



EUROCONTROL Medium-Term Forecast of Service Units 2012-2017 - February 2012 update

Summary:

This document presents the forecast of total service units in Europe¹ for 2012-2017 prepared by the Statistics and Forecast Service of EUROCONTROL (STATFOR) for the attention of the EUROCONTROL Member States and their air navigation service providers. This forecast also aims to support the preparation and monitoring of performance plans for the first reporting period, 2012-2014. Ukraine has been added for the first time to the list of countries for which a forecast is produced.

After the decline in flight growth observed since the winter schedule was put in place and in line with the new flight forecast² that takes into account the recent lower economic trends, the forecast for 2012 has been significantly revised downwards compared to the September 2011 forecast. In EUROCONTROL current member states (CRCO11), the forecast is 123.5 million service units, a growth of 0.3% compared to the 123.2 million service units observed in 2011. This is a significant revision downwards compared to the 129.7 million service units published in September 11 for 2012, although the service units should still grow more quickly than the flights.

However, not all countries are expected to see growth in their service units in 2012 and the gap is clearly visible between West and East with a decline of service units by more than -1% in the West, whereas the service units of many Eastern European countries are expected to grow by more than 1%. This is linked to the recovery from the traffic disruption from last year, due to the loss of flights from the instability in North Africa or to social unrest in Greece and to a continuing strong growth of traffic flows to and from Turkey and the Middle-East.

The total service units in the EUROCONTROL member states (CRCO11) are forecast to grow by 2.1% in 2013 compared to 2012 forecast service units and reach around 126.2 million.

For the member states of EUROCONTROL in 2011 (CRCO11), total service units (TSUs) are forecast to be about 17% higher in 2017 than in 2011, reaching in total around 143.8 million. The annual growth is expected to increase from 2.1% in 2013 to average figures around 3.3% from 2014. The TSU forecast for 2017 is similar to the levels previously forecasted in May 2011 for 2016 and thus represents a delay of at least 1 year in the TSUs growth because of the stagnation of service units expected in 2012 and because of a lower growth in 2013.

The short-term forecast (2012-2013) of service units will next be updated in May 2012 and the years to 2017 will be re-aligned at the same time to take into account this update.

Comments are welcome at statfor.info@eurocontrol.int.

¹ Here "Europe" refers both to States within EUROCONTROL 2011 charging area (CRCO11) and to States covered by the performance scheme (Regulation (EC) No 691/2010 of 29 July 2010) identified as PScheme.

² EUROCONTROL Medium-Term Forecast: IFR Flight Movements 2012-2018, STATFOR Doc 455, February 2012

1. INTRODUCTION

This report contains an update of the forecast of service units for 2012-2017. This update takes into account the latest data on total service units to renew the short-term forecast (2012-2013), as well as providing a full update of the medium-term forecast (up to 2017).

The forecast is mainly directed towards the EUROCONTROL States participating in the Multilateral Route Charges System, down to individual charging area level. The period to 2014 is also of interest for the countries participating in the EU-wide performance target setting (Regulation (EC) N° 691/2010 of 29 July 2010). The geographical scope of the EU-wide performance target scheme covers the 27 EU Member States plus Norway and Switzerland³, referred to here in total as "PScheme". A forecast has also been produced for Ukraine at its request. Its TSU is not included in the aggregates named CRCO11 and PScheme but is in the Total, so the total is different from that in previous publications.

Section 2 describes the forecasting methodology, section 3 summarises the past evolution of total service units and section 4 and 5 respectively discuss the main short-term and medium-term forecast results, while section 6 highlights some of the key risks to the forecast. The first Annex details the methodology, whereas in the last two Annexes, one for the short-term forecast, one for the medium-term forecast, are attached tables that present the forecasts for individual States for which a forecast has been calculated.

2. FORECASTING METHODOLOGY

The forecast process uses both monthly data of total service units recorded in the route charges system from January 1990 or first month of operation in the route charges system (or first month of data provided by the state for Estonia and Ukraine) up to and including January 2012 as well as flight information such as the average maximum take-off weight (MTOW) and distance flown up to and including January 2012. The forecast is based on a combination of two parallel approaches:

- The short-term forecast (2012-2013), as it has been for many years, is mainly based on time-series modelling of trends, seasonal and cyclical patterns in actual monthly service units. It also relies strongly on the flight forecast⁴ and thus picks up future information that is included in the flight forecast (economic growth forecasts, schedule data, future events etc).
- The medium-term forecast (2012-2017) uses the flight forecast⁴ as well as trends in the evolution of average distances and MTOW of the flights across each State.

The detailed forecasting methodology can be found in Annex A.

³ ICAO Oceanic airspace regions Bodø (Norway), NOTA and SOTA (Ireland) and Canaries FIR are also included. Santa Maria FIR being operationally very different from the other included areas is not covered.

⁴ EUROCONTROL Medium-Term Forecast: IFR Flight Movements 2012-2018, STATFOR Doc 455, February 2012

3. RECENT EVOLUTION OF TOTAL SERVICE UNITS

Figure 1 presents the monthly evolution of the total service units (TSUs) recorded in the member states of EUROCONTROL in 2011 (CRCO11) that is used as our reference period.

In 2011, 123.2 million service units (SU) have been produced. This represents a growth of 4.9% compared to 2010 and a new high record of SU collected during a single year over the previous record of 2008. Overall the growth of TSU has been greater than that of the flights: for the ESRA08 region flights grew only by 3.1%. However, TSU remain linked to the evolution of the flights: most of the growth in 2011 is associated with the strong traffic of the summer, whereas lower growth figures have been observed since the start of the weaker winter schedule.

With about 8.6 million TSU observed in January 2012, we start 2.3% lower than in January 2011, in between the levels of January 2008 and January 2009. This is a result in line with the weaker flight growth (-2.6% compared to January 2010 in ESRA08).

Figure 1. Evolution of total service units recorded in CRCO11 area in 2008-2011



4. SHORT-TERM FORECAST RESULTS: 2012-2013

Figure 6 presents the 2012 and 2013 total service units forecast per State prepared by EUROCONTROL/STATFOR at the end of February 2012.

After the decline in flight growth observed since the start of the Winter schedule and in line with the new flight forecast⁵ that takes into account the recent weaker economic trends, the forecast for 2012 has been significantly revised downwards compared to the September 2011 forecast. In EUROCONTROL current member states (CRCO11), the forecast is 123.5 million SU, a growth of 0.3% compared to the 123.2 million SU observed in 2011. This is a significant revision downwards compared to the 129.7 million SU published in September 11 for 2012, although the service units should still grow more quickly than the flights.

Not all countries are expected to see growth in their SU and the gap is clearly visible between Western and Eastern European countries. This gap is illustrated by the forecast decline for the CRCO88 region of -1.4% for 2012 compared to the 0.3% growth over CRCO11, since the CRCO88 region does not include, for example Poland or Armenia that have both seen growth figures over 10% in 2011

Some of the stronger growth in the South-East is explained, by the expected recovery from the traffic disruption from last year, either due to the loss of flights from the instability in North Africa or to social unrest in Greece, and also part by the strong traffic growth in particular from Turkey and the Middle-East.

After the re-opening of the Libyan airspace to overflights, Italy and Malta are expected to see an increase in SU. However, the uncertainty in the forecast for these countries is particularly large as last year's disruption caused significant changes in both the *numbers* of overflights and the average *distance* (shorter

⁵ EUROCONTROL Medium-Term Forecast: IFR Flight Movements 2012-2018, STATFOR Doc 455, February 2012

distance in Italy and greater distances in Malta). We have assumed a return to normality for the distances by the end of 2012, although other scenarios are possible.

The risk of changes in the flight patterns exists elsewhere and may further affect the evolution of the SU. More is said about this risk to the forecast in Section 6.

The total service units in the EUROCONTROL member states (CRCO11) are forecast to grow by 2.1% in 2013 compared to 2012 and reach 126.2 million. Estimates of chargeable service units per State in 2012 and 2013, based on EUROCONTROL SU forecasts and numbers of exempted service units in 2011, are presented in Figure 7. The chargeable service units in CRCO11 in 2012 and 2013 are estimated to amount to around 121.4 million and 124 million respectively.

It is important to bear in mind that these forecasts rely on the flight forecasts⁶ that have made some assumptions with regards to the traffic recovery from and to Egypt and over Libya. Whether these assumptions will be fully met is unknown: section 6 discusses the risks.

5. MEDIUM-TERM FORECAST RESULTS: UP TO 2017

For the member states of EUROCONTROL in 2011 (CRCO11), total service units (TSUs) are forecasted to be about 17% higher in 2017 than in 2011, reaching in total around 143.8 millions compared to 123.2 millions in 2011. The annual growth is expected to increase from 2.1% in 2013 to average figures around 3.3% from 2014. The low- to high-forecast range for the TSUs in 2017 is estimated to stand between 134.4 and 154.1 million service units, which represent an increase of 9% to 25% compared to 2011, respectively. The TSU forecast for 2017 is similar to the levels previously forecasted in May 2011 for 2016 and thus represents a delay of at least 1 year in the TSUs growth because of the stagnation of SU expected in 2012 and because of a lower growth in 2013.

Growth is forecast to be slower in the states that are within the EU Performance Scheme ("PScheme" in Figure 8): by around 3% for the total growth in TSUs compared to the CRCO11. This is because the PScheme region does not include fast-growing States such as Turkey and Croatia. On average, over the states involved in the EU performance scheme, from 2014, the annual growth is not expected to be much different from what was expected according in the May 2011 forecasts⁶.

Figure 3 compares the evolution of the forecast between the May 2011⁶ forecast and this new forecast release for the EUROCONTROL member states in 2011 (CRCO11). The 2011 actual growth (4.9%) was quite close to the forecast (4.5%), but the downward revision for 2012 is clear in the figure.

The average annual growth figures per State can be found in the map in Figure 4. The detailed forecasts for each State are in Annex C.

⁶ EUROCONTROL Short- and Medium- Term Forecast of Service Units: May 2011, STATFOR Doc434 v1.0

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

		2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2017/ 2011 Total Growth
Total service units (thousands) CRCO11*	H	.	.	.	.	.	.	125,149	129,241	135,283	141,060	147,209	154,119	25%
	B	105,009	112,674	119,521	113,434	117,393	123,211	123,539	126,159	130,230	134,512	139,003	143,751	17%
	L	.	.	.	.	.	.	121,955	123,178	125,626	128,449	131,537	134,410	9%
Total service units (thousands) PScheme **	H	.	.	.	.	.	.	106,024	109,106	113,998	118,643	123,577	128,554	22%
	B	93,862	99,660	104,941	98,057	100,579	105,126	104,707	106,549	109,726	113,116	116,662	119,978	14%
	L	.	.	.	.	.	.	103,410	104,076	105,852	108,008	110,385	112,310	7%
		2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2017/ 2011 AAGR
Annual growth CRCO11	H	.	.	.	.	.	.	1.6%	3.3%	4.7%	4.3%	4.4%	4.7%	3.8%
	B	4.6%	6.4%	2.9%	-5.2%	3.5%	5.0%	0.3%	2.1%	3.2%	3.3%	3.3%	3.4%	2.6%
	L	.	.	.	.	.	.	-1.0%	1.0%	2.0%	2.2%	2.4%	2.2%	1.5%
Annual growth PScheme	H	.	.	.	.	.	.	0.9%	2.9%	4.5%	4.1%	4.2%	4.0%	3.4%
	B	4.4%	6.2%	1.7%	-6.6%	2.6%	4.5%	-0.4%	1.8%	3.0%	3.1%	3.1%	2.8%	2.2%
	L	.	.	.	.	.	.	-1.6%	0.6%	1.7%	2.0%	2.2%	1.7%	1.1%

* CRCO11 designates the sum over all the states participating in the Multilateral Route Charges System in 2012 of all TSUs either measured or forecasted for the corresponding year.
 ** PScheme stands for the sum over all the 29 states that are currently involved in the EU-wide performance target setting (27 EU member states plus Norway and Switzerland)

Figure 3: Comparison 2011-2016 of the forecast between the May 2011 update and February 2012 for CRCO11 Area (Source: EUROCONTROL)

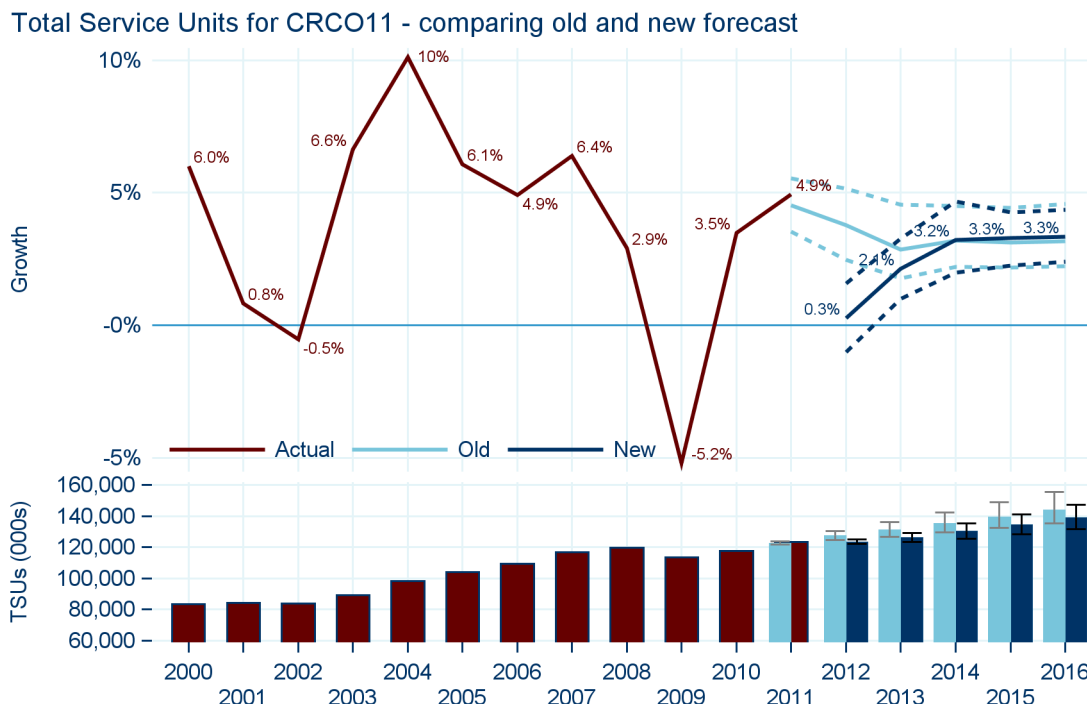
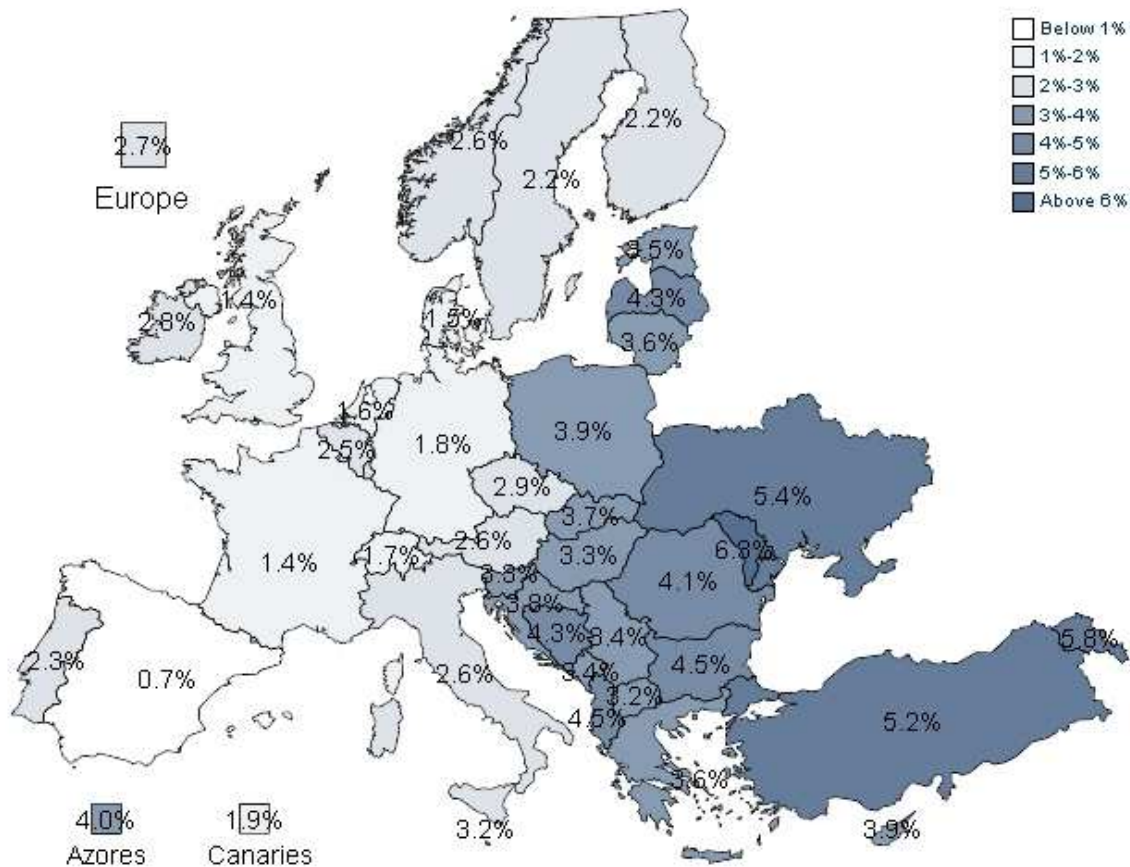


Figure 4: Average annual growth of service units between 2012 and 2017 (Source: EUROCONTROL)



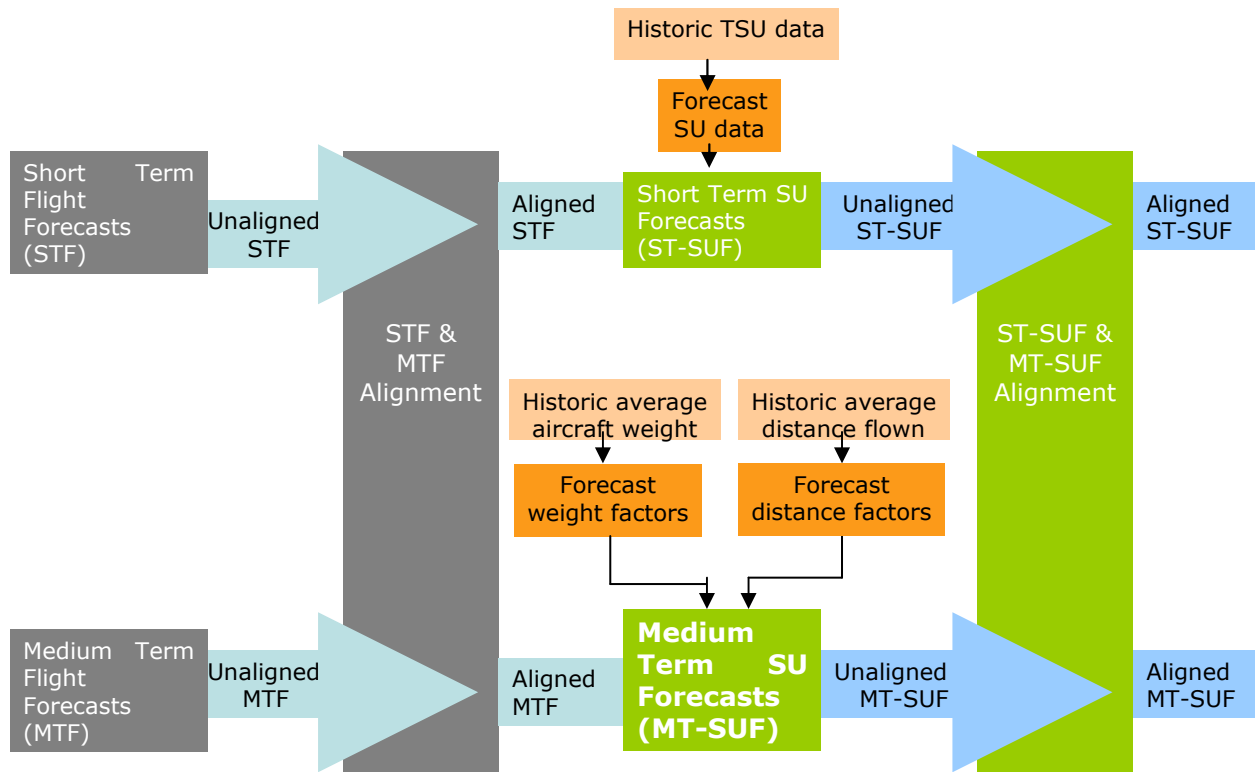
6. RISKS TO THE FORECAST

Users of the forecast are strongly advised to use the forecast range (low growth to high growth) as an indicator of risk. This range captures some of the uncertainty in factors such as economic growth, load factors, and the continuing rise of oil prices. However, the forecast range can not capture all of the risks and the actual range of the forecast is potentially wider. In particular, other sources of uncertainty in the forecast include:

- Tourism trends are quite variable. Events in Tunisia and Egypt have led to a fair proportion of European holidaymakers transferring to other Mediterranean destinations during 2011 (e.g. Spain continental, Greece, Canarias, Turkey). This has affected significantly some of the flows, as well as some growth figures, in particular for some of the south-eastern European countries whose overflight traffic departs from, or lands in Egypt or in the Middle East. This trend is expected to evolve and a scenario has been chosen to estimate the traffic recovery to Egypt, and over Libya whose airspace has just re-opened to overflights. However, other recovery scenarios are certainly possible, and in particular the potential for a slower recovery for Libya means strong downside risks for Malta.
- Overflight patterns on the South-East axis remain particularly fluid. Though overflights growth has been weaker on Hungary-Romania routings and stronger further South, this has reversed in September and October during the Greek-strikes and recent traffic evolution showed it could last.
- Changes in the flight patterns are not only likely to happen in the South-East of Europe. Since 2011, overflights have also flown smaller distances over other countries such as Switzerland, Sweden or the Netherlands which is reflected by lower growth figures in the medium term than in the May 2011 forecast, but this could still reverse.
- Forecasts for Armenia, Serbia & Montenegro (renamed Belgrade in the tables), Poland and Lithuania must be treated with extra care as these are based on a limited set of historical data. It is the same for Latvia who has joined the CRCO in 2011 and for which only yearly TSU data are available before. These regions are not included in the aggregated zones CRCO88, ESRA02 but are included in the TOTAL.

A. Detailed forecasting methodology

Figure 5. Service units forecast method



The overall forecast method and tool have been finalised in the first half of 2010. The forecasting methodology is in two parts, the short-term forecast and medium-term forecast being produced by two independent means. However; these two forecasts are later realigned for the first 2-year look ahead period, the scope of the short-term forecast, to account for the fact that the short-term forecast, which is based on time-series modelling of trends and seasonal and cyclical patterns in actual monthly service units, is usually better in capturing latest developments and giving the short-term outlook.

The short-term forecast is based on time series analysis, using actual monthly data of total service units recorded in the route charges system from January 1990 (or first month of operation in the route charges system). The latest EUROCONTROL flight forecast and medium-term forecast of service units prepared are used as supporting information in developing this forecast of service units. The actual data for April and May 2010 have been adjusted for the drop in service units due to flight cancellations resulting from the eruption of the Eyjafjallajökull volcano, as well as the actual data for December 2010 for the drop caused by the major snow falls in Europe. Some local corrections were also introduced to compensate for some loss of service units that could be attributed to local strikes. In doing so, we avoid some exceptional events to be captured as being part of the normal evolution pattern of the service units.

The method for the medium-term forecast of the service units adopts the structure for calculating the en route service units in reality: it combines forecasts of **distance factors** and **weight factors** with the **number of flights** as forecast by the latest EUROCONTROL Medium-Term Forecast of flight movements, thus making these two forecasts compatible. The future distance and weight factors are derived from observed historical trends in average flown distance and average MTOW of aircraft on arrivals, departures, internals and overflights in each charging area.

For managing risk related to future traffic uncertainty, in addition to a base central figure the medium-term forecast produces also high and low values. Overall, the future total service units can be expected to be between these about half of the time. The EUROCONTROL forecast of service units is impartial in that it uses the same method for all the States. However, users should note that for the medium-term forecasts, the forecast modelling as well as the results are based on a relatively short history of data (starting mostly in January 2003) which did not allow full assessment of the forecast performance for the complete 5-year horizon and thus its results should be treated with care.

B. State-by-state short-term forecast of service units

Figure 6. Forecast of total service units in 2012-2013 – February 2012

Charging Area		2011 Actual TSU	2012 STATFOR Forecast TSU	2012/2011 Forecast Growth	2013 STATFOR Forecast TSU	2013/2012 Forecast Growth	2012 States Forecast TSU ^(E)	current 2012 STATFOR/States
EB	Belgium/Luxembourg	2,211,673	2,224,645	0.6%	2,271,680	2.1%	2,283,649	-2.6%
ED	Germany ^(A)	12,739,932	12,564,600	-1.4%	12,704,825	1.1%	13,308,820	-5.6%
LF	France	17,691,225	17,396,951	-1.7%	17,459,299	0.4%	17,987,000	-3.3%
EG	UK	9,860,212	9,617,384	-2.5%	9,716,212	1.0%	10,324,932	-6.9%
EH	Netherlands	2,595,143	2,576,260	-0.7%	2,612,069	1.4%	2,681,000	-3.9%
EI	Ireland	3,771,478	3,761,428	-0.3%	3,850,715	2.4%	3,826,000	-1.7%
LS	Switzerland	1,431,092	1,404,700	-1.8%	1,426,944	1.6%	1,492,274	-5.9%
LP	Lisbon FIR	2,821,265	2,872,044	1.8%	2,929,679	2.0%	2,950,581	-2.7%
LO	Austria	2,519,384	2,499,914	-0.8%	2,565,440	2.6%	2,720,000	-8.1%
LE	Spain	9,099,189	8,581,890	-5.7%	8,623,418	0.5%	9,400,616	-8.7%
GC	Canary Islands	1,665,737	1,676,274	0.6%	1,715,953	2.4%	1,705,420	-1.7%
AZ	Santa Maria FIR	3,983,496	4,234,169	6.3%	4,368,334	3.2%	4,083,341	3.7%
LG	Greece	4,546,412	4,742,513	4.3%	4,870,672	2.7%	4,698,000	0.9%
LT	Turkey	9,617,775	9,963,489	3.6%	10,400,561	4.4%	10,167,923	-2.0%
LM	Malta	505,867	523,026	3.4%	540,157	3.3%	544,747	-4.0%
LI	Italy	8,369,860	8,454,648	1.0%	8,690,087	2.8%	8,557,548	-1.2%
LC	Cyprus	1,347,370	1,409,429	4.6%	1,443,027	2.4%	1,410,000	-0.0%
LH	Hungary	2,066,988	2,070,929	0.2%	2,103,149	1.6%	2,122,692	-2.4%
EN	Norway	1,712,781	1,776,973	3.7%	1,818,765	2.4%	1,753,798	1.3%
EK	Denmark	1,470,012	1,438,813	-2.1%	1,472,990	2.4%	1,553,042	-7.4%
LJ	Slovenia	424,670	431,677	1.7%	445,854	3.3%	426,792	1.1%
LR	Romania	3,532,683	3,585,057	1.5%	3,690,942	3.0%	3,612,000	-0.7%
LK	Czech Republic	2,304,684	2,355,123	2.2%	2,407,870	2.2%	2,351,760	0.1%
ES	Sweden	3,184,522	3,150,295	-1.1%	3,227,799	2.5%	3,209,000	-1.8%
LZ	Slovakia	899,810	916,174	1.8%	937,448	2.3%	945,000	-3.1%
LD	Croatia	1,634,250	1,698,896	4.0%	1,750,491	3.0%	1,796,302	-5.4%
LB	Bulgaria	2,018,783	2,094,360	3.7%	2,192,463	4.7%	1,966,102	6.5%
LW	FYROM	194,134	194,309	0.1%	201,197	3.5%	213,000	-8.8%
LU	Moldova	194,805	214,112	9.9%	229,529	7.2%	218,005	-1.8%
EF	Finland	832,459	831,054	-0.2%	848,880	2.1%	878,000	-5.3%
LA	Albania	447,587	470,894	5.2%	506,482	7.6%	485,789	-3.1%
LQ	Bosnia-Herzegovina	716,735	731,038	2.0%	775,474	6.1%	791,713	-7.7%
UD	Armenia	169,594	192,874	13.7%	198,395	2.9%	175,000	10.2%
LY	Belgrade ^(B)	1,830,604	1,844,435	0.8%	1,913,476	3.7%	1,897,500	-2.8%
EP	Poland	3,676,460	3,897,935	6.0%	4,059,059	4.1%	3,898,889	-0.0%
EY	Lithuania	419,921	421,000	0.3%	439,846	4.5%	431,858	-2.5%
EE	Estonia	704,294	711,787	1.1%	733,448	3.0%	760,800	-6.4%
EV	Latvia ^(C)	702,400	719,760	2.5%	750,260	4.2%	701,000	2.7%
UK	Ukraine ^(D)	4,464,959	4,637,977	3.9%	4,894,028	5.5%	.	.
CRCO88	CRCO88	70,389,826	69,410,259	-1.4%	70,244,569	1.2%	72,763,633	-4.6%
ESRA02	ESRA02	115,247,690	115,261,139	0.0%	117,516,452	2.0%	119,187,344	-3.3%
CRCO11	CRCO11	123,210,992	123,539,074	0.3%	126,159,444	2.1%	127,569,093	-3.2%
PScheme	PScheme	105,126,306	104,706,645	-0.4%	106,548,952	1.8%	108,501,320	-3.5%
TOTAL	Total	128,380,246	128,888,838	0.4%	131,786,919	2.2%	128,329,893 ^(D)	-3.2% ^(D)

^(A) Includes service units for flight segments performed as Operational Air Traffic. Estimated number in Germany is 85.000 per year.

^(B) The charging zone over Serbia and Montenegro has been renamed Belgrade (Annex 1 of the Conditions of Application of the Route Charges System, Text approved by the enlarged Commission and entered into force on 20.5.2011).

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

^(D) Ukraine is not part of the CRCO but has asked STATFOR to produce an individual forecast for them as they will not have this capacity in 2012. In

the TOTAL column the 2012 states forecast and the percentage difference between, the 2012 States and STATFOR forecast does not account for Ukraine

(E) Forecast published in the Enlarged Committee meeting of November 2011

Figure 7. Forecast of chargeable service units in 2012-2013 – February 2012

Charging Area		2011 Actual TSU	2012 STATFOR Forecast TSU	2013 STATFOR Forecast TSU	2011 Actual Exempted SU in %	2011 Actual Chargeable SU in %	2012 Chargeable SU Estimate	2013 Chargeable SU Estimate
EB	Belgium/Luxembourg	2,211,673	2,224,645	2,271,680	1.2%	98.8%	2,197,500	2,244,000
ED	Germany ^(A)	12,739,932	12,564,600	12,704,825	1.1%	98.9%	12,427,900	12,566,600
LF	France	17,691,225	17,396,951	17,459,299	1.5%	98.5%	17,140,900	17,202,300
EG	UK	9,860,212	9,617,384	9,716,212	1.5%	98.5%	9,469,700	9,567,000
EH	Netherlands	2,595,143	2,576,260	2,612,069	1.1%	98.9%	2,547,100	2,582,500
EI	Ireland	3,771,478	3,761,428	3,850,715	1.6%	98.4%	3,700,500	3,788,300
LS	Switzerland	1,431,092	1,404,700	1,426,944	0.3%	99.7%	1,400,200	1,422,300
LP	Lisbon FIR	2,821,265	2,872,044	2,929,679	1.5%	98.5%	2,829,100	2,885,900
LO	Austria	2,519,384	2,499,914	2,565,440	0.3%	99.7%	2,493,300	2,558,700
LE	Spain	9,099,189	8,581,890	8,623,418	2.3%	97.7%	8,382,500	8,423,000
GC	Canary Islands	1,665,737	1,676,274	1,715,953	0.6%	99.4%	1,666,000	1,705,500
AZ	Santa Maria FIR	3,983,496	4,234,169	4,368,334	3.1%	96.9%	4,104,000	4,234,100
LG	Greece	4,546,412	4,742,513	4,870,672	2.2%	97.8%	4,638,000	4,763,300
LT	Turkey	9,617,775	9,963,489	10,400,561	2.5%	97.5%	9,716,000	10,142,200
LM	Malta ^(B)	505,867	523,026	540,157	11.9% ^(B)	88.1% ^(B)	460,700	475,800
LI	Italy ^(B)	8,369,860	8,454,648	8,690,087	4.1% ^(B)	95.9% ^(B)	8,108,000	8,333,800
LC	Cyprus	1,347,370	1,409,429	1,443,027	1.0%	99.0%	1,395,700	1,429,000
LH	Hungary	2,066,988	2,070,929	2,103,149	2.1%	97.9%	2,028,000	2,059,600
EN	Norway	1,712,781	1,776,973	1,818,765	0.9%	99.1%	1,761,700	1,803,100
EK	Denmark	1,470,012	1,438,813	1,472,990	0.5%	99.5%	1,431,500	1,465,500
LJ	Slovenia	424,670	431,677	445,854	0.4%	99.6%	429,900	444,000
LR	Romania	3,532,683	3,585,057	3,690,942	2.8%	97.2%	3,485,400	3,588,400
LK	Czech Republic	2,304,684	2,355,123	2,407,870	2.9%	97.1%	2,286,400	2,337,600
ES	Sweden	3,184,522	3,150,295	3,227,799	0.3%	99.7%	3,140,300	3,217,600
LZ	Slovakia	899,810	916,174	937,448	0.9%	99.1%	908,200	929,300
LD	Croatia	1,634,250	1,698,896	1,750,491	0.3%	99.7%	1,694,200	1,745,600
LB	Bulgaria	2,018,783	2,094,360	2,192,463	1.1%	98.9%	2,071,200	2,168,300
LW	FYROM	194,134	194,309	201,197	0.2%	99.8%	193,900	200,800
LU	Moldova	194,805	214,112	229,529	0.0%	100.0%	214,000	229,400
EF	Finland	832,459	831,054	848,880	0.8%	99.2%	824,400	842,100
LA	Albania	447,587	470,894	506,482	0.5%	99.5%	468,500	503,900
LQ	Bosnia-Herzegovina	716,735	731,038	775,474	0.1%	99.9%	730,400	774,800
UD	Armenia	169,594	192,874	198,395	0.1%	99.9%	192,600	198,100
LY	Belgrade	1,830,604	1,844,435	1,913,476	0.1%	99.9%	1,842,900	1,911,900
EP	Poland	3,676,460	3,897,935	4,059,059	0.5%	99.5%	3,876,800	4,037,100
EY	Lithuania	419,921	421,000	439,846	0.4%	99.6%	419,500	438,300
EE	Estonia	704,294	711,787	733,448	0.0%	100.0%	711,600	733,200
EV	Latvia	702,400	719,760	750,260	0.3%	99.7%	717,800	748,200
UK	Ukraine	4,464,959	4,637,977	4,894,028	0.2%	99.8%	4,629,700	4,885,300
CRCO88	CRCO88	70,389,826	69,410,259	70,244,569	1.5%	98.5%	68,359,800	69,181,500
ESRA02	ESRA02	115,247,690	115,261,139	117,516,452	1.8%	98.2%	113,155,800	115,369,900
CRCO11	CRCO11	123,210,992	123,539,074	126,159,444	1.7%	98.3%	121,400,400	123,975,400
PScheme	PScheme	105,126,306	104,706,645	106,548,952	1.7%	98.3%	102,951,400	104,762,800
TOTAL	Total	128,380,246	128,888,838	131,786,919	1.7%	98.3%	126,739,200	129,588,900

(A) Includes service units for flight segments performed as Operational Air Traffic. Estimated number in Germany is 85.000 per year.

(B) The Chargeable SU in % has been lower in 2011 due to an increase in the military traffic in these 2 areas. Note this % is likely to be greater. In 2010 it was for Malta equal to 96.7% and for Italy equal to 97.5%. These percentages might be preferred to estimate the chargeable service units in 2012 and 2013.

C. Medium-term forecast results per State

This annex shows the EUROCONTROL medium-term forecast of service units per individual charging area. Forecasts for Armenia, Lithuania, Poland and Belgrade must be treated with extra care as they are based on a limited set of historical data.

Figure 8: Total service units per State and increase in total service units between 2011 and 2017

Total service units (thousands)		2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2017/2011 Total Growth
Albania	H	.	.	.	.	.	.	477	518	541	564	589	618	38%
	B	264	313	325	355	404	448	471	506	523	541	561	583	30%
	L	.	.	.	.	.	.	465	496	506	518	533	547	22%
Armenia	H	.	.	.	.	.	.	198	207	218	231	245	261	54%
	B	.	.	.	111	146	170	193	198	205	215	226	238	40%
	L	.	.	.	.	.	.	188	190	194	201	209	219	29%
Austria	H	.	.	.	.	.	.	2,547	2,663	2,793	2,919	3,055	3,200	27%
	B	2,342	2,509	2,566	2,424	2,449	2,519	2,500	2,565	2,651	2,742	2,838	2,936	17%
	L	.	.	.	.	.	.	2,453	2,471	2,518	2,575	2,639	2,696	7%
Belgium/Luxembourg	H	.	.	.	.	.	.	2,252	2,322	2,431	2,528	2,627	2,717	23%
	B	2,080	2,184	2,220	2,079	2,115	2,212	2,225	2,272	2,349	2,428	2,505	2,570	16%
	L	.	.	.	.	.	.	2,198	2,222	2,271	2,326	2,383	2,427	10%
Belgrade	H	.	.	.	.	.	.	1,878	1,986	2,083	2,178	2,282	2,421	32%
	B	.	920	1,748	1,783	1,819	1,831	1,844	1,913	1,982	2,055	2,132	2,233	22%
	L	.	.	.	.	.	.	1,811	1,843	1,888	1,939	1,995	2,058	12%
Bosnia-Herzegovina	H	.	.	.	.	.	.	748	804	855	908	968	1,037	45%
	B	383	481	525	579	637	717	731	775	808	844	882	924	29%
	L	.	.	.	.	.	.	714	748	766	786	807	829	16%
Bulgaria	H	.	.	.	.	.	.	2,135	2,275	2,396	2,508	2,630	2,867	42%
	B	1,453	1,624	1,747	1,798	1,840	2,019	2,094	2,192	2,283	2,367	2,455	2,623	30%
	L	.	.	.	.	.	.	2,054	2,111	2,179	2,241	2,304	2,408	19%
Canary Islands	H	.	.	.	.	.	.	1,705	1,763	1,829	1,901	1,983	2,045	23%
	B	1,589	1,691	1,713	1,492	1,540	1,666	1,676	1,716	1,745	1,785	1,832	1,860	12%
	L	.	.	.	.	.	.	1,649	1,673	1,676	1,694	1,720	1,725	4%
Croatia	H	.	.	.	.	.	.	1,728	1,809	1,904	1,995	2,093	2,212	35%
	B	1,028	1,204	1,271	1,298	1,451	1,634	1,699	1,750	1,815	1,885	1,958	2,043	25%
	L	.	.	.	.	.	.	1,670	1,694	1,735	1,783	1,836	1,890	16%
Cyprus	H	.	.	.	.	.	.	1,426	1,473	1,551	1,629	1,713	1,834	36%
	B	1,057	1,178	1,311	1,273	1,352	1,347	1,409	1,443	1,497	1,554	1,613	1,697	26%
	L	.	.	.	.	.	.	1,393	1,414	1,452	1,492	1,535	1,589	18%
Czech Republic	H	.	.	.	.	.	.	2,389	2,472	2,597	2,713	2,840	2,969	29%
	B	1,896	1,940	2,019	2,023	2,190	2,305	2,355	2,408	2,492	2,579	2,664	2,741	19%
	L	.	.	.	.	.	.	2,322	2,347	2,399	2,456	2,513	2,556	11%
Denmark	H	.	.	.	.	.	.	1,458	1,510	1,566	1,614	1,663	1,705	16%
	B	1,395	1,480	1,474	1,359	1,411	1,470	1,439	1,473	1,511	1,549	1,583	1,610	10%
	L	.	.	.	.	.	.	1,420	1,436	1,456	1,478	1,501	1,516	3%
Estonia	H	.	.	.	.	.	.	726	762	810	858	906	951	35%
	B	589	651	697	632	627	704	712	733	768	803	837	868	23%
	L	.	.	.	.	.	.	698	707	730	756	780	801	14%

Total service units (thousands)		2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2017/2011 Total Growth
FYROM	H	.	.	.	.	.	.	197	207	218	228	239	251	29%
	B	173	182	182	180	183	194	194	201	208	216	225	234	21%
	L	.	.	.	.	.	.	191	195	200	205	212	218	12%
Finland	H	.	.	.	.	.	.	844	872	910	947	984	1,015	22%
	B	738	745	791	727	740	832	831	849	876	904	930	950	14%
	L	.	.	.	.	.	.	818	826	845	865	883	895	8%
France	H	.	.	.	.	.	.	17,533	17,737	18,403	19,046	19,719	20,272	15%
	B	16,756	17,995	18,034	16,780	16,637	17,691	17,397	17,459	17,869	18,348	18,865	19,248	9%
	L	.	.	.	.	.	.	17,263	17,188	17,370	17,657	17,988	18,187	3%
Germany	H	.	.	.	.	.	.	12,665	12,898	13,450	13,941	14,460	14,950	17%
	B	11,712	12,419	12,749	11,913	12,294	12,740	12,565	12,705	13,089	13,476	13,856	14,187	11%
	L	.	.	.	.	.	.	12,466	12,520	12,747	12,997	13,261	13,455	6%
Greece	H	.	.	.	.	.	.	4,823	5,038	5,269	5,498	5,750	6,047	33%
	B	3,754	4,049	4,258	4,139	4,454	4,546	4,743	4,871	5,038	5,217	5,413	5,635	24%
	L	.	.	.	.	.	.	4,662	4,706	4,818	4,945	5,091	5,241	15%
Hungary	H	.	.	.	.	.	.	2,124	2,214	2,349	2,481	2,626	2,801	36%
	B	2,063	2,104	2,092	2,038	2,091	2,067	2,071	2,103	2,198	2,297	2,398	2,518	22%
	L	.	.	.	.	.	.	2,019	1,995	2,060	2,129	2,201	2,277	10%
Ireland	H	.	.	.	.	.	.	3,819	3,952	4,177	4,405	4,644	4,892	30%
	B	3,597	3,822	3,823	3,561	3,615	3,771	3,761	3,851	3,995	4,144	4,295	4,441	18%
	L	.	.	.	.	.	.	3,706	3,756	3,845	3,942	4,042	4,135	10%
Italy	H	.	.	.	.	.	.	8,607	8,995	9,363	9,726	10,131	10,529	26%
	B	8,049	8,620	8,660	8,145	8,621	8,370	8,455	8,690	8,926	9,190	9,490	9,762	17%
	L	.	.	.	.	.	.	8,303	8,387	8,499	8,656	8,847	8,997	7%
Latvia	H	.	.	.	.	.	.	736	780	839	895	950	1,007	43%
	B	545	626	656	596	634	702	720	750	791	831	868	903	29%
	L	.	.	.	.	.	.	704	722	751	779	806	828	18%
Lisbon FIR	H	.	.	.	.	.	.	2,903	2,979	3,124	3,243	3,372	3,492	24%
	B	2,516	2,631	2,677	2,501	2,624	2,821	2,872	2,930	2,994	3,065	3,159	3,228	14%
	L	.	.	.	.	.	.	2,841	2,881	2,901	2,938	2,999	3,030	7%
Lithuania	H	.	.	.	.	.	.	432	461	493	522	552	582	39%
	B	.	.	384	341	371	420	421	440	461	482	502	520	24%
	L	.	.	.	.	.	.	411	420	434	448	461	472	13%
Malta	H	.	.	.	.	.	.	536	562	583	606	633	671	33%
	B	326	377	422	416	487	506	523	540	552	566	584	610	21%
	L	.	.	.	.	.	.	510	519	524	531	541	558	10%
Moldova	H	.	.	.	.	.	.	218	236	252	268	286	306	57%
	B	70	93	115	139	181	195	214	230	242	254	267	282	45%
	L	.	.	.	.	.	.	211	224	232	242	252	262	35%
Netherlands	H	.	.	.	.	.	.	2,605	2,669	2,771	2,865	2,949	3,026	17%
	B	2,518	2,639	2,621	2,426	2,476	2,595	2,576	2,612	2,680	2,751	2,806	2,853	10%
	L	.	.	.	.	.	.	2,548	2,557	2,594	2,636	2,677	2,704	4%
Norway	H	.	.	.	.	.	.	1,807	1,876	1,945	2,008	2,077	2,142	25%
	B	1,342	1,420	1,537	1,495	1,583	1,713	1,777	1,819	1,866	1,911	1,960	2,003	17%
	L	.	.	.	.	.	.	1,747	1,762	1,790	1,817	1,846	1,869	9%
Poland	H	.	.	.	.	.	.	3,937	4,152	4,381	4,595	4,817	5,032	37%
	B	.	.	3,230	3,092	3,313	3,676	3,898	4,059	4,208	4,359	4,505	4,638	26%
	L	.	.	.	.	.	.	3,860	3,972	4,061	4,157	4,250	4,325	18%
Romania	H	.	.	.	.	.	.	3,655	3,824	4,069	4,308	4,569	4,936	40%
	B	3,300	3,236	3,240	3,133	3,414	3,533	3,585	3,691	3,870	4,049	4,233	4,485	27%
	L	.	.	.	.	.	.	3,517	3,563	3,694	3,827	3,962	4,125	17%

Total service units (thousands)		2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2017/ 2011 Total Growth
Santa Maria FIR	H	.	.	.	.	.	.	4,308	4,477	4,726	4,962	5,199	5,429	36%
	B	3,188	3,304	3,484	3,479	3,696	3,983	4,234	4,368	4,536	4,706	4,884	5,038	26%
	L	.	.	.	.	.	.	4,161	4,263	4,366	4,472	4,588	4,683	18%
Slovakia	H	.	.	.	.	.	.	930	964	1,026	1,088	1,155	1,231	37%
	B	735	719	762	768	856	900	916	937	981	1,026	1,071	1,122	25%
	L	.	.	.	.	.	.	903	912	941	971	1,000	1,030	14%
Slovenia	H	.	.	.	.	.	.	439	461	484	505	529	556	31%
	B	268	316	342	331	365	425	432	446	462	479	497	516	22%
	L	.	.	.	.	.	.	425	432	442	454	466	479	13%
Spain	H	.	.	.	.	.	.	8,658	8,753	9,118	9,464	9,847	10,157	12%
	B	8,518	9,244	9,129	8,358	8,642	9,099	8,582	8,623	8,811	9,042	9,316	9,508	4%
	L	.	.	.	.	.	.	8,508	8,502	8,554	8,679	8,847	8,930	-2%
Sweden	H	.	.	.	.	.	.	3,186	3,294	3,442	3,575	3,711	3,837	20%
	B	2,930	3,094	3,271	2,906	2,950	3,185	3,150	3,228	3,334	3,436	3,535	3,621	14%
	L	.	.	.	.	.	.	3,115	3,164	3,232	3,300	3,366	3,417	7%
Switzerland	H	.	.	.	.	.	.	1,420	1,459	1,515	1,568	1,624	1,673	17%
	B	1,368	1,452	1,472	1,396	1,409	1,431	1,405	1,427	1,463	1,503	1,546	1,581	10%
	L	.	.	.	.	.	.	1,389	1,396	1,412	1,436	1,463	1,482	4%
Turkey	H	.	.	.	.	.	.	10,099	10,653	11,299	11,941	12,638	13,982	45%
	B	6,629	7,168	7,629	8,086	8,923	9,618	9,963	10,401	10,952	11,483	12,043	13,066	36%
	L	.	.	.	.	.	.	9,833	10,156	10,615	11,051	11,501	12,194	27%
UK	H	.	.	.	.	.	.	9,727	9,925	10,315	10,689	11,062	11,418	16%
	B	10,426	10,896	11,044	9,914	9,480	9,860	9,617	9,716	9,966	10,235	10,507	10,744	9%
	L	.	.	.	.	.	.	9,509	9,515	9,656	9,825	10,010	10,157	3%
Ukraine	H	.	.	.	.	.	.	4,713	5,049	5,425	5,822	6,219	6,691	50%
	B	3,165	3,468	3,903	3,727	4,188	4,465	4,638	4,894	5,172	5,478	5,772	6,111	37%
	L	.	.	.	.	.	.	4,564	4,745	4,947	5,180	5,399	5,639	26%
ESRA02	H	.	.	.	.	.	.	116,743	120,333	125,873	131,167	136,807	143,162	24%
	B	103,817	110,334	112,655	106,577	110,070	115,248	115,261	117,516	121,252	125,187	129,328	133,713	16%
	L	.	.	.	.	.	.	113,803	114,787	117,026	119,620	122,476	125,131	9%
CRCO88	H	.	.	.	.	.	.	70,142	71,597	74,651	77,528	80,541	83,270	18%
	B	66,609	70,785	71,532	66,323	66,977	70,390	69,410	70,245	72,149	74,225	76,409	78,195	11%
	L	.	.	.	.	.	.	68,690	68,944	69,911	71,176	72,618	73,612	5%
CRCO11	H	.	.	.	.	.	.	125,149	129,241	135,283	141,060	147,209	154,119	25%
	B	105,009	112,674	119,521	113,434	117,393	123,211	123,539	126,159	130,230	134,512	139,003	143,751	17%
	L	.	.	.	.	.	.	121,955	123,178	125,626	128,449	131,537	134,410	9%
PScheme	H	.	.	.	.	.	.	106,024	109,106	113,998	118,643	123,577	128,554	22%
	B	93,862	99,660	104,941	98,057	100,579	105,126	104,707	106,549	109,726	113,116	116,662	119,978	14%
	L	.	.	.	.	.	.	103,410	104,076	105,852	108,008	110,385	112,310	7%
Total	H	.	.	.	.	.	.	130,589	135,052	141,518	147,740	154,334	161,761	26%
	B	108,763	116,793	124,122	117,793	122,208	128,380	128,889	131,787	136,169	140,794	145,612	150,730	17%
	L	.	.	.	.	.	.	127,217	128,630	131,302	134,385	137,716	140,849	10%

(a) Totals in 2006 do not include Armenia, Belgrade, Poland and Lithuania for which data for these years are not available.

(b) Total in 2007 does not include Armenia, Poland and Lithuania for which data for this year are not available.

(c) Total in 2008 does not include Armenia for which data for this year are not available.

(d) Total from 2009 includes TSUs of all countries

(e) CRCO11 designates the sum over all the states participating in the Multilateral Route Charges System in 2012 of all TSUs either measured or forecasted for the corresponding year.

(f) PScheme stands for the sum over all the 29 states that are currently involved in the EU-wide performance target setting (27 EU member states plus Norway and Switzerland)

Figure 9: Annual growth in total service units per State and average annual growth (AAGR) between 2011 and 2017

Annual growth		2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	AAGR 2017/2011
Albania	H	.	.	.	.	.	.	6.5%	8.6%	4.5%	4.2%	4.4%	4.9%	5.5%
	B	0.6%	18.6%	3.8%	9.1%	13.9%	10.8%	5.2%	7.6%	3.2%	3.5%	3.7%	3.9%	4.5%
	L	.	.	.	.	.	.	3.9%	6.6%	2.0%	2.5%	2.9%	2.7%	3.4%
Armenia	H	.	.	.	.	.	.	16.9%	4.4%	5.1%	6.0%	6.1%	6.8%	7.5%
	B	.	.	.	.	31.5%	16.1%	13.7%	2.9%	3.5%	4.7%	4.9%	5.6%	5.8%
	L	.	.	.	.	.	.	10.6%	1.4%	2.1%	3.6%	4.0%	4.6%	4.4%
Austria	H	.	.	.	.	.	.	1.1%	4.5%	4.9%	4.5%	4.7%	4.7%	4.1%
	B	4.8%	7.1%	2.3%	-5.5%	1.0%	2.9%	-0.8%	2.6%	3.3%	3.4%	3.5%	3.4%	2.6%
	L	.	.	.	.	.	.	-2.6%	0.7%	1.9%	2.3%	2.5%	2.2%	1.1%
Belgium/Luxembourg	H	.	.	.	.	.	.	1.8%	3.1%	4.7%	4.0%	3.9%	3.4%	3.5%
	B	7.9%	5.0%	1.7%	-6.4%	1.7%	4.6%	0.6%	2.1%	3.4%	3.4%	3.2%	2.6%	2.5%
	L	.	.	.	.	.	.	-0.6%	1.1%	2.2%	2.4%	2.5%	1.8%	1.6%
Belgrade	H	.	.	.	.	.	.	2.6%	5.7%	4.9%	4.6%	4.8%	6.1%	4.8%
	B	.	.	90.0%	2.0%	2.0%	0.6%	0.8%	3.7%	3.6%	3.7%	3.8%	4.7%	3.4%
	L	.	.	.	.	.	.	-1.1%	1.8%	2.5%	2.7%	2.9%	3.2%	2.0%
Bosnia-Herzegovina	H	.	.	.	.	.	.	4.4%	7.5%	6.3%	6.3%	6.5%	7.1%	6.3%
	B	16.3%	25.6%	9.1%	10.3%	10.1%	12.5%	2.0%	6.1%	4.2%	4.4%	4.5%	4.8%	4.3%
	L	.	.	.	.	.	.	-0.4%	4.8%	2.4%	2.6%	2.7%	2.7%	2.5%
Bulgaria	H	.	.	.	.	.	.	5.8%	6.5%	5.3%	4.7%	4.8%	9.0%	6.0%
	B	1.2%	11.8%	7.5%	3.0%	2.3%	9.7%	3.7%	4.7%	4.1%	3.7%	3.7%	6.9%	4.5%
	L	.	.	.	.	.	.	1.7%	2.8%	3.2%	2.8%	2.8%	4.5%	3.0%
Canary Islands	H	.	.	.	.	.	.	2.3%	3.4%	3.7%	3.9%	4.3%	3.1%	3.5%
	B	2.5%	6.4%	1.3%	-12.9%	3.2%	8.2%	0.6%	2.4%	1.7%	2.3%	2.6%	1.5%	1.9%
	L	.	.	.	.	.	.	-1.0%	1.4%	0.2%	1.1%	1.5%	0.3%	0.6%
Croatia	H	.	.	.	.	.	.	5.7%	4.7%	5.2%	4.8%	4.9%	5.7%	5.2%
	B	-3.5%	17.1%	5.6%	2.2%	11.8%	12.6%	4.0%	3.0%	3.7%	3.8%	3.9%	4.3%	3.8%
	L	.	.	.	.	.	.	2.2%	1.4%	2.5%	2.8%	3.0%	2.9%	2.5%
Cyprus	H	.	.	.	.	.	.	5.9%	3.3%	5.3%	5.0%	5.2%	7.1%	5.3%
	B	4.9%	11.4%	11.3%	-2.9%	6.2%	-0.3%	4.6%	2.4%	3.8%	3.7%	3.9%	5.2%	3.9%
	L	.	.	.	.	.	.	3.4%	1.5%	2.7%	2.8%	2.9%	3.5%	2.8%
Czech Republic	H	.	.	.	.	.	.	3.7%	3.5%	5.1%	4.5%	4.6%	4.5%	4.3%
	B	1.5%	2.3%	4.1%	0.2%	8.3%	5.2%	2.2%	2.2%	3.5%	3.5%	3.3%	2.9%	2.9%
	L	.	.	.	.	.	.	0.7%	1.1%	2.2%	2.4%	2.3%	1.7%	1.7%
Denmark	H	.	.	.	.	.	.	-0.8%	3.6%	3.7%	3.1%	3.1%	2.5%	2.5%
	B	5.2%	6.1%	-0.4%	-7.8%	3.8%	4.2%	-2.1%	2.4%	2.6%	2.5%	2.2%	1.7%	1.5%
	L	.	.	.	.	.	.	-3.4%	1.2%	1.4%	1.5%	1.5%	1.0%	0.5%
Estonia	H	.	.	.	.	.	.	3.1%	4.9%	6.4%	5.9%	5.6%	5.0%	5.1%
	B	11.8%	10.5%	7.2%	-9.4%	-0.8%	12.3%	1.1%	3.0%	4.7%	4.7%	4.2%	3.6%	3.5%
	L	.	.	.	.	.	.	-0.9%	1.2%	3.3%	3.5%	3.2%	2.6%	2.2%
FYROM	H	.	.	.	.	.	.	1.7%	5.1%	5.0%	4.6%	4.9%	5.2%	4.4%
	B	10.2%	4.8%	0.2%	-1.0%	1.7%	5.9%	0.1%	3.5%	3.6%	3.8%	4.1%	4.0%	3.2%
	L	.	.	.	.	.	.	-1.5%	2.1%	2.3%	2.8%	3.2%	2.8%	2.0%
Finland	H	.	.	.	.	.	.	1.4%	3.3%	4.3%	4.1%	3.8%	3.2%	3.4%
	B	1.4%	1.0%	6.1%	-8.1%	1.7%	12.6%	-0.2%	2.1%	3.1%	3.2%	2.8%	2.2%	2.2%
	L	.	.	.	.	.	.	-1.7%	1.0%	2.2%	2.4%	2.0%	1.3%	1.2%

Annual growth		2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	AAGR 2017/2011
France	H	.	.	.	.	.	.	-0.9%	1.2%	3.8%	3.5%	3.5%	2.8%	2.3%
	B	3.0%	7.4%	0.2%	-7.0%	-0.9%	6.3%	-1.7%	0.4%	2.3%	2.7%	2.8%	2.0%	1.4%
	L	.	.	.	.	.	.	-2.4%	-0.4%	1.1%	1.6%	1.9%	1.1%	0.5%
Germany	H	.	.	.	.	.	.	-0.6%	1.8%	4.3%	3.6%	3.7%	3.4%	2.7%
	B	5.4%	6.0%	2.7%	-6.6%	3.2%	3.6%	-1.4%	1.1%	3.0%	3.0%	2.8%	2.4%	1.8%
	L	.	.	.	.	.	.	-2.2%	0.4%	1.8%	2.0%	2.0%	1.5%	0.9%
Greece	H	.	.	.	.	.	.	6.1%	4.5%	4.6%	4.3%	4.6%	5.2%	4.9%
	B	1.4%	7.9%	5.2%	-2.8%	7.6%	2.1%	4.3%	2.7%	3.4%	3.6%	3.8%	4.1%	3.6%
	L	.	.	.	.	.	.	2.6%	0.9%	2.4%	2.6%	2.9%	2.9%	2.4%
Hungary	H	.	.	.	.	.	.	2.7%	4.3%	6.1%	5.6%	5.8%	6.7%	5.2%
	B	3.0%	2.0%	-0.6%	-2.6%	2.6%	-1.2%	0.2%	1.6%	4.5%	4.5%	4.4%	5.0%	3.3%
	L	.	.	.	.	.	.	-2.3%	-1.2%	3.3%	3.4%	3.3%	3.5%	1.6%
Ireland	H	.	.	.	.	.	.	1.3%	3.5%	5.7%	5.4%	5.4%	5.3%	4.4%
	B	19.9%	6.3%	0.0%	-6.9%	1.5%	4.3%	-0.3%	2.4%	3.7%	3.7%	3.6%	3.4%	2.8%
	L	.	.	.	.	.	.	-1.7%	1.4%	2.4%	2.5%	2.5%	2.3%	1.5%
Italy	H	.	.	.	.	.	.	2.8%	4.5%	4.1%	3.9%	4.2%	3.9%	3.9%
	B	2.8%	7.1%	0.5%	-6.0%	5.9%	-2.9%	1.0%	2.8%	2.7%	3.0%	3.3%	2.9%	2.6%
	L	.	.	.	.	.	.	-0.8%	1.0%	1.3%	1.8%	2.2%	1.7%	1.2%
Latvia	H	.	.	.	.	.	.	4.8%	6.0%	7.5%	6.6%	6.2%	5.9%	6.2%
	B	11.0%	14.8%	4.7%	-9.1%	6.4%	10.8%	2.5%	4.2%	5.4%	5.1%	4.5%	4.0%	4.3%
	L	.	.	.	.	.	.	0.2%	2.5%	4.0%	3.8%	3.4%	2.8%	2.8%
Lisbon FIR	H	.	.	.	.	.	.	2.9%	2.6%	4.9%	3.8%	4.0%	3.6%	3.6%
	B	4.6%	4.6%	1.7%	-6.6%	4.9%	7.5%	1.8%	2.0%	2.2%	2.4%	3.1%	2.2%	2.3%
	L	.	.	.	.	.	.	0.7%	1.4%	0.7%	1.3%	2.0%	1.1%	1.2%
Lithuania	H	.	.	.	.	.	.	2.8%	6.8%	6.9%	6.0%	5.7%	5.4%	5.6%
	B	.	.	.	-11.0%	8.7%	13.2%	0.3%	4.5%	4.8%	4.5%	4.1%	3.7%	3.6%
	L	.	.	.	.	.	.	-2.2%	2.2%	3.3%	3.3%	3.0%	2.4%	2.0%
Malta	H	.	.	.	.	.	.	6.0%	4.9%	3.7%	4.0%	4.4%	6.0%	4.8%
	B	4.8%	15.5%	11.9%	-1.4%	17.0%	3.9%	3.4%	3.3%	2.2%	2.6%	3.0%	4.5%	3.2%
	L	.	.	.	.	.	.	0.8%	1.7%	1.0%	1.3%	1.9%	3.2%	1.6%
Moldova	H	.	.	.	.	.	.	11.8%	8.3%	6.8%	6.5%	6.6%	6.9%	7.8%
	B	8.9%	32.6%	23.4%	20.4%	30.7%	7.4%	9.9%	7.2%	5.3%	5.3%	5.1%	5.3%	6.3%
	L	.	.	.	.	.	.	8.1%	6.2%	3.9%	4.1%	4.1%	4.1%	5.1%
Netherlands	H	.	.	.	.	.	.	0.4%	2.5%	3.8%	3.4%	2.9%	2.6%	2.6%
	B	5.4%	4.8%	-0.7%	-7.5%	2.1%	4.8%	-0.7%	1.4%	2.6%	2.6%	2.0%	1.7%	1.6%
	L	.	.	.	.	.	.	-1.8%	0.4%	1.5%	1.6%	1.5%	1.0%	0.7%
Norway	H	.	.	.	.	.	.	5.5%	3.8%	3.7%	3.3%	3.4%	3.1%	3.8%
	B	2.0%	5.8%	8.3%	-2.8%	5.9%	8.2%	3.7%	2.4%	2.6%	2.4%	2.5%	2.2%	2.6%
	L	.	.	.	.	.	.	2.0%	0.8%	1.6%	1.5%	1.6%	1.2%	1.5%
Poland	H	.	.	.	.	.	.	7.1%	5.5%	5.5%	4.9%	4.8%	4.5%	5.4%
	B	.	.	.	-4.3%	7.1%	11.0%	6.0%	4.1%	3.7%	3.6%	3.4%	2.9%	3.9%
	L	.	.	.	.	.	.	5.0%	2.9%	2.3%	2.4%	2.2%	1.7%	2.7%
Romania	H	.	.	.	.	.	.	3.5%	4.6%	6.4%	5.9%	6.1%	8.0%	5.7%
	B	0.4%	-1.9%	0.1%	-3.3%	9.0%	3.5%	1.5%	3.0%	4.8%	4.6%	4.6%	5.9%	4.1%
	L	.	.	.	.	.	.	-0.5%	1.3%	3.7%	3.6%	3.5%	4.1%	2.6%
Santa Maria FIR	H	.	.	.	.	.	.	8.2%	3.9%	5.6%	5.0%	4.8%	4.4%	5.3%
	B	4.3%	3.7%	5.4%	-0.1%	6.3%	7.8%	6.3%	3.2%	3.8%	3.8%	3.8%	3.2%	4.0%
	L	.	.	.	.	.	.	4.4%	2.5%	2.4%	2.4%	2.6%	2.1%	2.7%

Annual growth		2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	AAGR 2017/ 2011
Slovakia	H	.	.	.	.	.	.	3.4%	3.7%	6.4%	6.0%	6.1%	6.6%	5.4%
	B	5.3%	-2.2%	6.1%	0.7%	11.5%	5.2%	1.8%	2.3%	4.7%	4.6%	4.4%	4.7%	3.7%
	L	.	.	.	.	.	.	0.3%	1.0%	3.2%	3.2%	3.0%	3.0%	2.3%
Slovenia	H	.	.	.	.	.	.	3.3%	5.0%	5.0%	4.5%	4.7%	5.2%	4.6%
	B	5.9%	17.7%	8.2%	-3.1%	10.3%	16.3%	1.7%	3.3%	3.6%	3.7%	3.7%	3.9%	3.3%
	L	.	.	.	.	.	.	0.0%	1.6%	2.4%	2.6%	2.8%	2.6%	2.0%
Spain	H	.	.	.	.	.	.	-4.9%	1.1%	4.2%	3.8%	4.1%	3.1%	1.8%
	B	5.1%	8.5%	-1.3%	-8.4%	3.4%	5.3%	-5.7%	0.5%	2.2%	2.6%	3.0%	2.1%	0.7%
	L	.	.	.	.	.	.	-6.5%	-0.1%	0.6%	1.5%	1.9%	0.9%	-0.3%
Sweden	H	.	.	.	.	.	.	0.0%	3.4%	4.5%	3.9%	3.8%	3.4%	3.2%
	B	6.5%	5.6%	5.7%	-11.2%	1.5%	7.9%	-1.1%	2.5%	3.3%	3.1%	2.9%	2.4%	2.2%
	L	.	.	.	.	.	.	-2.2%	1.6%	2.2%	2.1%	2.0%	1.5%	1.2%
Switzerland	H	.	.	.	.	.	.	-0.8%	2.7%	3.8%	3.5%	3.6%	3.0%	2.6%
	B	3.4%	6.1%	1.4%	-5.1%	0.9%	1.5%	-1.8%	1.6%	2.5%	2.7%	2.8%	2.3%	1.7%
	L	.	.	.	.	.	.	-2.9%	0.5%	1.2%	1.7%	1.9%	1.3%	0.6%
Turkey	H	.	.	.	.	.	.	5.0%	5.5%	6.1%	5.7%	5.8%	10.6%	6.4%
	B	8.3%	8.1%	6.4%	6.0%	10.4%	7.8%	3.6%	4.4%	5.3%	4.8%	4.9%	8.5%	5.2%
	L	.	.	.	.	.	.	2.2%	3.3%	4.5%	4.1%	4.1%	6.0%	4.0%
UK	H	.	.	.	.	.	.	-1.3%	2.0%	3.9%	3.6%	3.5%	3.2%	2.5%
	B	3.8%	4.5%	1.4%	-10.2%	-4.4%	4.0%	-2.5%	1.0%	2.6%	2.7%	2.7%	2.3%	1.4%
	L	.	.	.	.	.	.	-3.6%	0.1%	1.5%	1.7%	1.9%	1.5%	0.5%
Ukraine	H	.	.	.	.	.	.	5.6%	7.1%	7.5%	7.3%	6.8%	7.6%	7.0%
	B	15.6%	9.6%	12.6%	-4.5%	12.4%	6.6%	3.9%	5.5%	5.7%	5.9%	5.4%	5.9%	5.4%
	L	.	.	.	.	.	.	2.2%	4.0%	4.2%	4.7%	4.2%	4.4%	4.0%
ESRA02	H	.	.	.	.	.	.	1.3%	3.1%	4.6%	4.2%	4.3%	4.6%	3.7%
	B	4.5%	6.3%	2.1%	-5.4%	3.3%	4.7%	0.0%	2.0%	3.2%	3.2%	3.3%	3.4%	2.5%
	L	.	.	.	.	.	.	-1.3%	0.9%	2.0%	2.2%	2.4%	2.2%	1.4%
CRCO88	H	.	.	.	.	.	.	-0.4%	2.1%	4.3%	3.9%	3.9%	3.4%	2.8%
	B	5.0%	6.3%	1.1%	-7.3%	1.0%	5.1%	-1.4%	1.2%	2.7%	2.9%	2.9%	2.3%	1.8%
	L	.	.	.	.	.	.	-2.4%	0.4%	1.4%	1.8%	2.0%	1.4%	0.7%
CRCO11	H	.	.	.	.	.	.	1.6%	3.3%	4.7%	4.3%	4.4%	4.7%	3.8%
	B	4.6%	6.4%	2.9%	-5.2%	3.5%	5.0%	0.3%	2.1%	3.2%	3.3%	3.3%	3.4%	2.6%
	L	.	.	.	.	.	.	-1.0%	1.0%	2.0%	2.2%	2.4%	2.2%	1.5%
PScheme	H	.	.	.	.	.	.	0.9%	2.9%	4.5%	4.1%	4.2%	4.0%	3.4%
	B	4.4%	6.2%	1.7%	-6.6%	2.6%	4.5%	-0.4%	1.8%	3.0%	3.1%	3.1%	2.8%	2.2%
	L	.	.	.	.	.	.	-1.6%	0.6%	1.7%	2.0%	2.2%	1.7%	1.1%
Total	H	.	.	.	.	.	.	1.7%	3.4%	4.8%	4.4%	4.5%	4.8%	3.9%
	B	4.9%	6.5%	3.1%	-5.2%	3.7%	5.1%	0.4%	2.2%	3.3%	3.4%	3.4%	3.5%	2.7%
	L	.	.	.	.	.	.	-0.9%	1.1%	2.1%	2.3%	2.5%	2.3%	1.6%

(a) The 2007, 2008 and 2009 growth figures for CRCO11, PScheme and Total are adjusted to compensate for the increase in TSUs due to the introduction of new countries in the total (in 2007, introduction of Belgrade with 920 thousand TSUs – in 2008, introduction of Poland and Lithuania with 3,614 thousand TSUs - in 2009, introduction of Armenia with 111 thousand TSUs)

(b) The 2008 growth figures for PScheme is adjusted for increase in TSUs due to Poland and Lithuania (3,614 thousand) newly included into the total.

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