



Network Manager
nominated by
the European Commission



Monthly Network Operations Report

Analysis – February 2019



TABLE OF CONTENTS

TABLE OF CONTENTS	2
NOTICE	2
1. TOTAL TRAFFIC	3
2. ATFM DELAY AND ATTRIBUTIONS	6
3. EN-ROUTE ATFM DELAYS	7
En-Route ATFM Delay per Location	7
En-Route ATFM Delay per Delay Group	8
En-Route ATFM Delay per Flight	9
En-Route ATFM Delay Year-To-Date	10
4. AIRPORT/TMA ATFM DELAYS	11
Airport/TMA ATFM Delay per Location	11
Airport/TMA ATFM Delay per Delay Groups	11
Airport/TMA ATFM Delay per Flight	12
Airport/TMA ATFM Delay Year-To-Date	12
5. DAILY EVOLUTION	12
6. ALL AIR TRANSPORT DELAYS (SOURCE: CODA)	13
7. ATFM SLOT ADHERENCE	14
8. SIGNIFICANT EVENTS AND ISSUES	14
Planned Events	14
ACC	14
Airports	15
Disruptions	15
9. NM ADDED VALUE	16

NOTICE

Traffic and Delay Comparisons

All traffic and delay comparisons are between report month and equivalent month of previous year, unless otherwise stated.

Graphics















All graphs in sections 2, 3 and 4 are in average minutes of ATFM delay per day, unless otherwise stated.

NM Area

All figures presented in this report are for the geographical area that is within Network Manager's responsibility (NM area). For further information on the NM Area go to the Reporting Assumptions and Descriptions document available on the EUROCONTROL website at <http://www.eurocontrol.int/articles/network-operations-monitoring-and-reporting>.

Regulation Reason Groupings

The table below shows the colour coding used in the report charts.

	EN-ROUTE CAPACITY (ATC)		AIRPORT CAPACITY (ATC)
	EN-ROUTE STAFFING (ATC)		AIRPORT STAFFING (ATC)
	EN-ROUTE DISRUPTIONS (ATC)		AIRPORT DISRUPTIONS (ATC)
	EN-ROUTE CAPACITY		AIRPORT CAPACITY
	EN-ROUTE DISRUPTIONS		AIRPORT DISRUPTIONS
	EN-ROUTE EVENTS		AIRPORT EVENTS
	EN-ROUTE WEATHER		AIRPORT WEATHER

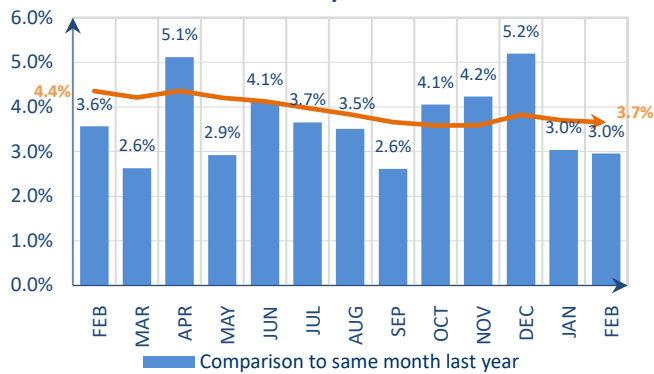
For further information on the regulation reason groupings, go to the Reporting Assumptions and Descriptions document available on the EUROCONTROL website at <http://www.eurocontrol.int/articles/network-operations-monitoring-and-reporting>.

ATFM Statistics dashboard

More detailed information available via the new [ATFM Statistics dashboard](#).

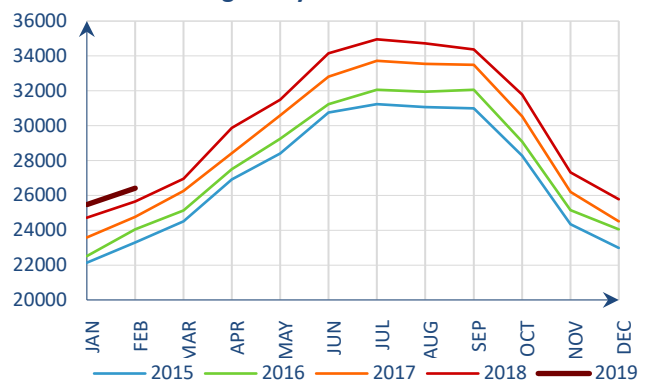
1. TOTAL TRAFFIC

Monthly traffic trend



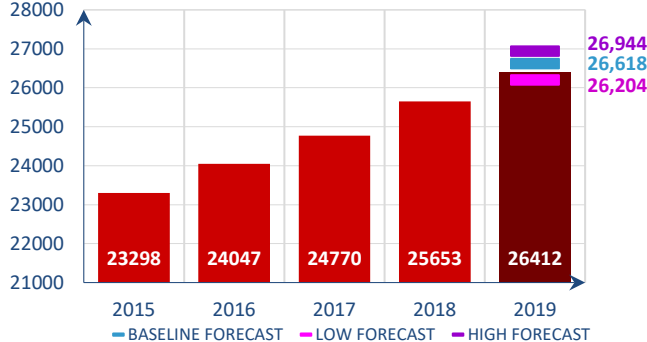
Traffic increased by 3.0% in February 2019ⁱ.

Average daily traffic for last 5 Years



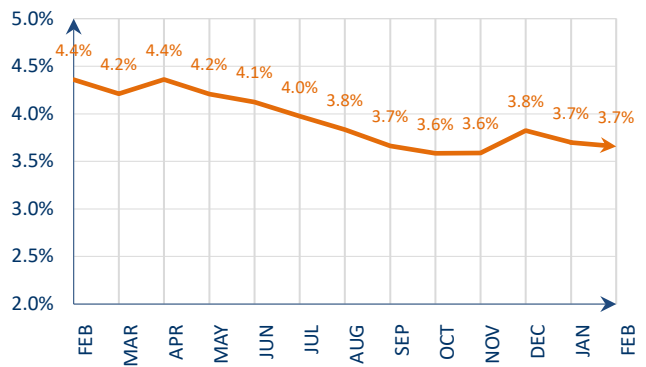
Average daily traffic in February 2019 was 26,416, the highest ever recorded for February.

Average daily traffic in June for last 5 Years
Forecast dated 2019-02



The traffic increase of 3.0% for February was above the low forecast published in February 2019.

12 months rolling traffic trend



This graph shows the variation in average daily traffic for the last 12-month period relative to the previous 12-months. The average daily traffic from March 2018 to February 2019 was 3.7% higher than the average from March 2017 to February 2018.

Seven states added more than 50 flights per day to the European localⁱⁱ traffic growth. Germany was the top contributor and added 246 daily flights owing to its internal flow (+48 flights/day) and to its flows to and from Spain (+31 flights/day), Italy (+23 flights/day), Turkey (+17 flights/day), Switzerland (+16 flights/day) and Austria (+15 flights/day). Spain (excl. Canary Islands) ranked second and added 199 daily flights thanks to its dynamic internal flow (+45 flights/day) but also to its flows to and from Germany (+31 flights/day), Italy (+27 flights/day), Austria (+17 flights/day), UK (+15 flights/day) and Canary Islands (+11 flights/day). Italy ranked third and added 169 daily flights to the network thanks to its internal flow which grew 8.4% (+57 flights/day) and to its flows to and from Spain (+27 flights/day), Germany (+22 flights/day), Austria (+13 flights/day), UK (+10 flights/day). France came next and added 106 flights per day owing to its internal flow which contributed to 36 extra daily flights but also to its flows to and from North-Africa (+18 flights/day; Morocco, +11 and Tunisia, +7) and Germany (+13 flights/day). Austria was the fifth contributor and added 100 daily flights thanks to its flows to and from Spain (+17 flights/day), Germany (+16 flights/day) and Italy (+13 flights/day). UK came next and contributed of 61 daily flights due to its flows to and from Spain (+15 flights/day), Portugal (excl. Azores) (+13 flights/day), Italy and Ireland (+10 flights/day each). Poland was the seventh contributor and added 54 flights per day due to its flows to and from Ukraine (+12 flights/day), Germany (+10 flights/day) and UK (+6 flights/day). At the other end of the scale, Sweden saw 55 fewer flights per day owing mainly to its weak internal flow (-36 flights/day).

The low-cost segment continued to have the fastest growth and recorded an increase of 4.9% (+353 flights/day). The traditional scheduled segment remained stable and was up by 3% whereas the charter segment decelerated from a 5% growth rate in January to a 1.2% growth in February. The all-cargo and business aviation segments decreased by 5.7% and 3.3% respectively.

The top five external partners in average daily flights on flows in both directions were the United States (791 flights, up 1%), the Russian Federation (674 flights, up 5.3%), the United Arab Emirates (346 flights, up 4%), Egypt (256 flights, up 16.9%) and Qatar (206 flights, up 9.8%).

The airlines which added the most flights to the European network on a daily basis compared with February 2018 were Ryanair (+145 flights), easyJet UK (+116 flights), Lufthansa (+56 flights), LOT, Aeroflot and Alitalia (+40 flights each).

For more information on EUROCONTROL Statistics and Forecasts, go to <http://www.eurocontrol.int/statfor/sid>

Nine of the top ten airports had positive traffic growth. Overall, the largest traffic increases in February 2019 were at Berlin/Tegel, Vienna, Milano/Malpensa, Athens and Palma De Mallorca airports. The largest traffic decreases were at Ankara, Brussels, Stockholm/Arlanda, Berlin/Schoenefeld and Geneva airports. The increase of traffic in Berlin/Tegel airport is partially due to the opening of new routes. The traffic changes in Vienna, Berlin Tegel and Palma can be partly attributed to airline failures in 2017 creating opportunity for start-up carriers and existing competitors to increase frequencies. The traffic decrease at Brussels airport is partially due to the ATC industrial action on 13 February.

Nine of the top ten aircraft operators flew more compared to February 2018. The operators with the highest traffic growth were Binter Canarias, Bristow Norway, European Air Transport, Aeroflot and Air Baltic airlines. The highest traffic decreases were recorded by Aegean, Loganair, Royal Air Maroc, Brussels airlines and Flybe.

The traffic variation of Aeroflot follows an increase in fleet size and introduction of new routes. LOT Polish Airlines also saw additional flights with 787-9's and Embraer 190 aircraft join their fleet. Air Baltic introduced more A220's aircraft to its fleet. Binter Canarias' 31% increase in flights was attributed to new aircraft deliveries.

N°	ADEP	ADEP NAME	201902	%	N°	ICAO	AIR OPERATOR	201902	%
1	EDDF	FRANKFURT MAIN	658	4,7%	1	RYR	RYANAIR	1857	8,7%
2	EHAM	AMSTERDAM/SCHIPHOL	644	0,5%	2	DLH	DEUTSCHE LUFTHANSA	1427	4,1%
3	EGLL	LONDON/HEATHROW	631	0,2%	3	EZY	EASYJET	1340	9,5%
4	LFPG	PARIS CH DE GAULLE	628	4,4%	4	THY	TURKISH AIRLINES	1260	0,7%
5	LTBA	ISTANBUL-ATATURK	585	-0,9%	5	AFR	AIR FRANCE	832	3,4%
6	LEMD	ADOLFO SUAREZ MADRID-BARAJA	539	3,7%	6	SAS	SCANDINAVIAN AIRLINES SYSTEM	783	-0,3%
7	EDDM	MUENCHEN	534	2,2%	7	BAW	BRITISH AIRWAYS	667	1,6%
8	LEBL	BARCELONA/EL PRAT	405	6,4%	8	KLM	KLM ROYAL DUTCH AIRL	635	1,7%
9	LIRF	ROMA/FIUMICINO	384	8,6%	9	EWG	EUROWINGS AG	595	2,2%
10	EGKK	LONDON/GATWICK	356	4,1%	10	AZA	ALITALIA	505	8,6%
11	LSZH	ZURICH	341	3,2%	11	VLG	VUELING AIRLINES SA	468	5,7%
12	EKCH	KOBENHAVN/KASTRUP	337	0,5%	12	PGT	PEGASUS HAVA TASI.	433	0,5%
13	ENGM	OSLO/GARDERMOEN	333	0,1%	13	WZZ	WIZZ AIR	433	0,2%
14	LOWW	WIEN SCHWECHAT	326	13,9%	14	SWR	SWISS INTERNATIONAL	375	3,9%
15	ESSA	STOCKHOLM-ARLANDA	309	-2,6%	15	BEE	JERSEY EUROPEAN T/A FLYBE	369	-4,6%
16	LTFJ	ISTANBUL/SABIHA GOKCEN	292	1,7%	16	FIN	FINNAIR O/Y	353	5,9%
17	EDDL	DUESSELDORF	285	8,9%	17	LOT	LOT-POLISH AIRLINES	345	13,2%
18	EIDW	DUBLIN	285	7,2%	18	NAX	NORWEGIAN AIR SHUTTLE	329	3,1%
19	LFPO	PARIS ORLY	277	-0,1%	19	TAP	TAP/AIR PORTUGAL	324	-2,2%
20	EBBR	BRUSSELS NATIONAL	270	-5,6%	20	AFL	AEROFLOT-RUSSIAN	323	14,1%
21	LPPT	LISBOA	264	0,4%	21	AUA	AUSTRIAN AIRLINES	314	4,5%
22	EFHK	HELSINKI-VANTAA	260	3,5%	22	WIF	WIDEROE	311	-2,4%
23	EDDT	BERLIN-TEGEL	260	21,2%	23	AEA	AIR EUROPA	257	10,0%
24	LSGG	GENEVA	256	-1,0%	24	IBE	IBERIA	247	5,2%
25	LIMC	MILANO MALPENSA	250	11,8%	25	QTR	QATAR AIRWAYS COMP.	245	6,8%
26	EGSS	LONDON/STANSTED	246	6,0%	26	IBK	NORWEGIAN AIR INTERNATIONAL	237	4,6%
27	EPWA	CHOPINA W WARSZAWIE	244	7,5%	27	HOP	HOP (MERGE OF BZH + RAE + RLA)	207	0,2%
28	EGCC	MANCHESTER	236	1,7%	28	ANE	AIR NOSTRUM	204	1,2%
29	LGAV	ATHINA/ELEFTERIOS VENIZELOS	217	10,0%	29	UAE	EMIRATES	200	5,4%
30	EDDH	HAMBURG	186	3,8%	30	BEL	BRUSSELS AIRLINES	191	-4,7%
31	GCLP	GRAN CANARIA	181	-1,0%	31	EIN	AER LINGUS TEORANTA	186	11,9%
32	LLBG	TEL AVIV/BEN GURION	175	4,6%	32	BCS	EUROPEAN AIR TRANSP.	185	15,3%
33	EGGW	LONDON/LUTON	173	6,0%	33	RAM	ROYAL AIR MAROC	176	-5,3%
34	EDDK	KOELN-BONN	166	2,0%	34	AUI	UKRAINE INTERNATIONAL	140	-3,4%
35	LKPR	PRAHA RUZYNE	163	-0,9%	35	EZS	EASY JET SWITZERLAND	138	8,2%
36	EDDS	STUTTGART	157	4,0%	36	BTI	AIR BALTIC CORPORAT.	137	13,2%
37	EGPH	EDINBURGH	156	4,2%	37	OAL	OLYMPIC	125	11,6%
38	LFL	LYON SAINT-EXUPERY	155	5,5%	38	CFE	CITYFLYER EXPRESS	122	11,9%
39	LROP	BUCURESTI/HENRI COANDA	151	5,1%	39	TRA	TRANSAVIA.COM	115	1,8%
40	LIML	MILANO LINATE	148	0,4%	40	EXS	JET2.COM	111	7,4%
41	LEPA	PALMA DE MALLORCA	141	10,0%	41	NJE	NETJETS	111	0,4%
42	LHBP	BUDAPEST LISZT FERENC INT.	141	4,9%	42	TOM	THOMSON FLY LTD	106	3,6%
43	LFMN	NICE-COTE D'AZUR	140	0,1%	43	UAL	UNITED AIRLINES INC.	105	3,7%
44	LEMG	MALAGA/COSTA DEL SOL	139	7,0%	44	LOG	LOGANAIR	104	-5,7%
45	LTAC	ANKARA-ESENBOGA	138	-19,0%	45	IBB	BINTER CANARIAS	101	22,4%
46	EGBB	BIRMINGHAM	132	1,2%	46	DAH	AIR ALGERIE	101	3,4%
47	LFBO	TOULOUSE BLAGNAC	128	0,7%	47	ROT	TAROM	99	6,8%
48	EDDB	SCHOENEFELD-BERLIN	125	-2,3%	48	IBS	IBERIA EXPRESS	96	8,1%
49	LFML	MARSEILLE PROVENCE	124	2,8%	49	BHL	BRISTOW NORWAY AS	93	17,6%
50	UKBB	KYIV/BORYSPIL	120	0,0%	50	AEE	AEGEAN AIRLINES	92	-6,3%
TOTALS and % TOTAL TRAFFIC			13791	58,9%	TOTALS and % TOTAL TRAFFIC			18509	70,1%

Top 50 Departure Airports with average daily traffic and percentage compared to same period of previous year

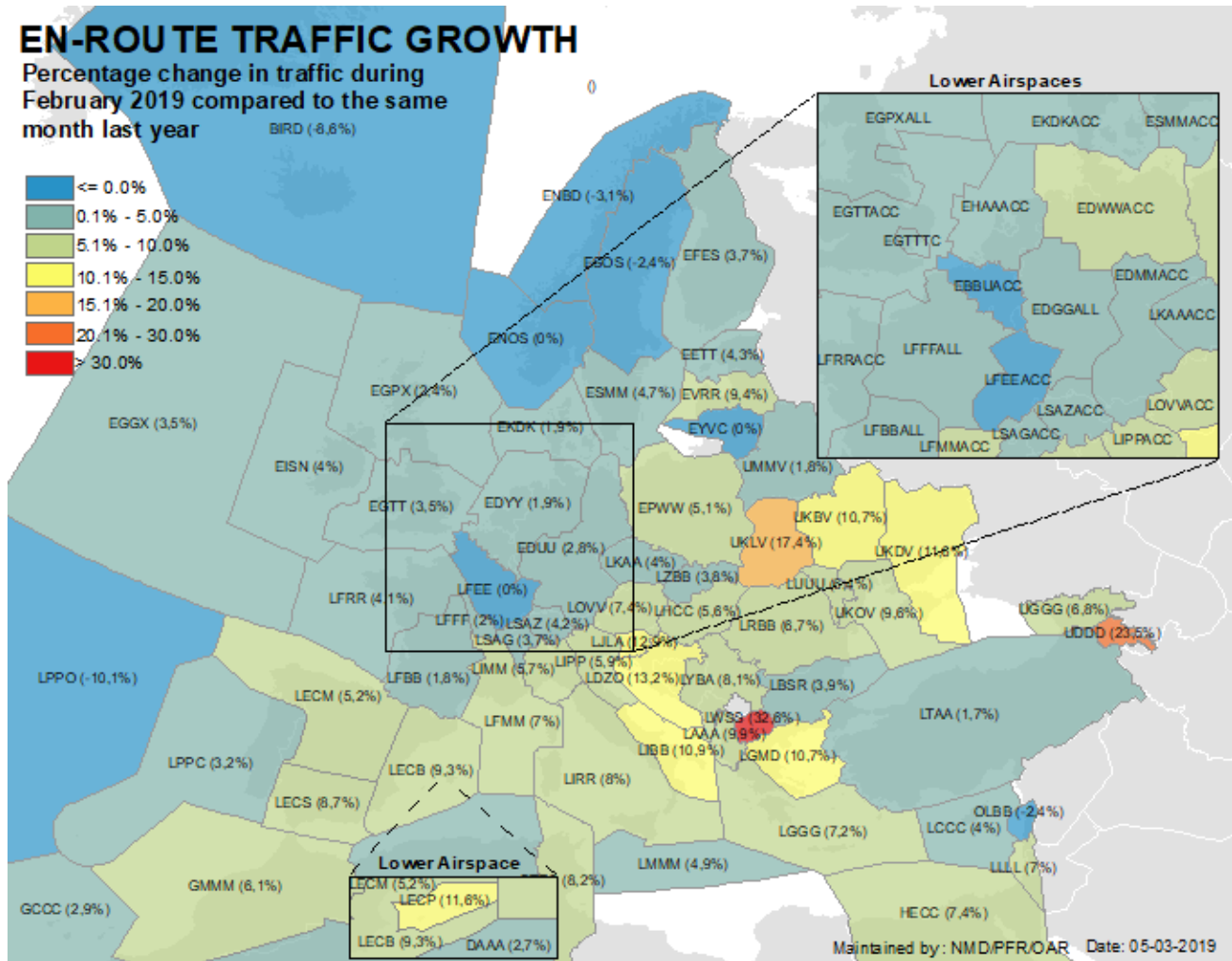
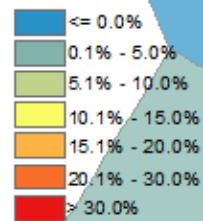
Top 50 Air Operators with average daily traffic and percentage compared to same period of previous year

N°	ICAO	AIR OPERATOR	201902	%
		Unidentified	1798	0,1%

Average daily traffic and percentage compared to same period of previous year for all flights where Air Operators can't be identified

EN-ROUTE TRAFFIC GROWTH

Percentage change in traffic during February 2019 compared to the same month last year



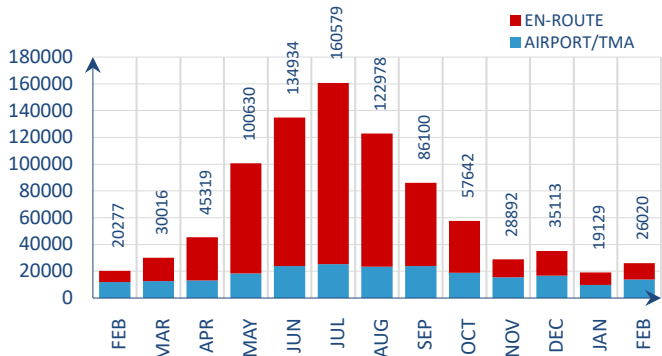
Maintained by: NMD/PFR/OAR Date: 05-03-2019

Nº	ASP ID	ASP NAME	201902	%	Nº	ASP ID	ASP NAME	201902	%
1	BIRDACC	REYKJAVIK ACC	318	-8,6%	39	LFBALL	BORDEAUX ALL ACC	2107	1,8%
2	DAAAACC	ALGERS ACC	460	2,7%	40	LFEACC	REIMS U/ACC	2395	0,0%
3	DTTCACC	TUNIS ACC	264	8,2%	41	LIFFALL	PARIS ALL ACC	3045	2,0%
4	EBBUACC	BRUSSELS CANAC	1500	-1,2%	42	LFMMACC	MARSEILLE ACC	2537	7,0%
5	EDGGALL	LANGEN ACC_FIR	3324	4,0%	43	LFMMAPP	MARSEILLE TMA	695	4,0%
6	EDMMACC	MUNCHEN ACC	2967	4,0%	44	LFRRACC	BREST U/ACC	2458	4,1%
7	EDUUUAC	KARLSRUHE UAC	4558	2,8%	45	LGGGACC	ATHINAI CONTROL	987	7,2%
8	EDWWACC	BREMEN ACC	1689	6,4%	46	LGMACC	MAKEDONIA CONTROL	779	10,7%
9	EDYYUAC	MAASTRICHT UAC	4619	1,9%	47	LHCCACC	BUDAPEST ACC	1797	5,6%
10	EETTACC	TALLIN ACC	528	4,4%	48	LIBBACC	BRINDISI ACC	639	10,9%
11	EFESACC	TAMPERE ACC	555	3,7%	49	LIMMACC	MILANO ACC	1977	5,7%
12	EGGXOCA	SHANWICK OACC	1154	3,5%	50	LIPPACC	PADOVA ACC	1475	5,9%
13	EGPXALL	SCOTTISH ACC	2435	2,4%	51	LIRRACC	ROMA ACC	1870	8,0%
14	EGTTACC	LONDON ACC	5071	3,5%	52	LJLAACC	LJUBLJANA ACC	639	12,9%
15	EGTTTC	LONDON TMA TC	3604	1,8%	53	LKAAACC	PRAGUE ACC	1920	4,0%
16	EHAACC	AMSTERDAM ACC(245-)	1498	0,1%	54	LLLLACC	TEL AVIV ACC	461	7,0%
17	EIDWACC	DUBLIN ACC	606	6,7%	55	LMMMACC	MALTA ACC	278	4,9%
18	EISNACC	SHANNON ACC	1049	4,0%	56	LOVVACC	WIEN ACC	1955	7,4%
19	EKDKACC	COPENHAGEN ACC	1460	1,9%	57	LPPCACC	LISBOA ACC/UAC	1503	3,2%
20	ENBDACC	BODO ACC	556	-3,1%	58	LPOOACC	SANTA MARIA OACC	374	-10,1%
21	ENOSACC	OSLO ATCC	936	0,0%	59	LQSBACC	BOSNIA-HERZEGOVINA	79	11,3%
22	ENSVACC	STAVANGER ATCC	588	2,8%	60	LRBBACC	BUCURESTI ACC	1619	6,7%
23	EPWWACC	WARSAWA ACC	1922	5,1%	61	LSAGACC	GENEVA ACC	1617	3,7%
24	ESMMACC	MALMO ACC	1448	4,7%	62	LSAZACC	ZURICH ACC	1929	4,2%
25	ESOSACC	STOCKHOLM ACC	1112	-2,4%	63	LTAAACC	ANKARA ACC	3292	1,7%
26	EVRRACC	RIGA ACC	688	9,4%	64	LTBBACC	ISTANBUL ACC	1893	0,8%
27	EYVCACC	VILNIUS ACC	577	0,0%	65	LUUUACC	CHISINAU ACC	100	6,4%
28	GCCCACC	CANARIAS ACC/FIC	1014	2,9%	66	LYSSACC	SKOPJE ACC	309	32,6%
29	GMMMACC	CASABLANCA ACC	1215	6,1%	67	LYBAACC	BEOGRADE ACC	1289	8,1%
30	HECCACC	CAIROACC	652	7,4%	68	LZBBACC	BRATISLAVA ACC	1121	3,8%
31	LAAAACC	TIRANA ACC	367	9,9%	69	OLBBACC	BEIRUT ACC	122	-2,4%
32	LBSRACC	SOFIA ACC	1751	3,9%	70	UDDACC	YEREVAN ACC	168	23,5%
33	LCCCACC	NICOSIA ACC	891	4,0%	71	UGGGACC	TBILISI ACC	378	6,8%
34	LDZOACC	ZAGREB ACC	1095	13,2%	72	UKBVACC	KIEV ACC	384	10,7%
35	LECBACC	BARCELONA ACC	1814	9,3%	73	UKDVACC	DNIPROPETROVSK ACC	48	11,6%
36	LECMALL	MADRID ALL ACC	2882	5,2%	74	UKLVACC	L'VIV ACC	310	17,4%
37	LECPACC	PALMA ACC	384	11,6%	75	UKOVACC	ODESSA ACC	216	9,6%
38	LECSACC	SEVILLA ACC	1000	8,7%	76	UMMVACC	MINSK ACC	689	1,8%

The Casablanca, Sevilla, Barcelona, Canarias, Lisbon and Madrid ACCs variation is due to increased traffic on the South/West axis. High growth figures in Bremen and Palma are most probably explained by the cessation of both Monarch and Air Berlin operations suppressing traffic levels which have since recovered. However, the highest relative traffic increases in February 2019 were in Skopje, Yerevan, L'viv, Zagreb and Ljubljana ACCs. Traffic increase in Ukraine is partially due to an increase in overflights.

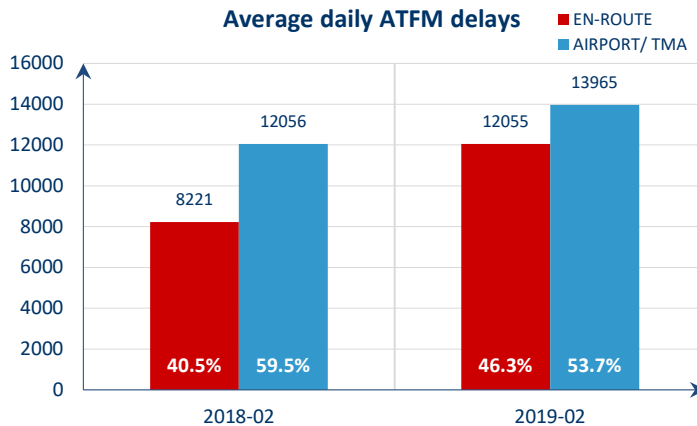
2. ATFM DELAY AND ATTRIBUTIONS

Average daily ATFM delays



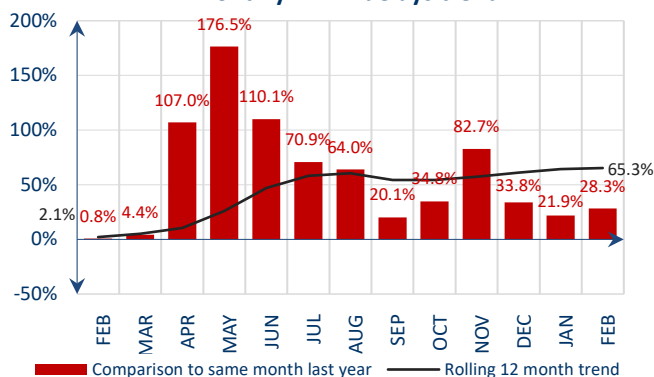
Total ATFM delays increased by 28.3% in February 2019.

Average daily ATFM delays



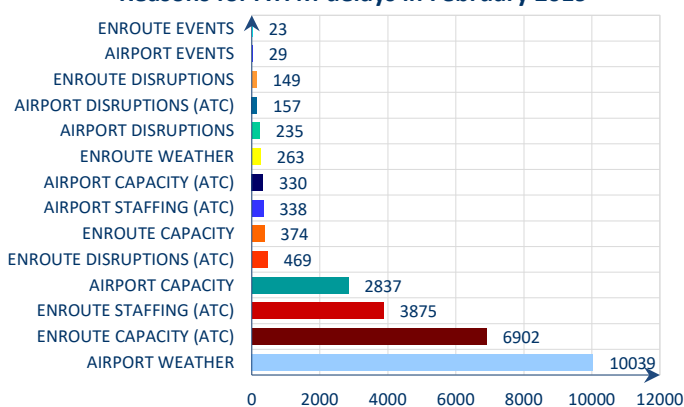
En-route ATFM delays increased by 46.6% and airport ATFM delays increased by 15.8%.

Monthly ATFM delays trend



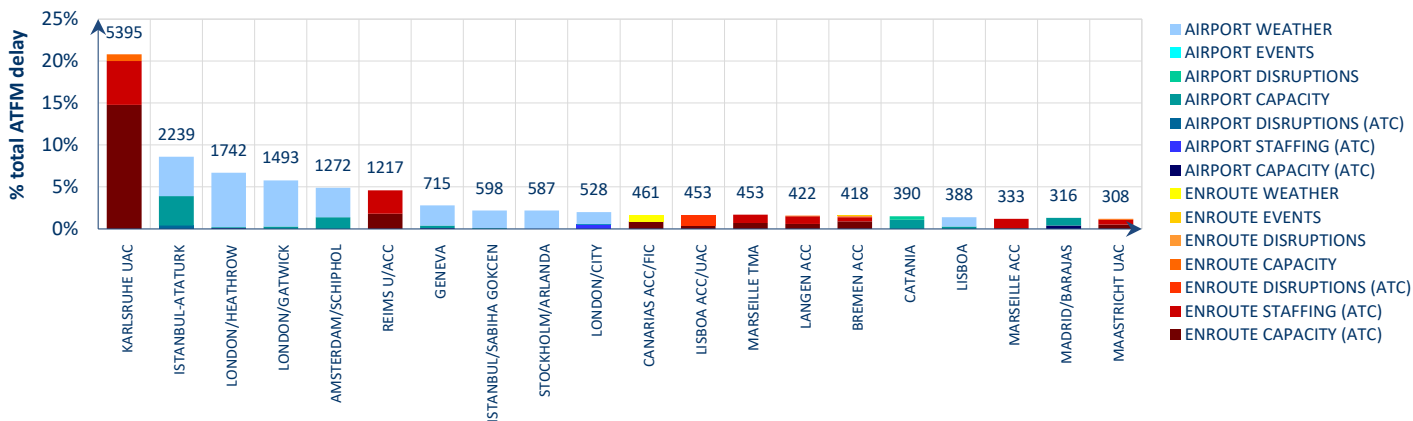
The rolling 12-month trend shows that ATFM delay was 65.3% higher during the period March 2018 – February 2019 compared to March 2017 – February 2018.

Reasons for ATFM delays in February 2019



Airport weather (38.6%), en-route ATC capacity (26.5%), en-route ATC staffing (14.9%) and airport capacity (10.9%) were the main causes of ATFM delays in February 2019.

Top 20 delay reference locations in February 2019

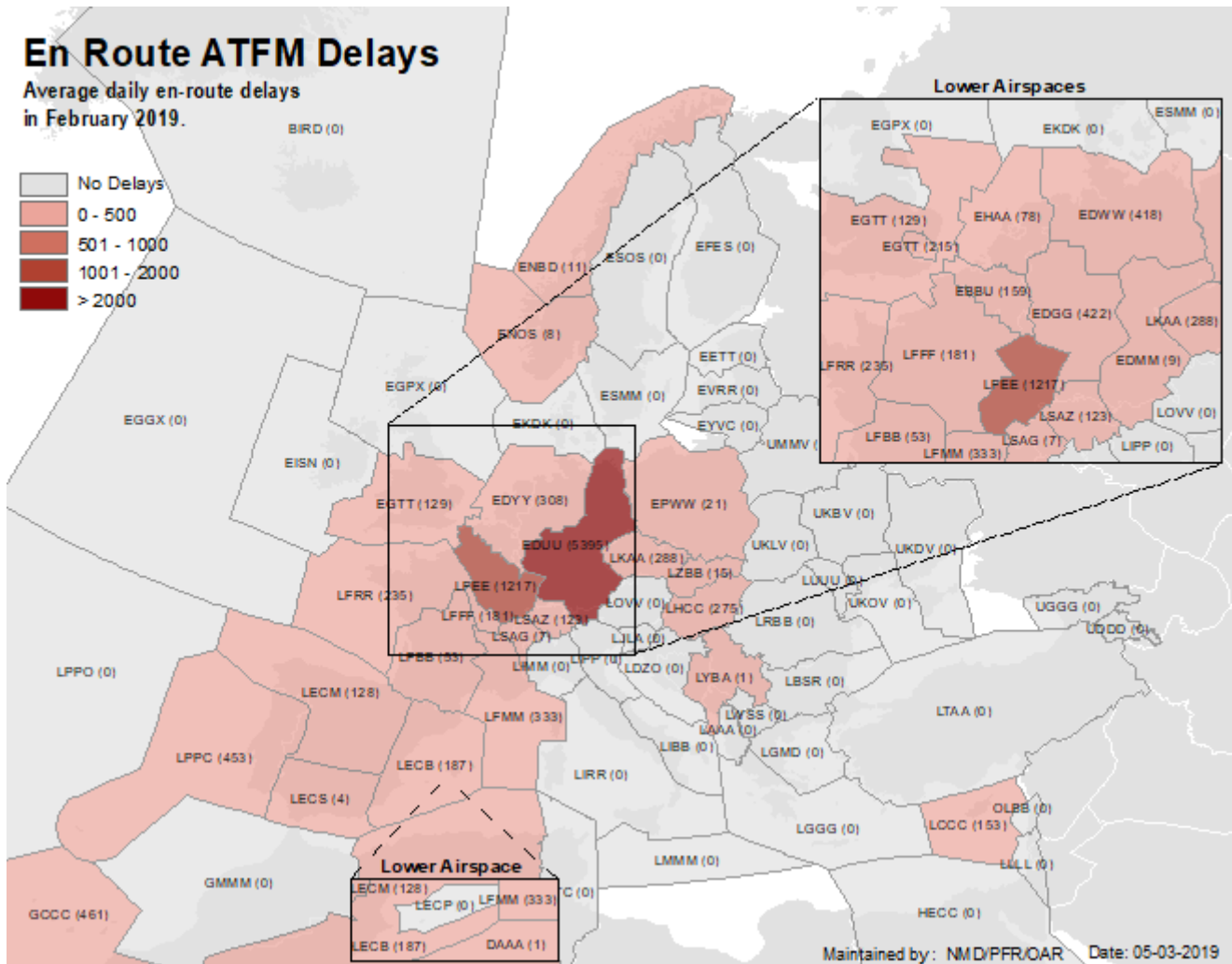


These are the top 20 delay generating locations for the reporting month with respect to total ATFM delays. Figures are the average daily delays in minutes for the individual locations.

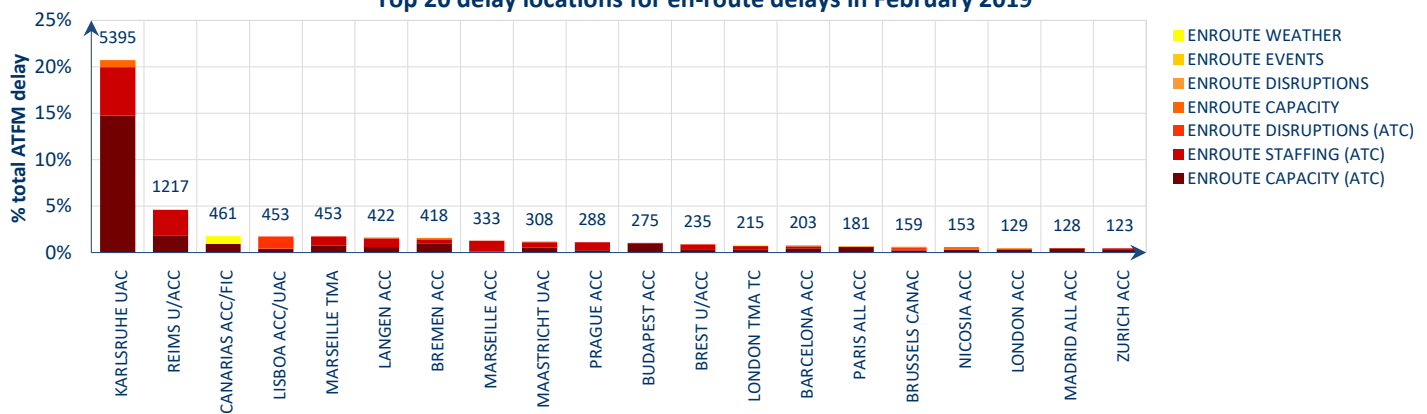
- High en-route capacity and staffing delays in Karlsruhe UAC;
- Low visibility and strong winds impacted operations at London/Heathrow, London/Gatwick, Istanbul/Atatürk and Amsterdam/Schiphol;
- Airport capacity issues at Istanbul/Atatürk airport.

3. EN-ROUTE ATFM DELAYS

EN-ROUTE ATFM DELAY PER LOCATION



Top 20 delay locations for en-route delays in February 2019



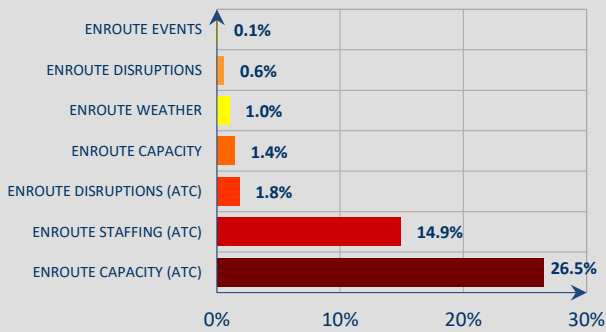
These are the top 20 en-route ATFM delay generating locations for the reporting month with respect to total ATFM delays. Figures are the average daily delays in minutes for the individual locations.

The top 20 en-route ATFM delay locations generated **44.4%** of the monthly total (network) ATFM delay. The top 5 en-route ATFM delay locations generated **30.7%** of the monthly total (network) ATFM delay.

More detailed information available in the Airspace dashboard via the [ATFM Statistics dashboard](#).

EN-ROUTE ATFM DELAY PER DELAY GROUP

Reasons for en-route delays in February 2019



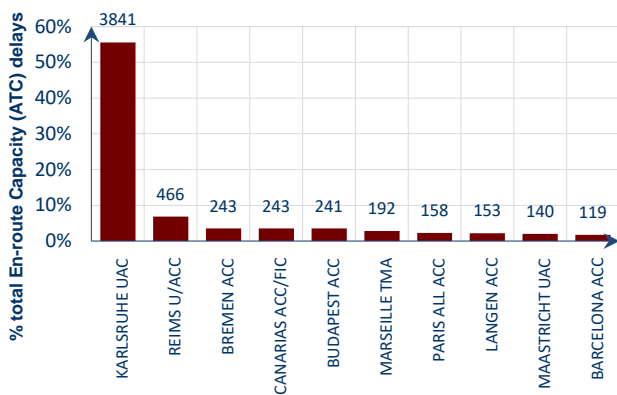
En-route ATFM delays accounted for 46.3% of all ATFM delays. Most of this delay was caused by en-route ATC capacity, en-route ATC staffing and en-route ATC disruptions as explained in detail below. The other causes were:

En-route capacity; Military activities in Karlsruhe and Nicosia ACCs;

En-route weather; Strong winds impacted operations in Canarias ACC on 16 and 23 February;

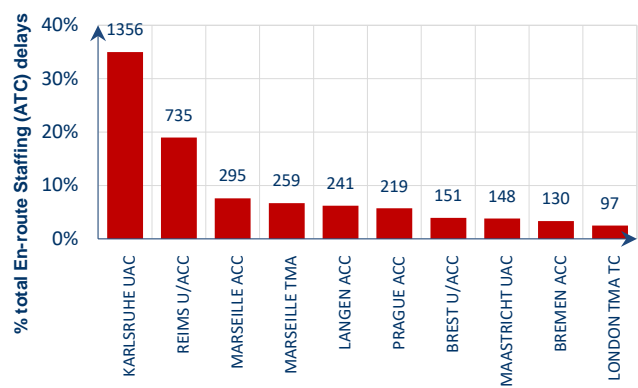
En-route disruptions; ATFM delay due to locally reported traffic onload in London ACC due to ATC industrial action in Belgium on 13 February.

Top en-route Capacity (ATC) delays in February 2019



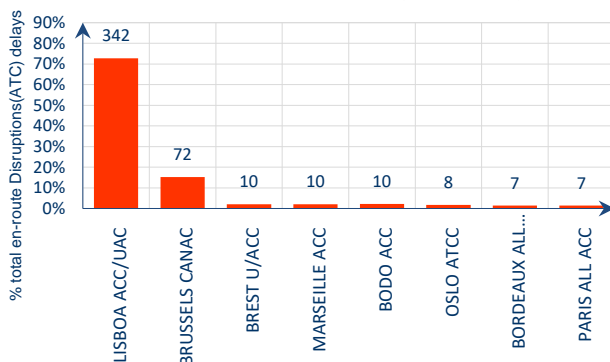
Karlsruhe UAC generated 55.6% of these delays throughout the month.

Top en-route Staffing (ATC) delays in February 2019



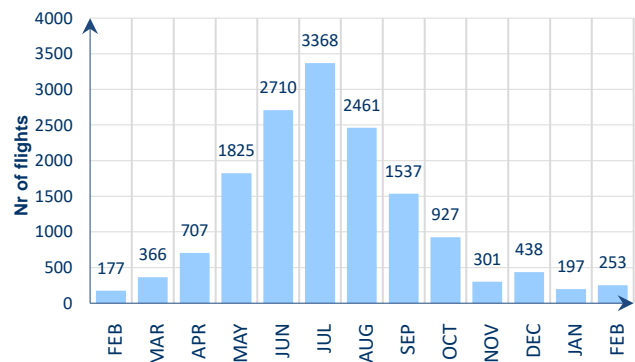
Karlsruhe UAC was the biggest generator of ATC staffing delays.

Top en-route Disruption (ATC) delays in February 2019



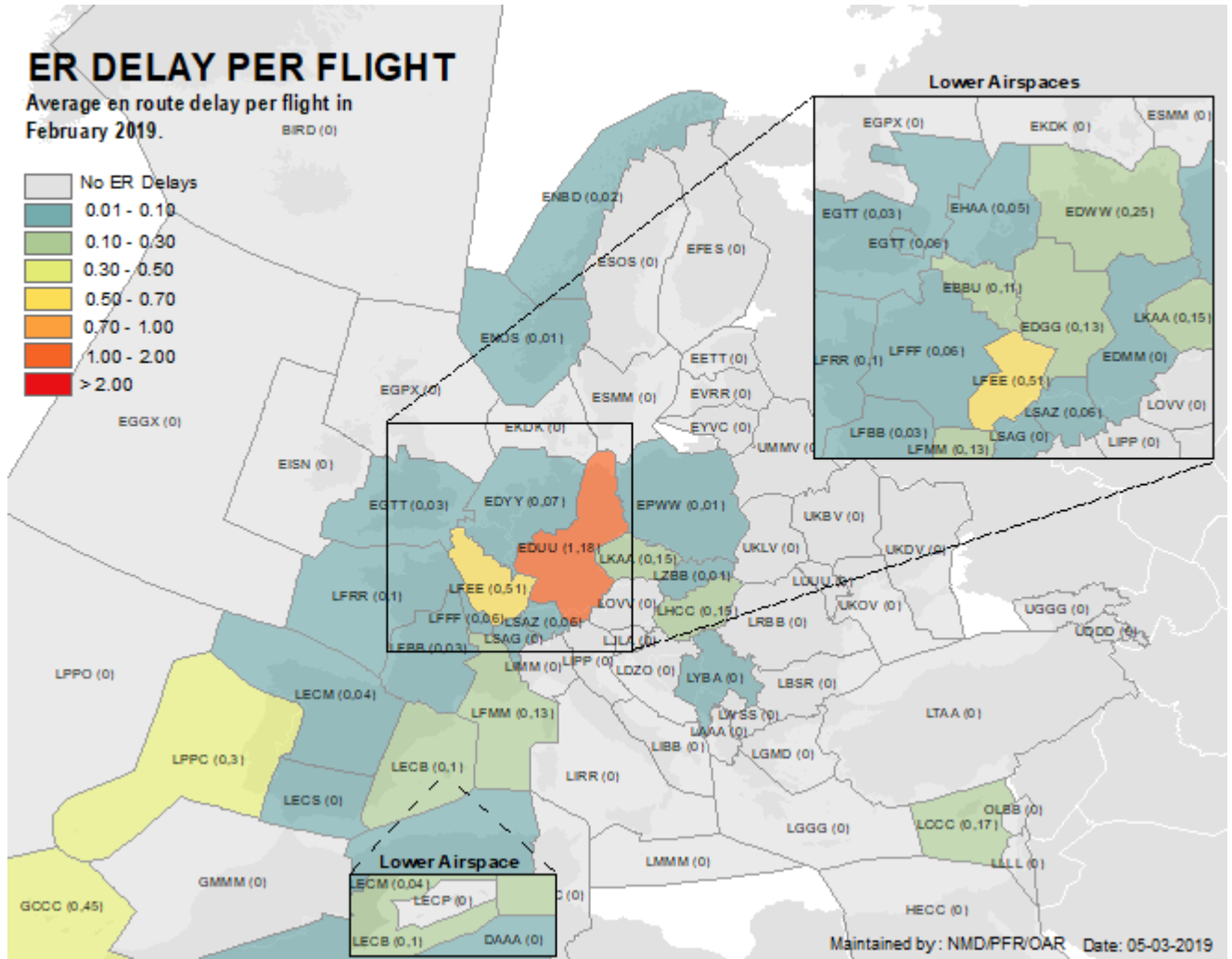
Radar maintenance and replacement in Lisbon ACC throughout the month generated 9,565 minutes of delay.

Average daily flights >= 15 min en-route delay

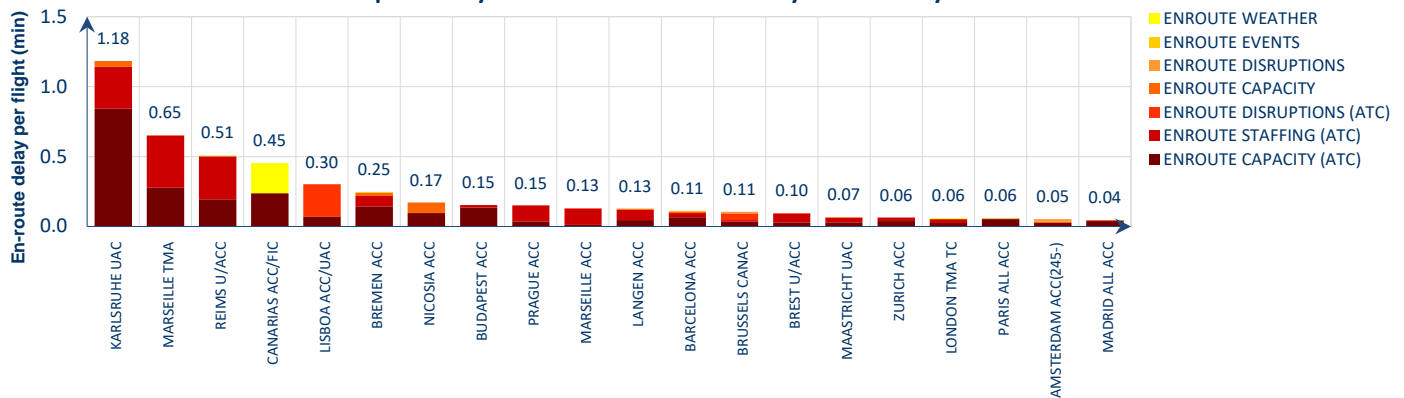


The average daily flights with an en-route ATFM delay of at least 15 minutes increased from 177 flights/day in February 2018 to 253 flights/day in February 2019, which represents 1.0% of all traffic.

EN-ROUTE ATFM DELAY PER FLIGHT



Top 20 delay locations for en-route delays in February 2019



These are the top 20 average en-route ATFM delay per flight generating locations for the reporting month. Figures are the average en-route ATFM delay per flight in minutes for the individual locations.

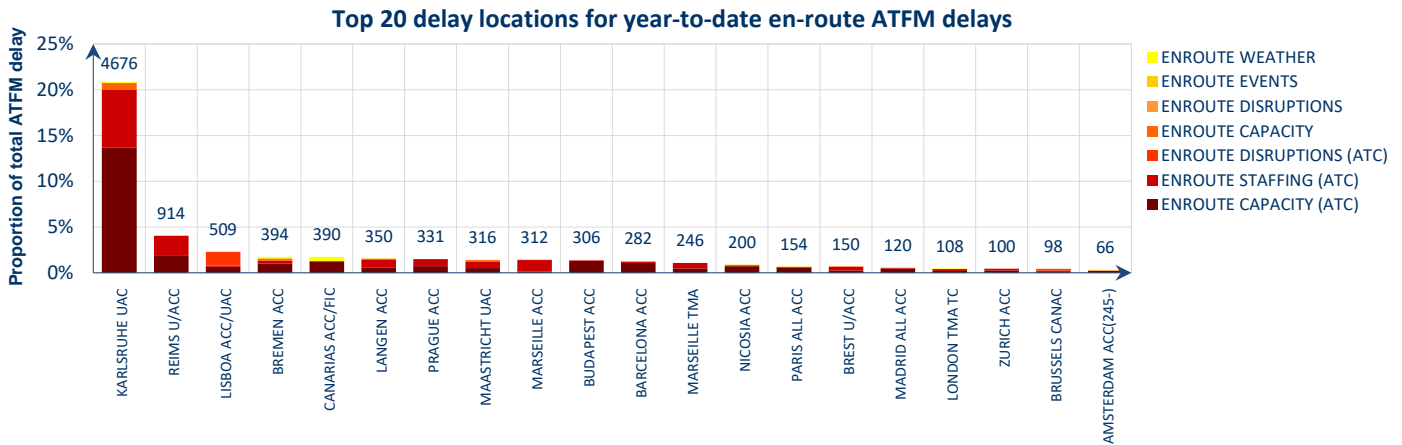
Karlsruhe UAC en-route ATFM delay/flight increased from 0.91 min/flight in January 2019 to 1.18 min/flight in February 2019 due to more ATC capacity issues.

Marseille TMA en-route ATFM delay/flight increased from 0.09 min/flight in January 2019 to 0.65 min/flight in February 2019 due to more ATC capacity and staffing issues;

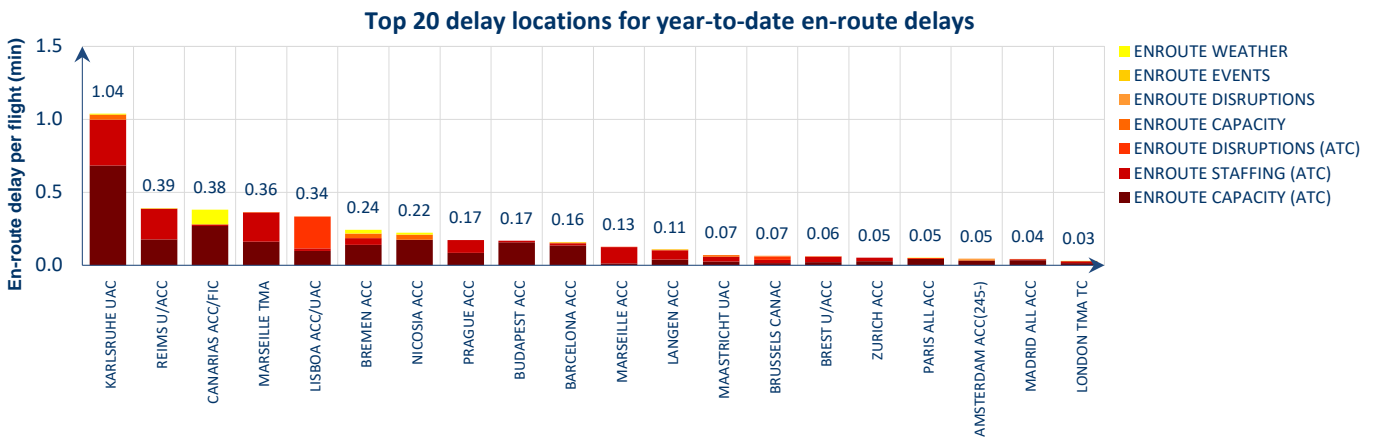
Reims ACC en-route ATFM delay/flight increased from 0.28 min/flight in January 2019 to 0.51 min/flight in February 2019 due to more ATC staffing issues;

Barcelona ACC en-route ATFM delay/flight decreased from 0.20 min/flight in January 2019 to 0.11 min/flight in February 2019, mainly due to fewer ATC capacity issues.

EN-ROUTE ATFM DELAY YEAR-TO-DATE



These are the top 20 en-route delay locations for 2019 with respect to the total ATFM delay. Figures are the average daily en-route delay in minutes for the individual locations.
 The top 20 en-route delay locations generated **44.8%** of the total ATFM (network) delay.
 The top 5 en-route delay locations generated **30.7%** of the total ATFM (network) delay.



These are the top 20 average en-route ATFM delay per flight generating locations in 2018. Figures are the average daily en-route delay in minutes for the individual locations.

Monthly en-route delay per flight monitoring

En-route delays per flight

Legend: MONTHLY GUIDELINE DLY/FLT (dashed blue), MONTHLY ENROUTE DLY/FLT (solid blue), YTD GUIDELINE DLY/FLT (dashed green), YTD ENROUTE DLY/FLT (solid green)

Year-to-date daily flights >= 15 min en-route delay

Average daily traffic

Legend: 2019 (pink line)

Reporting month: The average en-route ATFM delay per flight in the NM areaⁱⁱⁱ in February was 0.46 min/ft, which is above the corresponding monthly guideline^{iv} value of 0.14 min/ft.

Year To Date: The average YTD en-route ATFM delay per flight in 2019 in the NM areaⁱⁱⁱ is 0.41 min/ft which is well above the corresponding guideline value of 0.12 min/ft.

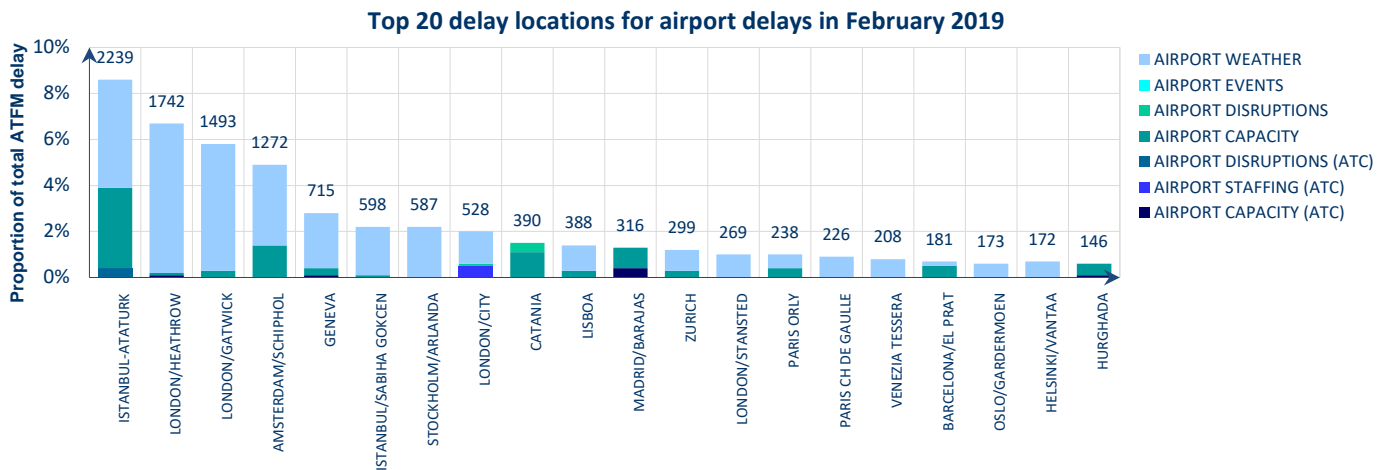
An average of 224 flights/day had an en-route ATFM delay of at least 15 minutes in 2019. The corresponding figure in 2018 was 130 flights/day.

The top 3 locations for flights with 15 minutes or more en-route ATFM delay (year-to-date) are:

- Karlsruhe UAC with 93 flights/day
- Reims ACC with 21 flights/day
- Marseille ACC with 15 flights/day

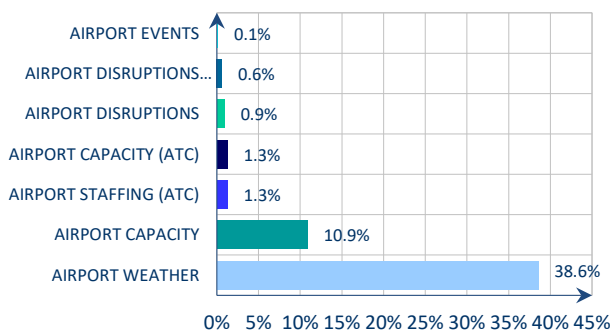
4. AIRPORT/TMA ATFM DELAYS

AIRPORT/TMA ATFM DELAY PER LOCATION

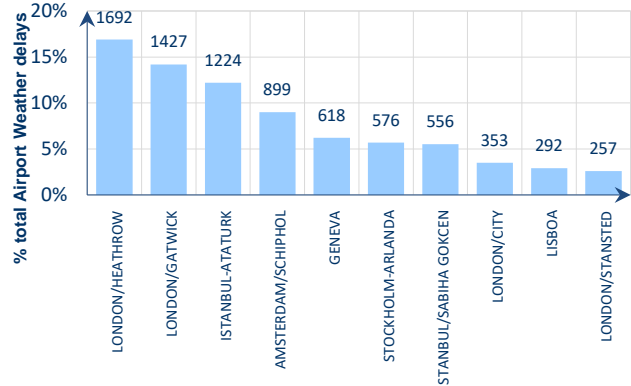


AIRPORT/TMA ATFM DELAY PER DELAY GROUPS

Reasons for airport delays in February 2019



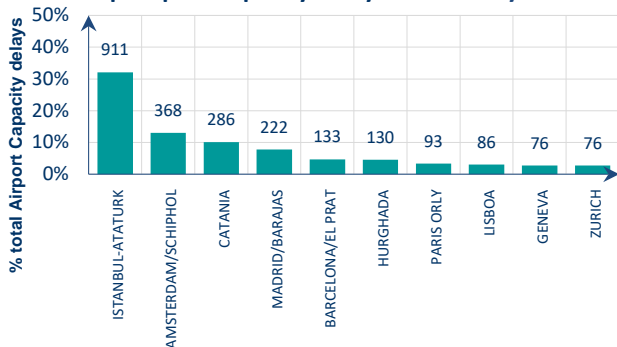
Top Airport Weather delays in February 2019



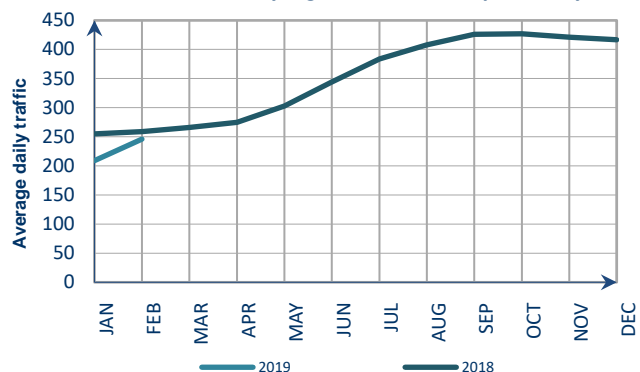
Airports accounted for 53.7% of all ATFM delays in February 2019, mainly due to airport weather and capacity.

Low visibility and strong winds impacted operations at London/Heathrow and London/Gatwick airports throughout the month. On 20 February, arrival and departures were regulated at Istanbul/Ataturk airport due to low visibility operations and resulted in 19,143 minutes of delay.

Top Airport Capacity delays in February 2019



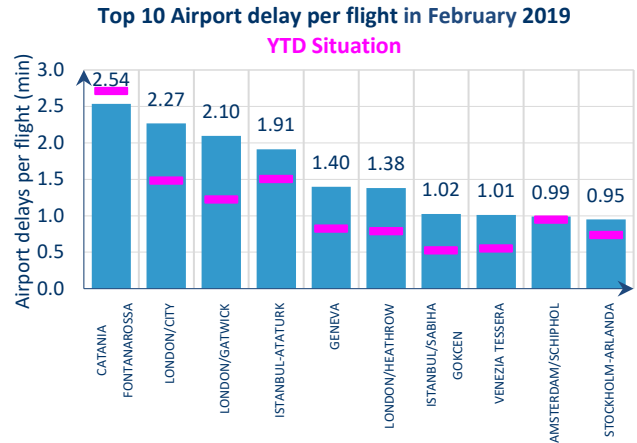
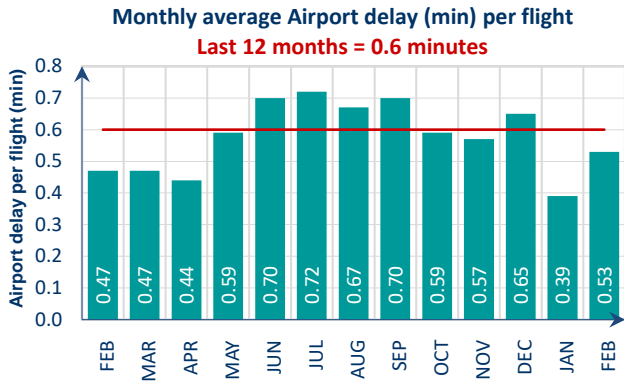
Year-to-date daily flights >= 15 min airport delay



Capacity issues at Istanbul/Ataturk airport generated a total of 25,498 minutes of ATFM delay throughout the month.

An average of 246 flights/day had an airport ATFM delay of at least 15 minutes. The corresponding figure in 2018 was 259 flights.

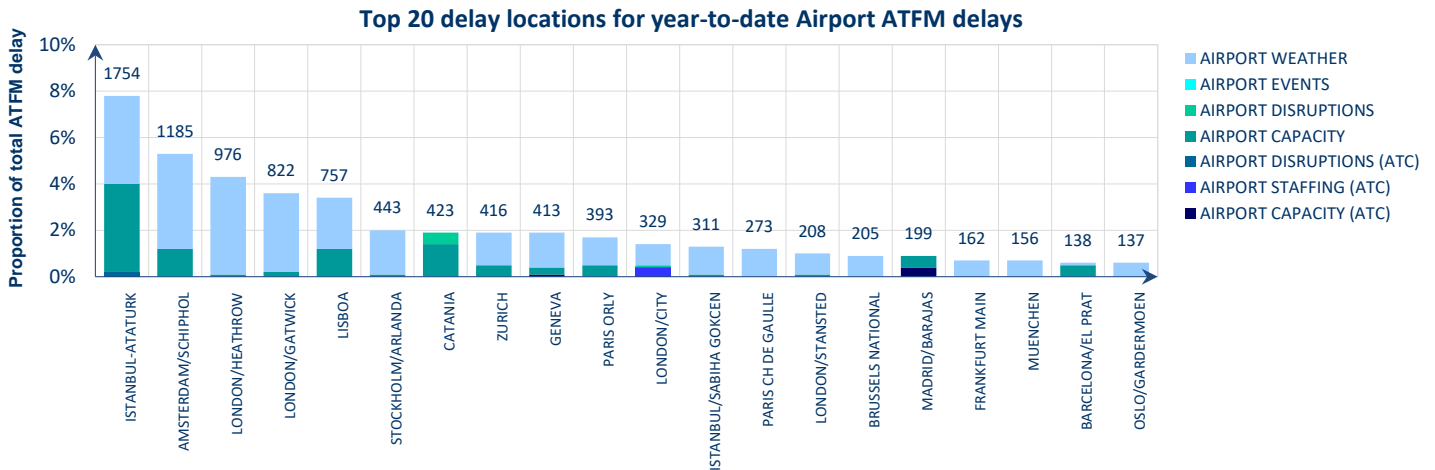
AIRPORT/TMA ATFM DELAY PER FLIGHT



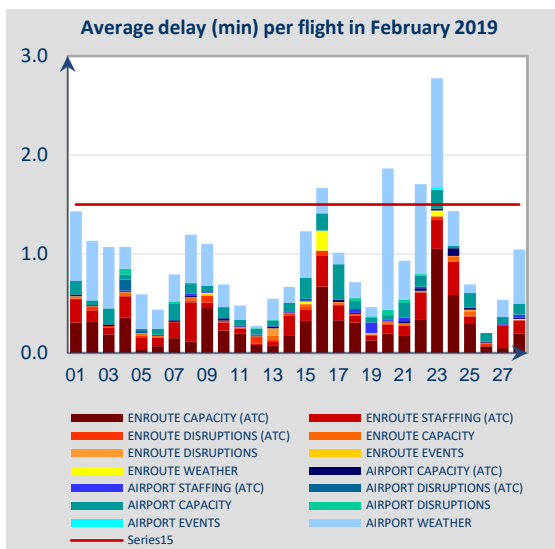
Average airport/TMA delay per flight increased from 0.47 min/flt in February 2018 to 0.53 min/flt in February 2019.

Catania airport had the highest delay per flight in February due to work in progress and volcanic activity of Mt Etna.

AIRPORT/TMA ATFM DELAY YEAR-TO-DATE



5. DAILY EVOLUTION



Four days in February 2019 had an average ATFM delay per flight exceeding 1.5 min:

16 February: High capacity delays in Karlsruhe UAC, and to a lesser extent in Reims, Paris and Marseille ACCs; Staffing issues in Reims, Karlsruhe and Paris ACCs; Low visibility impacted operations at London/Gatwick and London/Heathrow airports; Strong winds generated delays in Canarias ACC; Airport capacity issues at Madrid/Barajas airport.

20 February: Low visibility impacted operations strongly at both Istanbul airports with a total of 33,295 minutes of delay; ATC capacity delays in Karlsruhe UAC; Staffing issues in Langen ACC.

22 February: London airports were particularly affected by low visibility and generated 18,792 minutes of delay; ATC capacity delays in Karlsruhe UAC; ATC staffing issues in Marseille TMA and Reims ACC; Aerodrome capacity issues in Istanbul/Ataturk airport.

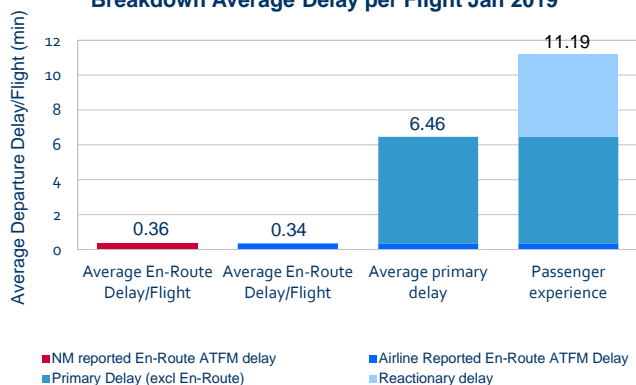
23 February: ATC capacity issues in Karlsruhe, Reims, London, Marseille, Lisbon and Maastricht ACCs; Low visibility impacted operations strongly at London airports with a total of 26,130 minutes of delay; ATC staffing issues in Reims ACC; Aerodrome capacity issues at Lyon/Saint-Exupery airport.

6. ALL AIR TRANSPORT DELAYS (SOURCE: CODA)

This section presents the all air transport delay situation as seen from the airlines by using the data collected by Central Office for Delay Analysis (CODA) from airlines. Data coverage is 62% of the commercial flights in the ECAC region for January 2019. ATFM delays reported by airlines may be lower than the NM calculated ATFM delays due to difference in methods: ATFM delays of NM are the (flight) planned “delays”; the airlines report the “actual” experienced ATFM delay on departure.

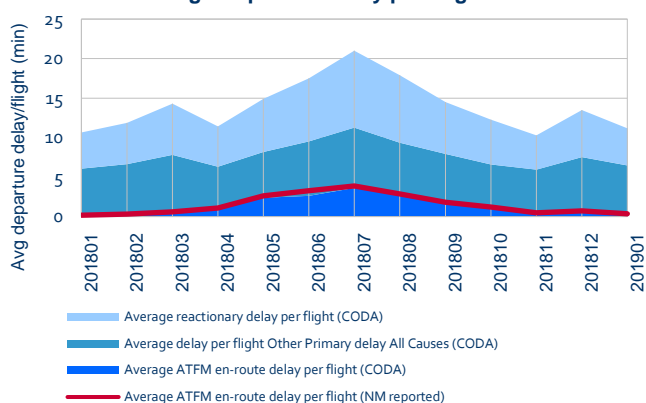
For instance, a flight with an ATFM delay may also have a handling delay absorbed within the ATFM delay. In the event of a long delay an example being during ATC industrial action a flight may keep its original schedule, however when it's flight plan is submitted for example a day later any ATFM delay allocated may be lower or zero, in this case airline reported delay will exceed NM reported ATFM delay.

Breakdown Average Delay per Flight Jan 2019



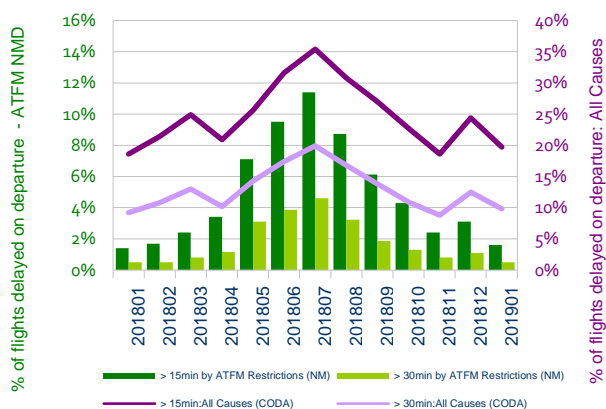
Based on airline data, the average departure delay per flight from ‘All-Causes’ was 11.19 minutes per flight, a 6% increase in comparison to January 2018, with weather delay impacting operations. Primary delays counted for 58% or 6.46 min/ftt, with reactionary delays representing the smaller remaining share of 42% at 4.73 min/ftt.

Average Departure Delay per Flight 2017/2018



Further analysis of the past 12 months shows that the monthly average ‘All-Causes’ en-route ATFM delay reported by airlines was at 0.34 minutes per flight in January 2019. ATFM delays in January 2019 were mostly generated by weather. En-route ATFM Regulations were caused by ATC capacity and ATC staffing notably in Karlsruhe UAC. The 42% share of reactionary delays in January 2018 is slightly lower than the shares observed during the last three months.

Percentage of Delayed Flights: ATFM & All Causes

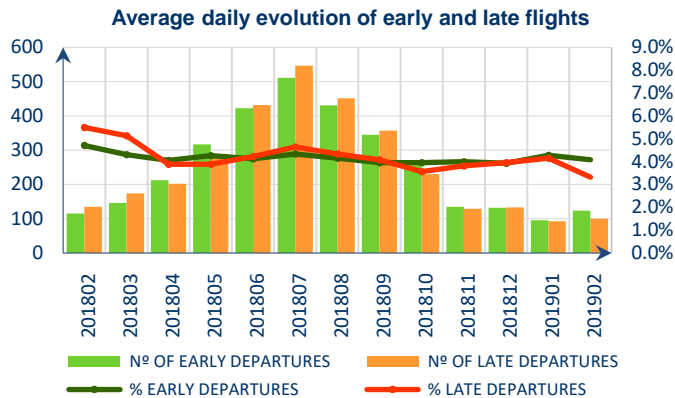


The percentage of flights delayed greater than 15 minutes from ‘All-Causes’ increased by 1.1 percentage points to 19.7% compared to the same period last year. All-causes delays exceeding 30 minutes also increased to 9.8% of flights. 1.6% of flights in January 2019 experienced an ATFM delay exceeding 15 minutes with 0.5% of flights having an ATFM delay exceeding 30 minutes.

For more information on CODA delays:

<https://www.eurocontrol.int/sites/default/files/publication/files/flad-jan-2019.pdf>

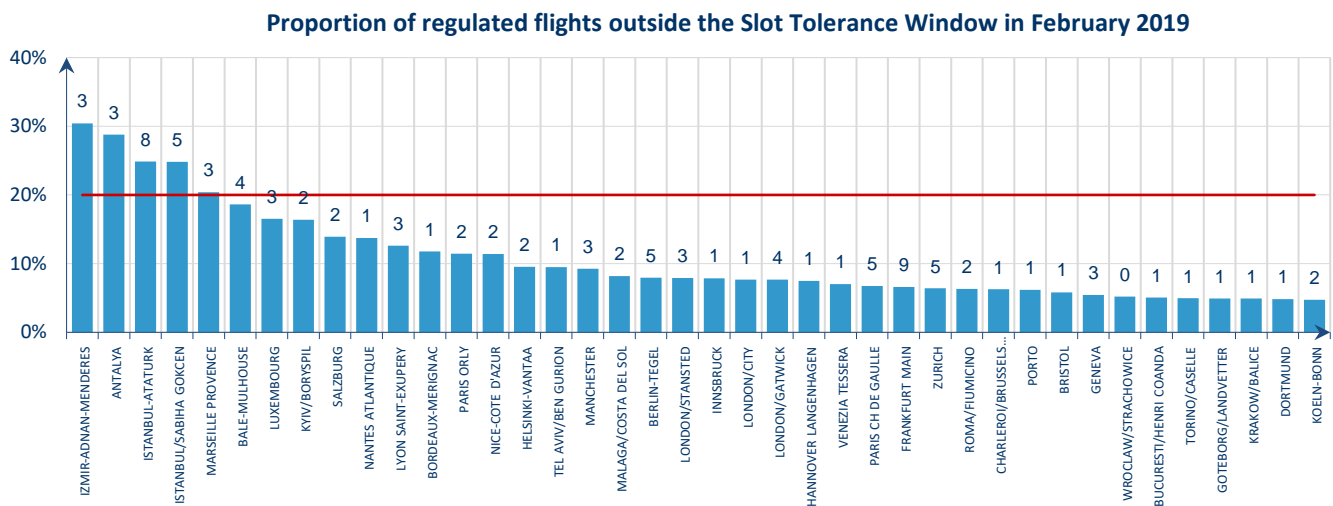
7. ATFM SLOT ADHERENCE



The percentage of early departures for February 2019 is 4.1% of regulated flights, which is a decrease of 0.6 percentage points compared to February 2018.

The percentage of late departures for February 2019 is 3.3% of regulated flights, which is a decrease of 2.2 percentage points compared to February 2018.

The chart below shows the airports that have more than 300 regulated flights during the month with their average daily number and proportion of regulated flights that departed outside of the Slot Tolerance Window (STW). Any airport above the red line is non-compliant with the threshold (20%). Those airports with a number of departures outside the slot tolerance window can reduce network predictability.



8. SIGNIFICANT EVENTS AND ISSUES

PLANNED EVENTS

ACC

MAJOR AIRSPACE OR ATM SYSTEM IMPROVEMENT PROJECTS

Planned Events

Three ACCs implemented technical system and airspace related projects in February.

Tbilisi ACC went through the operational transition phase (up to 11 February) after having migrated to the new ATM system. The transition did not generate ATFM delay, as planned.

Prestwick ACC implemented PLAS Sc TMA 5a on 28 February, not generating ATFM delay, as planned.

Prestwick and London ACCs implemented project *Lightning* on 28 February not generating ATFM delay, as planned.

AIRPORTS

Local Plans in February

A number of airports undertook infrastructure and technical system improvement works during February. These improvements as well as some special events had at most a minor impact on local airport operations, unless otherwise stated.

Completed

- Taxiway and/or apron improvements at Athens airport;
- ILS maintenance at Düsseldorf airport.

Ongoing

- Runway maintenance/closure at Larnaca, Madrid (6,221 minutes of ATFM delay), Malaga and Sabiha/Gökçen airports;
- Taxiway and/or apron improvements at Catania (5,591 minutes of ATFM delay), Hamburg (2,382 minutes of ATFM delay), Ibiza, Katowice, Malta, Manchester, Munich, Nice, Olsztyn/Mazury, Paris/Charles de Gaulle, Paris/Orly (2,603 minutes of ATFM delay), Porto, Rome/Fiumicino, Tenerife/Sur and Venice airports;
- ILS maintenance at Milano/Malpensa and Nice airports ;
- Terminal building improvements/works at Budapest, Frankfurt/Main, Manchester, Oslo/Gardermoen and Paris/Charles de Gaulle airports.

DISRUPTIONS

Technical

- Radar maintenance and replacement in Lisbon ACC throughout the month generated 9,565 minutes of ATFM delay.
- Technical instability with the flight data processing system generated 2,905 minutes of ATFM delay at Istanbul/Ataturk on 4 February.

Industrial Action

- Airport personnel industrial action at Hamburg airport on 04 February;
- Industrial action by ground handling personnel at Düsseldorf airport on 07 February;
- Belgian ATC industrial action on 13 February generated 2,015 minutes of en-route ATFM delay. NM estimates that 835 flights did not operate to/from Belgian airports and approximately 1,340 fewer flights did not operate through Brussels ACC. Locally reported on-load of traffic due to the strike in London, Amsterdam and Langen ACCs generated 1,998 minutes of ATFM delay.

Other

- Volcanic ash cloud due to the eruption of Mt. Etna generated 5,334 minutes of ATFM delay at Catania airport from 17 to 22 February, combined with work in progress and airport capacity.
- Non-availability of a terminal due to fire resulted in zero-rate measures on 19 and 20 February at Roma/Ciampino airport.

9. NM ADDED VALUE

FLIGHTS WITH DELAY > 30'

The number of flights with more than 30 minutes of ATFM delay increased by 30.9% between February 2018 and February 2019.

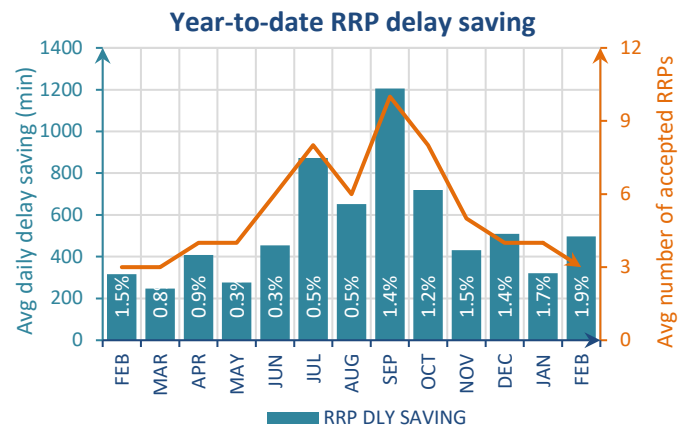
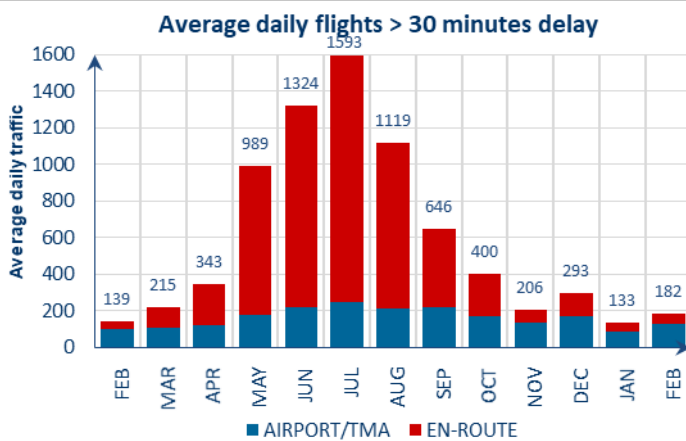
In February 2019, 29.1% of flights with more than 30 minutes of ATFM delay were en-route and 70.9% were airport.

An average 34 flights per day had their delay reduced to less than 30 minutes by NM.

REROUTING PROPOSAL DIRECT DELAY SAVINGS

On average 3 RRP/day were executed saving 497 min/day, accounting for 1.9% of ATFM delays.

This graph shows the actual daily averages for the previous 13 months' period^v.



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<http://www.eurocontrol.int/articles/network-operations-monitoring-and-reporting>

ⁱ See Notice on page 2 for more information on traffic and delay comparison.

ⁱⁱ Internals, international arrivals and departures, excluding overflights.

ⁱⁱⁱ See Notice on page 2 for more information on NM Area .

^{iv} NM's calculation that provides the guideline en-route delay (min) requirements to achieve the annual target (0.5 min/flight).

^v NM has revised the delay saving method. Where flights are subject to scenarios, delay savings from RRP are considered when the RRP is sent 3 hours (or less) in advance of the EOBT.