%	3.4%	2.5%	2.4%	2.0%	2.3%	2.3%	3.1%	3.5%
	L	.	.	.	.	.	6.5%	1.5%	0.0%	0.8%	0.3%	0.5%	0.5%	1.4%	2.5%
FYROM	H	.	.	.	.	.	18%	3.4%	4.5%	4.5%	3.7%	3.7%	3.7%	5.9%	.
	B	-9.6%	0.1%	30%	3.9%	-4.3%	18%	1.6%	2.4%	2.6%	2.1%	2.3%	2.3%	4.3%	.
	L	.	.	.	.	.	17%	-0.1%	0.3%	1.1%	0.6%	0.8%	0.8%	2.9%	.
Finland	H	.	.	.	.	.	6.5%	4.1%	2.8%	3.1%	2.3%	2.5%	2.4%	3.4%	2.6%
	B	-5.8%	-3.5%	1.9%	0.0%	-0.4%	6.1%	2.6%	1.2%	1.3%	0.8%	1.1%	1.1%	2.0%	1.9%
	L	.	.	.	.	.	5.7%	1.1%	-0.9%	-0.2%	-0.8%	-0.5%	-0.5%	0.5%	1.1%
France	H	.	.	.	.	.	4.3%	5.2%	3.3%	4.0%	2.4%	2.4%	2.3%	3.4%	3.8%
	B	-1.5%	-0.7%	1.6%	1.5%	4.4%	3.9%	3.2%	2.0%	1.8%	1.3%	1.5%	1.4%	2.1%	3.0%
	L	.	.	.	.	.	3.5%	1.4%	-0.3%	0.3%	-0.2%	0.1%	0.0%	0.7%	2.1%
Georgia	H	.	.	.	.	.	16%	9.5%	6.2%	6.2%	5.4%	5.6%	5.6%	7.8%	.
	B	-1.7%	2.1%	5.2%	5.5%	2.8%	16%	7.7%	4.1%	4.0%	3.6%	3.9%	3.9%	6.1%	.
	L	.	.	.	.	.	15%	5.9%	2.1%	2.6%	2.1%	2.3%	2.3%	4.6%	.
Germany	H	.	.	.	.	.	4.6%	4.5%	3.4%	3.5%	2.6%	2.5%	2.3%	3.3%	3.3%
	B	-2.0%	-0.9%	1.3%	1.7%	2.1%	4.2%	2.9%	1.6%	1.7%	1.2%	1.4%	1.4%	2.1%	2.5%
	L	.	.	.	.	.	3.8%	1.3%	-0.4%	0.4%	-0.2%	0.1%	0.1%	0.7%	1.7%
Greece	H	.	.	.	.	.	7.2%	4.7%	5.4%	5.4%	4.6%	4.8%	4.8%	5.3%	4.1%
	B	-3.5%	-1.6%	8.8%	5.1%	-1.7%	6.8%	2.6%	2.9%	3.1%	2.6%	2.8%	2.9%	3.4%	3.1%
	L	.	.	.	.	.	6.3%	0.6%	0.5%	1.4%	0.9%	1.1%	1.1%	1.7%	2.1%
Hungary	H	.	.	.	.	.	6.6%	7.1%	5.4%	5.2%	4.3%	4.2%	4.0%	5.3%	6.9%
	B	-4.4%	1.9%	12%	11%	4.3%	6.2%	5.1%	2.9%	2.7%	2.3%	2.5%	2.5%	3.4%	5.9%
	L	.	.	.	.	.	5.7%	3.1%	0.5%	1.2%	0.6%	0.8%	0.8%	1.8%	4.9%
Iceland	H	.	.	.	.	.	12%	5.0%	4.8%	5.2%	4.4%	4.3%	4.3%	5.7%	.
	B	11%	6.8%	11%	11%	12%	11%	3.4%	3.1%	3.0%	2.6%	2.8%	2.8%	4.1%	.
	L	.	.	.	.	.	11%	1.7%	1.2%	1.7%	1.1%	1.3%	1.3%	2.7%	.
Ireland	H	.	.	.	.	.	2.4%	5.4%	2.1%	2.6%	6.5%	3.2%	3.1%	3.6%	4.6%
	B	-0.4%	0.3%	2.8%	5.4%	7.8%	2.1%	3.8%	2.1%	1.3%	2.4%	1.8%	1.8%	2.2%	4.2%
	L	.	.	.	.	.	1.7%	2.2%	0.3%	0.9%	0.3%	0.6%	0.6%	0.9%	3.5%
Italy	H	3.6%	5.4%	4.9%	4.4%	3.5%	3.6%	3.5%	4.1%	3.4%
	B	-2.3%	-2.2%	1.9%	1.0%	2.2%	3.2%	3.2%	2.1%	2.0%	1.5%	1.8%	1.8%	2.2%	2.3%
	L	2.8%	1.1%	-0.6%	0.2%	-0.3%	-0.0%	-0.0%	0.4%	1.3%

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IFR Movements (Growth)		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	AAGR 2023/2016	RP2 AAGR 2019/2014
Latvia	H	.	.	.	.	.	9.1%	5.5%	4.7%	4.8%	3.6%	3.6%	3.5%	4.9%	4.1%
	B	-1.0%	1.3%	2.8%	0.7%	0.7%	8.5%	3.4%	2.1%	1.9%	1.5%	1.8%	1.8%	3.0%	3.0%
	L	.	.	.	.	.	8.0%	1.3%	-0.6%	0.1%	-0.3%	-0.1%	-0.0%	1.1%	2.0%
Lisbon FIR	H	.	.	.	.	.	11%	6.0%	5.0%	3.9%	3.5%	3.4%	3.4%	5.1%	7.5%
	B	-2.7%	2.6%	6.8%	5.1%	11%	10%	3.8%	2.3%	1.8%	1.3%	1.5%	1.5%	3.2%	6.4%
	L	.	.	.	.	.	10%	1.6%	-0.5%	-0.1%	-0.5%	-0.3%	-0.3%	1.4%	5.3%
Lithuania	H	.	.	.	.	.	5.8%	5.9%	4.8%	4.5%	3.3%	3.3%	3.2%	4.4%	3.5%
	B	1.0%	2.9%	6.0%	1.2%	0.2%	5.3%	3.8%	2.1%	2.0%	1.5%	1.7%	1.7%	2.6%	2.5%
	L	.	.	.	.	.	4.8%	1.8%	-0.5%	0.2%	-0.3%	-0.0%	-0.0%	0.8%	1.5%
Malta	H	.	.	.	.	.	6.9%	7.6%	8.0%	7.7%	7.2%	7.6%	7.9%	7.6%	6.0%
	B	20%	13%	-6.8%	0.7%	7.1%	6.2%	4.9%	4.6%	4.8%	4.2%	4.5%	4.5%	4.8%	4.7%
	L	.	.	.	.	.	5.7%	2.5%	1.7%	2.5%	1.9%	2.2%	2.2%	2.7%	3.5%
Moldova	H	.	.	.	.	.	23%	8.3%	6.3%	5.6%	5.0%	5.1%	5.1%	8.2%	.
	B	5.7%	16%	-24%	-19%	-8.0%	22%	5.5%	3.3%	3.3%	2.9%	3.1%	3.0%	6.0%	.
	L	.	.	.	.	.	22%	3.0%	0.5%	1.4%	1.0%	1.2%	1.2%	4.0%	.
Morocco	H	.	.	.	.	.	6.7%	6.0%	7.9%	7.2%	6.7%	7.1%	7.4%	7.0%	.
	B	-8.1%	3.3%	7.6%	0.3%	6.3%	6.2%	3.2%	4.3%	4.0%	3.4%	3.7%	3.8%	4.1%	.
	L	.	.	.	.	.	5.7%	0.8%	1.0%	1.5%	1.0%	1.2%	1.2%	1.8%	.
Netherlands	H	.	.	.	.	.	4.8%	3.2%	2.8%	2.7%	2.3%	2.0%	1.9%	2.8%	3.9%
	B	-0.2%	2.4%	2.6%	3.4%	5.5%	4.4%	2.4%	1.8%	1.2%	1.0%	1.0%	1.1%	1.8%	3.5%
	L	.	.	.	.	.	4.0%	1.0%	-0.4%	0.4%	-0.2%	0.1%	0.1%	0.7%	2.7%
Norway	H	.	.	.	.	.	-0.5%	2.6%	1.6%	4.2%	2.0%	2.3%	2.0%	2.0%	0.1%
	B	4.2%	4.0%	1.4%	-2.5%	-0.8%	-0.8%	1.5%	1.0%	1.1%	0.4%	0.7%	0.7%	0.7%	-0.3%
	L	.	.	.	.	.	-1.1%	0.1%	-0.8%	-0.3%	-1.0%	-0.7%	-0.7%	-0.6%	-1.0%
Poland	H	.	.	.	.	.	4.9%	7.2%	6.1%	5.4%	3.5%	3.5%	3.5%	4.8%	5.1%
	B	4.6%	1.1%	1.4%	-0.3%	7.9%	4.4%	4.7%	3.2%	2.7%	2.2%	2.4%	2.4%	3.1%	3.9%
	L	.	.	.	.	.	3.9%	2.4%	0.2%	0.8%	0.2%	0.4%	0.4%	1.2%	2.8%
Romania	H	.	.	.	.	.	8.0%	5.4%	5.6%	5.4%	4.5%	4.4%	4.3%	5.4%	4.5%
	B	-0.0%	5.3%	17%	6.1%	-2.2%	7.6%	3.3%	3.0%	2.8%	2.4%	2.6%	2.6%	3.5%	3.5%
	L	.	.	.	.	.	7.1%	1.3%	0.6%	1.3%	0.7%	0.9%	0.9%	1.8%	2.5%
Santa Maria FIR	H	.	.	.	.	.	10%	5.1%	4.3%	4.0%	3.2%	3.3%	3.3%	4.8%	7.9%
	B	-3.9%	2.7%	2.8%	8.8%	11%	9.8%	3.4%	2.6%	2.3%	1.7%	1.9%	1.9%	3.3%	7.1%
	L	.	.	.	.	.	9.3%	1.7%	0.6%	0.9%	0.4%	0.6%	0.6%	2.0%	6.3%
Serbia&Montenegro	H	.	.	.	.	.	5.4%	5.6%	5.0%	4.9%	3.9%	3.9%	3.8%	4.6%	.
	B	-4.1%	-3.1%	6.9%	9.3%	2.3%	4.9%	3.6%	2.7%	2.6%	2.1%	2.3%	2.3%	2.9%	.
	L	.	.	.	.	.	4.5%	1.7%	0.3%	1.1%	0.5%	0.7%	0.7%	1.3%	.
Slovakia	H	.	.	.	.	.	4.9%	7.0%	5.5%	5.2%	4.4%	4.2%	4.1%	5.0%	6.2%
	B	-0.3%	4.4%	9.8%	7.2%	6.4%	4.4%	4.9%	2.9%	2.7%	2.3%	2.5%	2.5%	3.2%	5.2%
	L	.	.	.	.	.	4.0%	2.9%	0.4%	1.1%	0.5%	0.8%	0.8%	1.5%	4.2%

**EUROCONTROL
NMD**

Flight Movements and Service Units 2017-2023
EUROCONTROL SEVEN-YEAR FORECAST
SEPTEMBER 2017

IFR Movements (Growth)		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	AAGR 2023/2016	RP2 AAGR 2019/2014
Slovenia	H	.	.	.	.	.	9.5%	7.1%	4.7%	4.6%	3.6%	3.5%	3.3%	5.1%	4.5%
	B	-2.0%	-4.8%	5.8%	-0.2%	1.7%	9.0%	5.1%	2.4%	2.4%	1.9%	2.1%	2.1%	3.6%	3.6%
	L	.	.	.	.	.	8.5%	3.3%	0.1%	0.9%	0.4%	0.6%	0.6%	2.0%	2.6%
Spain	H	.	.	.	.	.	7.0%	5.9%	5.2%	4.2%	3.6%	3.4%	3.4%	4.7%	5.8%
	B	-6.5%	-1.9%	3.9%	3.3%	7.7%	6.5%	3.7%	2.7%	2.3%	1.5%	1.7%	1.9%	2.9%	4.8%
	L	.	.	.	.	.	6.0%	1.7%	0.1%	0.5%	-0.2%	0.1%	0.3%	1.2%	3.7%
Sweden	H	.	.	.	.	.	5.9%	3.4%	2.8%	3.4%	2.4%	2.5%	2.4%	3.2%	3.2%
	B	-0.1%	0.9%	1.2%	1.6%	2.2%	5.6%	2.3%	1.6%	1.5%	1.1%	1.4%	1.4%	2.1%	2.6%
	L	.	.	.	.	.	5.3%	1.1%	-0.4%	0.1%	-0.4%	-0.2%	-0.1%	0.7%	1.9%
Switzerland	H	.	.	.	.	.	3.8%	4.6%	3.8%	3.8%	2.5%	2.5%	2.1%	3.3%	3.1%
	B	-1.7%	-2.4%	1.4%	1.2%	2.3%	3.4%	2.8%	1.9%	1.7%	1.1%	1.5%	1.5%	2.0%	2.3%
	L	.	.	.	.	.	3.0%	0.9%	-0.4%	0.2%	-0.4%	0.0%	0.0%	0.5%	1.4%
Turkey	H	.	.	.	.	.	6.3%	9.2%	6.6%	6.4%	5.5%	5.6%	5.7%	6.5%	.
	B	2.6%	7.1%	11%	6.8%	-1.5%	5.8%	6.9%	4.8%	4.0%	3.6%	3.8%	3.6%	4.6%	.
	L	.	.	.	.	.	5.4%	4.9%	2.5%	2.8%	1.8%	2.0%	1.9%	3.0%	.
Ukraine	H	.	.	.	.	.	20%	10%	6.8%	5.7%	4.6%	4.8%	4.8%	8.1%	.
	B	2.9%	6.0%	-35%	-33%	-8.7%	20%	7.5%	3.7%	3.3%	2.9%	3.1%	3.1%	6.1%	.
	L	.	.	.	.	.	19%	4.9%	0.9%	1.4%	0.9%	1.2%	1.2%	4.1%	.
UK	H	.	.	.	.	.	4.5%	3.9%	2.4%	3.2%	3.2%	2.4%	2.2%	3.1%	3.7%
	B	-1.4%	0.6%	2.0%	2.4%	5.4%	4.1%	2.6%	1.4%	1.4%	1.2%	1.2%	1.2%	1.8%	3.2%
	L	.	.	.	.	.	3.8%	1.2%	-0.4%	0.5%	-0.0%	0.2%	0.2%	0.8%	2.4%
ESRA02	H	.	.	.	.	.	4.7%	4.5%	3.7%	3.9%	3.1%	3.0%	2.9%	3.7%	.
	B	-2.6%	-1.0%	2.1%	1.8%	2.8%	4.3%	2.7%	2.1%	1.9%	1.4%	1.7%	1.7%	2.2%	.
	L	.	.	.	.	.	3.9%	1.0%	-0.1%	0.6%	-0.1%	0.2%	0.2%	0.8%	.
EU27	H	.	.	.	.	.	4.9%	4.4%	3.6%	3.7%	3.0%	2.9%	2.8%	3.6%	3.5%
	B	-3.0%	-1.6%	1.9%	1.6%	3.1%	4.5%	2.6%	1.9%	1.8%	1.3%	1.5%	1.6%	2.2%	2.7%
	L	.	.	.	.	.	4.1%	0.9%	-0.3%	0.4%	-0.2%	0.1%	0.1%	0.7%	1.8%
ECAC	H	.	.	.	.	.	4.9%	4.6%	3.8%	3.9%	3.2%	3.0%	3.0%	3.8%	3.5%
	B	-2.2%	-1.1%	1.7%	1.6%	2.8%	4.5%	2.8%	2.1%	1.9%	1.5%	1.7%	1.7%	2.3%	2.7%
	L	.	.	.	.	.	4.1%	1.0%	-0.1%	0.6%	-0.0%	0.2%	0.2%	0.9%	1.9%
ESRA08	H	.	.	.	.	.	4.7%	4.6%	3.7%	3.9%	3.1%	3.0%	2.9%	3.7%	3.4%
	B	-2.4%	-1.1%	1.7%	1.5%	2.7%	4.3%	2.8%	2.1%	1.9%	1.5%	1.7%	1.7%	2.3%	2.7%
	L	.	.	.	.	.	3.9%	1.0%	-0.1%	0.6%	-0.1%	0.2%	0.2%	0.8%	1.8%
SES-SJU	H	.	.	.	.	.	4.7%	4.3%	3.6%	3.8%	3.0%	2.9%	2.8%	3.6%	3.4%
	B	-2.6%	-1.5%	1.9%	1.5%	2.9%	4.2%	2.5%	1.9%	1.8%	1.3%	1.5%	1.5%	2.1%	2.6%
	L	.	.	.	.	.	3.9%	0.8%	-0.3%	0.4%	-0.2%	0.1%	0.1%	0.7%	1.7%
Baltic FAB	H	.	.	.	.	.	6.5%	6.6%	5.9%	5.2%	3.5%	3.5%	3.5%	5.0%	5.2%
	B	3.6%	1.0%	1.5%	0.3%	6.6%	6.0%	4.2%	3.1%	2.6%	2.1%	2.3%	2.3%	3.2%	4.0%
	L	.	.	.	.	.	5.5%	1.9%	0.1%	0.7%	0.1%	0.4%	0.4%	1.3%	2.9%

EUROCONTROL SEVEN-YEAR FORECAST
SEPTEMBER 2017

IFR Movements (Growth)		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	AAGR 2023/2016	RP2 AAGR 2019/2014
BLUE MED FAB	H	.	.	.	.	.	6.0%	5.4%	5.3%	4.9%	4.1%	4.2%	4.2%	4.8%	4.1%
	B	-2.4%	-0.8%	4.0%	2.0%	1.9%	5.6%	3.2%	2.5%	2.5%	2.0%	2.3%	2.3%	2.9%	3.0%
	L	.	.	.	.	.	5.1%	1.0%	-0.1%	0.7%	0.2%	0.5%	0.5%	1.1%	2.0%
Danube FAB	H	.	.	.	.	.	6.4%	6.5%	5.5%	5.3%	4.4%	4.3%	4.3%	5.2%	5.5%
	B	-1.5%	1.5%	9.5%	8.0%	1.0%	5.9%	4.5%	3.0%	2.8%	2.4%	2.6%	2.6%	3.4%	4.5%
	L	.	.	.	.	.	5.5%	2.5%	0.6%	1.3%	0.6%	0.8%	0.8%	1.7%	3.5%
FAB CE	H	.	.	.	.	.	5.5%	5.0%	4.9%	4.6%	3.7%	3.6%	3.2%	4.3%	4.4%
	B	-2.6%	-0.6%	4.0%	3.8%	3.0%	5.1%	2.9%	2.4%	2.3%	1.8%	2.0%	2.0%	2.7%	3.4%
	L	.	.	.	.	.	4.6%	1.0%	-0.1%	0.7%	0.1%	0.4%	0.4%	1.0%	2.4%
FABEC	H	.	.	.	.	.	4.6%	4.1%	3.2%	3.5%	2.5%	2.4%	2.2%	3.2%	3.4%
	B	-1.9%	-1.2%	1.3%	1.7%	3.2%	4.2%	2.4%	1.7%	1.7%	1.1%	1.4%	1.3%	2.0%	2.6%
	L	.	.	.	.	.	3.8%	0.8%	-0.4%	0.4%	-0.2%	0.1%	0.0%	0.6%	1.8%
NEFAB	H	.	.	.	.	.	2.6%	3.2%	2.5%	4.0%	2.4%	2.6%	2.4%	2.8%	1.2%
	B	1.3%	1.1%	1.8%	-1.5%	-0.9%	2.3%	1.7%	1.3%	1.3%	0.7%	1.0%	1.0%	1.3%	0.6%
	L	.	.	.	.	.	1.9%	0.1%	-0.8%	-0.2%	-0.8%	-0.5%	-0.5%	-0.1%	-0.2%
South West FAB	H	.	.	.	.	.	7.6%	5.9%	5.1%	4.1%	3.6%	3.4%	3.4%	4.7%	6.0%
	B	-6.6%	-2.3%	3.9%	3.1%	8.3%	7.1%	3.7%	2.6%	2.1%	1.5%	1.7%	1.8%	2.9%	4.9%
	L	.	.	.	.	.	6.6%	1.7%	-0.0%	0.4%	-0.3%	0.0%	0.2%	1.2%	3.9%
UK-Ireland FAB	H	.	.	.	.	.	4.6%	3.9%	2.4%	3.2%	3.3%	2.4%	2.3%	3.1%	3.8%
	B	-1.5%	0.7%	2.0%	2.5%	5.5%	4.2%	2.5%	1.4%	1.4%	1.2%	1.2%	1.2%	1.9%	3.2%
	L	.	.	.	.	.	3.8%	1.1%	-0.4%	0.5%	-0.0%	0.2%	0.2%	0.8%	2.5%
DK-SE FAB	H	.	.	.	.	.	3.0%	2.8%	2.8%	3.4%	2.3%	2.4%	2.3%	2.7%	2.3%
	B	-3.0%	2.2%	0.6%	0.6%	2.3%	2.7%	1.6%	1.5%	1.5%	1.0%	1.3%	1.3%	1.6%	1.8%
	L	.	.	.	.	.	2.4%	0.3%	-0.5%	0.1%	-0.5%	-0.3%	-0.2%	0.2%	1.0%
EU28	H	.	.	.	.	.	4.9%	4.4%	3.6%	3.7%	3.0%	2.9%	2.8%	3.6%	3.5%
	B	-3.0%	-1.7%	1.9%	1.6%	3.1%	4.4%	2.6%	1.9%	1.8%	1.3%	1.5%	1.6%	2.2%	2.7%
	L	.	.	.	.	.	4.0%	0.9%	-0.3%	0.4%	-0.2%	0.1%	0.1%	0.7%	1.8%
SES-RP2	H	.	.	.	.	.	4.6%	4.3%	3.5%	3.7%	3.0%	2.8%	2.7%	3.5%	3.3%
	B	-2.7%	-1.6%	1.9%	1.4%	2.9%	4.2%	2.5%	1.8%	1.8%	1.3%	1.5%	1.5%	2.1%	2.6%
	L	.	.	.	.	.	3.8%	0.8%	-0.4%	0.3%	-0.2%	0.0%	0.1%	0.6%	1.7%

ANNEX 5 TWO-YEAR EN-ROUTE SERVICE
UNIT FORECAST PER STATE

Figure 46. Forecast Summary: Annual total en-route service units 2017-2018.

Charging Area	2016 Actual TSU ^E	2017 STATFOR Forecast TSU	2017/2016 Forecast Growth	2018 STATFOR Forecast TSU	2018/2017 Forecast Growth	2017 STATFOR/ States
EB Belgium/Luxembourg	2,499,996	2,605,751	4.2%	2,708,233	3.9%	2,580,000
ED Germany ^A	13,561,501	14,421,987	6.3%	14,827,162	2.8%	13,122,000
LF France	19,882,659	20,869,577	5.0%	21,681,816	3.9%	19,300,000
EG UK	10,874,798	11,848,313	9.0%	12,271,788	3.6%	10,583,000
EH Netherlands	3,099,952	3,251,160	4.9%	3,350,242	3.0%	2,845,616
EI Ireland	4,467,595	4,475,581	0.2%	4,621,509	3.3%	4,113,288
LS Switzerland	1,493,182	1,592,400	6.6%	1,642,837	3.2%	1,490,591
LP Lisbon FIR	3,509,556	3,829,860	9.1%	3,984,442	4.0%	3,122,232
LO Austria	2,749,863	2,935,985	6.8%	3,034,965	3.4%	2,850,000
LE Spain	9,761,348	10,443,364	7.0%	10,869,807	4.1%	9,018,000
GC Canary Islands	1,484,755	1,584,194	6.7%	1,639,321	3.5%	1,531,000
AZ Santa Maria FIR	5,039,640	5,437,846	7.9%	5,660,753	4.1%	4,387,946
LG Greece	4,678,399	5,170,260	10.5%	5,391,306	4.3%	4,404,929
LT Turkey	14,374,452	15,865,386	10.4%	17,173,236	8.2%	14,974,104
LM Malta	905,497	933,149	3.1%	970,728	4.0%	880,000
LI Italy	8,301,990	8,584,548	3.4%	8,892,289	3.6%	9,207,393
LC Cyprus	1,540,071	1,735,108	12.7%	1,822,642	5.0%	1,457,140
LH Hungary	2,788,496	2,965,538	6.3%	3,108,249	4.8%	2,413,812
EN Norway	2,495,164	2,535,342	1.6%	2,639,893	4.1%	2,438,992
EK Denmark	1,621,145	1,674,218	3.3%	1,716,007	2.5%	1,589,000
LJ Slovenia	501,752	526,450	4.9%	554,322	5.3%	514,217
LR Romania	4,442,936	4,721,197	6.3%	4,872,451	3.2%	4,219,063
LK Czech Republic	2,737,003	2,839,392	3.7%	2,980,255	5.0%	2,717,000
ES Sweden	3,401,901	3,621,474	6.5%	3,725,772	2.9%	3,341,000
LZ Slovakia	1,138,250	1,199,587	5.4%	1,260,250	5.1%	1,186,000
LD Croatia	1,787,992	1,788,157	0.0%	1,874,158	4.8%	1,808,000
LB Bulgaria	3,412,754	3,478,145	1.9%	3,616,275	4.0%	3,439,000
LW FYROM	249,929	301,580	20.7%	306,767	1.7%	272,200
LU Moldova	59,855	70,154	17.2%	74,252	5.8%	63,500
EF Finland	763,829	836,539	9.5%	851,951	1.8%	827,000
LA Albania	442,280	445,812	0.8%	470,851	5.6%	455,000
LQ Bosnia-Herzegovina	866,281	1,018,684	17.6%	1,050,062	3.1%	911,092
UD Armenia	111,239	185,547	66.8%	209,520	12.9%	120,110
LY Serbia-Montenegro-KFOR ^B	2,130,658	2,216,821	4.0%	2,288,992	3.3%	2,167,500
EP Poland	4,174,735	4,238,656	1.5%	4,409,628	4.0%	4,299,929
EY Lithuania	507,472	535,280	5.5%	560,729	4.8%	524,877
EE Estonia	834,306	859,957	3.1%	886,486	3.1%	827,117
EV Latvia ^C	789,087	868,896	10.1%	892,356	2.7%	844,000
UK Ukraine ^D	1,016,864	1,290,696	26.9%	1,443,723	11.9%	.
UG Georgia	791,282	829,195	4.8%	873,291	5.3%	833,000
Charging Area	2016 Actual TSU^E	2017 STATFOR Forecast TSU	2017/2016 Forecast Growth	2018 STATFOR Forecast TSU	2018/2017 Forecast Growth	2017 STATFOR/ States
CRCO11	142,648,012	151,651,938	6.3%	158,005,814	4.2%	140,018,532
CRCO14	143,439,294	152,481,133	6.3%	158,879,105	4.2%	140,851,532
RP1 Region ^A	118,419,992	125,181,908	5.7%	129,783,709	3.7%	115,686,197
RP2 Region ^A	120,207,984	126,970,065	5.6%	131,657,867	3.7%	117,494,197
Total^D	145,290,464	154,631,786	6.4%	161,209,314	4.3%	141,678,649

(A) For Germany, hence for SES29 and RP2, series, includes service units for flight segments performed as Operational Air Traffic. 73,165 service units concerned for 2016. 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. In the TOTAL row, the 2017 States Forecast and the percentage difference do not account for Ukraine.
(E) These figures are CRCO official annual data for 2016. For most States, they no longer match the values published in the February 2017 forecast (preliminary figures estimating a significant Ryanair credited note for 2016 that is now integrated).

**EUROCONTROL SEVEN-YEAR FORECAST
SEPTEMBER 2017**

Figure 47. Forecast Summary: Annual chargeable en-route service units 2017-2018.

Charging Area		2016 Actual TSU ^C	2017 STATFOR Forecast TSU	2018 STATFOR Forecast TSU	2016 Actual Exempted SU in %	2016 Actual Chargeable SU in %	2017 Chargeable SU Estimate	2018 Chargeable SU Estimate
EB	Belgium/Luxembourg	2,499,996	2,605,751	2,708,233	0.7%	99.3%	2,587,900	2,689,600
ED	Germany ^A	13,561,501	14,421,987	14,827,162	1.0%	99.0%	14,280,100	14,681,300
LF	France	19,882,659	20,869,577	21,681,816	1.0%	99.0%	20,671,200	21,475,700
EG	UK	10,874,798	11,848,313	12,271,788	1.5%	98.5%	11,670,800	12,088,000
EH	Netherlands	3,099,952	3,251,160	3,350,242	1.3%	98.7%	3,209,900	3,307,700
EI	Ireland	4,467,595	4,475,581	4,621,509	1.2%	98.8%	4,422,700	4,566,900
LS	Switzerland	1,493,182	1,592,400	1,642,837	0.3%	99.7%	1,588,300	1,638,600
LP	Lisbon FIR	3,509,556	3,829,860	3,984,442	1.0%	99.0%	3,790,500	3,943,500
LO	Austria	2,749,863	2,935,985	3,034,965	0.5%	99.5%	2,922,000	3,020,500
LE	Spain	9,761,348	10,443,364	10,869,807	0.9%	99.1%	10,349,300	10,771,900
GC	Canary Islands	1,484,755	1,584,194	1,639,321	0.9%	99.1%	1,570,700	1,625,400
AZ	Santa Maria FIR	5,039,640	5,437,846	5,660,753	2.0%	98.0%	5,329,300	5,547,800
LG	Greece	4,678,399	5,170,260	5,391,306	2.1%	97.9%	5,059,300	5,275,600
LT	Turkey	14,374,452	15,865,386	17,173,236	0.9%	99.1%	15,716,000	17,011,600
LM	Malta	905,497	933,149	970,728	3.4%	96.6%	901,800	938,100
LI	Italy	8,301,990	8,584,548	8,892,289	1.8%	98.2%	8,432,000	8,734,300
LC	Cyprus	1,540,071	1,735,108	1,822,642	1.6%	98.4%	1,707,800	1,793,900
LH	Hungary	2,788,496	2,965,538	3,108,249	1.3%	98.7%	2,927,700	3,068,600
EN	Norway	2,495,164	2,535,342	2,639,893	0.9%	99.1%	2,513,300	2,616,900
EK	Denmark	1,621,145	1,674,218	1,716,007	0.7%	99.3%	1,662,800	1,704,300
LJ	Slovenia	501,752	526,450	554,322	0.3%	99.7%	524,700	552,400
LR	Romania	4,442,936	4,721,197	4,872,451	1.3%	98.7%	4,661,400	4,810,800
LK	Czech Republic	2,737,003	2,839,392	2,980,255	1.8%	98.2%	2,787,000	2,925,300
ES	Sweden	3,401,901	3,621,474	3,725,772	0.5%	99.5%	3,603,100	3,706,900
LZ	Slovakia	1,138,250	1,199,587	1,260,250	1.5%	98.5%	1,181,400	1,241,200
LD	Croatia	1,787,992	1,788,157	1,874,158	0.2%	99.8%	1,783,800	1,869,500
LB	Bulgaria	3,412,754	3,478,145	3,616,275	1.2%	98.8%	3,437,000	3,573,500
LW	FYROM	249,929	301,580	306,767	0.1%	99.9%	301,300	306,500
LU	Moldova	59,855	70,154	74,252	0.1%	99.9%	70,100	74,200
EF	Finland	763,829	836,539	851,951	0.3%	99.7%	834,100	849,500
LA	Albania	442,280	445,812	470,851	0.7%	99.3%	442,700	467,500
LQ	Bosnia-Herzegovina	866,281	1,018,684	1,050,062	0.1%	99.9%	1,017,600	1,048,900
UD	Armenia	111,239	185,547	209,520	0.1%	99.9%	185,300	209,300
LY	Serbia-Montenegro-KFOR ^B	2,130,658	2,216,821	2,288,992	0.1%	99.9%	2,214,700	2,286,800
EP	Poland	4,174,735	4,238,656	4,409,628	0.6%	99.4%	4,211,700	4,381,600
EY	Lithuania	507,472	535,280	560,729	0.6%	99.4%	532,200	557,500
EE	Estonia	834,306	859,957	886,486	0.0%	100.0%	859,900	886,400
EV	Latvia	789,087	868,896	892,356	0.7%	99.3%	862,900	886,200
UK	Ukraine	1,016,864	1,290,696	1,443,723	0.5%	99.5%	1,283,800	1,436,000
UG	Georgia	791,282	829,195	873,291	1.4%	98.6%	817,800	861,300
Charging Area		2016 Actual TSU ^C	2017 STATFOR Forecast TSU	2018 STATFOR Forecast TSU	2016 Actual Exempted SU in %	2016 Actual Chargeable SU in %	2017 Chargeable SU Estimate	2018 Chargeable SU Estimate
CRCO11		142,648,012	151,651,938	158,005,814	1.1%	98.9%	149,965,400	156,248,600
CRCO14		143,439,294	152,481,133	158,879,105	1.1%	98.9%	150,783,200	157,109,900
RP1 Region ^A		118,419,992	125,181,908	129,783,709	1.1%	98.9%	123,765,800	128,315,500
RP2 Region ^A		120,207,984	126,970,065	131,657,867	1.1%	98.9%	125,550,400	130,185,800
Total		145,290,464	154,631,786	161,209,314	1.1%	98.9%	152,926,000	159,430,900

(A) For Germany, hence for RP1 and RP2, series, includes service units for flight segments performed as Operational Air Traffic, 73,165 service units concerned for 2016. Estimated number for the coming years is around 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) These figures are CRCO official annual data for 2016. For most States, they no longer match the values published in the February 2017 forecast (preliminary figures estimating a significant Ryanair credited note for 2016 that is now integrated).

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ANNEX 6 SEVEN-YEAR EN-ROUTE SERVICE UNITS FORECAST PER STATE

Figure 48. Forecast of the total number of en-route service units (thousands) per State.

Total service units (thousands)		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2023/ 2016 Total Growth	RP2 AAGR 2019/ 2014
Albania	H	.	.	.	.	.	447	478	502	529	552	576	600	36%	.
	B	443	456	469	484	442	446	471	484	498	511	525	539	22%	.
	L	.	.	.	.	.	444	464	466	473	477	483	488	10%	.
Armenia	H	.	.	.	.	.	187	218	228	233	241	248	256	130%	.
	B	154	149	142	126	111	186	210	217	220	225	230	235	111%	.
	L	.	.	.	.	.	184	201	207	208	211	214	217	95%	.
Austria	H	.	.	.	.	.	2,947	3,097	3,237	3,377	3,491	3,606	3,716	35%	4.1%
	B	2,469	2,456	2,645	2,739	2,750	2,936	3,035	3,105	3,175	3,229	3,291	3,354	22%	3.3%
	L	.	.	.	.	.	2,925	2,974	2,974	2,995	3,000	3,012	3,023	10%	2.4%
Belgium / Luxembourg	H	.	.	.	.	.	2,613	2,751	2,863	2,992	3,079	3,159	3,238	30%	3.9%
	B	2,232	2,277	2,362	2,454	2,500	2,606	2,708	2,774	2,838	2,889	2,947	3,007	20%	3.3%
	L	.	.	.	.	.	2,598	2,665	2,672	2,698	2,710	2,728	2,747	10%	2.5%
Bosnia Herzegovina	H	.	.	.	.	.	1,023	1,077	1,124	1,173	1,217	1,263	1,311	51%	.
	B	680	654	783	870	866	1,019	1,050	1,072	1,097	1,119	1,143	1,169	35%	.
	L	.	.	.	.	.	1,014	1,023	1,022	1,031	1,035	1,041	1,048	21%	.
Bulgaria	H	.	.	.	.	.	3,490	3,679	3,875	4,083	4,265	4,456	4,652	36%	7.2%
	B	2,020	2,058	2,744	3,223	3,413	3,478	3,616	3,730	3,841	3,939	4,048	4,161	22%	6.3%
	L	.	.	.	.	.	3,466	3,555	3,588	3,642	3,675	3,716	3,757	10%	5.5%
Canary Islands	H	.	.	.	.	.	1,591	1,684	1,766	1,833	1,896	1,964	2,035	37%	3.4%
	B	1,599	1,516	1,492	1,402	1,485	1,584	1,639	1,676	1,704	1,726	1,752	1,778	20%	2.4%
	L	.	.	.	.	.	1,577	1,596	1,592	1,590	1,582	1,578	1,574	6%	1.3%
Croatia	H	.	.	.	.	.	1,797	1,923	2,020	2,118	2,201	2,289	2,376	33%	2.8%
	B	1,679	1,695	1,760	1,790	1,788	1,788	1,874	1,924	1,975	2,018	2,064	2,112	18%	1.8%
	L	.	.	.	.	.	1,780	1,826	1,831	1,851	1,860	1,873	1,887	6%	0.8%
Cyprus	H	.	.	.	.	.	1,741	1,858	1,990	2,124	2,253	2,394	2,546	65%	6.5%
	B	1,303	1,327	1,454	1,548	1,540	1,735	1,823	1,904	1,984	2,059	2,142	2,229	45%	5.5%
	L	.	.	.	.	.	1,730	1,790	1,826	1,870	1,905	1,945	1,986	29%	4.7%
Czech Republic	H	.	.	.	.	.	2,850	3,043	3,184	3,324	3,445	3,559	3,666	34%	5.9%
	B	2,305	2,374	2,393	2,532	2,737	2,839	2,980	3,051	3,121	3,178	3,241	3,306	21%	5.0%
	L	.	.	.	.	.	2,829	2,919	2,918	2,941	2,946	2,958	2,969	8%	4.0%
Denmark	H	.	.	.	.	.	1,679	1,739	1,791	1,861	1,908	1,955	2,001	23%	3.2%
	B	1,429	1,524	1,532	1,583	1,621	1,674	1,716	1,747	1,777	1,798	1,823	1,850	14%	2.7%
	L	1,669	1,691	1,690	1,698	1,696	1,697	1,700	5%	2.0%

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Total service units (thousands)		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2023/ 2016 Total Growth	RP2 AAGR 2019/ 2014
Estonia	H	.	.	.	.	.	863	907	951	998	1,036	1,076	1,117	34%	3.8%
	B	725	741	790	816	834	860	886	910	933	952	973	995	19%	2.9%
	L	.	.	.	.	.	856	866	869	876	879	884	889	7%	1.9%
FYROM	H	.	.	.	.	.	303	314	329	343	355	369	382	53%	.
	B	174	178	246	264	250	302	307	315	323	330	337	345	38%	.
	L	.	.	.	.	.	300	300	302	305	307	310	313	25%	.
Finland	H	.	.	.	.	.	840	868	896	922	946	971	997	30%	2.4%
	B	790	770	796	760	764	837	852	869	880	891	903	916	20%	1.8%
	L	.	.	.	.	.	833	836	838	838	836	834	834	9%	1.1%
France	H	.	.	.	.	.	20,912	21,966	22,777	23,689	24,340	24,982	25,619	29%	4.3%
	B	17,515	17,900	18,497	18,868	19,883	20,870	21,682	22,135	22,572	22,890	23,255	23,619	19%	3.7%
	L	.	.	.	.	.	20,829	21,410	21,371	21,475	21,464	21,510	21,549	8%	2.9%
Georgia	H	.	.	.	.	.	836	911	962	1,020	1,074	1,133	1,196	51%	.
	B	709	747	752	805	791	829	873	909	945	979	1,017	1,057	34%	.
	L	.	.	.	.	.	822	836	857	880	900	921	943	19%	.
Germany ¹⁰	H	.	.	.	.	.	14,451	15,004	15,537	16,122	16,576	17,020	17,440	29%	3.8%
	B	12,513	12,570	12,881	12,976	13,562	14,422	14,827	15,097	15,377	15,589	15,842	16,096	19%	3.2%
	L	.	.	.	.	.	14,393	14,651	14,612	14,700	14,701	14,745	14,785	9%	2.6%
Greece	H	.	.	.	.	.	5,195	5,540	5,859	6,190	6,485	6,802	7,142	53%	4.9%
	B	4,358	4,216	4,618	4,899	4,678	5,170	5,391	5,573	5,761	5,924	6,105	6,292	34%	3.8%
	L	.	.	.	.	.	5,146	5,246	5,303	5,392	5,453	5,528	5,603	20%	2.8%
Hungary	H	.	.	.	.	.	2,979	3,188	3,357	3,531	3,683	3,837	3,991	43%	6.9%
	B	2,023	2,101	2,406	2,695	2,788	2,966	3,108	3,199	3,286	3,361	3,445	3,530	27%	5.9%
	L	.	.	.	.	.	2,953	3,030	3,046	3,083	3,101	3,127	3,152	13%	4.8%
Ireland	H	.	.	.	.	.	4,489	4,694	4,789	4,910	5,219	5,384	5,549	24%	4.1%
	B	3,806	3,813	3,922	4,182	4,468	4,476	4,622	4,710	4,772	4,886	4,975	5,065	13%	3.7%
	L	.	.	.	.	.	4,462	4,549	4,559	4,600	4,617	4,645	4,672	5%	3.1%
Italy	H	.	.	.	.	.	8,617	9,105	9,556	9,993	10,362	10,753	11,154	34%	2.8%
	B	8,139	8,117	8,314	8,172	8,302	8,585	8,892	9,100	9,307	9,468	9,657	9,850	19%	1.8%
	L	.	.	.	.	.	8,552	8,683	8,656	8,697	8,694	8,717	8,742	5%	0.8%
Latvia	H	.	.	.	.	.	873	916	961	1,008	1,044	1,082	1,120	42%	4.6%
	B	707	734	767	802	789	869	892	914	933	947	964	981	24%	3.6%
	L	.	.	.	.	.	865	869	867	870	867	867	867	10%	2.5%

¹⁰ For Germany, hence for RP1 and RP2, series, includes service units for flight segments performed as Operational Air Traffic. 73,165 service units were concerned for 2016. Estimated number for the coming years is 75,000 per year.

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Total service units (thousands)		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2023/ 2016 Total Growth	RP2 AAGR 2019/ 2014
Lisbon FIR	H	.	.	.	.	.	3,840	4,054	4,258	4,426	4,583	4,745	4,911	40%	7.1%
	B	2,782	2,877	3,020	3,150	3,510	3,830	3,984	4,083	4,165	4,228	4,299	4,371	25%	6.2%
	L	.	.	.	.	.	3,820	3,918	3,914	3,923	3,912	3,911	3,910	11%	5.3%
Lithuania	H	.	.	.	.	.	537	575	600	626	646	668	689	36%	4.3%
	B	430	451	487	492	507	535	561	572	583	591	601	611	20%	3.3%
	L	.	.	.	.	.	533	547	544	545	543	543	543	7%	2.2%
Malta	H	.	.	.	.	.	942	1,026	1,109	1,200	1,293	1,400	1,519	68%	8.8%
	B	641	735	727	823	905	933	971	1,018	1,073	1,125	1,183	1,244	37%	7.0%
	L	.	.	.	.	.	925	917	937	966	991	1,020	1,050	16%	5.2%
Moldova	H	.	.	.	.	.	72	82	87	92	97	102	107	79%	.
	B	206	240	131	74	60	70	74	77	79	81	84	86	44%	.
	L	.	.	.	.	.	68	66	67	68	68	69	70	16%	.
Netherlands	H	.	.	.	.	.	3,261	3,403	3,506	3,621	3,723	3,809	3,894	26%	4.8%
	B	2,587	2,702	2,767	2,893	3,100	3,251	3,350	3,412	3,461	3,503	3,548	3,593	16%	4.3%
	L	.	.	.	.	.	3,242	3,294	3,289	3,308	3,308	3,316	3,323	7%	3.5%
Norway	H	.	.	.	.	.	2,544	2,686	2,766	2,890	2,978	3,078	3,176	27%	4.5%
	B	1,846	2,051	2,221	2,314	2,495	2,535	2,640	2,690	2,744	2,784	2,834	2,885	16%	3.9%
	L	.	.	.	.	.	2,527	2,593	2,597	2,613	2,612	2,619	2,627	5%	3.2%
Poland	H	.	.	.	.	.	4,250	4,478	4,719	4,954	5,128	5,309	5,491	32%	3.7%
	B	3,854	3,984	3,931	3,880	4,175	4,239	4,410	4,533	4,647	4,740	4,846	4,954	19%	2.9%
	L	.	.	.	.	.	4,227	4,345	4,348	4,378	4,385	4,403	4,421	6%	2.0%
Romania	H	.	.	.	.	.	4,744	5,010	5,311	5,630	5,919	6,219	6,529	47%	4.9%
	B	3,575	3,752	4,182	4,571	4,443	4,721	4,872	5,053	5,231	5,394	5,574	5,760	30%	3.9%
	L	.	.	.	.	.	4,698	4,737	4,805	4,902	4,971	5,053	5,135	16%	2.8%
Santa Maria FIR	H	.	.	.	.	.	5,462	5,770	6,014	6,272	6,484	6,709	6,945	38%	7.6%
	B	3,874	4,021	4,166	4,662	5,040	5,438	5,661	5,822	5,976	6,097	6,232	6,369	26%	6.9%
	L	.	.	.	.	.	5,414	5,553	5,618	5,693	5,736	5,793	5,849	16%	6.2%
Serbia-Montenegro-KFOR ¹¹	H	.	.	.	.	.	2,226	2,343	2,456	2,572	2,669	2,771	2,874	35%	.
	B	1,719	1,639	1,752	1,975	2,131	2,217	2,289	2,349	2,410	2,461	2,517	2,574	21%	.
	L	.	.	.	.	.	2,208	2,236	2,245	2,271	2,283	2,300	2,316	9%	.
Slovakia	H	.	.	.	.	.	1,204	1,289	1,359	1,429	1,491	1,553	1,615	42%	5.4%
	B	922	985	1,044	1,071	1,138	1,200	1,260	1,298	1,333	1,364	1,398	1,433	26%	4.4%
	L	.	.	.	.	.	1,195	1,232	1,239	1,253	1,260	1,270	1,280	12%	3.5%

¹¹ 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).

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Total service units (thousands)		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2023/ 2016 Total Growth	RP2 AAGR 2019/ 2014
Slovenia	H	.	.	.	.	.	529	567	591	618	639	662	683	36%	5.2%
	B	425	411	459	466	502	526	554	565	579	590	602	615	23%	4.2%
	L	.	.	.	.	.	524	541	540	545	547	550	553	10%	3.3%
Spain	H	.	.	.	.	.	10,470	11,045	11,607	12,098	12,537	12,974	13,423	38%	5.8%
	B	8,444	8,447	8,768	8,997	9,761	10,443	10,870	11,154	11,406	11,588	11,797	12,026	23%	4.9%
	L	.	.	.	.	.	10,417	10,703	10,707	10,764	10,754	10,772	10,806	11%	4.1%
Sweden	H	.	.	.	.	.	3,633	3,790	3,904	4,052	4,162	4,280	4,397	29%	3.5%
	B	3,126	3,209	3,285	3,355	3,402	3,621	3,726	3,792	3,859	3,911	3,975	4,042	19%	2.9%
	L	.	.	.	.	.	3,610	3,660	3,654	3,668	3,662	3,665	3,669	8%	2.2%
Switzerland	H	.	.	.	.	.	1,597	1,672	1,734	1,802	1,849	1,896	1,940	30%	4.0%
	B	1,399	1,385	1,427	1,455	1,493	1,592	1,643	1,674	1,703	1,725	1,752	1,779	19%	3.2%
	L	.	.	.	.	.	1,588	1,614	1,608	1,612	1,608	1,610	1,611	8%	2.4%
Turkey	H	.	.	.	.	.	15,915	17,512	18,606	19,800	20,863	21,999	23,193	61%	.
	B	9,813	10,637	12,809	14,182	14,374	15,865	17,173	17,936	18,656	19,296	20,010	20,715	44%	.
	L	.	.	.	.	.	15,817	16,854	17,226	17,687	17,993	18,350	18,679	30%	.
UK	H	.	.	.	.	.	11,884	12,465	12,823	13,216	13,698	14,044	14,387	32%	5.1%
	B	9,608	9,755	9,979	10,154	10,875	11,848	12,272	12,513	12,690	12,880	13,056	13,238	22%	4.6%
	L	.	.	.	.	.	11,812	12,076	12,099	12,167	12,188	12,228	12,267	13%	3.9%
Ukraine	H	.	.	.	.	.	1,312	1,558	1,670	1,767	1,849	1,936	2,027	99%	.
	B	4,588	4,931	2,771	1,286	1,017	1,291	1,444	1,504	1,556	1,601	1,650	1,701	67%	.
	L	.	.	.	.	.	1,269	1,331	1,350	1,371	1,384	1,401	1,417	39%	.
ESRA02	H	.	.	.	.	.	142,588	150,822	157,504	164,559	170,819	176,966	183,225	37%	.
	B	113,602	116,097	123,048	128,254	133,626	142,142	148,124	151,997	155,649	158,741	162,169	165,664	24%	.
	L	.	.	.	.	.	141,701	145,478	146,076	147,543	148,158	149,148	150,123	12%	.
BLUE MED FAB	H	.	.	.	.	.	16,494	17,529	18,514	19,508	20,393	21,349	22,361	45%	4.1%
	B	14,441	14,395	15,113	15,441	15,426	16,423	17,077	17,595	18,124	18,575	19,086	19,615	27%	3.1%
	L	.	.	.	.	.	16,353	16,635	16,722	16,924	17,043	17,210	17,381	13%	2.0%
Baltic FAB	H	.	.	.	.	.	4,788	5,052	5,320	5,580	5,774	5,976	6,179	32%	3.8%
	B	4,284	4,434	4,418	4,372	4,682	4,774	4,970	5,105	5,229	5,331	5,447	5,566	19%	2.9%
	L	.	.	.	.	.	4,761	4,892	4,892	4,923	4,929	4,946	4,965	6%	2.1%
Danube FAB	H	.	.	.	.	.	8,235	8,689	9,187	9,713	10,184	10,675	11,181	42%	5.8%
	B	5,595	5,810	6,925	7,793	7,856	8,199	8,489	8,783	9,072	9,333	9,622	9,921	26%	4.9%
	L	.	.	.	.	.	8,164	8,291	8,392	8,544	8,646	8,769	8,893	13%	3.9%
FAB CE	H	.	.	.	.	.	13,327	14,185	14,872	15,570	16,166	16,768	17,359	38%	5.3%
	B	10,503	10,676	11,492	12,164	12,570	13,274	13,862	14,214	14,567	14,858	15,185	15,519	23%	4.3%
	L	.	.	.	.	.	13,221	13,545	13,570	13,698	13,749	13,831	13,913	11%	3.4%

EUROCONTROL
NMD

Flight Movements and Service Units 2017-2023

EUROCONTROL SEVEN-YEAR FORECAST
SEPTEMBER 2017

Total service units (thousands)		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2023/ 2016 Total Growth	RP2 AAGR 2019/ 2014
FABEC	H	.	.	.	.	.	42,833	44,794	46,418	48,226	49,566	50,866	52,132	29%	4.1%
	B	36,246	36,834	37,934	38,646	40,537	42,741	44,210	45,092	45,951	46,595	47,344	48,093	19%	3.5%
	L	.	.	.	.	.	42,650	43,635	43,552	43,793	43,791	43,908	44,015	9%	2.8%
NEFAB	H	.	.	.	.	.	5,120	5,377	5,574	5,818	6,004	6,207	6,409	31%	4.0%
	B	4,068	4,296	4,573	4,692	4,882	5,101	5,271	5,383	5,490	5,574	5,674	5,777	18%	3.3%
	L	.	.	.	.	.	5,082	5,164	5,171	5,196	5,194	5,205	5,217	7%	2.5%
South West FAB	H	.	.	.	.	.	15,901	16,783	17,631	18,357	19,016	19,683	20,369	38%	5.8%
	B	12,825	12,840	13,279	13,550	14,756	15,857	16,494	16,913	17,276	17,543	17,847	18,175	23%	5.0%
	L	.	.	.	.	.	15,814	16,217	16,212	16,277	16,248	16,261	16,290	10%	4.1%
UK-Ireland FAB	H	.	.	.	.	.	16,373	17,158	17,612	18,126	18,917	19,428	19,937	30%	4.8%
	B	13,414	13,568	13,902	14,336	15,342	16,324	16,893	17,223	17,463	17,766	18,031	18,303	19%	4.4%
	L	.	.	.	.	.	16,275	16,624	16,658	16,767	16,805	16,873	16,940	10%	3.7%
DK-SE FAB	H	.	.	.	.	.	5,312	5,530	5,696	5,913	6,069	6,235	6,398	27%	3.4%
	B	4,555	4,732	4,817	4,938	5,023	5,296	5,442	5,539	5,636	5,709	5,798	5,892	17%	2.8%
	L	.	.	.	.	.	5,279	5,351	5,344	5,367	5,357	5,362	5,368	7%	2.1%
CRCO88	H	.	.	.	.	.	83,516	87,602	90,913	94,359	97,474	100,291	103,098	31%	4.8%
	B	68,828	69,718	71,927	73,933	78,425	83,296	86,293	88,156	89,840	91,231	92,745	94,293	20%	4.2%
	L	.	.	.	.	.	83,078	85,003	85,015	85,526	85,580	85,847	86,116	10%	3.4%
CRCO11	H	.	.	.	.	.	152,133	160,907	168,094	175,654	182,316	188,882	195,564	37%	5.1%
	B	121,589	124,162	131,379	136,884	142,648	151,652	158,006	162,138	166,037	169,335	172,995	176,728	24%	4.3%
	L	.	.	.	.	.	151,176	155,163	155,776	157,319	157,960	158,999	160,023	12%	3.5%
CRCO14	H	.	.	.	.	.	152,969	161,817	169,056	176,674	183,389	190,015	196,760	37%	5.1%
	B	122,298	124,910	132,130	137,689	143,439	152,481	158,879	163,046	166,982	170,315	174,012	177,785	24%	4.3%
	L	.	.	.	.	.	151,999	155,999	156,632	158,199	158,860	159,920	160,967	12%	3.5%
RP1Region ¹⁰	H	.	.	.	.	.	125,564	132,097	137,681	143,520	148,672	153,634	158,637	34%	4.6%
	B	103,572	105,235	109,910	113,273	118,420	125,182	129,784	132,853	135,734	138,149	140,826	143,580	21%	3.9%
	L	.	.	.	.	.	124,803	127,505	127,660	128,609	128,868	129,451	130,047	10%	3.0%
RP2Region ¹⁰	H	.	.	.	.	.	127,361	134,020	139,700	145,638	150,874	155,923	161,014	34%	4.6%
	B	105,251	106,930	111,670	115,063	120,208	126,970	131,658	134,777	137,709	140,166	142,891	145,692	21%	3.8%
	L	.	.	.	.	.	126,583	129,331	129,492	130,459	130,728	131,324	131,933	10%	3.0%
Total	H	.	.	.	.	.	155,144	164,282	171,677	179,439	186,274	193,027	199,904	38%	4.8%
	B	127,611	130,582	135,692	139,790	145,290	154,632	161,209	165,461	169,471	172,867	176,635	180,481	24%	4.0%
	L	.	.	.	.	.	154,125	158,196	158,851	160,446	161,123	162,204	163,273	12%	3.2%

ANNEX 7 SEVEN YEAR EN-ROUTE SERVICE UNITS FORECAST PER STATE (GROWTH)

Figure 49. Forecast of the total en-route service units growth per State.

Total service units (Annual growth)		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	AAGR 2023/2016	RP2 AAGR 2019/2014
Albania	H	.	.	.	.	.	1.1%	6.8%	5.1%	5.3%	4.3%	4.4%	4.2%	4.5%	.
	B	-1.0%	2.9%	2.9%	3.3%	-8.7%	0.8%	5.6%	2.7%	3.0%	2.5%	2.7%	2.7%	2.9%	.
	L	.	.	.	.	.	0.5%	4.4%	0.4%	1.5%	0.9%	1.1%	1.1%	1.4%	.
Armenia	H	.	.	.	.	.	68.4%	16.4%	4.4%	2.5%	3.2%	2.9%	3.2%	12.6%	.
	B	-9.5%	-2.9%	-4.5%	-11.8%	-11.5%	66.8%	12.9%	3.6%	1.4%	2.3%	2.0%	2.3%	11.3%	.
	L	.	.	.	.	.	65.2%	9.4%	2.8%	0.7%	1.5%	1.1%	1.4%	10.0%	.
Austria	H	.	.	.	.	.	7.2%	5.1%	4.5%	4.3%	3.4%	3.3%	3.0%	4.4%	4.1%
	B	-2.0%	-0.5%	7.7%	3.5%	0.4%	6.8%	3.4%	2.3%	2.2%	1.7%	1.9%	1.9%	2.9%	3.3%
	L	.	.	.	.	.	6.4%	1.7%	-0.0%	0.7%	0.2%	0.4%	0.4%	1.4%	2.4%
Belgium/Luxembourg	H	.	.	.	.	.	4.5%	5.3%	4.1%	4.5%	2.9%	2.6%	2.5%	3.8%	3.9%
	B	0.9%	2.0%	3.7%	3.9%	1.9%	4.2%	3.9%	2.4%	2.3%	1.8%	2.0%	2.0%	2.7%	3.3%
	L	.	.	.	.	.	3.9%	2.6%	0.3%	1.0%	0.4%	0.7%	0.7%	1.4%	2.5%
Bosnia-Herzegovina	H	.	.	.	.	.	18.1%	5.3%	4.3%	4.4%	3.7%	3.8%	3.8%	6.1%	.
	B	-5.1%	-3.8%	19.7%	11.2%	-0.4%	17.6%	3.1%	2.1%	2.3%	2.0%	2.2%	2.2%	4.4%	.
	L	.	.	.	.	.	17.1%	0.9%	-0.1%	0.8%	0.4%	0.6%	0.7%	2.8%	.
Bulgaria	H	.	.	.	.	.	2.3%	5.4%	5.3%	5.3%	4.5%	4.5%	4.4%	4.5%	7.2%
	B	0.1%	1.9%	33.3%	17.5%	5.9%	1.9%	4.0%	3.1%	3.0%	2.6%	2.8%	2.8%	2.9%	6.3%
	L	.	.	.	.	.	1.6%	2.6%	0.9%	1.5%	0.9%	1.1%	1.1%	1.4%	5.5%
Canary Islands	H	.	.	.	.	.	7.2%	5.8%	4.9%	3.8%	3.4%	3.6%	3.6%	4.6%	3.4%
	B	-4.0%	-5.2%	-1.6%	-6.0%	5.9%	6.7%	3.5%	2.2%	1.7%	1.3%	1.5%	1.5%	2.6%	2.4%
	L	.	.	.	.	.	6.2%	1.2%	-0.3%	-0.1%	-0.5%	-0.3%	-0.2%	0.8%	1.3%
Croatia	H	.	.	.	.	.	0.5%	7.1%	5.0%	4.9%	3.9%	4.0%	3.8%	4.1%	2.8%
	B	2.7%	0.9%	3.9%	1.7%	-0.1%	0.0%	4.8%	2.6%	2.7%	2.1%	2.3%	2.3%	2.4%	1.8%
	L	.	.	.	.	.	-0.5%	2.6%	0.3%	1.1%	0.5%	0.7%	0.7%	0.8%	0.8%
Cyprus	H	.	.	.	.	.	13.0%	6.7%	7.1%	6.7%	6.1%	6.3%	6.4%	7.4%	6.5%
	B	-3.3%	1.8%	9.6%	6.4%	-0.5%	12.7%	5.0%	4.5%	4.2%	3.8%	4.0%	4.1%	5.4%	5.5%
	L	.	.	.	.	.	12.3%	3.5%	2.0%	2.4%	1.9%	2.1%	2.1%	3.7%	4.7%
Czech Republic	H	.	.	.	.	.	4.1%	6.8%	4.6%	4.4%	3.6%	3.3%	3.0%	4.3%	5.9%
	B	-0.0%	3.0%	0.8%	5.8%	8.1%	3.7%	5.0%	2.4%	2.3%	1.8%	2.0%	2.0%	2.7%	5.0%
	L	.	.	.	.	.	3.4%	3.2%	-0.0%	0.8%	0.2%	0.4%	0.4%	1.2%	4.0%

EUROCONTROL SEVEN-YEAR FORECAST
SEPTEMBER 2017

Total service units (Annual growth)		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	AAGR 2023/2016	RP2 AAGR 2019/ 2014
Denmark	H	.	.	.	.	.	3.6%	3.6%	3.0%	3.9%	2.5%	2.5%	2.3%	3.1%	3.2%
	B	-2.8%	6.6%	0.5%	3.4%	2.4%	3.3%	2.5%	1.8%	1.7%	1.2%	1.4%	1.5%	1.9%	2.7%
	L	.	.	.	.	.	3.0%	1.3%	-0.1%	0.5%	-0.1%	0.1%	0.1%	0.7%	2.0%
Estonia	H	.	.	.	.	.	3.5%	5.1%	4.8%	5.0%	3.8%	3.9%	3.8%	4.3%	3.8%
	B	2.9%	2.3%	6.6%	3.3%	2.3%	3.1%	3.1%	2.7%	2.5%	2.0%	2.3%	2.3%	2.6%	2.9%
	L	.	.	.	.	.	2.7%	1.1%	0.3%	0.8%	0.3%	0.6%	0.6%	0.9%	1.9%
FYROM	H	.	.	.	.	.	21.1%	3.6%	4.7%	4.3%	3.7%	3.7%	3.7%	6.3%	.
	B	-10.2%	1.9%	38.8%	7.1%	-5.3%	20.7%	1.7%	2.7%	2.5%	2.1%	2.3%	2.3%	4.7%	.
	L	.	.	.	.	.	20.2%	-0.2%	0.6%	1.1%	0.7%	0.9%	0.9%	3.2%	.
Finland	H	.	.	.	.	.	10.0%	3.3%	3.2%	2.9%	2.6%	2.6%	2.7%	3.9%	2.4%
	B	-5.1%	-2.5%	3.3%	-4.4%	0.5%	9.5%	1.8%	2.0%	1.3%	1.2%	1.4%	1.5%	2.6%	1.8%
	L	.	.	.	.	.	9.1%	0.4%	0.3%	-0.1%	-0.3%	-0.1%	-0.1%	1.3%	1.1%
France	H	.	.	.	.	.	5.2%	5.0%	3.7%	4.0%	2.7%	2.6%	2.6%	3.7%	4.3%
	B	-1.0%	2.2%	3.3%	2.0%	5.4%	5.0%	3.9%	2.1%	2.0%	1.4%	1.6%	1.6%	2.5%	3.7%
	L	.	.	.	.	.	4.8%	2.8%	-0.2%	0.5%	-0.1%	0.2%	0.2%	1.2%	2.9%
Georgia	H	.	.	.	.	.	5.7%	8.9%	5.7%	6.0%	5.3%	5.5%	5.5%	6.1%	.
	B	-2.5%	5.4%	0.6%	7.1%	-1.7%	4.8%	5.3%	4.1%	4.0%	3.6%	3.9%	3.9%	4.2%	.
	L	.	.	.	.	.	3.9%	1.7%	2.5%	2.7%	2.2%	2.4%	2.4%	2.5%	.
Germany ¹⁰	H	.	.	.	.	.	6.6%	3.8%	3.6%	3.8%	2.8%	2.7%	2.5%	3.7%	3.8%
	B	-1.8%	0.5%	2.5%	0.7%	4.5%	6.3%	2.8%	1.8%	1.9%	1.4%	1.6%	1.6%	2.5%	3.2%
	L	.	.	.	.	.	6.1%	1.8%	-0.3%	0.6%	0.0%	0.3%	0.3%	1.2%	2.6%
Greece	H	.	.	.	.	.	11.0%	6.6%	5.8%	5.7%	4.8%	4.9%	5.0%	6.2%	4.9%
	B	-4.2%	-3.3%	9.5%	6.1%	-4.5%	10.5%	4.3%	3.4%	3.4%	2.8%	3.1%	3.1%	4.3%	3.8%
	L	.	.	.	.	.	10.0%	1.9%	1.1%	1.7%	1.1%	1.4%	1.4%	2.6%	2.8%
Hungary	H	.	.	.	.	.	6.8%	7.0%	5.3%	5.2%	4.3%	4.2%	4.0%	5.3%	6.9%
	B	-2.1%	3.8%	14.5%	12.0%	3.5%	6.3%	4.8%	2.9%	2.7%	2.3%	2.5%	2.5%	3.4%	5.9%
	L	.	.	.	.	.	5.9%	2.6%	0.5%	1.2%	0.6%	0.8%	0.8%	1.8%	4.8%
Ireland	H	.	.	.	.	.	0.5%	4.6%	2.0%	2.5%	6.3%	3.2%	3.1%	3.1%	4.1%
	B	0.9%	0.2%	2.9%	6.6%	6.8%	0.2%	3.3%	1.9%	1.3%	2.4%	1.8%	1.8%	1.8%	3.7%
	L	.	.	.	.	.	-0.1%	1.9%	0.2%	0.9%	0.4%	0.6%	0.6%	0.6%	3.1%
Italy	H	.	.	.	.	.	3.8%	5.7%	5.0%	4.6%	3.7%	3.8%	3.7%	4.3%	2.8%
	B	-2.8%	-0.3%	2.4%	-1.7%	1.6%	3.4%	3.6%	2.3%	2.3%	1.7%	2.0%	2.0%	2.5%	1.8%
	L	.	.	.	.	.	3.0%	1.5%	-0.3%	0.5%	-0.0%	0.3%	0.3%	0.7%	0.8%
Latvia	H	.	.	.	.	.	10.6%	5.0%	4.9%	4.8%	3.6%	3.6%	3.5%	5.1%	4.6%
	B	0.7%	3.8%	4.5%	4.6%	-1.6%	10.1%	2.7%	2.4%	2.1%	1.6%	1.8%	1.8%	3.2%	3.6%
	L	.	.	.	.	.	9.6%	0.4%	-0.2%	0.3%	-0.2%	-0.0%	-0.0%	1.4%	2.5%

EUROCONTROL SEVEN-YEAR FORECAST
SEPTEMBER 2017

Total service units (Annual growth)		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	AAGR 2023/2016	RP2 AAGR 2019/2014
Lisbon FIR	H	.	.	.	.	.	9.4%	5.6%	5.0%	3.9%	3.5%	3.5%	3.5%	4.9%	7.1%
	B	-1.4%	3.4%	5.0%	4.3%	11.4%	9.1%	4.0%	2.5%	2.0%	1.5%	1.7%	1.7%	3.2%	6.2%
	L	.	.	.	.	.	8.8%	2.6%	-0.1%	0.2%	-0.3%	-0.0%	-0.0%	1.6%	5.3%
Lithuania	H	.	.	.	.	.	5.9%	6.9%	4.5%	4.3%	3.2%	3.3%	3.2%	4.5%	4.3%
	B	2.3%	4.9%	8.1%	1.0%	3.1%	5.5%	4.8%	2.0%	1.9%	1.5%	1.7%	1.7%	2.7%	3.3%
	L	.	.	.	.	.	5.0%	2.6%	-0.6%	0.2%	-0.3%	-0.0%	0.0%	1.0%	2.2%
Malta	H	.	.	.	.	.	4.0%	9.0%	8.1%	8.2%	7.7%	8.3%	8.5%	7.7%	8.8%
	B	26.8%	14.7%	-1.1%	13.2%	10.0%	3.1%	4.0%	4.9%	5.3%	4.8%	5.2%	5.2%	4.6%	7.0%
	L	.	.	.	.	.	2.1%	-0.9%	2.2%	3.1%	2.6%	2.9%	3.0%	2.1%	5.2%
Moldova	H	.	.	.	.	.	20.1%	14.5%	6.2%	5.5%	5.0%	5.1%	5.1%	8.6%	.
	B	5.7%	16.8%	-45.5%	-43.7%	-18.9%	17.2%	5.8%	3.2%	3.2%	2.8%	3.0%	3.0%	5.4%	.
	L	.	.	.	.	.	14.3%	-3.2%	0.6%	1.4%	0.9%	1.1%	1.1%	2.2%	.
Netherlands	H	.	.	.	.	.	5.2%	4.4%	3.0%	3.3%	2.8%	2.3%	2.2%	3.3%	4.8%
	B	-0.3%	4.4%	2.4%	4.5%	7.2%	4.9%	3.0%	1.9%	1.4%	1.2%	1.3%	1.3%	2.1%	4.3%
	L	.	.	.	.	.	4.6%	1.6%	-0.2%	0.6%	0.0%	0.2%	0.2%	1.0%	3.5%
Norway	H	.	.	.	.	.	1.9%	5.6%	3.0%	4.5%	3.1%	3.3%	3.2%	3.5%	4.5%
	B	7.8%	11.1%	8.3%	4.2%	7.8%	1.6%	4.1%	1.9%	2.0%	1.5%	1.8%	1.8%	2.1%	3.9%
	L	.	.	.	.	.	1.3%	2.6%	0.2%	0.6%	-0.0%	0.3%	0.3%	0.7%	3.2%
Poland	H	.	.	.	.	.	1.8%	5.4%	5.4%	5.0%	3.5%	3.5%	3.4%	4.0%	3.7%
	B	4.8%	3.4%	-1.3%	-1.3%	7.6%	1.5%	4.0%	2.8%	2.5%	2.0%	2.2%	2.2%	2.5%	2.9%
	L	.	.	.	.	.	1.3%	2.8%	0.1%	0.7%	0.2%	0.4%	0.4%	0.8%	2.0%
Romania	H	.	.	.	.	.	6.8%	5.6%	6.0%	6.0%	5.1%	5.1%	5.0%	5.7%	4.9%
	B	1.2%	4.9%	11.5%	9.3%	-2.8%	6.3%	3.2%	3.7%	3.5%	3.1%	3.3%	3.3%	3.8%	3.9%
	L	.	.	.	.	.	5.7%	0.8%	1.4%	2.0%	1.4%	1.6%	1.6%	2.1%	2.8%
Santa Maria FIR	H	.	.	.	.	.	8.4%	5.6%	4.2%	4.3%	3.4%	3.5%	3.5%	4.7%	7.6%
	B	-2.7%	3.8%	3.6%	11.9%	8.1%	7.9%	4.1%	2.8%	2.6%	2.0%	2.2%	2.2%	3.4%	6.9%
	L	.	.	.	.	.	7.4%	2.6%	1.2%	1.3%	0.8%	1.0%	1.0%	2.1%	6.2%
Serbia-Montenegro-KFOR ¹¹	H	.	.	.	.	.	4.5%	5.2%	4.8%	4.7%	3.8%	3.8%	3.7%	4.4%	.
	B	-6.1%	-4.7%	6.9%	12.7%	7.9%	4.0%	3.3%	2.6%	2.6%	2.1%	2.3%	2.3%	2.7%	.
	L	.	.	.	.	.	3.6%	1.3%	0.4%	1.1%	0.5%	0.7%	0.7%	1.2%	.
Slovakia	H	.	.	.	.	.	5.8%	7.0%	5.4%	5.1%	4.4%	4.1%	4.0%	5.1%	5.4%
	B	2.4%	6.9%	6.0%	2.6%	6.2%	5.4%	5.1%	3.0%	2.7%	2.3%	2.5%	2.5%	3.3%	4.4%
	L	.	.	.	.	.	5.0%	3.1%	0.5%	1.1%	0.6%	0.8%	0.8%	1.7%	3.5%
Slovenia	H	5.4%	7.4%	4.1%	4.6%	3.4%	3.5%	3.3%	4.5%	5.2%
	B	0.1%	-3.3%	11.7%	1.5%	7.6%	4.9%	5.3%	2.0%	2.5%	1.8%	2.1%	2.1%	2.9%	4.2%
	L	4.5%	3.2%	-0.3%	1.0%	0.3%	0.6%	0.6%	1.4%	3.3%

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Total service units (Annual growth)		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	AAGR 2023/2016	RP2 AAGR 2019/ 2014
Spain	H	.	.	.	.	.	7.3%	5.5%	5.1%	4.2%	3.6%	3.5%	3.5%	4.7%	5.8%
	B	-7.2%	0.0%	3.8%	2.6%	8.5%	7.0%	4.1%	2.6%	2.3%	1.6%	1.8%	1.9%	3.0%	4.9%
	L	.	.	.	.	.	6.7%	2.7%	0.0%	0.5%	-0.1%	0.2%	0.3%	1.5%	4.1%
Sweden	H	.	.	.	.	.	6.8%	4.3%	3.0%	3.8%	2.7%	2.8%	2.7%	3.7%	3.5%
	B	-1.8%	2.6%	2.4%	2.1%	1.4%	6.5%	2.9%	1.8%	1.8%	1.4%	1.6%	1.7%	2.5%	2.9%
	L	.	.	.	.	.	6.1%	1.4%	-0.2%	0.4%	-0.2%	0.1%	0.1%	1.1%	2.2%
Switzerland	H	.	.	.	.	.	7.0%	4.7%	3.7%	3.9%	2.6%	2.6%	2.3%	3.8%	4.0%
	B	-2.3%	-1.0%	3.0%	1.9%	2.6%	6.6%	3.2%	1.9%	1.8%	1.3%	1.6%	1.6%	2.5%	3.2%
	L	.	.	.	.	.	6.3%	1.7%	-0.4%	0.3%	-0.2%	0.1%	0.1%	1.1%	2.4%
Turkey	H	.	.	.	.	.	10.7%	10.0%	6.2%	6.4%	5.4%	5.4%	5.4%	7.1%	.
	B	2.0%	8.4%	20.4%	10.7%	1.4%	10.4%	8.2%	4.4%	4.0%	3.4%	3.7%	3.5%	5.4%	.
	L	.	.	.	.	.	10.0%	6.6%	2.2%	2.7%	1.7%	2.0%	1.8%	3.8%	.
UK	H	.	.	.	.	.	9.3%	4.9%	2.9%	3.1%	3.6%	2.5%	2.4%	4.1%	5.1%
	B	-2.6%	1.5%	2.3%	1.7%	7.1%	9.0%	3.6%	2.0%	1.4%	1.5%	1.4%	1.4%	2.8%	4.6%
	L	.	.	.	.	.	8.6%	2.2%	0.2%	0.6%	0.2%	0.3%	0.3%	1.7%	3.9%
Ukraine	H	.	.	.	.	.	29.0%	18.7%	7.2%	5.8%	4.6%	4.7%	4.7%	10.4%	.
	B	2.8%	7.5%	-43.8%	-53.6%	-20.9%	26.9%	11.9%	4.2%	3.4%	2.9%	3.1%	3.1%	7.6%	.
	L	.	.	.	.	.	24.8%	4.9%	1.4%	1.5%	1.0%	1.2%	1.2%	4.9%	.
ESRA02	H	.	.	.	.	.	6.7%	5.8%	4.4%	4.5%	3.8%	3.6%	3.5%	4.6%	.
	B	-1.4%	2.2%	6.0%	4.2%	4.2%	6.4%	4.2%	2.6%	2.4%	2.0%	2.2%	2.2%	3.1%	.
	L	.	.	.	.	.	6.0%	2.7%	0.4%	1.0%	0.4%	0.7%	0.7%	1.7%	.
BLUE MED FAB	H	.	.	.	.	.	6.9%	6.3%	5.6%	5.4%	4.5%	4.7%	4.7%	5.4%	4.1%
	B	-2.2%	-0.3%	5.0%	2.2%	-0.1%	6.5%	4.0%	3.0%	3.0%	2.5%	2.7%	2.8%	3.5%	3.1%
	L	.	.	.	.	.	6.0%	1.7%	0.5%	1.2%	0.7%	1.0%	1.0%	1.7%	2.0%
Baltic FAB	H	.	.	.	.	.	2.2%	5.5%	5.3%	4.9%	3.5%	3.5%	3.4%	4.0%	3.8%
	B	4.6%	3.5%	-0.4%	-1.0%	7.1%	2.0%	4.1%	2.7%	2.4%	1.9%	2.2%	2.2%	2.5%	2.9%
	L	.	.	.	.	.	1.7%	2.8%	0.0%	0.6%	0.1%	0.4%	0.4%	0.8%	2.1%
Danube FAB	H	.	.	.	.	.	4.8%	5.5%	5.7%	5.7%	4.8%	4.8%	4.7%	5.2%	5.8%
	B	0.8%	3.8%	19.2%	12.5%	0.8%	4.4%	3.5%	3.5%	3.3%	2.9%	3.1%	3.1%	3.4%	4.9%
	L	.	.	.	.	.	3.9%	1.6%	1.2%	1.8%	1.2%	1.4%	1.4%	1.8%	3.9%
FAB CE	H	.	.	.	.	.	6.0%	6.4%	4.8%	4.7%	3.8%	3.7%	3.5%	4.7%	5.3%
	B	-0.6%	1.6%	7.6%	5.9%	3.3%	5.6%	4.4%	2.5%	2.5%	2.0%	2.2%	2.2%	3.1%	4.3%
	L	.	.	.	.	.	5.2%	2.5%	0.2%	0.9%	0.4%	0.6%	0.6%	1.5%	3.4%
FABEC	H	5.7%	4.6%	3.6%	3.9%	2.8%	2.6%	2.5%	3.7%	4.1%
	B	-1.2%	1.6%	3.0%	1.9%	4.9%	5.4%	3.4%	2.0%	1.9%	1.4%	1.6%	1.6%	2.5%	3.5%
	L	5.2%	2.3%	-0.2%	0.6%	-0.0%	0.3%	0.2%	1.2%	2.8%

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Total service units (Annual growth)		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	AAGR 2023/2016	RP2 AAGR 2019/ 2014
NEFAB	H	.	.	.	.	.	4.9%	5.0%	3.7%	4.4%	3.2%	3.4%	3.3%	4.0%	4.0%
	B	2.9%	5.6%	6.5%	2.6%	4.1%	4.5%	3.3%	2.1%	2.0%	1.5%	1.8%	1.8%	2.4%	3.3%
	L	.	.	.	.	.	4.1%	1.6%	0.1%	0.5%	-0.0%	0.2%	0.2%	1.0%	2.5%
South West FAB	H	.	.	.	.	.	7.8%	5.5%	5.1%	4.1%	3.6%	3.5%	3.5%	4.7%	5.8%
	B	-5.6%	0.1%	3.4%	2.0%	8.9%	7.5%	4.0%	2.5%	2.1%	1.5%	1.7%	1.8%	3.0%	5.0%
	L	.	.	.	.	.	7.2%	2.5%	-0.0%	0.4%	-0.2%	0.1%	0.2%	1.4%	4.1%
UK-Ireland FAB	H	.	.	.	.	.	6.7%	4.8%	2.6%	2.9%	4.4%	2.7%	2.6%	3.8%	4.8%
	B	-1.6%	1.1%	2.5%	3.1%	7.0%	6.4%	3.5%	2.0%	1.4%	1.7%	1.5%	1.5%	2.6%	4.4%
	L	.	.	.	.	.	6.1%	2.2%	0.2%	0.7%	0.2%	0.4%	0.4%	1.4%	3.7%
DK-SE FAB	H	.	.	.	.	.	5.8%	4.1%	3.0%	3.8%	2.7%	2.7%	2.6%	3.5%	3.4%
	B	-2.1%	3.9%	1.8%	2.5%	1.7%	5.4%	2.8%	1.8%	1.7%	1.3%	1.6%	1.6%	2.3%	2.8%
	L	.	.	.	.	.	5.1%	1.4%	-0.1%	0.4%	-0.2%	0.1%	0.1%	1.0%	2.1%
CRCO88	H	.	.	.	.	.	6.5%	4.9%	3.8%	3.8%	3.3%	2.9%	2.8%	4.0%	4.8%
	B	-2.2%	1.3%	3.2%	2.8%	6.1%	6.2%	3.6%	2.2%	1.9%	1.5%	1.7%	1.7%	2.7%	4.2%
	L	.	.	.	.	.	5.9%	2.3%	0.0%	0.6%	0.1%	0.3%	0.3%	1.3%	3.4%
CRCO11	H	.	.	.	.	.	6.6%	5.8%	4.5%	4.5%	3.8%	3.6%	3.5%	4.6%	5.1%
	B	-1.3%	2.1%	5.8%	4.2%	4.2%	6.3%	4.2%	2.6%	2.4%	2.0%	2.2%	2.2%	3.1%	4.3%
	L	.	.	.	.	.	6.0%	2.6%	0.4%	1.0%	0.4%	0.7%	0.6%	1.7%	3.5%
CRCO14	H	.	.	.	.	.	6.6%	5.8%	4.5%	4.5%	3.8%	3.6%	3.5%	4.6%	5.1%
	B	-1.3%	2.1%	5.8%	4.2%	4.2%	6.3%	4.2%	2.6%	2.4%	2.0%	2.2%	2.2%	3.1%	4.3%
	L	.	.	.	.	.	6.0%	2.6%	0.4%	1.0%	0.4%	0.7%	0.7%	1.7%	3.5%
RP1Region ¹⁰	H	.	.	.	.	.	6.0%	5.2%	4.2%	4.2%	3.6%	3.3%	3.3%	4.3%	4.6%
	B	-1.5%	1.6%	4.4%	3.1%	4.5%	5.7%	3.7%	2.4%	2.2%	1.8%	1.9%	2.0%	2.8%	3.9%
	L	.	.	.	.	.	5.4%	2.2%	0.1%	0.7%	0.2%	0.5%	0.5%	1.3%	3.0%
RP2Region ¹⁰	H	.	.	.	.	.	6.0%	5.2%	4.2%	4.3%	3.6%	3.3%	3.3%	4.3%	4.6%
	B	-1.4%	1.6%	4.4%	3.0%	4.5%	5.6%	3.7%	2.4%	2.2%	1.8%	1.9%	2.0%	2.8%	3.8%
	L	.	.	.	.	.	5.3%	2.2%	0.1%	0.7%	0.2%	0.5%	0.5%	1.3%	3.0%
Total	H	.	.	.	.	.	6.8%	5.9%	4.5%	4.5%	3.8%	3.6%	3.6%	4.7%	4.8%
	B	-1.2%	2.3%	3.9%	3.0%	3.9%	6.4%	4.3%	2.6%	2.4%	2.0%	2.2%	2.2%	3.1%	4.0%
	L	.	.	.	.	.	6.1%	2.6%	0.4%	1.0%	0.4%	0.7%	0.7%	1.7%	3.2%

ANNEX 8 TERMINAL NAVIGATION SERVICE UNITS FORECAST PER STATE (THOUSANDS)

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). The definition of the charging zones is in line with their latest definitions available as agreed in their performance plans for RP2 (summer 2015).

The historical values up to 2016 have been reconstructed based on CRCO data with the TCZ definitions and the exponent used to compute the TNSU as applicable by states according to their RP1 performance plans up to 2014 and to the definition of RP2 from 2015 with a 0.7 exponent. For this forecast, the TCZ definitions available in January 2017 were used (see Figure 40).

Figure 50. Forecast of the total number of Terminal service units (thousands) per Terminal Charging Zone.

Total Number Terminal Service Units (thousands)			2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	AAGR 2023/2016
Austria	LO_TCZ	H	.	.	.	.	.	185.2	192.7	202.5	212.2	220.3	229.7	237.7	3.9%
		B	179.1	175.5	178.4	180.7	181.6	184.5	188.6	192.7	197.9	201.1	204.7	208.1	2.0%
		L	.	.	.	.	.	183.7	184.2	183.6	184.1	183.4	184.5	184.4	0.2%
Belgium	EB_TCZ_EBAW	H	.	.	.	.	.	3.2	3.4	3.6	3.7	3.9	4.1	4.2	6.1%
		B	1.9	1.9	1.7	2.6	2.8	3.2	3.2	3.3	3.5	3.5	3.7	3.8	4.3%
		L	.	.	.	.	.	3.2	3.2	3.2	3.2	3.2	3.3	3.3	2.5%
	EB_TCZ_EBBR	H	.	.	.	.	.	156.8	164.6	173.1	182.7	188.1	189.9	191.5	4.0%
		B	150.8	142.3	146.6	154.6	145.9	156.2	159.9	164.7	169.1	173.1	177.4	181.7	3.2%
		L	.	.	.	.	.	155.5	155.8	155.8	157.5	158.1	159.3	160.5	1.4%
	EB_TCZ_EBCI	H	.	.	.	.	.	32.0	33.8	36.2	38.5	40.9	43.4	46.1	6.2%
		B	27.9	30.2	28.1	29.1	30.2	31.9	32.9	34.1	35.4	36.5	37.8	39.1	3.8%
		L	.	.	.	.	.	31.8	32.1	32.3	32.9	33.2	33.6	34.0	1.7%
	EB_TCZ_EBLG	H	.	.	.	.	.	31.4	33.5	36.3	38.7	40.8	43.3	45.9	6.9%
		B	23.5	22.9	24.7	27.6	28.7	31.2	32.7	34.2	35.8	37.6	39.3	40.9	5.2%
		L	.	.	.	.	.	31.1	32.0	32.6	33.6	34.4	35.3	36.3	3.4%
	EB_TCZ_EBOS	H	.	.	.	.	.	3.9	4.4	4.5	4.6	4.7	4.9	5.1	6.4%
		B	3.4	3.2	2.4	2.3	3.3	3.9	4.2	4.4	4.5	4.5	4.7	4.8	5.3%
		L	.	.	.	.	.	3.9	4.2	4.2	4.2	4.2	4.3	4.4	3.9%
Bulgaria	LB_TCZ	H	.	.	.	.	.	32.4	34.7	36.6	38.4	40.1	41.8	43.6	6.2%
		B	41.5	41.7	44.2	24.1	28.6	32.2	33.8	34.8	35.8	36.7	37.6	38.6	4.4%
		L	32.1	33.0	33.1	33.3	33.6	34.0	34.3	2.6%

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Total Number Terminal Service Units (thousands)			2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	AAGR 2023/2016
Croatia	LD_TCZ	H	.	.	.	.	.	20.8	20.6	21.6	22.6	23.6	24.4	25.7	5.0%
		B	16.0	15.8	16.3	17.4	18.3	20.7	20.2	20.7	21.2	21.6	22.1	22.4	2.9%
		L	.	.	.	.	.	20.6	19.5	18.9	19.1	19.2	19.3	19.4	0.9%
Cyprus	LC_TCZ	H	.	.	.	.	.	54.2	58.3	63.8	69.4	74.4	79.9	86.5	9.0%
		B	42.5	39.0	40.0	40.4	47.3	54.0	55.4	59.2	61.6	64.0	67.4	70.3	5.8%
		L	.	.	.	.	.	53.7	52.9	53.3	54.1	55.1	55.7	56.3	2.5%
Czech Republic	LK_TCZ	H	.	.	.	.	.	94.1	104.0	113.0	121.8	130.0	136.7	138.6	7.9%
		B	75.3	73.7	72.9	75.5	81.5	93.6	100.2	104.7	109.0	113.0	117.3	122.1	5.9%
		L	.	.	.	.	.	93.1	96.8	97.6	99.1	100.0	101.1	102.2	3.3%
Denmark	EK_TCZ	H	.	.	.	.	.	168.5	176.1	184.5	192.9	200.8	209.2	216.6	3.6%
		B	143.7	148.1	154.5	158.2	169.4	167.8	171.2	175.6	180.2	182.7	186.1	189.8	1.6%
		L	.	.	.	.	.	167.1	167.5	167.7	168.8	168.8	169.1	169.8	0.0%
Estonia	EE_TCZ	H	.	.	.	.	.	19.1	21.2	23.5	25.5	28.4	30.9	32.8	10.8%
		B	18.9	14.6	15.1	15.9	16.0	19.0	20.2	21.4	22.1	23.6	24.5	25.8	7.1%
		L	.	.	.	.	.	18.8	19.5	19.7	19.9	20.1	20.6	20.9	3.9%
Finland	EF_TCZ	H	.	.	.	.	.	113.1	119.9	124.7	129.5	134.7	141.0	144.8	5.0%
		B	97.6	97.9	99.4	100.5	102.6	112.6	117.3	119.4	122.0	123.9	126.0	128.0	3.2%
		L	.	.	.	.	.	112.1	114.7	114.4	114.7	114.7	114.8	114.9	1.6%
France ¹²	LF_TCZ_1	H	.	.	.	.	.	580.2	604.4	619.4	668.3	676.7	685.5	701.3	2.8%
		B	606.9	604.0	555.7	568.6	576.1	577.4	588.1	606.9	625.5	643.5	661.2	679.6	2.4%
		L	.	.	.	.	.	575.6	576.9	581.5	586.9	591.7	599.1	603.8	0.7%
	LF_TCZ_2	H	.	.	.	.	.	517.7	540.7	552.3	574.2	591.5	609.9	627.2	3.4%
		B	485.8	486.6	475.4	480.3	496.6	515.2	524.5	535.9	546.7	555.7	565.1	572.7	2.1%
		L	.	.	.	.	.	513.1	511.5	512.5	515.7	517.6	522.6	522.7	0.7%
Germany	ED_TCZ	H	.	.	.	.	.	1,452.4	1,527.0	1,581.1	1,634.0	1,682.7	1,738.7	1,793.7	3.7%
		B	1,295.5	1,282.3	1,311.6	1,338.8	1,388.2	1,446.5	1,497.0	1,521.3	1,553.4	1,577.1	1,608.7	1,638.3	2.4%
		L	.	.	.	.	.	1,440.5	1,469.8	1,468.6	1,481.6	1,485.6	1,494.7	1,503.1	1.1%
Greece	LG_TCZ	H	.	.	.	.	.	117.1	125.3	132.7	142.0	149.9	159.3	169.1	6.6%
		B	83.0	74.5	86.0	100.1	108.3	116.6	121.8	125.8	130.1	134.3	139.1	143.9	4.2%
		L	.	.	.	.	.	116.2	118.6	119.2	121.4	122.5	124.1	126.0	2.2%
Hungary	LH_TCZ	H	.	.	.	.	.	64.4	70.3	76.7	84.2	89.9	95.9	102.3	8.2%
		B	49.6	49.2	50.7	55.2	59.0	64.1	67.8	71.5	74.4	77.1	80.0	82.9	5.0%
		L	.	.	.	.	.	63.7	65.2	65.9	67.0	68.1	69.1	70.3	2.5%

¹² France and Poland TCZ are split in two distinct TCZs from 2017 according to the definition in Figure 40. This split has also been done for the history to reconstruct a meaningful history and growth rates for the new Terminal Charging Zones.

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Total Number Terminal Service Units (thousands)			2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	AAGR 2023/2016
Ireland	EI_TCZ	H	.	.	.	.	.	174.6	188.7	192.1	193.7	222.5	233.0	243.7	5.9%
		B	129.5	136.7	137.5	149.6	163.2	173.9	184.2	189.8	191.5	200.6	206.1	213.8	3.9%
		L	.	.	.	.	.	173.2	180.0	181.3	183.4	184.7	186.4	188.3	2.1%
Italy	LI_TCZ_1	H	.	.	.	.	.	234.8	247.2	261.9	276.1	289.4	303.7	318.2	5.0%
		B	217.7	210.0	218.5	221.9	225.8	234.0	241.0	246.7	252.5	257.5	263.2	269.4	2.6%
		L	.	.	.	.	.	233.2	235.0	233.4	233.7	232.8	232.2	231.8	0.4%
	LI_TCZ_2	H	.	.	.	.	.	315.3	333.8	353.1	371.6	388.8	406.3	426.3	5.1%
		B	285.7	275.3	275.1	286.0	300.7	313.9	324.4	332.3	340.1	346.0	353.4	361.1	2.7%
		L	.	.	.	.	.	312.8	314.9	311.9	312.4	310.9	311.3	310.8	0.5%
Latvia	EV_TCZ	H	.	.	.	.	.	36.4	39.2	41.4	43.6	45.8	48.1	50.6	6.6%
		B	31.5	32.4	31.4	32.4	32.4	36.2	37.5	38.4	39.1	39.6	40.1	40.6	3.3%
		L	.	.	.	.	.	36.0	36.0	35.3	35.1	34.3	33.9	33.6	0.5%
Lisbon FIR	LP_TCZ	H	.	.	.	.	.	262.5	279.1	296.5	310.0	322.8	336.5	351.9	6.2%
		B	175.7	180.3	191.8	205.6	230.6	261.2	271.9	278.7	284.3	289.7	295.1	301.3	3.9%
		L	.	.	.	.	.	260.1	264.0	261.9	261.5	260.7	260.6	260.2	1.7%
Lithuania	EY_TCZ	H	.	.	.	.	.	27.9	30.0	33.5	35.8	38.8	41.5	44.2	7.4%
		B	19.2	21.0	23.6	25.1	26.8	27.7	29.0	30.4	31.5	33.0	34.2	35.4	4.1%
		L	.	.	.	.	.	27.6	28.1	28.5	29.0	29.2	29.2	29.5	1.4%
Luxembourg	EL_TCZ	H	.	.	.	.	.	51.6	56.7	60.3	63.9	67.1	70.6	74.1	7.1%
		B	34.9	37.3	39.0	41.1	45.8	51.3	55.4	56.0	58.1	60.0	62.2	64.5	5.0%
		L	.	.	.	.	.	51.0	51.2	51.8	53.8	54.6	55.7	56.8	3.1%
Malta	LM_TCZ	H	.	.	.	.	.	31.9	35.3	38.9	42.1	45.3	48.6	52.1	9.9%
		B	20.7	22.7	23.9	25.4	26.9	31.8	34.1	36.3	38.0	39.4	40.9	43.2	7.0%
		L	.	.	.	.	.	31.6	33.1	33.4	34.2	35.2	35.8	36.3	4.4%
Netherlands	EH_TCZ	H	.	.	.	.	.	410.2	418.3	431.1	436.7	442.3	448.6	454.9	2.2%
		B	339.2	345.0	356.6	369.2	390.2	408.6	418.0	430.1	435.6	440.8	447.1	452.8	2.2%
		L	.	.	.	.	.	406.8	412.8	414.7	419.1	421.4	425.1	428.9	1.4%
Norway	EN_TCZ	H	.	.	.	.	.	252.1	258.3	261.8	278.5	288.6	298.9	306.5	3.4%
		B	242.4	255.4	247.9	241.7	242.1	251.4	254.6	258.9	263.4	265.2	268.5	271.6	1.7%
		L	.	.	.	.	.	250.7	250.3	249.4	249.8	248.9	248.7	257.0	0.9%
Poland ¹²	EP_TCZ_EPWA	H	.	.	.	.	.	91.3	102.1	112.4	121.0	123.2	124.3	125.6	6.9%
		B	65.3	70.0	69.0	70.8	78.7	90.9	98.5	103.2	108.0	111.5	115.4	119.6	6.2%
		L	.	.	.	.	.	90.5	95.7	96.5	97.4	97.9	98.7	98.9	3.3%
	EP_TCZ_OTHR	H	.	.	.	.	.	115.0	126.4	138.0	149.1	161.7	173.7	187.3	8.8%
		B	83.6	79.9	87.5	96.4	103.8	114.4	121.8	129.7	135.9	141.4	147.1	154.1	5.8%
		L	113.9	118.1	120.7	123.9	126.5	129.0	131.6	3.5%

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Total Number Terminal Service Units (thousands)			2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	AAGR 2023/2016
Romania	LR_TCZ	H	.	.	.	.	.	73.2	78.8	84.2	89.3	94.0	98.0	102.3	7.5%
		B	45.1	47.3	50.3	54.6	61.6	72.8	76.4	78.5	80.5	82.2	84.2	86.3	4.9%
		L	.	.	.	.	.	72.5	74.3	74.0	74.4	74.4	74.6	74.9	2.8%
Slovakia	LZ_TCZ	H	.	.	.	.	.	11.7	12.7	13.9	14.9	16.5	17.7	18.5	8.6%
		B	8.7	8.6	8.3	9.4	10.4	11.6	12.3	13.0	13.7	14.4	14.9	15.6	6.0%
		L	.	.	.	.	.	11.5	11.9	12.2	12.6	12.8	13.2	13.5	3.8%
Slovenia	LJ_TCZ	H	.	.	.	.	.	13.2	14.2	15.2	16.2	18.1	18.9	19.5	7.7%
		B	11.1	11.3	11.1	12.0	11.6	13.1	13.8	14.3	14.9	15.5	16.1	16.7	5.4%
		L	.	.	.	.	.	13.0	13.4	13.6	13.9	14.2	14.4	14.7	3.4%
Spain	LE_TCZ	H	.	.	.	.	.	788.9	833.8	885.8	930.6	971.1	1014.7	1062.2	5.3%
		B	725.6	700.4	651.2	680.5	740.8	785.6	813.0	841.2	865.0	883.9	903.3	926.6	3.2%
		L	.	.	.	.	.	782.3	792.8	799.1	806.1	809.6	814.0	820.4	1.5%
Sweden	ES_TCZ_A	H	.	.	.	.	.	152.7	155.5	158.1	160.6	163.1	166.4	169.5	2.4%
		B	121.7	128.6	135.6	137.1	143.9	152.7	155.4	157.8	160.3	162.8	166.0	169.2	2.3%
		L	.	.	.	.	.	152.7	155.0	154.5	154.8	154.8	155.0	155.0	1.1%
Switzerland	LS_TCZ	H	.	.	.	.	.	285.3	298.4	312.9	327.3	339.8	353.7	361.3	3.7%
		B	254.4	252.1	262.2	266.6	279.8	284.2	292.3	300.2	307.4	312.9	319.6	327.7	2.3%
		L	.	.	.	.	.	282.9	286.4	287.4	289.6	289.7	291.1	293.3	0.7%
UK	EG_TCZ_B	H	.	.	.	.	.	1,310.7	1,354.3	1,392.2	1,456.2	1,511.6	1,560.5	1,601.5	3.5%
		B	1,079.6	1,106.0	1,142.7	1,187.0	1,255.7	1,306.9	1,337.0	1,360.7	1,387.6	1,410.3	1,430.3	1,450.5	2.1%
		L	.	.	.	.	.	1,302.3	1,317.4	1,319.2	1,335.1	1,342.6	1,352.7	1,362.7	1.2%
	EG_TCZ_C ¹³	H	.	.	.	.	.	971.5	997.8	1,021.7	1,071.7	1,113.2	1,144.3	1,171.0	3.1%
		B	826.5	843.8	877.1	907.6	946.5	969.2	988.3	1,003.8	1,022.4	1,038.2	1,051.9	1,064.9	1.7%
		L	.	.	.	.	.	966.0	976.0	978.4	991.0	998.8	1,006.9	1,014.6	1.0%

¹³ The UK has defined the EG_TCZ_C as a separate terminal charging zone, which covers the London Approach Service (LAS) for the five London airports (Heathrow, Gatwick, Stansted, Luton and London City). These five airports are also part of the nine airports forming the EG_TCZ_B.

ANNEX 9 TERMINAL NAVIGATION SERVICE UNITS FORECAST PER STATE (GROWTH)

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

Figure 51. Forecast of the total number of Terminal service units (growth) per Terminal Charging Zone.

Terminal Navigation Service Units (Annual Growth)			2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	AAGR 2023/2016
Austria	LO_TCZ	H	.	.	.	.	.	2.0%	4.0%	5.1%	4.7%	3.9%	4.2%	3.5%	3.9%
		B	-2.7%	-2.0%	1.6%	1.3%	0.5%	1.6%	2.2%	2.2%	2.7%	1.6%	1.8%	1.7%	2.0%
		L	.	.	.	.	.	1.2%	0.3%	-0.3%	0.3%	-0.4%	0.6%	-0.0%	0.2%
Belgium	EB_TCZ_EBAW	H	.	.	.	.	.	14.7%	5.8%	5.5%	4.8%	4.2%	5.0%	3.3%	6.1%
		B	-9.6%	-1.5%	-10.6%	56.1%	6.3%	14.2%	1.8%	1.9%	4.5%	1.7%	3.8%	3.0%	4.3%
		L	.	.	.	.	.	13.5%	0.3%	0.4%	1.1%	0.3%	1.1%	1.2%	2.5%
	EB_TCZ_EBBR	H	.	.	.	.	.	7.5%	4.9%	5.2%	5.5%	3.0%	1.0%	0.9%	4.0%
		B	-4.7%	-5.6%	3.0%	5.5%	-5.7%	7.1%	2.4%	3.0%	2.7%	2.3%	2.5%	2.5%	3.2%
		L	.	.	.	.	.	6.6%	0.2%	0.0%	1.1%	0.4%	0.8%	0.8%	1.4%
	EB_TCZ_EBCI	H	.	.	.	.	.	6.1%	5.4%	7.1%	6.4%	6.1%	6.1%	6.3%	6.2%
		B	11.6%	8.3%	-7.0%	3.8%	3.6%	5.7%	3.1%	3.7%	3.7%	3.2%	3.4%	3.6%	3.8%
		L	.	.	.	.	.	5.2%	0.9%	0.8%	1.6%	1.0%	1.3%	1.3%	1.7%
	EB_TCZ_EBLG	H	.	.	.	.	.	9.1%	6.9%	8.2%	6.5%	5.5%	6.1%	6.0%	6.9%
		B	-13.9%	-2.6%	8.1%	11.4%	4.2%	8.7%	4.9%	4.4%	4.7%	5.1%	4.6%	4.0%	5.2%
		L	.	.	.	.	.	8.2%	2.8%	2.1%	3.0%	2.4%	2.7%	2.7%	3.4%
	EB_TCZ_EBOS	H	.	.	.	.	.	17.9%	11.0%	3.7%	0.8%	3.9%	4.0%	4.2%	6.4%
		B	-2.6%	-7.5%	-26.1%	-3.3%	46.5%	18.1%	7.3%	3.4%	1.7%	2.2%	2.7%	2.6%	5.3%
		L	.	.	.	.	.	16.3%	7.0%	0.3%	1.1%	0.1%	1.0%	2.2%	3.9%
Bulgaria ¹⁴	LB_TCZ	H	.	.	.	.	.	13.3%	7.2%	5.4%	5.0%	4.2%	4.3%	4.5%	6.2%
		B	0.9%	0.5%	6.1%	-45.6%	18.8%	12.7%	5.0%	2.8%	3.0%	2.5%	2.5%	2.7%	4.4%
		L	.	.	.	.	.	12.2%	2.9%	0.4%	0.7%	0.8%	1.1%	1.0%	2.6%
Croatia	LD_TCZ	H	.	.	.	.	.	13.9%	-1.1%	5.1%	4.6%	4.2%	3.5%	5.2%	5.0%
		B	-4.5%	-1.0%	3.5%	6.2%	5.2%	13.1%	-2.2%	2.5%	2.4%	2.0%	2.0%	1.4%	2.9%
		L	.	.	.	.	.	12.7%	-5.5%	-2.9%	1.0%	0.5%	0.7%	0.6%	0.9%

¹⁴ The definition of the Terminal Charging Zone for Bulgaria takes into account the definition available for the February 2015 forecast: 4 airports have been taken out from 2016, which explains the low growth for 2016

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Terminal Navigation Service Units (Annual Growth)			2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	AAGR 2023/2016
Cyprus	LC_TCZ	H	.	.	.	.	.	14.8%	7.5%	9.3%	8.8%	7.2%	7.4%	8.3%	9.0%
		B	-3.1%	-8.3%	2.5%	1.0%	17.0%	14.2%	2.6%	6.9%	4.2%	3.7%	5.4%	4.2%	5.8%
		L	.	.	.	.	.	13.7%	-1.5%	0.6%	1.5%	1.8%	1.2%	1.2%	2.5%
Czech Republic	LK_TCZ	H	.	.	.	.	.	15.5%	10.5%	8.6%	7.8%	6.8%	5.1%	1.4%	7.9%
		B	-10.8%	-2.1%	-1.0%	3.6%	7.9%	14.8%	7.1%	4.5%	4.1%	3.6%	3.8%	4.1%	5.9%
		L	.	.	.	.	.	14.2%	4.0%	0.8%	1.6%	0.9%	1.1%	1.1%	3.3%
Denmark	EK_TCZ	H	.	.	.	.	.	-0.5%	4.5%	4.8%	4.5%	4.1%	4.2%	3.5%	3.6%
		B	-1.1%	3.1%	4.3%	2.4%	7.1%	-1.0%	2.1%	2.6%	2.6%	1.4%	1.9%	1.9%	1.6%
		L	.	.	.	.	.	-1.4%	0.2%	0.1%	0.7%	-0.0%	0.2%	0.4%	0.0%
Estonia	EE_TCZ	H	.	.	.	.	.	19.5%	11.0%	10.8%	8.4%	11.2%	8.8%	6.2%	10.8%
		B	18.0%	-22.8%	3.4%	5.6%	0.5%	18.4%	6.4%	5.9%	3.7%	6.7%	3.8%	5.3%	7.1%
		L	.	.	.	.	.	17.7%	3.7%	0.7%	1.4%	1.0%	2.5%	1.3%	3.9%
Finland	EF_TCZ	H	.	.	.	.	.	10.2%	6.0%	4.0%	3.8%	4.1%	4.7%	2.7%	5.0%
		B	-8.9%	0.4%	1.5%	1.1%	2.1%	9.7%	4.2%	1.8%	2.1%	1.5%	1.7%	1.6%	3.2%
		L	.	.	.	.	.	9.2%	2.3%	-0.3%	0.3%	-0.1%	0.1%	0.1%	1.6%
France ¹⁵	LF_TCZ_1	H	.	.	.	.	.	0.7%	4.2%	2.5%	7.9%	1.3%	1.3%	2.3%	2.8%
		B	-9.8%	-0.5%	-8.0%	2.3%	1.3%	0.2%	1.8%	3.2%	3.1%	2.9%	2.8%	2.8%	2.4%
		L	.	.	.	.	.	-0.1%	0.2%	0.8%	0.9%	0.8%	1.3%	0.8%	0.7%
	LF_TCZ_2	H	.	.	.	.	.	4.2%	4.4%	2.1%	4.0%	3.0%	3.1%	2.8%	3.4%
		B	2.7%	0.2%	-2.3%	1.0%	3.4%	3.7%	1.8%	2.2%	2.0%	1.6%	1.7%	1.4%	2.1%
		L	.	.	.	.	.	3.3%	-0.3%	0.2%	0.6%	0.4%	1.0%	0.0%	0.7%
Germany	ED_TCZ	H	.	.	.	.	.	4.6%	5.1%	3.5%	3.3%	3.0%	3.3%	3.2%	3.7%
		B	-1.2%	-1.0%	2.3%	2.1%	3.7%	4.2%	3.5%	1.6%	2.1%	1.5%	2.0%	1.8%	2.4%
		L	.	.	.	.	.	3.8%	2.0%	-0.1%	0.9%	0.3%	0.6%	0.6%	1.1%
Greece	LG_TCZ	H	.	.	.	.	.	8.2%	7.0%	5.9%	7.0%	5.6%	6.3%	6.2%	6.6%
		B	-14.0%	-10.2%	15.5%	16.4%	8.1%	7.8%	4.4%	3.3%	3.4%	3.2%	3.5%	3.5%	4.2%
		L	.	.	.	.	.	7.3%	2.1%	0.5%	1.8%	0.9%	1.3%	1.5%	2.2%
Hungary	LH_TCZ	H	.	.	.	.	.	9.2%	9.2%	9.0%	9.7%	6.9%	6.6%	6.7%	8.2%
		B	-16.0%	-0.9%	3.1%	9.0%	6.8%	8.5%	5.8%	5.5%	4.0%	3.7%	3.7%	3.7%	5.0%
		L	.	.	.	.	.	7.9%	2.4%	1.0%	1.6%	1.8%	1.4%	1.7%	2.5%
Ireland	EI_TCZ	H	.	.	.	.	.	7.0%	8.1%	1.8%	0.9%	14.9%	4.7%	4.6%	5.9%
		B	-4.7%	5.5%	0.6%	8.8%	9.1%	6.5%	6.0%	3.0%	0.9%	4.7%	2.7%	3.8%	3.9%
		L	.	.	.	.	.	6.1%	4.0%	0.7%	1.2%	0.7%	0.9%	1.0%	2.1%

¹⁵ France and Poland TCZ are split in two distinct TCZs from 2017 according to the definition in Figure 40. This split has also been done for the history to reconstruct a meaningful history and growth rates for the new Terminal Charging Zones.

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Terminal Navigation Service Units (Annual Growth)			2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	AAGR 2023/2016
Italy	LI_TCZ_1	H	.	.	.	.	.	4.0%	5.3%	5.9%	5.5%	4.8%	4.9%	4.8%	5.0%
		B	-3.6%	-3.5%	4.0%	1.6%	1.7%	3.7%	3.0%	2.3%	2.4%	2.0%	2.2%	2.4%	2.6%
		L	.	.	.	.	.	3.3%	0.8%	-0.7%	0.1%	-0.4%	-0.2%	-0.2%	0.4%
Italy	LI_TCZ_2	H	.	.	.	.	.	4.9%	5.9%	5.8%	5.3%	4.6%	4.5%	4.9%	5.1%
		B	-2.2%	-3.7%	-0.1%	4.0%	5.1%	4.4%	3.3%	2.4%	2.4%	1.7%	2.1%	2.2%	2.7%
		L	.	.	.	.	.	4.0%	0.7%	-1.0%	0.1%	-0.5%	0.1%	-0.2%	0.5%
Latvia	EV_TCZ	H	.	.	.	.	.	12.6%	7.5%	5.8%	5.3%	4.9%	5.0%	5.3%	6.6%
		B	-2.3%	2.9%	-3.2%	3.3%	-0.1%	11.9%	3.5%	2.6%	1.7%	1.4%	1.1%	1.2%	3.3%
		L	.	.	.	.	.	11.1%	0.1%	-1.9%	-0.6%	-2.2%	-1.2%	-1.0%	0.5%
Lisbon FIR	LP_TCZ	H	.	.	.	.	.	13.8%	6.3%	6.2%	4.6%	4.1%	4.2%	4.6%	6.2%
		B	-1.0%	2.6%	6.4%	7.2%	12.2%	13.3%	4.1%	2.5%	2.0%	1.9%	1.9%	2.1%	3.9%
		L	.	.	.	.	.	12.8%	1.5%	-0.8%	-0.2%	-0.3%	-0.0%	-0.1%	1.7%
Lithuania	EY_TCZ	H	.	.	.	.	.	4.0%	7.5%	11.6%	7.0%	8.2%	7.0%	6.6%	7.4%
		B	8.0%	9.5%	12.2%	6.2%	7.0%	3.4%	4.6%	4.9%	3.4%	5.1%	3.5%	3.5%	4.1%
		L	.	.	.	.	.	2.7%	2.1%	1.2%	1.7%	0.7%	0.1%	1.0%	1.4%
Luxembourg	EL_TCZ	H	.	.	.	.	.	12.6%	10.0%	6.4%	5.9%	5.0%	5.1%	5.0%	7.1%
		B	-1.0%	6.8%	4.4%	5.5%	11.4%	12.0%	8.0%	1.2%	3.6%	3.3%	3.7%	3.8%	5.0%
		L	.	.	.	.	.	11.5%	0.2%	1.2%	3.8%	1.6%	2.0%	1.9%	3.1%
Malta	LM_TCZ	H	.	.	.	.	.	18.6%	10.6%	10.3%	8.1%	7.6%	7.2%	7.3%	9.9%
		B	.	9.7%	5.6%	6.1%	6.0%	18.0%	7.4%	6.5%	4.7%	3.7%	3.8%	5.6%	7.0%
		L	.	.	.	.	.	17.4%	4.7%	1.0%	2.2%	3.1%	1.7%	1.5%	4.4%
Netherlands	EH_TCZ	H	.	.	.	.	.	5.1%	2.0%	3.1%	1.3%	1.3%	1.4%	1.4%	2.2%
		B	0.0%	1.7%	3.4%	3.5%	5.7%	4.7%	2.3%	2.9%	1.3%	1.2%	1.4%	1.3%	2.2%
		L	.	.	.	.	.	4.3%	1.5%	0.5%	1.1%	0.6%	0.9%	0.9%	1.4%
Norway	EN_TCZ	H	.	.	.	.	.	4.2%	2.4%	1.4%	6.4%	3.6%	3.6%	2.6%	3.4%
		B	5.6%	5.4%	-2.9%	-2.5%	0.1%	3.9%	1.3%	1.7%	1.8%	0.7%	1.2%	1.2%	1.7%
		L	.	.	.	.	.	3.6%	-0.2%	-0.4%	0.2%	-0.4%	-0.1%	3.3%	0.9%
Poland ¹⁵	EP_TCZ_EPWA	H	.	.	.	.	.	16.0%	11.8%	10.1%	7.6%	1.8%	1.0%	1.1%	6.9%
		B	0.9%	7.2%	-1.5%	2.6%	11.3%	15.4%	8.4%	4.8%	4.6%	3.3%	3.5%	3.6%	6.2%
		L	.	.	.	.	.	14.9%	5.8%	0.8%	1.0%	0.4%	0.8%	0.3%	3.3%
	EP_TCZ_OTHR	H	.	.	.	.	.	10.8%	10.0%	9.2%	8.1%	8.4%	7.4%	7.9%	8.8%
		B	21.2%	-4.4%	9.5%	10.2%	7.7%	10.2%	6.5%	6.5%	4.8%	4.1%	4.1%	4.7%	5.8%
		L	.	.	.	.	.	9.8%	3.7%	2.1%	2.7%	2.1%	2.0%	2.0%	3.5%
Romania	LR_TCZ	H	.	.	.	.	.	18.8%	7.7%	6.8%	6.0%	5.3%	4.3%	4.4%	7.5%
		B	21.5%	4.8%	6.4%	8.6%	12.8%	18.2%	5.0%	2.7%	2.5%	2.1%	2.4%	2.4%	4.9%
		L	.	.	.	.	.	17.6%	2.5%	-0.4%	0.5%	-0.0%	0.3%	0.5%	2.8%

EUROCONTROL SEVEN-YEAR FORECAST
SEPTEMBER 2017

Terminal Navigation Service Units (Annual Growth)			2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	AAGR 2023/2016
Slovakia	LZ_T CZ	H	.	.	.	.	.	12.3%	9.2%	9.1%	7.4%	10.6%	7.0%	4.8%	8.6%
		B	-11.7%	-1.7%	-3.4%	12.9%	11.1%	11.5%	6.4%	5.0%	5.4%	5.1%	3.8%	4.8%	6.0%
		L	.	.	.	.	.	10.8%	3.2%	2.7%	2.9%	2.2%	3.0%	2.4%	3.8%
Slovenia	LJ_T CZ	H	.	.	.	.	.	13.8%	7.6%	7.0%	6.4%	12.2%	4.1%	3.0%	7.7%
		B	-10.8%	1.4%	-1.7%	8.0%	-3.3%	13.1%	5.3%	3.9%	4.1%	4.0%	3.8%	3.8%	5.4%
		L	.	.	.	.	.	12.5%	3.0%	1.3%	2.1%	1.8%	1.9%	1.9%	3.4%
Spain	LE_T CZ	H	.	.	.	.	.	6.5%	5.7%	6.2%	5.0%	4.4%	4.5%	4.7%	5.3%
		B	-6.6%	-3.5%	-7.0%	4.5%	8.9%	6.0%	3.5%	3.5%	2.8%	2.2%	2.2%	2.6%	3.2%
		L	.	.	.	.	.	5.6%	1.3%	0.8%	0.9%	0.4%	0.5%	0.8%	1.5%
Sweden	ES_T CZ_A	H	.	.	.	.	.	6.2%	1.8%	1.7%	1.6%	1.6%	2.1%	1.8%	2.4%
		B	-0.2%	5.7%	5.5%	1.1%	5.0%	6.1%	1.8%	1.5%	1.6%	1.6%	2.0%	1.9%	2.3%
		L	.	.	.	.	.	6.1%	1.5%	-0.3%	0.2%	-0.0%	0.1%	-0.0%	1.1%
Switzerland	LS_T CZ	H	.	.	.	.	.	2.0%	4.6%	4.9%	4.6%	3.8%	4.1%	2.2%	3.7%
		B	1.2%	-0.9%	4.0%	1.7%	5.0%	1.6%	2.8%	2.7%	2.4%	1.8%	2.2%	2.5%	2.3%
		L	.	.	.	.	.	1.1%	1.2%	0.3%	0.7%	0.0%	0.5%	0.7%	0.7%
UK	EG_T CZ_B	H	.	.	.	.	.	4.4%	3.3%	2.8%	4.6%	3.8%	3.2%	2.6%	3.5%
		B	-0.1%	2.5%	3.3%	3.9%	5.8%	4.1%	2.3%	1.8%	2.0%	1.6%	1.4%	1.4%	2.1%
		L	.	.	.	.	.	3.7%	1.2%	0.1%	1.2%	0.6%	0.8%	0.7%	1.2%
	EG_T CZ_C ¹⁶	H	.	.	.	.	.	2.6%	2.7%	2.4%	4.9%	3.9%	2.8%	2.3%	3.1%
		B	-0.4%	2.1%	3.9%	3.5%	4.3%	2.4%	2.0%	1.6%	1.9%	1.6%	1.3%	1.2%	1.7%
		L	.	.	.	.	.	2.1%	1.0%	0.2%	1.3%	0.8%	0.8%	0.8%	1.0%

¹⁶ The UK has defined the EG_T CZ_C as a separate terminal charging zone, which covers the London Approach Service (LAS) for the five London airports (Heathrow, Gatwick, Stansted, Luton and London City). These five airports are also part of the nine airports forming the EG_T CZ_B.

ANNEX 10 REFERENCES

- ¹ EUROCONTROL Seven-Year IFR Flight Movements and Service Units Forecast: 2017-2023, STATFOR Document 603, February 2017
- ² STATFOR Interactive Dashboard at <http://www.eurocontrol.int/statfor/sid>
- ³ Methods of the STATFOR Seven-Year Forecast, STATFOR Document 518, v0.8, July 2016
- ⁴ GDP Elasticities for the STATFOR Forecast, STATFOR Document 499, Draft v0.4, November 2013
- ⁵ High-Speed Train Model Recalibration, STATFOR Document 551, Draft v0.1, November 2014
- ⁶ EUROCONTROL Intermediate Two-Year Service Units Forecast: 2017-2018, STATFOR Document 612, May 2017