



EUROCONTROL Short- and Medium-Term Forecast of Service Units: May 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. In 2012 Ukraine has been added to the list of countries for which a forecast is produced.

This update has been produced in the light of the continuing economic crisis in Europe and several bankruptcies in the sector. Lower flight volumes are forecasted as a result of the economic uncertainty across Europe (e.g. Greece, Spain) and the delay of expected recovery in traffic from Egypt, Tunisia and Libya. Service unit growth is therefore revised downwards, but in a lesser extent than the flight growth figures.

In EUROCONTROL current member states (CRCO11), the forecast of total service units (TSU) for 2012 has been revised down to 122.7 million service units compared to the previous version of February 2012 due to the decline in flight growth observed since the winter schedule and confirmed throughout the first 4 months of 2012. The forecast for 2013 TSU is revised downwards to grow by 2.4% and reach around 125.6 million.

The current economic situation has highlighted significant downside risks which are not included in these numbers.

Based on these new numbers for 2013, and the growth rates calculated in February, the TSU are forecasted to be about 16% higher in 2017 than in 2011, reaching in total around 143.1 million, representing a baseline scenario average growth of 2.5%/year, implying an annual growth of 3.3% as of 2014 onwards.

CRCO11	Forecast Feb12		Forecast May 2012	
	TSU (million)	Growth	TSU (million)	Growth
Actual 2011	123.2		123.2	
Forecast 2012 vs.2011	123.5	0.3%	122.7	-0.4%
Forecast 2013 vs.2012	126.2	2.1%	125.6	2.4%
Forecast 2017 vs.2011	143.8	2.6%	143.1	2.5%

The short- term forecast of service units will next be updated in September 2012.

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.

³ EUROCONTROL 2-Year Forecast: IFR Flight Movements 2012-2013, STATFOR Doc 463, May 2012

1. INTRODUCTION

This report contains an update of the forecast of service units for 2012-2017. This update mainly takes into account the latest data on total service units to renew the short-term two-year forecast (2012-2013). The remaining four years of the six-year forecast (2014-2017) have then been re-aligned to take into account these changes, rather than fully updated.

The forecast is mainly directed towards the EUROCONTROL States participating in the Multilateral Route Charges System, down to individual charging area level. The medium-term six-year forecast period 2012-2017 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 Switzerland², referred to here in total as "PScheme". A forecast has also been produced for Ukraine at its request. Its TSU forecast is not included in the aggregates named CRCO11 and PScheme but is in the Total.

Section 2 describes the forecasting methodology, section 3 summarises the past evolution of total service units and section 4 and 6 respectively discuss the main short-term and medium-term forecast results, while section 7 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 participating in the Multilateral Route Charges System or covered by the performance scheme (Regulation (EC) N° 691/2010 of 29 July 2010).

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 April 2012 as well as flight information such as the average maximum take-off weight (MTOW) and distance flown. The forecast is based on a combination of two parallel approaches:

- The 2-year forecast (2012-2013), as it has been for many years, is mainly based on time-series modelling of trends and seasonal and cyclical patterns in actual monthly service units. It also relies strongly on the flight forecast³ and thus picks up future information that is included in the flight forecast (economic growth forecasts, schedule data, future events etc).
- The 6-year 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. 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 2012 (CRCO11), from January 2008 to April 2012.

In 2011, 123.2 million service units (SU) have been produced. This represent 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.

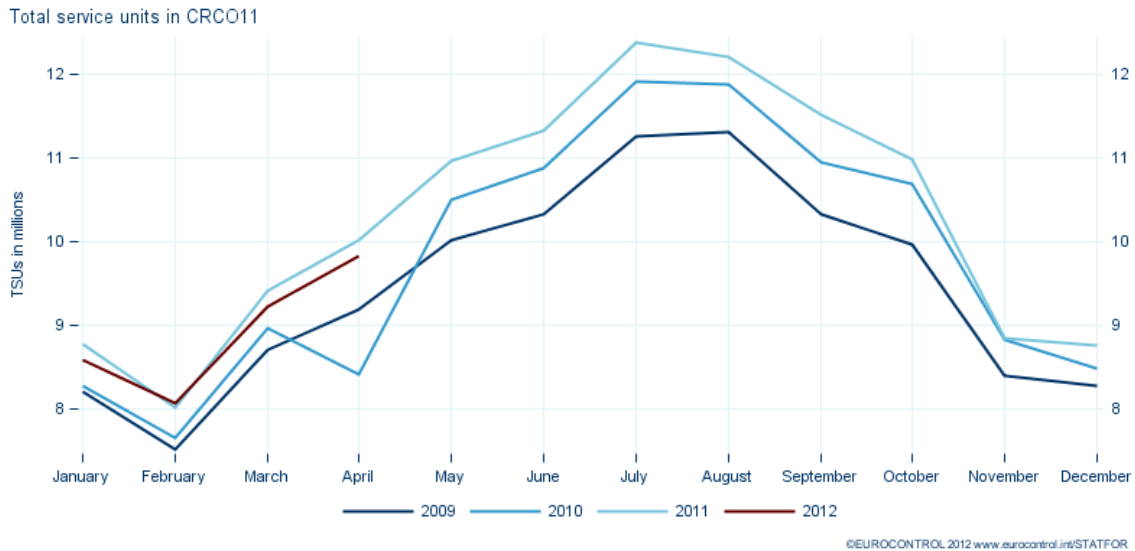
In the first four months of 2012, the TSU (for CRCO11) decreased by -1.4% from 36.2 million TSU in 2011 to 35.7 million in 2012. This is a result in line with the weaker flight growth (-2.3% compared to the same period in 2011 in ESRA08), although continuing the trend of SU growing faster than flights.

² 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.

³ EUROCONTROL 2-Year Forecast: IFR Flight Movements 2012-2013, STATFOR Doc 463, May 2012

⁴ EUROCONTROL Medium-Term Forecast: IFR Flight Movements 2011-2017, STATFOR Doc 455, February 2012

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



4. FORECAST INPUTS AND ASSUMPTIONS

This service unit forecast is based on the flight forecast. That flight forecast has in turn been prepared based on economic forecasts of zero growth in 2012 for the EU27⁵. This baseline economic outlook is unchanged since the February forecast. However, the downside risks are looming much larger than they did three months ago: there is open political discussion of a Greek exit from the euro-zone; of the potential for contagion from such an exit; and of the fragile state of several other European economies.

The forecast published here includes a low-growth scenario. This allows for (relatively) small errors in the underlying economic forecasts, but not the major traffic downturn (local or more widespread) that could result if any of these risks became reality.

Oil prices have fallen back in recent weeks, but remain historically very high. Although load factors also remain high, the very uncertain economic outlook means that many aircraft operators are exhibiting considerable caution in their immediate future plans, cutting or freezing flight growth while exploring with renewed vigour opportunities for improving yield and cutting costs. This is reflected in a schedule which contains 1% fewer flights in the summer 2012 than a year earlier. At the same time, further carriers have joined Spanair and Malev, which failed as the February forecast was in preparation, such as UK's BMI Baby, Denmark's Cimber Sterling, Sweden's Skyways Express and Air Poland.

There are a number of credible scenarios for recovery from the past situation in Libya. The forecast has been able to include only one such scenario. For Libyan, Egypt and Tunisian over-flights, we have included a gradual recovery of flights.

5. FORECAST RESULTS: 2012-2013

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

The forecast for 2012 in current EUROCONTROL member states (CRCO11) is of 122.7 million SU, a drop of -0.4% compared to the 123.2 million SU observed in 2011. This is a revision downwards compared to the 123.5 million units (by 0.7%), published in February 2012. This change is consistent with the flight forecast and largely explained by lower traffic in the major Western European countries such as France, Spain, Italy and Turkey.

However, if the forecast TSU of most countries have consequently been revised downwards, the results vary significantly from state to state. France, Spain, Turkey, Greece and Lisbon, Cyprus and Canary Islands, Finland, Bosnia, Serbia-Montenegro are countries that are the most affected downwards by the recent changes, with a declining in SU expected in 2012. On the other hand, the TSU forecasts of some countries such as Germany, UK, the Netherlands, Norway, Slovakia, Czech Republic have been revised upwards, though some remain forecasts for decline.

⁵ An aggregate figure. For individual States, see Figure 31 of the February 7-year flight forecast report.

Malta and to a lesser extent Italy, was severely affected by the no-fly zone over Libya. The situation has not yet returned to normal. The lower TSU level is a result of a reduction of the number over-flights but also an *increase* in average distance. We have assumed a return to normality for the distances by the end of 2012, although other scenarios are possible, leaving only modest growth in TSU terms for Malta.

The total service units in the EUROCONTROL member states (CRCO11) are forecast to grow by 2.4% in 2013 compared to 2012 and reach 125.6 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 120.5 million and 123.4 million respectively.

6. FORECAST RESULTS 2014 TO 2017

The forecast for 2014-2017 has not been fully updated, but re-aligned to account for the updated 2012-2013 forecast just described. Growth rates in 2014-2017 remain as in the previous forecast.

For the member states of EUROCONTROL in 2011 (CRCO11), total service units (TSU) are forecasted to be about 16% higher in 2017 than in 2011, reaching in total around 143.1 millions compared to 123.2 millions in 2011. Figure 3 compares the evolution of the forecast between the February 2012⁶ forecast and this new forecast release for the CRCO11 grouping. The CRCO11 TSU in 2017 have been revised slightly downwards, because of the lower 2012 forecast.

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.

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

		2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2017/ 2011 Total Growth
Total service units (thousands) CRCO11*	H	.	.	.	.	123,830	128,473	134,473	140,209	146,313	153,162	24%
	B	119,521	113,434	117,393	123,211	122,659	125,608	129,657	133,916	138,381	143,094	16%
	L	.	.	.	.	121,509	122,843	125,282	128,095	131,170	134,026	9%
Total service units (thousands) PScheme **	H	.	.	.	.	105,181	108,785	113,660	118,288	123,203	128,154	22%
	B	104,941	98,057	100,579	105,126	104,230	106,420	109,593	112,978	116,517	119,823	14%
	L	.	.	.	.	103,296	104,139	105,918	108,074	110,451	112,375	7%
		2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2017/ 2011 AAGR
Annual growth CRCO11	H	.	.	.	.	0.5%	3.7%	4.7%	4.3%	4.4%	4.7%	3.7%
	B	2.9%	-5.2%	3.5%	5.0%	-0.4%	2.4%	3.2%	3.3%	3.3%	3.4%	2.5%
	L	.	.	.	.	-1.4%	1.1%	2.0%	2.2%	2.4%	2.2%	1.4%
Annual growth PScheme	H	.	.	.	.	0.1%	3.4%	4.5%	4.1%	4.2%	4.0%	3.4%
	B	1.7%	-6.6%	2.6%	4.5%	-0.9%	2.1%	3.0%	3.1%	3.1%	2.8%	2.2%
	L	.	.	.	.	-1.7%	0.8%	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)

⁶ EUROCONTROL Short- and Medium- Term Forecast of Service Units: February 2012, STATFOR Doc457 v1.0

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

Figure 3: Comparison of the May 2012 (new) and February 2012 (old) forecast for CRCO11 Area (Source:EUROCONTROL)

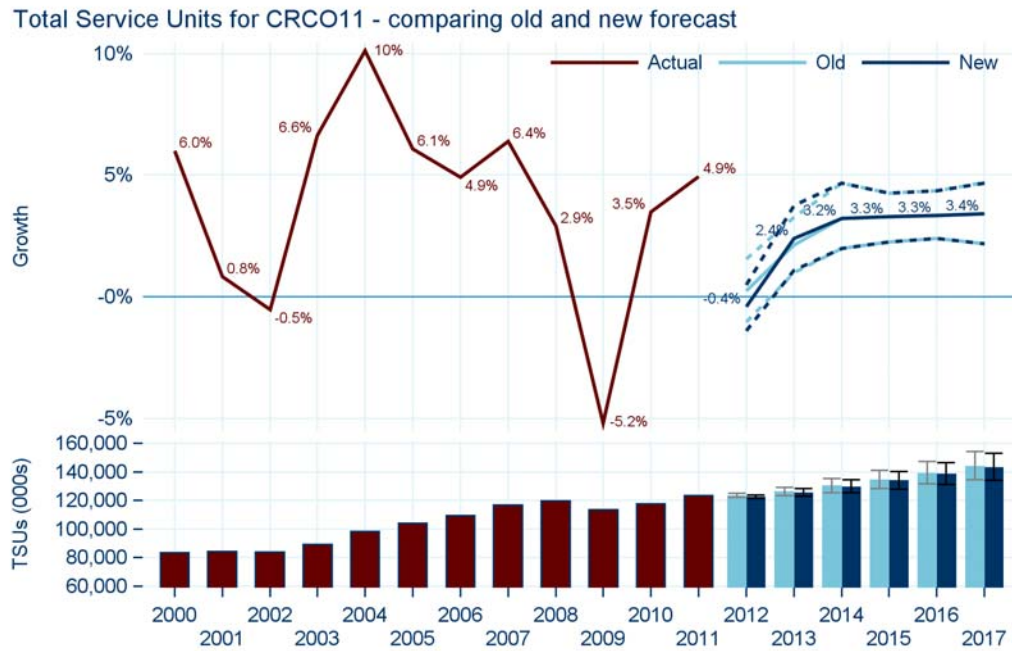
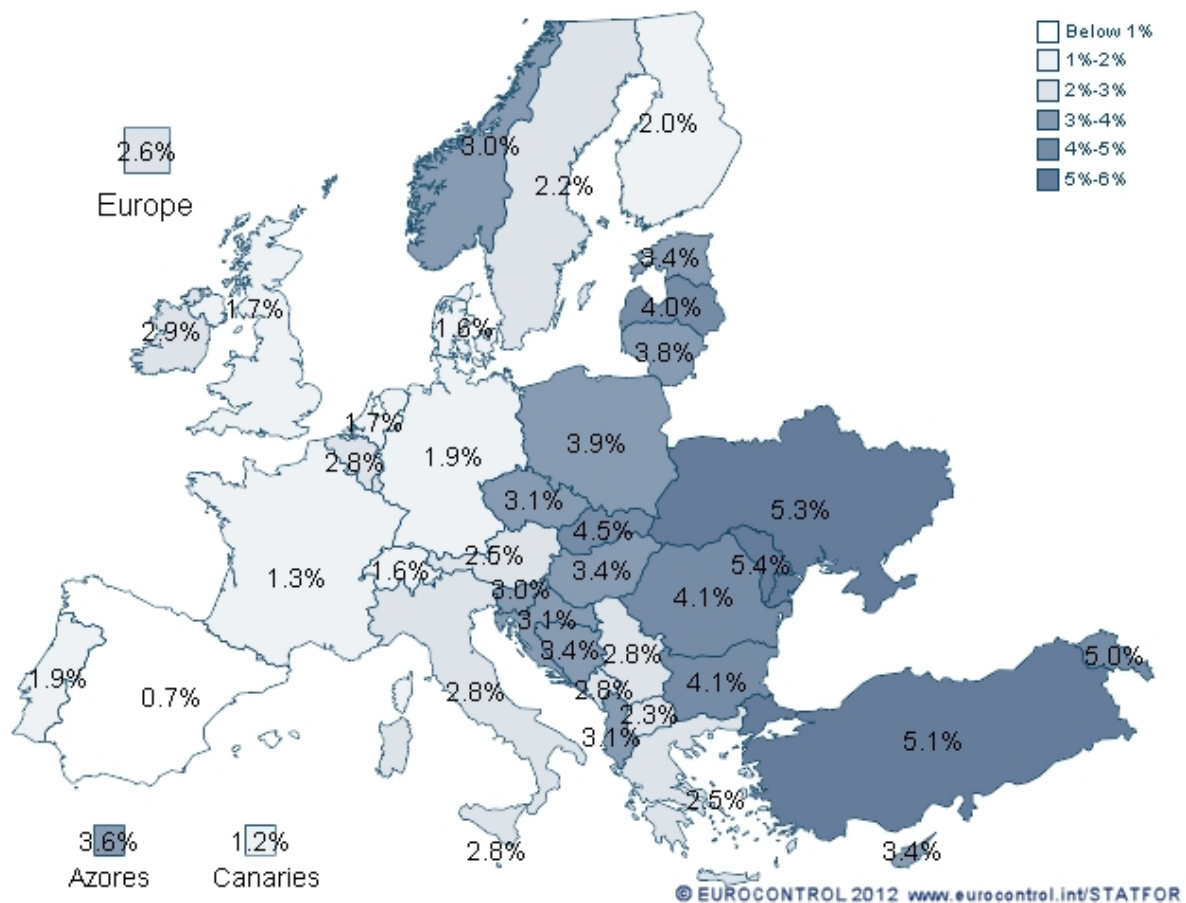


Figure 4: Average annual growth of service units between 2012 and 2017 (Source: EUROCONTROL)



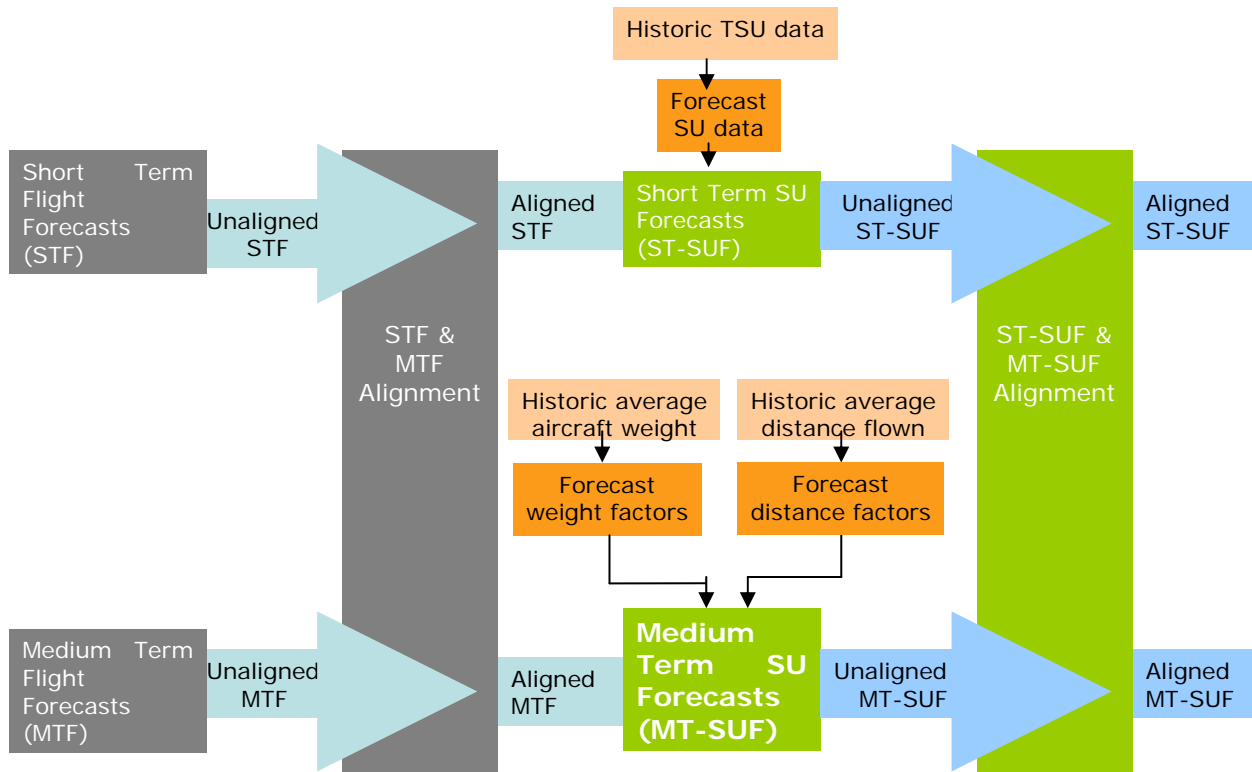
7. RISKS TO THE FORECAST

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 high 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:

- The current economic situation has increased the likelihood of major downside risks compared to three months ago. Any exit of Greece from the Euro-zone would in the short-term reduce its traffic further. The potential of contagion to other States exists, some of which are in a delicate situation in any case.
- Since the beginning of the year, several airlines have filed for bankruptcy and more such situations may happen in the current economic context.
- Even if they have recently decreased the continuing high fuel prices limit airlines' willingness to increase flight frequencies if that would threaten load factors.
- The scenario developed to adjust for traffic disruptions in North Africa implies a gradual restoration of traffic through a period that has been extended to the end of 2013. We have been able to model only one such scenario. The restoration could easily be different from this, implying both downside risks and upside risks. In particular, the result of the current presidential elections in Egypt is likely to further impact the future traffic evolution.
- Very recent data has suggested over-flight moves from the Adriatic coast towards a Czech Republic-Romania-Bulgaria corridor, a change opposite to last year's change. These over-flight routings along the South-East axis remain quite fluid.
- 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.

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 2-year forecast of service units

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

Charging Area	2011 Actual TSU	2012		2013		2012 States Forecast TSU ^(E)	2012 STATFOR/States
		STATFOR Forecast TSU	2012/2011 Forecast Growth	STATFOR Forecast TSU	2013/2012 Forecast Growth		
EB Belgium/Luxembourg	2,211,673	2,243,960	1.5%	2,301,472	2.6%	2,283,649	-1.7%
ED Germany ^(A)	12,739,932	12,604,710	-1.1%	12,786,453	1.4%	13,308,820	-5.3%
LF France	17,691,225	17,192,279	-2.8%	17,363,271	1.0%	17,987,000	-4.4%
EG UK	9,860,212	9,709,447	-1.5%	9,870,067	1.7%	10,324,932	-6.0%
EH Netherlands	2,595,143	2,581,814	-0.5%	2,625,584	1.7%	2,681,000	-3.7%
EI Ireland	3,771,478	3,792,530	0.6%	3,870,954	2.1%	3,826,000	-0.9%
LS Switzerland	1,431,092	1,395,993	-2.5%	1,421,908	1.9%	1,492,274	-6.5%
LP Lisbon FIR	2,821,265	2,813,500	-0.3%	2,862,650	1.7%	2,950,581	-4.6%
LO Austria	2,519,384	2,489,325	-1.2%	2,552,895	2.6%	2,720,000	-8.5%
LE Spain	9,099,189	8,509,896	-6.5%	8,621,874	1.3%	9,400,616	-9.5%
GC Canary Islands	1,665,737	1,611,191	-3.3%	1,652,951	2.6%	1,705,420	-5.5%
AZ Santa Maria FIR	3,983,496	4,133,218	3.8%	4,276,313	3.5%	4,083,341	1.2%
LG Greece	4,546,412	4,481,106	-1.4%	4,561,631	1.8%	4,698,000	-4.6%
LT Turkey	9,617,775	9,828,329	2.2%	10,302,666	4.8%	10,167,923	-3.3%
LM Malta	505,867	519,779	2.8%	530,113	2.0%	544,747	-4.6%
LI Italy	8,369,860	8,517,081	1.8%	8,813,044	3.5%	8,557,548	-0.5%
LC Cyprus	1,347,370	1,359,329	0.9%	1,398,523	2.9%	1,410,000	-3.6%
LH Hungary	2,066,988	2,065,510	-0.1%	2,109,690	2.1%	2,122,692	-2.7%
EN Norway	1,712,781	1,807,671	5.5%	1,862,451	3.0%	1,753,798	3.1%
EK Denmark	1,470,012	1,434,312	-2.4%	1,477,550	3.0%	1,553,042	-7.6%
LJ Slovenia	424,670	428,118	0.8%	438,425	2.4%	426,792	0.3%
LR Romania	3,532,683	3,590,115	1.6%	3,708,154	3.3%	3,612,000	-0.6%
LK Czech Republic	2,304,684	2,378,631	3.2%	2,434,964	2.4%	2,351,760	1.1%
ES Sweden	3,184,522	3,160,512	-0.8%	3,227,000	2.1%	3,209,000	-1.5%
LZ Slovakia	899,810	948,398	5.4%	976,206	2.9%	945,000	0.4%
LD Croatia	1,634,250	1,663,550	1.8%	1,684,294	1.2%	1,796,302	-7.4%
LB Bulgaria	2,018,783	2,051,419	1.6%	2,144,851	4.6%	1,966,102	4.3%
LW FYROM	194,134	191,852	-1.2%	190,681	-0.6%	213,000	-9.9%
LU Moldova	194,805	204,376	4.9%	218,057	6.7%	218,005	-6.3%
EF Finland	832,459	816,552	-1.9%	835,959	2.4%	878,000	-7.0%
LA Albania	447,587	448,231	0.1%	467,210	4.2%	485,789	-7.7%
LQ Bosnia-Herzegovina	716,735	701,888	-2.1%	734,587	4.7%	791,713	-11.3%
UD Armenia	169,594	180,676	6.5%	189,257	4.7%	175,000	3.2%
LY Belgrade ^(B)	1,830,604	1,790,254	-2.2%	1,854,574	3.6%	1,897,500	-5.7%
EP Poland	3,676,460	3,879,774	5.5%	4,057,827	4.6%	3,898,889	-0.5%
EY Lithuania	419,921	423,000	0.7%	443,945	5.0%	431,858	-2.1%
EE Estonia	704,294	714,070	1.4%	729,507	2.2%	760,800	-6.1%
EV Latvia ^(C)	702,400	710,177	1.1%	739,843	4.2%	701,000	1.3%
UK Ukraine ^(D)	4,464,959	4,591,695	2.8%	4,862,347	5.9%	.	.
CRCO88 CRCO88	70,389,826	69,077,863	-1.9%	70,206,393	1.6%	72,763,633	-5.1%
ESRA02 ESRA02	115,247,690	114,524,502	-0.6%	117,120,652	2.3%	119,187,344	-3.9%
CRCO11 CRCO11	123,210,992	122,658,502	-0.4%	125,607,896	2.4%	127,569,093	-3.8%
PScheme PScheme	105,126,306	104,230,198	-0.9%	106,419,762	2.1%	108,501,320	-3.9%
TOTAL Total ^(D)	128,380,246	127,964,267	-0.3%	131,199,750	2.5%	128,329,893	-3.9%

^(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 system but has asked STATFOR to produce an individual forecast for them. In the TOTAL column the 2012 states forecast and the percentage difference between, the 2012 States and STATFOR forecast does not include for Ukraine

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

Figure 7. Forecast of chargeable service units in 2012-2013 – May 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	2,243,960	2,301,472	1.2%	98.8%	2,216,600	2,273,400
ED	Germany ^(A)	12,739,932	12,604,710	12,786,453	1.1%	98.9%	12,467,600	12,647,400
LF	France	17,691,225	17,192,279	17,363,271	1.5%	98.5%	16,939,300	17,107,700
EG	UK	9,860,212	9,709,447	9,870,067	1.5%	98.5%	9,560,400	9,718,500
EH	Netherlands	2,595,143	2,581,814	2,625,584	1.1%	98.9%	2,552,500	2,595,800
EI	Ireland	3,771,478	3,792,530	3,870,954	1.6%	98.4%	3,731,100	3,808,300
LS	Switzerland	1,431,092	1,395,993	1,421,908	0.3%	99.7%	1,391,500	1,417,300
LP	Lisbon FIR	2,821,265	2,813,500	2,862,650	1.5%	98.5%	2,771,400	2,819,800
LO	Austria	2,519,384	2,489,325	2,552,895	0.3%	99.7%	2,482,800	2,546,200
LE	Spain	9,099,189	8,509,896	8,621,874	2.3%	97.7%	8,312,200	8,421,500
GC	Canary Islands	1,665,737	1,611,191	1,652,951	0.6%	99.4%	1,601,300	1,642,800
AZ	Santa Maria FIR	3,983,496	4,133,218	4,276,313	3.1%	96.9%	4,006,200	4,144,900
LG	Greece	4,546,412	4,481,106	4,561,631	2.2%	97.8%	4,382,300	4,461,100
LT	Turkey	9,617,775	9,828,329	10,302,666	2.5%	97.5%	9,584,200	10,046,800
LM	Malta ^(B)	505,867	519,779	530,113	11.9%	88.1%	457,800	466,900
LI	Italy ^(B)	8,369,860	8,517,081	8,813,044	4.1%	95.9%	8,167,900	8,451,700
LC	Cyprus	1,347,370	1,359,329	1,398,523	1.0%	99.0%	1,346,100	1,384,900
LH	Hungary	2,066,988	2,065,510	2,109,690	2.1%	97.9%	2,022,700	2,066,000
EN	Norway	1,712,781	1,807,671	1,862,451	0.9%	99.1%	1,792,100	1,846,400
EK	Denmark	1,470,012	1,434,312	1,477,550	0.5%	99.5%	1,427,000	1,470,000
LJ	Slovenia	424,670	428,118	438,425	0.4%	99.6%	426,300	436,600
LR	Romania	3,532,683	3,590,115	3,708,154	2.8%	97.2%	3,490,300	3,605,100
LK	Czech Republic	2,304,684	2,378,631	2,434,964	2.9%	97.1%	2,309,200	2,363,900
ES	Sweden	3,184,522	3,160,512	3,227,000	0.3%	99.7%	3,150,500	3,216,800
LZ	Slovakia	899,810	948,398	976,206	0.9%	99.1%	940,100	967,700
LD	Croatia	1,634,250	1,663,550	1,684,294	0.3%	99.7%	1,658,900	1,679,600
LB	Bulgaria	2,018,783	2,051,419	2,144,851	1.1%	98.9%	2,028,800	2,121,200
LW	FYROM	194,134	191,852	190,681	0.2%	99.8%	191,500	190,300
LU	Moldova	194,805	204,376	218,057	0.0%	100.0%	204,300	218,000
EF	Finland	832,459	816,552	835,959	0.8%	99.2%	810,000	829,300
LA	Albania	447,587	448,231	467,210	0.5%	99.5%	446,000	464,900
LQ	Bosnia-Herzegovina	716,735	701,888	734,587	0.1%	99.9%	701,300	734,000
UD	Armenia	169,594	180,676	189,257	0.1%	99.9%	180,400	189,000
LY	Belgrade	1,830,604	1,790,254	1,854,574	0.1%	99.9%	1,788,800	1,853,100
EP	Poland	3,676,460	3,879,774	4,057,827	0.5%	99.5%	3,858,800	4,035,900
EY	Lithuania	419,921	423,000	443,945	0.4%	99.6%	421,500	442,300
EE	Estonia	704,294	714,070	729,507	0.0%	100.0%	713,900	729,300
EV	Latvia	702,400	710,177	739,843	0.3%	99.7%	708,300	737,900
UK	Ukraine	4,464,959	4,591,695	4,862,347	0.2%	99.8%	4,583,500	4,853,600
CRCO88	CRCO88	70,389,826	69,077,863	70,206,393	1.5%	98.5%	68,032,400	69,143,900
ESRA02	ESRA02	115,247,690	114,524,502	117,120,652	1.8%	98.2%	112,432,600	114,981,400
CRCO11	CRCO11	123,210,992	122,658,502	125,607,896	1.7%	98.3%	120,535,100	123,433,400
PScheme	PScheme	105,126,306	104,230,198	106,419,762	1.7%	98.3%	102,482,900	104,635,800
TOTAL	Total	128,380,246	127,964,267	131,199,750	1.7%	98.3%	125,830,000	129,011,600

^(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. 6-Year 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 Serbia-Montenegro 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)		2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2017/2011 Total Growth
Albania	H	.	.	.	.	453	479	500	521	544	571	28%
	B	325	355	404	448	448	467	482	499	517	537	20%
	L	.	.	.	.	443	456	465	477	490	504	12%
Armenia	H	.	.	.	.	185	198	208	220	234	250	47%
	B	.	111	146	170	181	189	196	205	215	227	34%
	L	.	.	.	.	177	181	185	192	200	209	23%
Austria	H	.	.	.	.	2,523	2,640	2,769	2,894	3,029	3,173	26%
	B	2,566	2,424	2,449	2,519	2,489	2,553	2,638	2,729	2,824	2,921	16%
	L	.	.	.	.	2,456	2,468	2,515	2,573	2,636	2,694	7%
Belgium/Luxembourg	H	.	.	.	.	2,262	2,345	2,455	2,553	2,653	2,744	24%
	B	2,220	2,079	2,115	2,212	2,244	2,301	2,380	2,460	2,538	2,604	18%
	L	.	.	.	.	2,226	2,259	2,309	2,364	2,423	2,467	12%
Belgrade	H	.	.	.	.	1,815	1,920	2,014	2,106	2,207	2,342	28%
	B	1,748	1,783	1,819	1,831	1,790	1,855	1,921	1,991	2,067	2,164	18%
	L	.	.	.	.	1,766	1,791	1,834	1,884	1,938	2,000	9%
Bosnia-Herzegovina	H	.	.	.	.	715	762	810	861	917	983	37%
	B	525	579	637	717	702	735	766	799	835	875	22%
	L	.	.	.	.	689	708	725	744	764	785	9%
Bulgaria	H	.	.	.	.	2,079	2,216	2,333	2,443	2,561	2,792	38%
	B	1,747	1,798	1,840	2,019	2,051	2,145	2,233	2,316	2,402	2,566	27%
	L	.	.	.	.	2,024	2,075	2,142	2,203	2,265	2,367	17%
Canary Islands	H	.	.	.	.	1,630	1,700	1,764	1,834	1,913	1,973	18%
	B	1,713	1,492	1,540	1,666	1,611	1,653	1,681	1,720	1,765	1,791	8%
	L	.	.	.	.	1,593	1,609	1,612	1,629	1,654	1,659	-0%
Croatia	H	.	.	.	.	1,684	1,739	1,830	1,917	2,012	2,126	30%
	B	1,271	1,298	1,451	1,634	1,664	1,684	1,747	1,813	1,884	1,966	20%
	L	.	.	.	.	1,643	1,632	1,672	1,718	1,769	1,821	11%
Cyprus	H	.	.	.	.	1,372	1,428	1,504	1,579	1,661	1,778	32%
	B	1,311	1,273	1,352	1,347	1,359	1,399	1,451	1,506	1,564	1,644	22%
	L	.	.	.	.	1,347	1,370	1,407	1,446	1,487	1,539	14%
Czech Republic	H	.	.	.	.	2,403	2,495	2,621	2,739	2,866	2,996	30%
	B	2,019	2,023	2,190	2,305	2,379	2,435	2,521	2,608	2,694	2,772	20%
	L	.	.	.	.	2,355	2,378	2,431	2,488	2,547	2,590	12%
Denmark	H	.	.	.	.	1,448	1,512	1,568	1,616	1,665	1,707	16%
	B	1,474	1,359	1,411	1,470	1,434	1,478	1,515	1,553	1,588	1,615	10%
	L	.	.	.	.	1,421	1,444	1,464	1,486	1,509	1,524	4%
Estonia	H	.	.	.	.	724	755	804	851	899	943	34%
	B	697	632	627	704	714	730	763	799	833	863	23%
	L	.	.	.	.	704	705	728	754	778	798	13%

Total service units (thousands)		2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2017/ 2011 Total Growth
		FYROM	H	194	195	205	214	224	236	22%
	B	182	180	183	194	192	191	198	205	213	222	14%
	L	.	.	.	.	190	187	191	196	203	209	7%
Finland	H	.	.	.	.	827	858	895	932	968	999	20%
	B	791	727	740	832	817	836	862	890	915	935	12%
	L	.	.	.	.	807	815	833	853	871	882	6%
France	H	.	.	.	.	17,295	17,625	18,286	18,925	19,593	20,143	14%
	B	18,034	16,780	16,637	17,691	17,192	17,363	17,771	18,247	18,761	19,143	8%
	L	.	.	.	.	17,091	17,109	17,290	17,575	17,905	18,103	2%
Germany	H	.	.	.	.	12,682	12,994	13,551	14,045	14,568	15,062	18%
	B	12,749	11,913	12,294	12,740	12,605	12,786	13,174	13,562	13,945	14,279	12%
	L	.	.	.	.	12,529	12,587	12,814	13,066	13,332	13,527	6%
Greece	H	.	.	.	.	4,540	4,715	4,931	5,145	5,382	5,660	24%
	B	4,258	4,139	4,454	4,546	4,481	4,562	4,718	4,886	5,070	5,277	16%
	L	.	.	.	.	4,423	4,411	4,516	4,635	4,771	4,912	8%
Hungary	H	.	.	.	.	2,104	2,209	2,344	2,476	2,620	2,795	35%
	B	2,092	2,038	2,091	2,067	2,066	2,110	2,205	2,304	2,406	2,526	22%
	L	.	.	.	.	2,028	2,013	2,079	2,149	2,221	2,297	11%
Ireland	H	.	.	.	.	3,827	3,951	4,175	4,403	4,642	4,890	30%
	B	3,823	3,561	3,615	3,771	3,793	3,871	4,016	4,166	4,317	4,465	18%
	L	.	.	.	.	3,760	3,798	3,889	3,986	4,087	4,181	11%
Italy	H	.	.	.	.	8,626	9,090	9,461	9,828	10,238	10,640	27%
	B	8,660	8,145	8,621	8,370	8,517	8,813	9,052	9,320	9,624	9,901	18%
	L	.	.	.	.	8,409	8,539	8,653	8,812	9,007	9,159	9%
Latvia	H	.	.	.	.	717	759	816	870	924	979	39%
	B	656	596	634	702	710	740	780	819	856	890	27%
	L	.	.	.	.	704	723	752	780	807	829	18%
Lisbon FIR	H	.	.	.	.	2,838	2,911	3,053	3,169	3,296	3,413	21%
	B	2,677	2,501	2,624	2,821	2,814	2,863	2,925	2,995	3,087	3,154	12%
	L	.	.	.	.	2,788	2,815	2,834	2,871	2,930	2,961	5%
Lithuania	H	.	.	.	.	431	463	495	525	555	584	39%
	B	384	341	371	420	423	444	465	486	506	525	25%
	L	.	.	.	.	416	426	440	454	468	479	14%
Malta	H	.	.	.	.	537	571	592	616	643	681	35%
	B	422	416	487	506	520	530	542	556	573	599	18%
	L	.	.	.	.	503	490	495	501	511	527	4%
Moldova	H	.	.	.	.	209	231	247	263	280	299	54%
	B	115	139	181	195	204	218	230	242	254	268	37%
	L	.	.	.	.	200	206	214	222	232	241	24%
Netherlands	H	.	.	.	.	2,605	2,685	2,789	2,883	2,967	3,045	17%
	B	2,621	2,426	2,476	2,595	2,582	2,626	2,694	2,765	2,821	2,868	11%
	L	.	.	.	.	2,559	2,567	2,605	2,647	2,688	2,715	5%
Norway	H	.	.	.	.	1,831	1,922	1,992	2,057	2,127	2,194	28%
	B	1,537	1,495	1,583	1,713	1,808	1,862	1,911	1,957	2,007	2,051	20%
	L	.	.	.	.	1,784	1,804	1,832	1,860	1,890	1,914	12%
Poland	H	.	.	.	.	3,907	4,133	4,361	4,574	4,795	5,008	36%
	B	3,230	3,092	3,313	3,676	3,880	4,058	4,207	4,357	4,504	4,636	26%
	L	.	.	.	.	3,854	3,988	4,079	4,175	4,269	4,343	18%

EUROCONTROL Short- and Medium-Term Forecast
of Service Units: May 2012 Update

Total service units (thousands)		2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2017/ 2011 Total Growth
Romania	H	.	.	.	.	3,631	3,799	4,041	4,279	4,538	4,903	39%
	B	3,240	3,133	3,414	3,533	3,590	3,708	3,888	4,068	4,253	4,506	28%
	L	.	.	.	.	3,551	3,623	3,756	3,891	4,029	4,195	19%
Santa Maria FIR	H	.	.	.	.	4,190	4,381	4,625	4,856	5,088	5,313	33%
	B	3,484	3,479	3,696	3,983	4,133	4,276	4,440	4,607	4,781	4,932	24%
	L	.	.	.	.	4,077	4,175	4,276	4,379	4,492	4,586	15%
Slovakia	H	.	.	.	.	959	1,002	1,066	1,130	1,199	1,279	42%
	B	762	768	856	900	948	976	1,022	1,068	1,116	1,169	30%
	L	.	.	.	.	939	952	983	1,014	1,044	1,076	20%
Slovenia	H	.	.	.	.	433	452	474	495	518	545	28%
	B	342	331	365	425	428	438	454	471	488	507	19%
	L	.	.	.	.	423	426	436	448	460	472	11%
Spain	H	.	.	.	.	8,570	8,751	9,116	9,462	9,846	10,155	12%
	B	9,129	8,358	8,642	9,099	8,510	8,622	8,810	9,041	9,314	9,506	4%
	L	.	.	.	.	8,451	8,501	8,553	8,677	8,846	8,929	-2%
Sweden	H	.	.	.	.	3,189	3,298	3,447	3,580	3,716	3,842	21%
	B	3,271	2,906	2,950	3,185	3,161	3,227	3,333	3,435	3,534	3,620	14%
	L	.	.	.	.	3,133	3,158	3,226	3,294	3,360	3,410	7%
Switzerland	H	.	.	.	.	1,408	1,452	1,507	1,560	1,616	1,665	16%
	B	1,472	1,396	1,409	1,431	1,396	1,422	1,458	1,498	1,540	1,575	10%
	L	.	.	.	.	1,384	1,393	1,409	1,433	1,461	1,480	3%
Turkey	H	.	.	.	.	9,928	10,538	11,178	11,813	12,502	13,832	44%
	B	7,629	8,086	8,923	9,618	9,828	10,303	10,849	11,375	11,930	12,943	35%
	L	.	.	.	.	9,733	10,075	10,530	10,962	11,409	12,096	26%
UK	H	.	.	.	.	9,787	10,054	10,450	10,828	11,206	11,566	17%
	B	11,044	9,914	9,480	9,860	9,709	9,870	10,124	10,397	10,674	10,914	11%
	L	.	.	.	.	9,633	9,693	9,837	10,009	10,198	10,348	5%
Ukraine	H	.	.	.	.	4,648	5,009	5,382	5,775	6,170	6,638	49%
	B	3,903	3,727	4,188	4,465	4,592	4,862	5,138	5,442	5,734	6,072	36%
	L	.	.	.	.	4,537	4,722	4,922	5,154	5,373	5,611	26%
ESRA02	H	.	.	.	.	115,608	119,759	125,268	130,531	136,137	142,445	24%
	B	112,655	106,577	110,070	115,248	114,525	117,121	120,840	124,758	128,881	133,238	16%
	L	.	.	.	.	113,461	114,570	116,802	119,389	122,235	124,877	8%
CRCO88	H	.	.	.	.	69,617	71,491	74,539	77,411	80,417	83,140	18%
	B	71,532	66,323	66,977	70,390	69,078	70,206	72,111	74,186	76,367	78,152	11%
	L	.	.	.	.	68,548	68,973	69,943	71,210	72,652	73,648	5%
CRCO11	H	.	.	.	.	123,830	128,473	134,473	140,209	146,313	153,162	24%
	B	119,521	113,434	117,393	123,211	122,659	125,608	129,657	133,916	138,381	143,094	16%
	L	.	.	.	.	121,509	122,843	125,282	128,095	131,170	134,026	9%
PScheme	H	.	.	.	.	105,181	108,785	113,660	118,288	123,203	128,154	22%
	B	104,941	98,057	100,579	105,126	104,230	106,420	109,593	112,978	116,517	119,823	14%
	L	.	.	.	.	103,296	104,139	105,918	108,074	110,451	112,375	7%
Total	H	.	.	.	.	129,202	134,237	140,659	146,835	153,381	160,743	25%
	B	124,122	117,793	122,208	128,380	127,964	131,200	135,558	140,158	144,948	150,029	17%
	L	.	.	.	.	126,750	128,270	130,932	134,003	137,320	140,435	9%

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

(b) Total from 2009 includes TSUs of all countries

(c) 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.

(d) 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		2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	AAGR 2017/2011
Albania	H	.	.	.	.	1.2%	5.7%	4.5%	4.2%	4.4%	4.9%	4.1%
	B	3.8%	9.1%	13.9%	10.8%	0.1%	4.2%	3.2%	3.5%	3.7%	3.9%	3.1%
	L	.	.	.	.	-0.9%	2.8%	2.0%	2.5%	2.9%	2.7%	2.0%
Armenia	H	.	.	.	.	9.1%	6.9%	5.1%	6.0%	6.1%	6.8%	6.7%
	B	.	.	31.5%	16.1%	6.5%	4.7%	3.5%	4.7%	4.9%	5.6%	5.0%
	L	.	.	.	.	4.1%	2.7%	2.1%	3.6%	4.0%	4.6%	3.5%
Austria	H	.	.	.	.	0.1%	4.7%	4.9%	4.5%	4.7%	4.7%	3.9%
	B	2.3%	-5.5%	1.0%	2.9%	-1.2%	2.6%	3.3%	3.4%	3.5%	3.4%	2.5%
	L	.	.	.	.	-2.5%	0.5%	1.9%	2.3%	2.5%	2.2%	1.1%
Belgium/Luxembourg	H	.	.	.	.	2.3%	3.7%	4.7%	4.0%	3.9%	3.4%	3.7%
	B	1.7%	-6.4%	1.7%	4.6%	1.5%	2.6%	3.4%	3.4%	3.2%	2.6%	2.8%
	L	.	.	.	.	0.7%	1.5%	2.2%	2.4%	2.5%	1.8%	1.8%
Belgrade	H	.	.	.	.	-0.8%	5.8%	4.9%	4.6%	4.8%	6.1%	4.2%
	B	90.0%	2.0%	2.0%	0.6%	-2.2%	3.6%	3.6%	3.7%	3.8%	4.7%	2.8%
	L	.	.	.	.	-3.5%	1.4%	2.5%	2.7%	2.9%	3.2%	1.5%
Bosnia-Herzegovina	H	.	.	.	.	-0.3%	6.6%	6.3%	6.3%	6.5%	7.1%	5.4%
	B	9.1%	10.3%	10.1%	12.5%	-2.1%	4.7%	4.2%	4.4%	4.5%	4.8%	3.4%
	L	.	.	.	.	-3.9%	2.8%	2.4%	2.6%	2.7%	2.7%	1.5%
Bulgaria	H	.	.	.	.	3.0%	6.6%	5.3%	4.7%	4.8%	9.0%	5.6%
	B	7.5%	3.0%	2.3%	9.7%	1.6%	4.6%	4.1%	3.7%	3.7%	6.9%	4.1%
	L	.	.	.	.	0.3%	2.5%	3.2%	2.8%	2.8%	4.5%	2.7%
Canary Islands	H	.	.	.	.	-2.2%	4.3%	3.7%	3.9%	4.3%	3.1%	2.9%
	B	1.3%	-12.9%	3.2%	8.2%	-3.3%	2.6%	1.7%	2.3%	2.6%	1.5%	1.2%
	L	.	.	.	.	-4.3%	1.0%	0.2%	1.1%	1.5%	0.3%	-0.1%
Croatia	H	.	.	.	.	3.1%	3.2%	5.2%	4.8%	4.9%	5.7%	4.5%
	B	5.6%	2.2%	11.8%	12.6%	1.8%	1.2%	3.7%	3.8%	3.9%	4.3%	3.1%
	L	.	.	.	.	0.5%	-0.7%	2.5%	2.8%	3.0%	2.9%	1.8%
Cyprus	H	.	.	.	.	1.8%	4.1%	5.3%	5.0%	5.2%	7.1%	4.7%
	B	11.3%	-2.9%	6.2%	-0.3%	0.9%	2.9%	3.8%	3.7%	3.9%	5.2%	3.4%
	L	.	.	.	.	-0.0%	1.7%	2.7%	2.8%	2.9%	3.5%	2.2%
Czech Republic	H	.	.	.	.	4.3%	3.8%	5.1%	4.5%	4.6%	4.5%	4.5%
	B	4.1%	0.2%	8.3%	5.2%	3.2%	2.4%	3.5%	3.5%	3.3%	2.9%	3.1%
	L	.	.	.	.	2.2%	1.0%	2.2%	2.4%	2.3%	1.7%	2.0%
Denmark	H	.	.	.	.	-1.5%	4.4%	3.7%	3.1%	3.1%	2.5%	2.5%
	B	-0.4%	-7.8%	3.8%	4.2%	-2.4%	3.0%	2.6%	2.5%	2.2%	1.7%	1.6%
	L	.	.	.	.	-3.3%	1.6%	1.4%	1.5%	1.5%	1.0%	0.6%
Estonia	H	.	.	.	.	2.8%	4.3%	6.4%	5.9%	5.6%	5.0%	5.0%
	B	7.2%	-9.4%	-0.8%	12.3%	1.4%	2.2%	4.7%	4.7%	4.2%	3.6%	3.4%
	L	.	.	.	.	-0.0%	0.1%	3.3%	3.5%	3.2%	2.6%	2.1%
FYROM	H	.	.	.	.	-0.3%	0.7%	5.0%	4.6%	4.9%	5.2%	3.3%
	B	0.2%	-1.0%	1.7%	5.9%	-1.2%	-0.6%	3.6%	3.8%	4.1%	4.0%	2.3%
	L	.	.	.	.	-2.0%	-1.7%	2.3%	2.8%	3.2%	2.8%	1.2%
Finland	H	.	.	.	.	-0.7%	3.8%	4.3%	4.1%	3.8%	3.2%	3.1%
	B	6.1%	-8.1%	1.7%	12.6%	-1.9%	2.4%	3.1%	3.2%	2.8%	2.2%	2.0%
	L	.	.	.	.	-3.1%	1.0%	2.2%	2.4%	2.0%	1.3%	1.0%

Annual growth		2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	AAGR 2017/ 2011
France	H	.	.	.	.	-2.2%	1.9%	3.8%	3.5%	3.5%	2.8%	2.2%
	B	0.2%	-7.0%	-0.9%	6.3%	-2.8%	1.0%	2.3%	2.7%	2.8%	2.0%	1.3%
	L	.	.	.	.	-3.4%	0.1%	1.1%	1.6%	1.9%	1.1%	0.4%
Germany	H	.	.	.	.	-0.5%	2.5%	4.3%	3.6%	3.7%	3.4%	2.8%
	B	2.7%	-6.6%	3.2%	3.6%	-1.1%	1.4%	3.0%	3.0%	2.8%	2.4%	1.9%
	L	.	.	.	.	-1.7%	0.5%	1.8%	2.0%	2.0%	1.5%	1.0%
Greece	H	.	.	.	.	-0.1%	3.9%	4.6%	4.3%	4.6%	5.2%	3.7%
	B	5.2%	-2.8%	7.6%	2.1%	-1.4%	1.8%	3.4%	3.6%	3.8%	4.1%	2.5%
	L	.	.	.	.	-2.7%	-0.3%	2.4%	2.6%	2.9%	2.9%	1.3%
Hungary	H	.	.	.	.	1.8%	5.0%	6.1%	5.6%	5.8%	6.7%	5.2%
	B	-0.6%	-2.6%	2.6%	-1.2%	-0.1%	2.1%	4.5%	4.5%	4.4%	5.0%	3.4%
	L	.	.	.	.	-1.9%	-0.7%	3.3%	3.4%	3.3%	3.5%	1.8%
Ireland	H	.	.	.	.	1.5%	3.2%	5.7%	5.4%	5.4%	5.3%	4.4%
	B	0.0%	-6.9%	1.5%	4.3%	0.6%	2.1%	3.7%	3.7%	3.6%	3.4%	2.9%
	L	.	.	.	.	-0.3%	1.0%	2.4%	2.5%	2.5%	2.3%	1.7%
Italy	H	.	.	.	.	3.1%	5.4%	4.1%	3.9%	4.2%	3.9%	4.1%
	B	0.5%	-6.0%	5.9%	-2.9%	1.8%	3.5%	2.7%	3.0%	3.3%	2.9%	2.8%
	L	.	.	.	.	0.5%	1.5%	1.3%	1.8%	2.2%	1.7%	1.5%
Latvia	H	.	.	.	.	2.0%	5.9%	7.5%	6.6%	6.2%	5.9%	5.7%
	B	4.7%	-9.1%	6.4%	10.8%	1.1%	4.2%	5.4%	5.1%	4.5%	4.0%	4.0%
	L	.	.	.	.	0.2%	2.7%	4.0%	3.8%	3.4%	2.8%	2.8%
Lisbon FIR	H	.	.	.	.	0.6%	2.6%	4.9%	3.8%	4.0%	3.6%	3.2%
	B	1.7%	-6.6%	4.9%	7.5%	-0.3%	1.7%	2.2%	2.4%	3.1%	2.2%	1.9%
	L	.	.	.	.	-1.2%	0.9%	0.7%	1.3%	2.0%	1.1%	0.8%
Lithuania	H	.	.	.	.	2.5%	7.6%	6.9%	6.0%	5.7%	5.4%	5.7%
	B	.	-11.0%	8.7%	13.2%	0.7%	5.0%	4.8%	4.5%	4.1%	3.7%	3.8%
	L	.	.	.	.	-1.0%	2.4%	3.3%	3.3%	3.0%	2.4%	2.2%
Malta	H	.	.	.	.	6.1%	6.4%	3.7%	4.0%	4.4%	6.0%	5.1%
	B	11.9%	-1.4%	17.0%	3.9%	2.8%	2.0%	2.2%	2.6%	3.0%	4.5%	2.8%
	L	.	.	.	.	-0.5%	-2.7%	1.0%	1.3%	1.9%	3.2%	0.7%
Moldova	H	.	.	.	.	7.4%	10.3%	6.8%	6.5%	6.6%	6.9%	7.4%
	B	23.4%	20.4%	30.7%	7.4%	4.9%	6.7%	5.3%	5.3%	5.1%	5.3%	5.4%
	L	.	.	.	.	2.4%	3.1%	3.9%	4.1%	4.1%	4.1%	3.6%
Netherlands	H	.	.	.	.	0.4%	3.1%	3.8%	3.4%	2.9%	2.6%	2.7%
	B	-0.7%	-7.5%	2.1%	4.8%	-0.5%	1.7%	2.6%	2.6%	2.0%	1.7%	1.7%
	L	.	.	.	.	-1.4%	0.3%	1.5%	1.6%	1.5%	1.0%	0.8%
Norway	H	.	.	.	.	6.9%	4.9%	3.7%	3.3%	3.4%	3.1%	4.2%
	B	8.3%	-2.8%	5.9%	8.2%	5.5%	3.0%	2.6%	2.4%	2.5%	2.2%	3.0%
	L	.	.	.	.	4.2%	1.1%	1.6%	1.5%	1.6%	1.2%	1.9%
Poland	H	.	.	.	.	6.3%	5.8%	5.5%	4.9%	4.8%	4.5%	5.3%
	B	.	-4.3%	7.1%	11.0%	5.5%	4.6%	3.7%	3.6%	3.4%	2.9%	3.9%
	L	.	.	.	.	4.8%	3.5%	2.3%	2.4%	2.2%	1.7%	2.8%
Romania	H	.	.	.	.	2.8%	4.6%	6.4%	5.9%	6.1%	8.0%	5.6%
	B	0.1%	-3.3%	9.0%	3.5%	1.6%	3.3%	4.8%	4.6%	4.6%	5.9%	4.1%
	L	.	.	.	.	0.5%	2.0%	3.7%	3.6%	3.5%	4.1%	2.9%
Santa Maria FIR	H	.	.	.	.	5.2%	4.6%	5.6%	5.0%	4.8%	4.4%	4.9%
	B	5.4%	-0.1%	6.3%	7.8%	3.8%	3.5%	3.8%	3.8%	3.8%	3.2%	3.6%
	L	.	.	.	.	2.3%	2.4%	2.4%	2.4%	2.6%	2.1%	2.4%

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

(a) The 2008 and 2009 growth figures for CRCO11 and Total are adjusted to compensate for the increase in TSUs due to the introduction of new countries in the total (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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