



# EUROCONTROL Seven-Year Forecast February 2019

## ANNEX 4 - PREPARATION OF THE SERVICE UNITS FORECAST FOR RP3

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## Preparation of the service unit forecasts for RP3

### 1. Introduction

We are planning to calculate the distance factor of the EUROCONTROL route charges on the basis of actual routes as of 1 January 2020. The CRCO will make the calculations by using the so-called M3 data as produced by the Network Manager.

M3 data consist of point profiles representing the actual trajectories recorded by NM. The treatment of M3 point profiles by the CRCO will be identical to the treatment of the M2 data that are currently used for the calculation of the route charges.

### 2. Preparation of performance plans and unit rates

Until the second half of the year 2019 STATFOR will not avail of sufficient historical data to produce M3 service unit forecasts.

The STATFOR forecasts released on 18 February 2019 are based on M2 data.

The CRCO calculated service units using M2 and M3 data respectively for the three months of April 2018, July 2018 and October 2018. The numbers of service units and the differences in percentage between M2 and M3 calculations are presented at **Annex 1** per charging zone. In order to avoid any bias, M2 and M3 calculations were made for exactly the same flights. These data are presented together, pro memoria and for information, with the results of three weeks flights processed in 2015 and 2016.

**Annex 2** shows the STATFOR February M2 service unit forecasts for the period 2020-2024 adjusted by the estimated adjustment factor calculated by the CRCO that is equal to the difference in % between M2 and M3 service units calculated for the three months of April 2018, July 2018 and October 2018 taken together.

The same exercise will be reiterated in May 2019 for the second STATFOR M2 service unit forecasts but based on additional historical data.

With more data later in the year, STATFOR may discover that some individual States have within-year seasonality or trend in the M2/M3 conversion coefficient. This would lead STATFOR to refine the conversion coefficient, although on currently available data one would not expect those refinements to be more than 1 or 2%.

Early October 2019, STATFOR will publish M3 and M2 service unit forecasts.

No tool or modelling exists to assess possible changes in airspace users' behavior or in air traffic control decisions at tactical level as a potential consequence of the new calculation method. Therefore it is not possible to assess the impact that such changes might have on the traffic in a given charging zone.

Charging Zone	April 2018			July 2018			October 2018			Average	For information	
	201804-M2	201804-M3	M3/M2	201807-M2	201807-M3	M3/M2	201810-M2	201810-M3	M3/M2	2018	2016 3w	2015 3w
Albania	33,917	32,885	-3.04%	58,551	57,782	-1.31%	43,199	42,317	-2.04%	-1.98%	-3.05%	-2.05%
Armenia	16,315	16,134	-1.10%	23,436	23,130	-1.30%	17,826	17,559	-1.50%	-1.31%	0.35%	1.13%
Austria	235,046	233,982	-0.45%	331,265	330,524	-0.22%	299,958	299,289	-0.22%	-0.29%	-0.61%	-0.96%
Belgium / Luxembourg	209,295	202,711	-3.15%	248,443	240,517	-3.19%	234,004	227,066	-2.97%	-3.10%	-4.16%	-3.98%
Bosnia-Herzegovina	78,005	77,569	-0.56%	123,161	123,268	0.09%	105,476	105,054	-0.40%	-0.24%	3.38%	2.39%
Bulgaria	285,864	285,562	-0.11%	407,855	405,501	-0.58%	355,262	353,933	-0.37%	-0.38%	-1.14%	-0.55%
Spain - Canary Islands	132,870	132,949	0.06%	150,089	150,173	0.06%	157,106	157,446	0.22%	0.11%	0.17%	0.09%
Croatia	141,936	141,557	-0.27%	237,818	238,553	0.31%	189,093	188,378	-0.38%	-0.06%	-2.17%	-1.49%
Cyprus	148,723	147,320	-0.94%	191,911	190,731	-0.61%	162,750	161,594	-0.71%	-0.74%	-0.88%	-0.17%
Czech Republic	228,885	226,781	-0.92%	308,772	304,997	-1.22%	265,655	262,796	-1.08%	-1.09%	-1.33%	-0.98%
Denmark	133,492	125,873	-5.71%	159,610	150,177	-5.91%	154,160	144,969	-5.96%	-5.87%	-6.47%	-6.98%
Estonia	69,910	69,642	-0.38%	89,938	89,767	-0.19%	77,171	76,851	-0.42%	-0.32%		
Finland	73,445	73,433	-0.02%	73,949	74,063	0.15%	80,053	80,096	0.05%	0.06%	-0.04%	0.43%
The Former Yugoslav Republic of Macedonia	21,257	20,087	-5.50%	44,780	43,411	-3.06%	33,369	32,056	-3.93%	-3.87%	-5.45%	-4.08%
France	1,698,693	1,702,405	0.22%	2,208,967	2,215,805	0.31%	1,965,415	1,969,777	0.22%	0.25%	0.05%	-0.04%
Georgia	63,492	63,390	-0.16%	73,920	73,832	-0.12%	65,091	65,028	-0.10%	-0.12%	-0.46%	-0.56%
Germany	1,160,110	1,161,050	0.08%	1,443,816	1,445,616	0.12%	1,370,223	1,372,194	0.14%	0.12%	0.39%	0.46%
Greece	392,163	392,215	0.01%	670,096	670,022	-0.01%	506,659	506,771	0.02%	0.01%	0.03%	0.01%
Hungary	231,994	229,429	-1.11%	347,237	342,602	-1.33%	285,671	282,332	-1.17%	-1.22%	-0.91%	-0.84%
Ireland	358,382	355,983	-0.67%	453,424	449,979	-0.76%	394,909	392,549	-0.60%	-0.68%	-0.89%	-0.99%
Italy	710,550	711,955	0.20%	1,059,366	1,060,527	0.11%	842,143	844,106	0.23%	0.17%	0.23%	0.20%
Latvia	72,879	72,385	-0.68%	89,801	89,086	-0.80%	82,132	81,653	-0.58%	-0.69%	-0.60%	-0.31%
Lithuania	45,480	45,628	0.33%	60,297	60,470	0.29%	52,753	52,940	0.35%	0.32%	0.20%	0.18%
Portugal - Lisbon	306,475	304,397	-0.68%	353,207	350,821	-0.68%	330,556	328,813	-0.53%	-0.63%	-0.57%	-0.38%
Malta	78,463	76,644	-2.32%	75,037	73,118	-2.56%	66,517	64,012	-3.77%	-2.84%	-1.07%	-0.77%
Moldova	6,001	6,025	0.41%	9,831	10,087	2.61%	7,542	7,605	0.84%	1.47%	-0.59%	-0.19%
Netherlands	265,154	259,842	-2.00%	323,433	317,338	-1.88%	298,307	293,696	-1.55%	-1.81%	-1.73%	-1.85%
Norway	194,695	194,882	0.10%	224,683	224,779	0.04%	225,171	225,588	0.19%	0.11%	-0.42%	-0.13%
Poland	345,395	344,583	-0.24%	486,046	485,075	-0.20%	407,991	407,021	-0.24%	-0.22%	-0.53%	-0.56%
Romania	371,688	370,841	-0.23%	527,281	527,898	0.12%	431,457	432,328	0.20%	0.05%	0.32%	0.00%
Portugal - Santa Maria	414,779	414,713	-0.02%	511,939	511,692	-0.05%	453,658	452,676	-0.22%	-0.09%	-0.10%	-0.17%
Serbia & Montenegro	168,343	168,633	0.17%	304,265	302,317	-0.64%	246,409	246,060	-0.14%	-0.28%	-0.30%	-0.10%
Slovakia	92,525	92,750	0.24%	142,567	143,332	0.54%	110,131	110,699	0.52%	0.45%	-0.01%	0.01%
Slovenia	40,296	39,724	-1.42%	67,353	66,081	-1.89%	54,554	53,744	-1.49%	-1.64%	-1.72%	-0.78%
Spain - Continental	883,405	884,594	0.13%	1,113,866	1,115,170	0.12%	1,020,372	1,020,924	0.05%	0.10%	0.19%	0.12%
Sweden	300,987	298,499	-0.83%	338,628	334,984	-1.08%	334,263	331,729	-0.76%	-0.89%	-0.84%	-1.15%
Switzerland	135,148	131,203	-2.92%	183,080	176,024	-3.85%	162,586	156,546	-3.71%	-3.54%	-1.37%	-1.46%
Turkey	1,304,066	1,302,465	-0.12%	1,708,233	1,706,396	-0.11%	1,542,169	1,540,880	-0.08%	-0.10%	-0.04%	0.05%
United Kingdom	947,771	949,963	0.23%	1,187,451	1,189,671	0.19%	1,082,279	1,083,132	0.08%	0.16%	0.48%	0.45%
All zones	12,397,895	12,360,684	-0.30%	16,413,401	16,365,315	-0.29%	14,514,036	14,472,209	-0.29%	-0.29%	-0.31%	-0.29%

Total service units (Thousands)		STATFOR M2 FEBRUARY FORECAST					CRCO estimated adjustment factor M2 / M3	CRCO ESTIMATED M3 FORECAST				
		2020	2021	2022	2023	2024		2020	2021	2022	2023	2024
Albania	H	548	575	601	627	655	-1.98%	537	564	589	615	642
	B	528	544	563	580	598	-1.98%	518	533	552	569	586
	L	509	513	522	530	540	-1.98%	499	503	512	520	529
Armenia	H	286	310	336	362	391	-1.31%	282	306	332	357	386
	B	266	279	294	308	324	-1.31%	263	275	290	304	320
	L	247	252	258	264	270	-1.31%	244	249	255	261	266
Austria	H	3,619	3,751	3,862	3,969	4,079	-0.29%	3,609	3,740	3,851	3,958	4,067
	B	3,529	3,609	3,689	3,758	3,824	-0.29%	3,519	3,599	3,678	3,747	3,813
	L	3,435	3,438	3,467	3,487	3,512	-0.29%	3,425	3,428	3,457	3,477	3,502
Belgium / Luxembourg	H	2,913	3,005	3,092	3,174	3,259	-3.10%	2,823	2,912	2,996	3,076	3,158
	B	2,830	2,884	2,949	3,003	3,055	-3.10%	2,742	2,795	2,858	2,910	2,960
	L	2,739	2,742	2,764	2,783	2,805	-3.10%	2,654	2,657	2,678	2,697	2,718
Bosnia-Herzegovina	H	1,244	1,306	1,360	1,414	1,471	-0.24%	1,241	1,303	1,357	1,411	1,467
	B	1,197	1,235	1,272	1,306	1,341	-0.24%	1,194	1,232	1,269	1,303	1,338
	L	1,151	1,162	1,179	1,193	1,209	-0.24%	1,148	1,159	1,176	1,190	1,206
Bulgaria	H	4,532	4,738	4,940	5,154	5,389	-0.38%	4,515	4,720	4,921	5,134	5,369
	B	4,387	4,508	4,639	4,768	4,908	-0.38%	4,370	4,491	4,621	4,750	4,889
	L	4,242	4,267	4,328	4,387	4,454	-0.38%	4,226	4,251	4,312	4,370	4,437
Spain Canary Islands	H	2,106	2,204	2,292	2,380	2,474	0.11%	2,108	2,207	2,295	2,383	2,477
	B	2,058	2,113	2,169	2,220	2,274	0.11%	2,060	2,115	2,171	2,223	2,277
	L	2,007	2,016	2,036	2,052	2,071	0.11%	2,009	2,018	2,038	2,054	2,073
Croatia	H	2,208	2,301	2,392	2,487	2,590	-0.06%	2,207	2,300	2,390	2,485	2,588
	B	2,130	2,174	2,227	2,278	2,333	-0.06%	2,129	2,173	2,226	2,277	2,332
	L	2,052	2,044	2,057	2,070	2,086	-0.06%	2,051	2,043	2,056	2,069	2,085
Cyprus	H	2,203	2,351	2,493	2,645	2,811	-0.74%	2,187	2,334	2,474	2,625	2,790
	B	2,145	2,236	2,329	2,426	2,529	-0.74%	2,129	2,219	2,312	2,408	2,510
	L	2,090	2,127	2,179	2,233	2,291	-0.74%	2,074	2,111	2,163	2,216	2,274
Czech Republic	H	3,405	3,528	3,634	3,735	3,839	-1.09%	3,368	3,490	3,594	3,694	3,797
	B	3,312	3,382	3,456	3,519	3,582	-1.09%	3,276	3,345	3,418	3,481	3,543
	L	3,213	3,213	3,235	3,252	3,273	-1.09%	3,178	3,178	3,200	3,217	3,237
Denmark	H	1,813	1,864	1,917	1,964	2,009	-5.87%	1,707	1,755	1,805	1,849	1,891
	B	1,785	1,818	1,859	1,892	1,924	-5.87%	1,680	1,711	1,750	1,781	1,811
	L	1,751	1,757	1,773	1,787	1,802	-5.87%	1,648	1,654	1,669	1,682	1,696
Estonia	H	1,025	1,059	1,093	1,125	1,158	-0.32%	1,022	1,056	1,089	1,121	1,154
	B	1,006	1,021	1,042	1,059	1,076	-0.32%	1,003	1,018	1,039	1,056	1,073
	L	985	982	985	988	992	-0.32%	982	979	982	985	989
The Former Yugoslav Republic Of Macedonia	H	387	408	428	448	468	-3.87%	372	392	411	431	450
	B	375	387	400	412	425	-3.87%	360	372	385	396	409
	L	363	366	371	376	382	-3.87%	349	352	357	361	367

Finland	H	1,049	1,073	1,098	1,121	1,145	0.06%	1,050	1,074	1,099	1,122	1,146
	B	1,022	1,035	1,050	1,063	1,076	0.06%	1,023	1,036	1,051	1,064	1,077
	L	994	992	995	996	999	0.06%	995	993	996	997	1,000
France	H	23,241	24,038	24,682	25,268	25,875	0.25%	23,300	24,099	24,745	25,332	25,941
	B	22,884	23,336	23,825	24,216	24,580	0.25%	22,942	23,395	23,885	24,277	24,642
	L	22,472	22,477	22,634	22,737	22,868	0.25%	22,529	22,534	22,691	22,795	22,926
Georgia	H	905	975	1,041	1,112	1,188	-0.12%	904	974	1,040	1,111	1,187
	B	875	919	963	1,009	1,056	-0.12%	874	918	962	1,008	1,055
	L	848	870	896	924	952	-0.12%	847	869	895	923	951
Germany	H	16,285	16,814	17,306	17,776	18,273	0.12%	16,304	16,834	17,327	17,797	18,295
	B	16,044	16,369	16,738	17,057	17,378	0.12%	16,063	16,388	16,758	17,077	17,399
	L	15,761	15,790	15,935	16,053	16,197	0.12%	15,780	15,809	15,954	16,072	16,216
Greece	H	6,269	6,579	6,875	7,178	7,506	0.01%	6,269	6,579	6,875	7,178	7,506
	B	6,046	6,228	6,427	6,620	6,824	0.01%	6,046	6,228	6,427	6,620	6,824
	L	5,828	5,882	5,978	6,072	6,176	0.01%	5,828	5,882	5,978	6,072	6,176
Hungary	H	3,640	3,796	3,939	4,080	4,223	-1.22%	3,596	3,750	3,891	4,030	4,172
	B	3,511	3,599	3,695	3,783	3,873	-1.22%	3,468	3,555	3,650	3,737	3,826
	L	3,378	3,388	3,424	3,458	3,497	-1.22%	3,337	3,347	3,382	3,416	3,454
Ireland	H	4,826	5,008	5,144	5,270	5,403	-0.68%	4,793	4,974	5,109	5,234	5,366
	B	4,724	4,826	4,926	5,009	5,092	-0.68%	4,692	4,793	4,893	4,975	5,057
	L	4,605	4,609	4,636	4,663	4,696	-0.68%	4,574	4,578	4,604	4,631	4,664
Italy	H	10,710	11,151	11,538	11,920	12,326	0.17%	10,729	11,170	11,558	11,941	12,347
	B	10,417	10,657	10,912	11,146	11,391	0.17%	10,435	10,675	10,931	11,165	11,411
	L	10,113	10,132	10,222	10,295	10,390	0.17%	10,131	10,150	10,240	10,313	10,408
Latvia *	H	1,006	1,042	1,076	1,110	1,144	-0.69%	999	1,035	1,069	1,102	1,136
	B	986	1,000	1,020	1,037	1,053	-0.69%	979	993	1,013	1,029	1,046
	L	965	958	961	963	967	-0.69%	958	952	954	957	960
Portugal Lisbon	H	4,189	4,363	4,510	4,651	4,801	-0.63%	4,163	4,336	4,482	4,622	4,771
	B	4,108	4,194	4,280	4,354	4,430	-0.63%	4,082	4,168	4,253	4,327	4,402
	L	4,020	4,010	4,022	4,027	4,038	-0.63%	3,995	3,985	3,997	4,002	4,013
Lithuania *	H	701	726	749	771	794	0.32%	703	728	752	774	797
	B	679	689	702	713	723	0.32%	682	692	704	715	726
	L	659	654	655	655	656	0.32%	661	656	657	657	658
Malta	H	1,088	1,152	1,218	1,288	1,365	-2.84%	1,057	1,119	1,183	1,251	1,326
	B	1,031	1,068	1,109	1,151	1,199	-2.84%	1,002	1,038	1,078	1,118	1,165
	L	977	991	1,012	1,035	1,061	-2.84%	949	963	983	1,006	1,031
Moldova	H	111	120	128	137	146	1.47%	113	122	130	139	148
	B	100	105	109	113	117	1.47%	101	107	111	115	119
	L	90	91	92	93	94	1.47%	91	92	93	94	95
Netherlands	H	3,638	3,725	3,811	3,886	3,961	-1.81%	3,572	3,658	3,742	3,816	3,889
	B	3,570	3,618	3,680	3,727	3,773	-1.81%	3,506	3,553	3,614	3,660	3,705
	L	3,482	3,474	3,490	3,502	3,516	-1.81%	3,419	3,411	3,427	3,439	3,452
Norway	H	2,616	2,664	2,716	2,767	2,815	0.11%	2,619	2,667	2,719	2,770	2,818
	B	2,557	2,570	2,593	2,615	2,643	0.11%	2,560	2,573	2,596	2,618	2,646
	L	2,494	2,467	2,456	2,445	2,442	0.11%	2,497	2,470	2,459	2,448	2,445

Poland	H	5,274	5,470	5,653	5,831	6,014	-0.22%	5,262	5,458	5,640	5,818	6,001
	B	5,134	5,237	5,361	5,466	5,571	-0.22%	5,123	5,225	5,349	5,454	5,559
	L	4,990	4,985	5,014	5,048	5,088	-0.22%	4,979	4,974	5,003	5,037	5,077
Romania	H	5,783	6,064	6,334	6,608	6,899	0.05%	5,786	6,067	6,337	6,611	6,902
	B	5,590	5,766	5,954	6,131	6,315	0.05%	5,593	5,769	5,957	6,134	6,318
	L	5,396	5,457	5,549	5,638	5,736	0.05%	5,399	5,460	5,552	5,641	5,739
Portugal Santa Maria	H	6,066	6,301	6,534	6,767	7,018	-0.09%	6,060	6,295	6,528	6,761	7,011
	B	5,928	6,066	6,225	6,371	6,518	-0.09%	5,922	6,060	6,219	6,365	6,512
	L	5,787	5,824	5,890	5,950	6,021	-0.09%	5,782	5,819	5,884	5,944	6,015
Serbia & Montenegro	H	2,880	3,015	3,134	3,255	3,385	-0.28%	2,872	3,007	3,125	3,246	3,376
	B	2,806	2,887	2,969	3,047	3,128	-0.28%	2,798	2,879	2,961	3,038	3,119
	L	2,733	2,750	2,788	2,821	2,859	-0.28%	2,725	2,742	2,780	2,813	2,851
Slovakia	H	1,489	1,556	1,622	1,688	1,755	0.45%	1,496	1,563	1,629	1,696	1,763
	B	1,445	1,484	1,528	1,570	1,613	0.45%	1,452	1,491	1,535	1,577	1,620
	L	1,401	1,408	1,426	1,444	1,465	0.45%	1,407	1,414	1,432	1,451	1,472
Slovenia	H	661	687	711	734	759	-1.64%	650	676	699	722	747
	B	640	653	668	681	695	-1.64%	630	642	657	670	684
	L	618	617	621	623	627	-1.64%	608	607	611	613	617
Spain Continental	H	12,415	12,924	13,347	13,742	14,161	0.10%	12,428	12,937	13,360	13,756	14,175
	B	12,160	12,423	12,696	12,924	13,153	0.10%	12,172	12,436	12,709	12,937	13,166
	L	11,883	11,877	11,951	12,004	12,066	0.10%	11,895	11,889	11,963	12,016	12,078
Sweden	H	4,242	4,361	4,475	4,579	4,675	-0.89%	4,204	4,322	4,435	4,538	4,633
	B	4,088	4,154	4,228	4,291	4,350	-0.89%	4,052	4,117	4,190	4,253	4,311
	L	3,924	3,917	3,939	3,951	3,967	-0.89%	3,889	3,882	3,904	3,916	3,932
Switzerland	H	1,921	1,985	2,038	2,086	2,138	-3.54%	1,853	1,915	1,966	2,012	2,062
	B	1,867	1,903	1,940	1,971	2,002	-3.54%	1,801	1,836	1,871	1,901	1,931
	L	1,811	1,809	1,821	1,827	1,837	-3.54%	1,747	1,745	1,756	1,762	1,772
Turkey	H	19,759	20,958	22,033	23,129	24,350	-0.10%	19,738	20,936	22,010	23,105	24,325
	B	19,206	20,040	20,794	21,522	22,330	-0.10%	19,186	20,019	20,772	21,500	22,307
	L	18,668	19,063	19,575	20,015	20,487	-0.10%	18,649	19,043	19,555	19,994	20,466
UK	H	12,824	13,231	13,610	13,943	14,275	0.16%	12,845	13,253	13,632	13,966	14,298
	B	12,648	12,891	13,183	13,406	13,615	0.16%	12,669	12,912	13,205	13,428	13,637
	L	12,418	12,445	12,551	12,633	12,721	0.16%	12,438	12,465	12,572	12,654	12,742
Total	H	179,877	187,178	193,763	200,181	206,987	-0.29%	179,341	186,622	193,188	199,589	206,376
	B	175,614	179,907	184,463	188,521	192,691	-0.29%	175,094	179,376	183,918	187,965	192,123
	L	171,098	171,816	173,687	175,274	177,110	-0.29%	170,595	171,311	173,176	174,760	176,591

\* As from 1 January 2020, as agreed by Latvia and Lithuania, the Latvian and Lithuanian charging zones will coincide with the Vilnius and Riga FIR respectively. The service unit forecast here above take account of the modification of the two charging zones effective on 1 January 2020.

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