Monthly Network Operations Report

Analysis October 2019

EUROCONTROL

FOUNDING MEMBER
SESAR
JOINT UNDERTAKING

NETWORK MANAGER

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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 **https://www.eurocontrol.int/publication/reporting-assumptions-and-descriptions**

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 **https://www.eurocontrol.int/network-performance**.

ATFM Statistics dashboard
More detailed information available via the **ATFM Statistics dashboard.**

1. TOTAL TRAFFIC

Monthly traffic trend
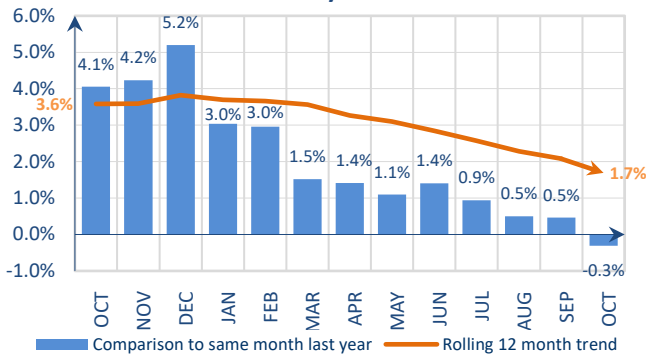
Traffic decreased by 0.3% in October 2019[i].

Average daily traffic for last 5 Years
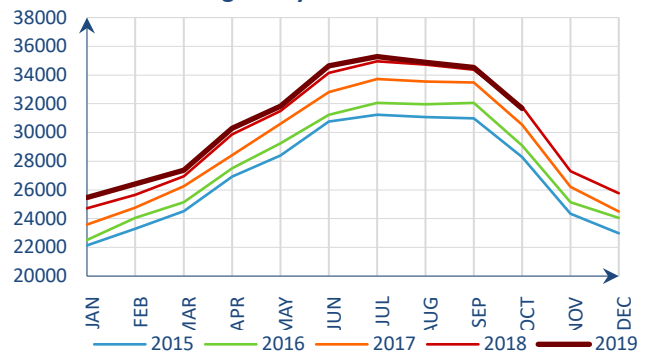
Average daily traffic in October 2019 was 31,678.

Average daily traffic in October for last 5 Years
Forecast dated 2019-10
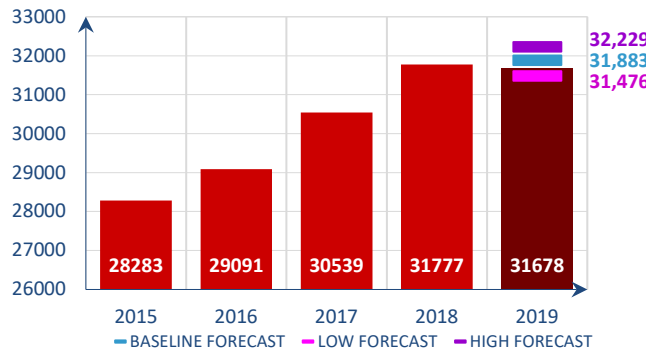
The traffic decrease of 0.3% for October was just above the low forecast published in October 2019.

12 months rolling traffic trend
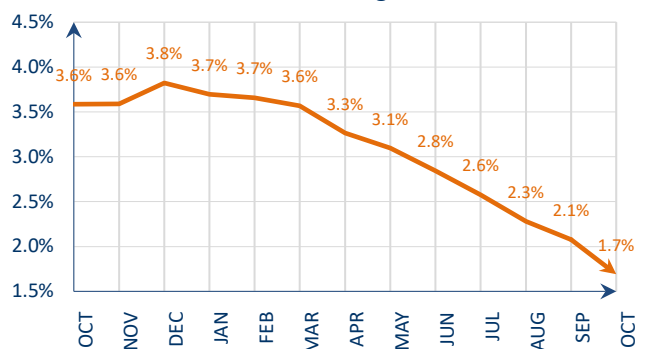
This graph shows the variation in average daily traffic for the last 12-month period relative to the previous 12-months. The average daily traffic from November 2018 to October 2019 was 1.7% higher than the average from November 2017 to October 2018.

The total flight decrease of 0.3% -the first monthly decline since January 2015- was partly due to the four airline failures in September along with industrial action (Alitalia and Lufthansa Group) in October.
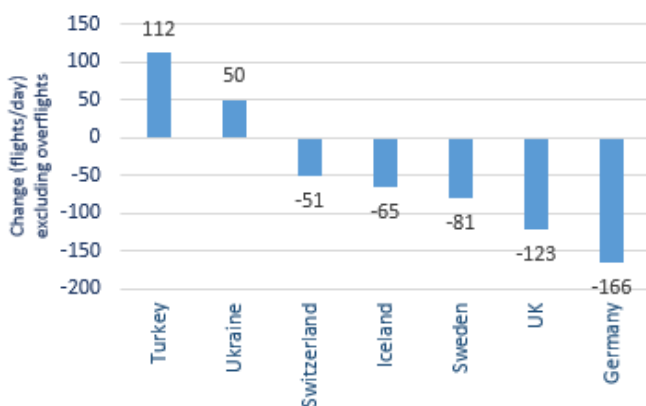
Only two states added more than 50 flights per day to the European local[ii] traffic growth, owing mainly to their flows to and from:

- **Turkey:** Germany (+36), Middle-East (+34), Russian Federation (+33), Poland (+14), Asia/Pacific (+11), Israel (+11). Turkey's internal flow continued to be weak and saw 122 fewer daily flights;
- **Ukraine**: Egypt (+13), Poland (+7), Israel (+5), Spain (+5).

States contributing to at least 25 flights per day include: **Poland** (+42), **Israel** (+34), **Morocco** (+31), **Belgium/Luxembourg** (+28), **Serbia/Montenegro** (+28) and **Hungary** (+25).

On the other hand, the North-West European flow contributed the most to the decline with the following states recording fewer daily flights (<-> bi-directional flows): **Germany**'s internal flow (-42), <-> Spain (-39), <-> Canary Islands (-29), <-> UK (-27), <-> Greece (-24); **UK**'s internal flow (-34), <-> Germany (-28), <-> Canary Islands (-18), <-> Italy (-14), <-> France (-12); **Sweden**'s internal flow (-48), <-> Germany (-9), <-> Denmark (-6); **Iceland** <-> North America (-31), <-> North and West Europe (-26); **Switzerland**'s internal flow (-9), <-> Germany (-14), <-> Italy (-10), <-> France (-7).

The top five external partners in average daily flights on flows in both directions were the United States (1,104 flights), the Russian Federation (1,022 flights, up 3.1%), the United Arab Emirates (337 flights, up 1.5%), Egypt (329 flights, up 10.7%) and the Middle East (218 flights, up 5.3%).

The airlines which added the most flights to the European network on a daily basis were Ryanair (+97 flights), Jet2.com (+48 flights), Logan Air (+46 flights), Wizz Air Hungary (+44 flights) and Sun Express (+26 flights).

For more information on EUROCONTROL Statistics and Forecasts, go to: **https://www.eurocontrol.int/dashboard/statfor-interactive-dashboard**

Four of the top ten airports had positive traffic growth. Overall, the largest traffic increases in October 2019 were at Milano/Malpensa, Tel Aviv/Ben Gurion, Antalya, Budapest and Vienna airports. The largest traffic decreases were at Paris/Orly, Berlin/Tegel, Birmingham, Gran Canaria and Palma de Mallorca airports. Additional traffic due to temporary closure at Milano/Linate explains the traffic variations at Milano/Malpensa airport. Traffic increase at Tel Aviv/Ben Gurion is due to holiday season in Israël. Traffic variation at Paris/Orly airport is due to work in progress on runway 08/26. Italian ATC industrial action on 25 October explains the traffic decrease at Italian airports.

Four of the top ten aircraft operators flew more compared to October 2018. The operators with the highest traffic growth were Loganair, Jet2.com, Air France, Sunexpress and Air Baltic.
Norwegian Air International, Transavia France, Flybe, Ukraine International and Alitalia recorded the highest traffic decreases.

The increase in the number of flights for Air France follows the reintegration of HOP flights into AFR. easyJet Europe commenced use of their second operator code EJU at the start of the IATA summer season, resulting in a shift of flights from the EZY code. Jet2.com saw new aircraft join their fleet. The decrease of flights for Norwegian Air International IBK is a result of a lower level of aircraft utilisation during the month. Lufthansa industrial action on Sunday 20 October 2019 resulted in approximately 400 fewer flights operated by Lufthansa Group of airlines, with Eurowings and Germanwings particularly affected.

N°	ADEP	ADEP NAME	201910	%
1	EDDF	FRANKFURT MAIN	741	-1.3%
2	EHAM	AMSTERDAM/SCHIPHOL	736	-1.1%
3	LFPG	PARIS CH DE GAULLE	716	3.1%
4	EGLL	LONDON/HEATHROW	668	-0.6%
5	LTFM	ISTANBUL NEW AIRPORT	605	0.0%
6	EDDM	MUENCHEN	602	-1.2%
7	LEMD	ADOLFO SUAREZ MADRID-BARAJA	601	2.1%
8	LEBL	BARCELONA/EL PRAT	497	0.6%
9	LIRF	ROMA/FIUMICINO	425	-4.1%
10	LOWW	WIEN SCHWECHAT	403	3.9%
11	LIMC	MILANO MALPENSA	398	40.1%
12	EGKK	LONDON/GATWICK	394	-2.4%
13	EKCH	KOBENHAVN/KASTRUP	384	-1.0%
14	LSZH	ZURICH	381	-3.8%
15	LTAI	ANTALYA	373	10.2%
16	ENGM	OSLO/GARDERMOEN	368	-4.2%
17	LEPA	PALMA DE MALLORCA	348	-4.7%
18	EDDL	DUESSELDORF	345	1.3%
19	ESSA	STOCKHOLM-ARLANDA	340	-4.0%
20	EIDW	DUBLIN	338	0.7%
21	EBBR	BRUSSELS NATIONAL	325	3.3%
22	LTFJ	ISTANBUL/SABIHA GOKCEN	319	2.9%
23	LPPT	LISBOA	312	1.1%
24	LGAV	ATHINAI/ELEFTHERIOS VENIZELOS	310	1.4%
25	LFPO	PARIS ORLY	293	-14.6%
26	EGCC	MANCHESTER	286	-2.5%
27	EGSS	LONDON/STANSTED	282	-3.5%
28	EDDT	BERLIN-TEGEL	276	-7.7%
29	EFHK	HELSINKI-VANTAA	274	0.4%
30	EPWA	CHOPINA W WARSZAWIE	273	1.7%
31	LLBG	TEL AVIV/BEN GURION	253	15.1%
32	LSGG	GENEVA	239	-3.0%
33	EDDH	HAMBURG	223	-1.6%
34	EDDK	KOELN-BONN	220	-3.0%
35	LKPR	PRAHA RUZYNE	213	-0.2%
36	LEMG	MALAGA/COSTA DEL SOL	206	-1.6%
37	EGGW	LONDON/LUTON	206	3.9%
38	LFMN	NICE-COTE D'AZUR	200	0.8%
39	EDDS	STUTTGART	197	-0.5%
40	EGPH	EDINBURGH	191	-1.1%
41	LHBP	BUDAPEST LISZT FERENC INT.	176	7.5%
42	LROP	BUCURESTI/HENRI COANDA	169	-3.3%
43	GCLP	GRAN CANARIA	167	-5.7%
44	LFLL	LYON SAINT-EXUPERY	165	-1.1%
45	UKBB	KYIV/BORYSPIL	165	0.0%
46	LEAL	ALICANTE	152	2.4%
47	EGBB	BIRMINGHAM	151	-7.4%
48	LFML	MARSEILLE PROVENCE	145	0.0%
49	LFBO	TOULOUSE BLAGNAC	145	-1.0%
50	LPPR	PORTO	143	0.0%
		TOTALS and % TOTAL TRAFFIC	**16339**	**57.9%**

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

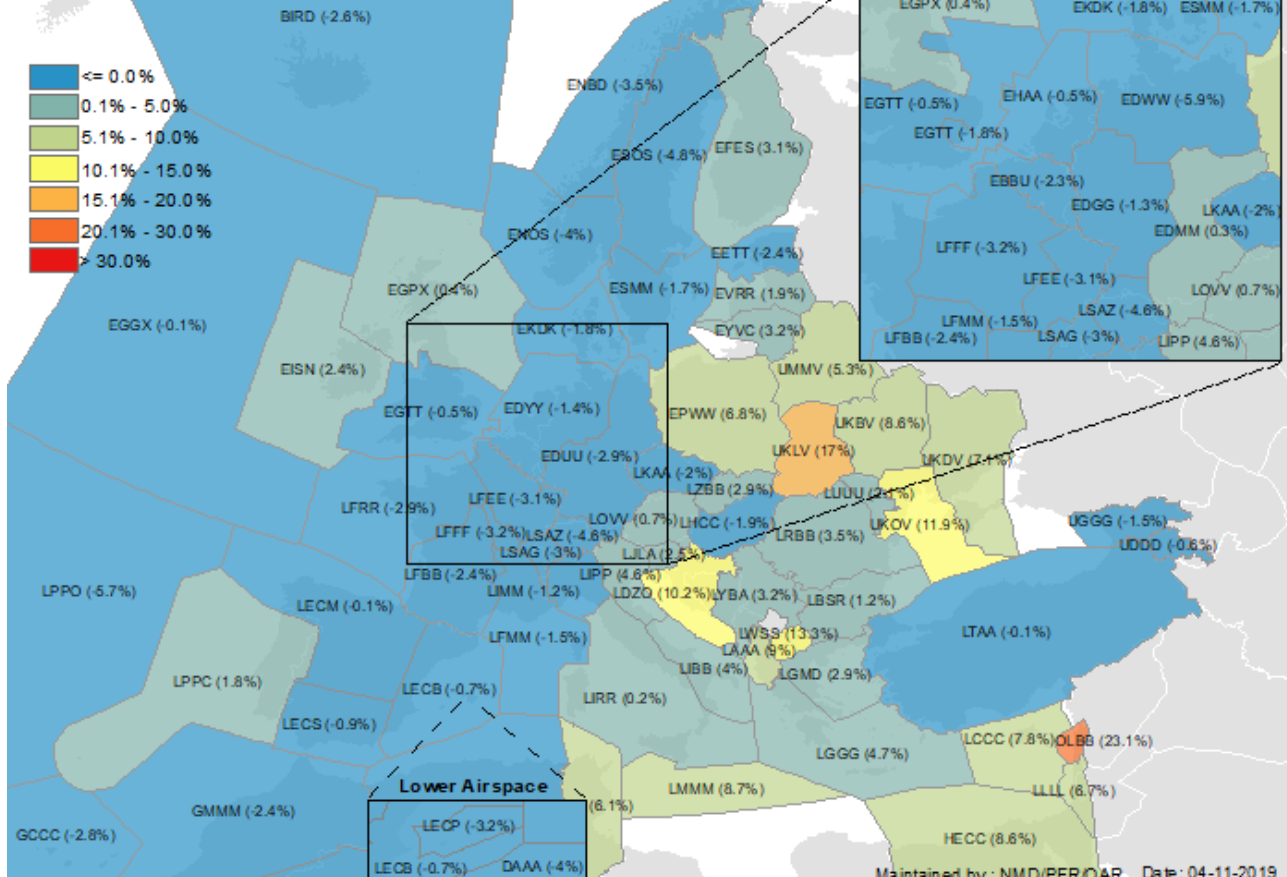| N°	ICAO	AIR OPERATOR	201910	%
1	RYR	RYANAIR	2358	4.6%
2	DLH	DEUTSCHE LUFTHANSA	1536	-1.4%
3	THY	TURKISH AIRLINES	1345	-0.6%
4	AFR	AIR FRANCE	1087	18.7%
5	SAS	SCANDINAVIAN AIRLINES SYSTEM	906	-0.2%
6	EZY	EASYJET	854	-47.6%
7	EJU	EASY JET EUROPE AIRLINE GMBH	775	0.0%
8	KLM	KLM ROYAL DUTCH AIRL	728	1.5%
9	BAW	BRITISH AIRWAYS	715	0.6%
10	EWG	EUROWINGS AG	706	-4.5%
11	VLG	VUELING AIRLINES SA	621	0.0%
12	WZZ	WIZZ AIR	580	8.3%
13	AZA	ALITALIA	506	-6.5%
14	PGT	PEGASUS HAVA TASI.	491	2.9%
15	SWR	SWISS INTERNATIONAL	429	1.5%
16	AUA	AUSTRIAN AIRLINES	408	0.8%
17	TAP	TAP/AIR PORTUGAL	386	2.3%
18	LOT	LOT-POLISH AIRLINES	376	1.5%
19	BEE	JERSEY EUROPEAN T/A FLYBE	369	-8.1%
20	NAX	NORWEGIAN AIR SHUTTLE	364	-4.2%
21	FIN	FINNAIR O/Y	361	2.5%
22	WIF	WIDEROE	353	3.4%
23	AFL	AEROFLOT-RUSSIAN	339	3.6%
24	EXS	JET2.COM	287	20.2%
25	AEA	AIR EUROPA	273	2.0%
26	IBE	IBERIA	273	2.9%
27	QTR	QATAR AIRWAYS COMP.	253	1.7%
28	BEL	BRUSSELS AIRLINES	235	-2.5%
29	IBK	NORWEGIAN AIR INTERNATIONAL	228	-26.1%
30	EIN	AER LINGUS TEORANTA	227	3.4%
31	ANE	AIR NOSTRUM	223	-0.8%
32	UAE	EMIRATES	209	2.8%
33	SXS	SUNEXPRESS AIRLINES	204	14.7%
34	RAM	ROYAL AIR MAROC	195	3.5%
35	BCS	DHL EXPRESS	194	8.1%
36	TOM	THOMSON FLY LTD	187	-0.3%
37	BTI	AIR BALTIC CORPORAT.	182	11.6%
38	TRA	TRANSAVIA.COM	182	-0.2%
39	OAL	OLYMPIC	166	2.4%
40	LOG	LOGANAIR	164	38.8%
41	VOE	VOLOTEA	163	3.9%
42	AUI	UKRAINE INTERNATIONA	162	-7.8%
43	AEE	AEGEAN AIRLINES	162	8.4%
44	EZS	EASY JET SWITZERLAND	161	0.0%
45	CFG	CONDOR FLUGDIENST	158	-4.2%
46	UAL	UNITED AIRLINES INC.	140	4.4%
47	DAL	DELTA AIR LINES INC.	140	6.2%
48	NJE	NETJETS	133	-1.8%
49	TVF	TRANSAVIA FRANCE	124	-8.7%
50	TUI	TUI JET	124	5.2%
		TOTALS and % TOTAL TRAFFIC	**21742**	**68.6%**

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

N°	ICAO	AIR OPERATOR	201910	%
		Unidentified	2161	3.2%

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
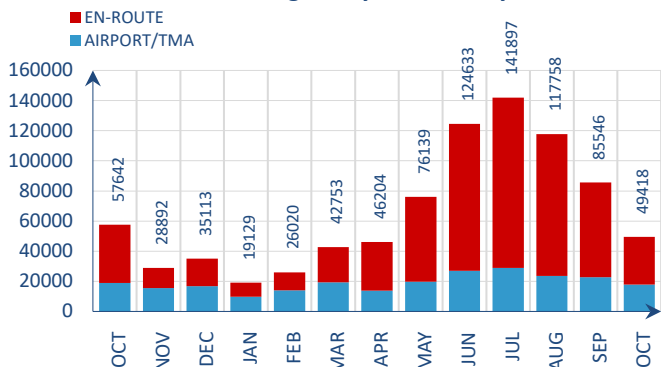## Percentage change in traffic October 2019 compared to the same month last year

Legend:
- <= 0.0 %
- 0.1 % - 5.0 %
- 5.1 % - 10.0 %
- 10.1 % - 15.0 %
- 15.1 % - 20.0 %
- 20.1 % - 30.0 %
- > 30.0 %

Maintained by : NMD/PFR/OAR   Date: 04-11-2019

Nº	ASP ID	ASP NAME	201910	%		Nº	ASP ID	ASP NAME	201910	%
1	BIRDACC	REYKJAVIK ACC	412	-2.6%		39	LFBBALL	BORDEAUX ACC	2866	-2.4%
2	DAAAACC	ALGER ACC	456	-4.0%		40	LFEEACC	REIMS ACC	2932	-3.1%
3	DTTCACC	TUNIS ACC	346	6.1%		41	LFFFALL	PARIS ACC	3380	-3.2%
4	EBBUACC	BRUSSELS ACC	1841	-2.3%		42	LFMMACC	MARSEILLE ACC	3326	-1.5%
5	EDGGALL	LANGEN ACC	3968	-1.3%		43	LFMMAPP	MARSEILLE TMA	944	5.8%
6	EDMMACC	MUENCHEN ACC	3590	0.3%		44	LFRRACC	BREST ACC	3152	-2.9%
7	EDUUUAC	KARLSRUHE UAC	5225	-2.9%		45	LGGGACC	ATHINAI ACC	1745	4.7%
8	EDWWACC	BREMEN ACC	1945	-6.0%		46	LGMDACC	MAKEDONIA ACC	1518	2.9%
9	EDYYUAC	MAASTRICHT UAC	5357	-1.4%		47	LHCCACC	BUDAPEST ACC	2449	-1.9%
10	EETTACC	TALLIN ACC	613	-2.4%		48	LIBBACC	BRINDISI ACC	986	4.0%
11	EFESACC	TAMPERE ACC	567	3.1%		49	LIMMACC	MILANO ACC	2522	-1.2%
12	EGGXOCA	SHANWICK OACC	1412	-0.1%		50	LIPPACC	PADOVA ACC	2175	4.6%
13	EGPXALL	SCOTTISH ACC	2977	0.4%		51	LIRRACC	ROMA ACC	2484	0.2%
14	EGTTACC	LONDON ACC	6042	-0.5%		52	LJLAACC	LJUBLJANA ACC	1068	2.5%
15	EGTTTC	LONDON TMA TC	4036	-1.9%		53	LKAAACC	PRAHA ACC	2363	-2.0%
16	EHAAACC	AMSTERDAM ACC	1742	-0.5%		54	LLLLACC	TEL-AVIV ACC	591	6.7%
17	EIDWACC	DUBLIN ACC	721	0.0%		55	LMMMACC	MALTA ACC	362	8.7%
18	EISNACC	SHANNON ACC	1328	2.4%		56	LOVVACC	WIEN ACC	2775	0.7%
19	EKDKACC	KOBENHAVN ACC	1648	-1.8%		57	LPPCACC	LISBOA ACC	1705	1.8%
20	ENBDACC	BODO ACC	598	-3.6%		58	LPPOOAC	SANTA MARIA OAC	396	-5.7%
21	ENOSACC	OSLO ACC	1043	-4.1%		59	LQSBACC	BH ACC	128	4.9%
22	ENSVACC	STAVANGER ACC	687	0.3%		60	LRBBACC	BUCURESTI ACC	2090	3.5%
23	EPWWACC	WARSZAWA ACC	2496	6.8%		61	LSAGACC	GENEVA ACC	1963	-3.0%
24	ESMMACC	MALMO ACC	1644	-1.7%		62	LSAZACC	ZURICH ACC	2337	-4.6%
25	ESOSACC	STOCKHOLM ACC	1178	-4.8%		63	LTAAACC	ANKARA ACC	4154	-0.1%
26	EVRRACC	RIGA ACC	842	1.9%		64	LTBBACC	ISTANBUL ACC	2116	1.7%
27	EYVCACC	VILNIUS ACC	748	3.2%		65	LUUUACC	CHISINAU ACC	147	2.1%
28	GCCCACC	CANARIAS ACC	959	-2.8%		66	LWSSACC	SKOPJE ACC	664	13.3%
29	GMMMACC	CASABLANCA ACC	1183	-2.4%		67	LYBAACC	BEOGRAD ACC	2226	3.2%
30	HECCACC	CAIRO ACC	711	8.6%		68	LZBBACC	BRATISLAVA ACC	1588	2.9%
31	LAAAACC	TIRANA ACC	640	9.0%		69	OLBBACC	BEIRUT ACC	176	23.1%
32	LBSRACC	SOFIA ACC	2498	1.2%		70	UDDDACC	YEREVAN ACC	167	-0.6%
33	LCCCACC	NICOSIA ACC	1205	7.8%		71	UGGGACC	TBILISI ACC	394	-1.5%
34	LDZOACC	ZAGREB ACC	2018	10.2%		72	UKBVACC	KYIV FIR/ACC	519	8.6%
35	LECBACC	BARCELONA ACC	2764	-0.7%		73	UKDVACC	DNIPRO ACC	60	7.1%
36	LECMALL	MADRID ACC	3371	-0.1%		74	UKLVACC	L'VIV ACC	462	17.0%
37	LECPACC	PALMA ACC	985	-3.2%		75	UKOVACC	ODESA ACC	338	11.9%
38	LECSACC	SEVILLA ACC	1223	-0.9%		76	UMMVACC	MINSK ACC	874	5.3%

The highest relative traffic increases in October 2019 were in Beirut, L'viv, Skopje, Odesa and Zagreb ACCs. Traffic increase in Ukraine is partially due to an increase in overflights. High traffic in the Balkan region and eastern Italy due to increased tourist traffic to Greece, Turkey and Middle-East combined with flows shifting from more northerly routes. Italian industrial action on 20 October explains the traffic variation in the Italian ACCs.
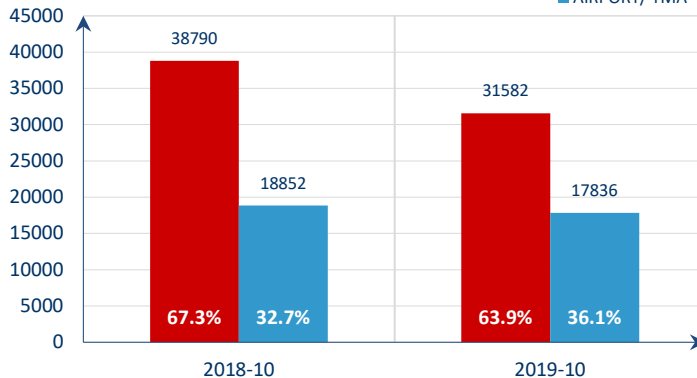
2. ATFM DELAY AND ATTRIBUTIONS
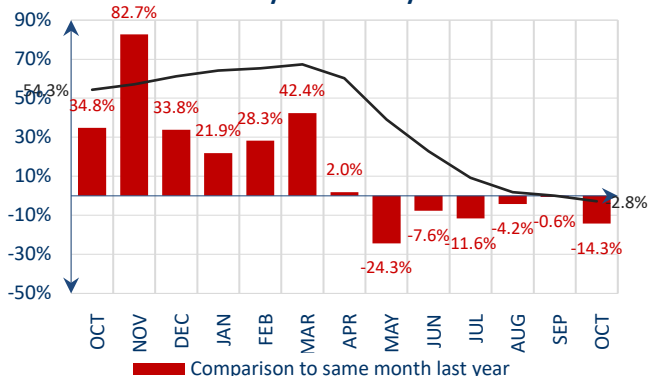
Average daily ATFM delays

EN-ROUTE / AIRPORT/TMA

OCT 57642, NOV 28892, DEC 35113, JAN 19129, FEB 26020, MAR 42753, APR 46204, MAY 76139, JUN 124633, JUL 141897, AUG 117758, SEP 85546, OCT 49418

Total ATFM delays decreased by 14.3% in October 2019[i].

Average daily ATFM delays

EN-ROUTE / AIRPORT/TMA

2018-10: 38790 (67.3%), 18852 (32.7%)
2019-10: 31582 (63.9%), 17836 (36.1%)

En-route ATFM delays decreased by 18.6% and airport ATFM delays decreased by 5.4%.

Monthly ATFM delays trend

OCT 34.8%, NOV 82.7%, DEC 33.8%, JAN 21.9%, FEB 28.3%, MAR 42.4%, APR 2.0%, MAY -24.3%, JUN -7.6%, JUL -11.6%, AUG -4.2%, SEP -0.6%, OCT -14.3%
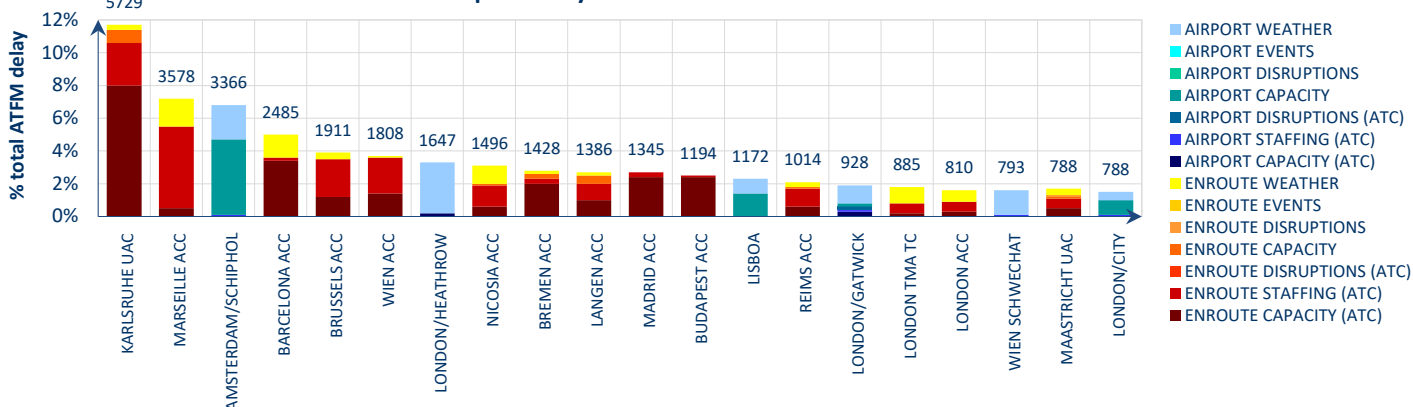
Comparison to same month last year

The rolling 12-month trend shows that ATFM delay was 2.8% lower during the period November 2018 – October 2019 compared to November 2017 – October 2018.

Reasons for ATFM delays in October 2019

Reason	Value
ENROUTE EVENTS	0
AIRPORT EVENTS	57
ENROUTE DISRUPTIONS	115
AIRPORT DISRUPTIONS	370
AIRPORT STAFFING (ATC)	467
AIRPORT DISRUPTIONS (ATC)	491
ENROUTE DISRUPTIONS (ATC)	779
ENROUTE CAPACITY	1019
AIRPORT CAPACITY (ATC)	1374
ENROUTE WEATHER	4716
AIRPORT CAPACITY	5869
AIRPORT WEATHER	9209
ENROUTE STAFFING (ATC)	10477
ENROUTE CAPACITY (ATC)	14475
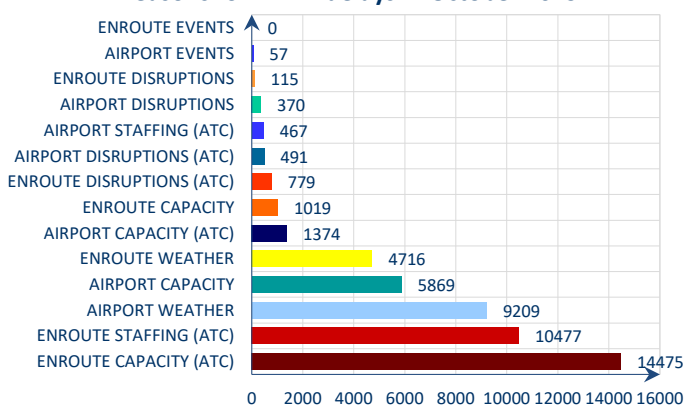
En-route ATC capacity (29.3%), en-route ATC staffing (21.2%) and airport weather (18.6%) were the main causes of ATFM delays in October 2019.

Top 20 delay reference locations in October 2019

KARLSRUHE UAC 5729, MARSEILLE ACC 3578, AMSTERDAM/SCHIPHOL 3366, BARCELONA ACC 2485, BRUSSELS ACC 1911, WIEN ACC 1808, LONDON/HEATHROW 1647, NICOSIA ACC 1496, BREMEN ACC 1428, LANGEN ACC 1386, MADRID ACC 1345, BUDAPEST ACC 1194, LISBOA 1172, REIMS ACC 1014, LONDON/GATWICK 928, LONDON TMA TC 885, LONDON ACC 810, WIEN SCHWECHAT 793, MAASTRICHT UAC 788, LONDON/CITY 788

Legend: AIRPORT WEATHER, AIRPORT EVENTS, AIRPORT DISRUPTIONS, AIRPORT CAPACITY, AIRPORT DISRUPTIONS (ATC), AIRPORT STAFFING (ATC), AIRPORT CAPACITY (ATC), ENROUTE WEATHER, ENROUTE EVENTS, ENROUTE DISRUPTIONS, ENROUTE CAPACITY, ENROUTE DISRUPTIONS (ATC), ENROUTE STAFFING (ATC), ENROUTE CAPACITY (ATC)
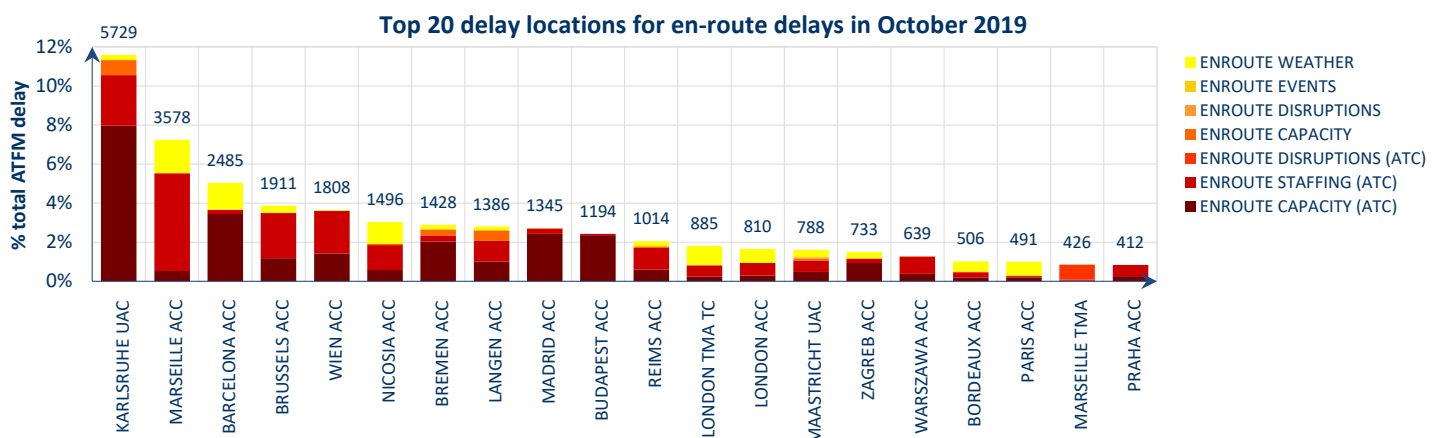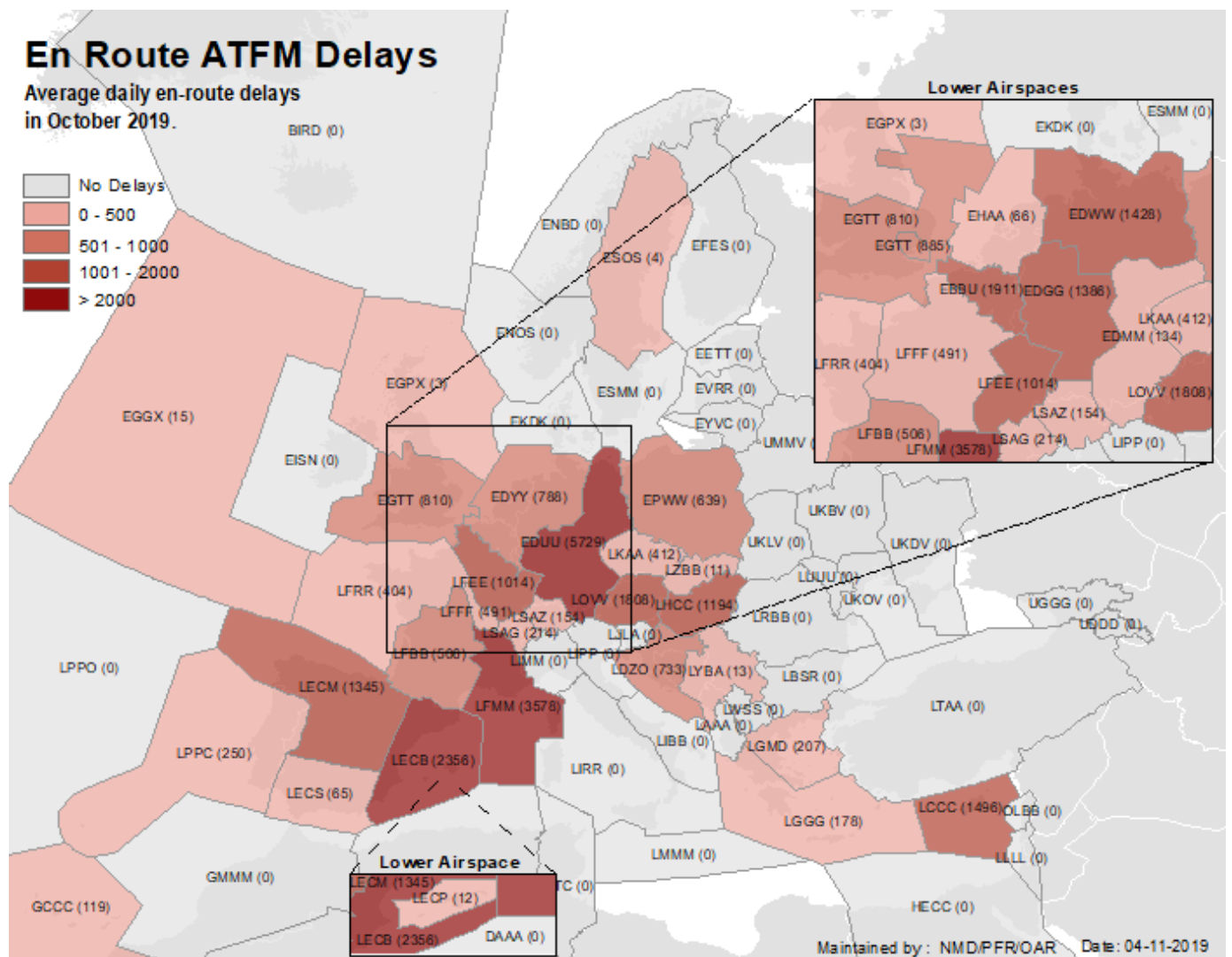
These are the top 20 delay generating locations for the reporting month with respect to total ATFM delays. Figures are the average daily delays in minutes for the individual locations.

- ATC capacity issues in Karlsruhe, Barcelona, Bremen, Madrid and Budapest ACCs;
- High delay due to staffing in Marseille ACC;
- Convective activity impacted operations in Marseille and Barcelona ACCs;
- Low visibility and strong winds impacted operations strongly at London/Heathrow and Amsterdam/Schiphol airports;
- Airport capacity issues at Amsterdam/Schiphol airport.

3. EN-ROUTE ATFM DELAYS

EN-ROUTE ATFM DELAY PER LOCATION

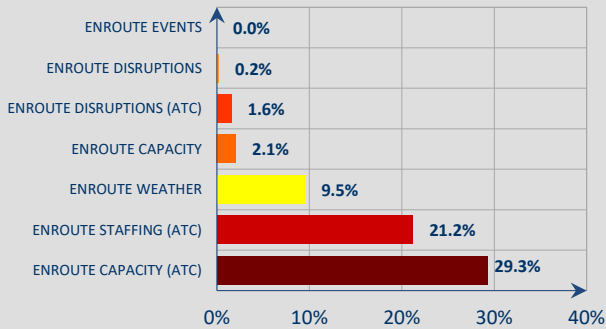Top 20 delay locations for en-route delays in October 2019

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 **58.9%** of the monthly total (network) ATFM delay.
The top 5 en-route ATFM delay locations generated **31.4%** 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 October 2019

ENROUTE EVENTS	0.0%
ENROUTE DISRUPTIONS	0.2%
ENROUTE DISRUPTIONS (ATC)	1.6%
ENROUTE CAPACITY	2.1%
ENROUTE WEATHER	9.5%
ENROUTE STAFFING (ATC)	21.2%
ENROUTE CAPACITY (ATC)	29.3%

En-route ATFM delays accounted for 63.9% of all ATFM delays. Most of this delay was caused by en-route ATC capacity, en-route ATC staffing and en-route weather as explained in detail below. The other causes were:

En-route capacity; Several military exercises impacted operations in Karlsruhe, Langen, Bremen, Maastricht and Reims ACCs;

En-route ATC disruptions; Communication failures in Marseille TMA, Geneva, Brest and Bordeaux ACCs; Italian ATC Industrial action on 25 October generated delays in Italian ACCs;

En-route disruptions; ATC systems upgrade in Maastricht UAC on 13 and 14 October generated some delays.

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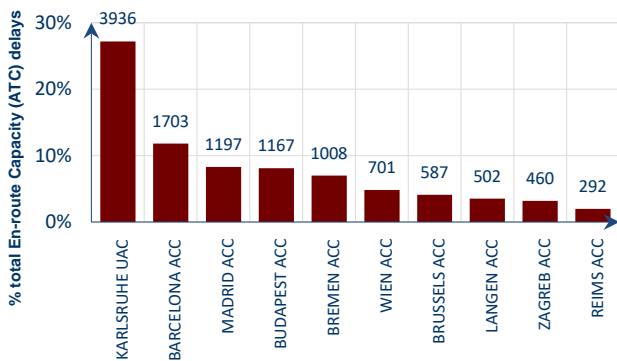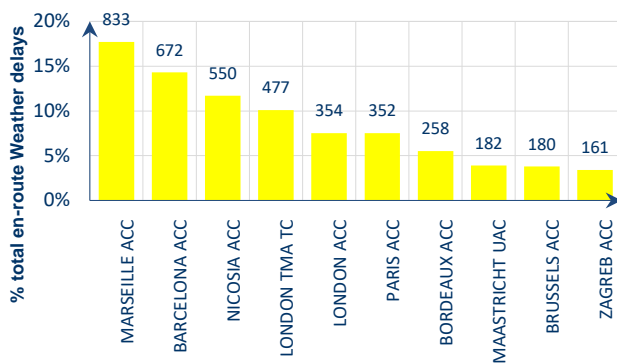

Karlsruhe UAC was the biggest generator of ATC capacity delays in October 2019.

## Top en-route Staffing (ATC) delays in October 2019
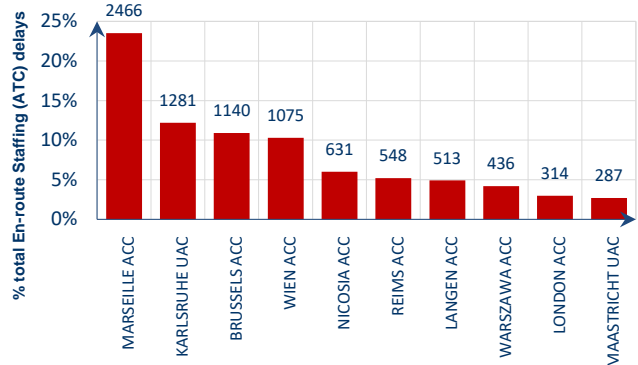
Several staffing issues throughout the month in Marseille ACC generated high delays, with 59% of these delays during weekends.

Top en-route Weather delays in October 2019

Convective activity impacted operations in Marseille, Barcelona and Nicosia ACCs throughout the month.
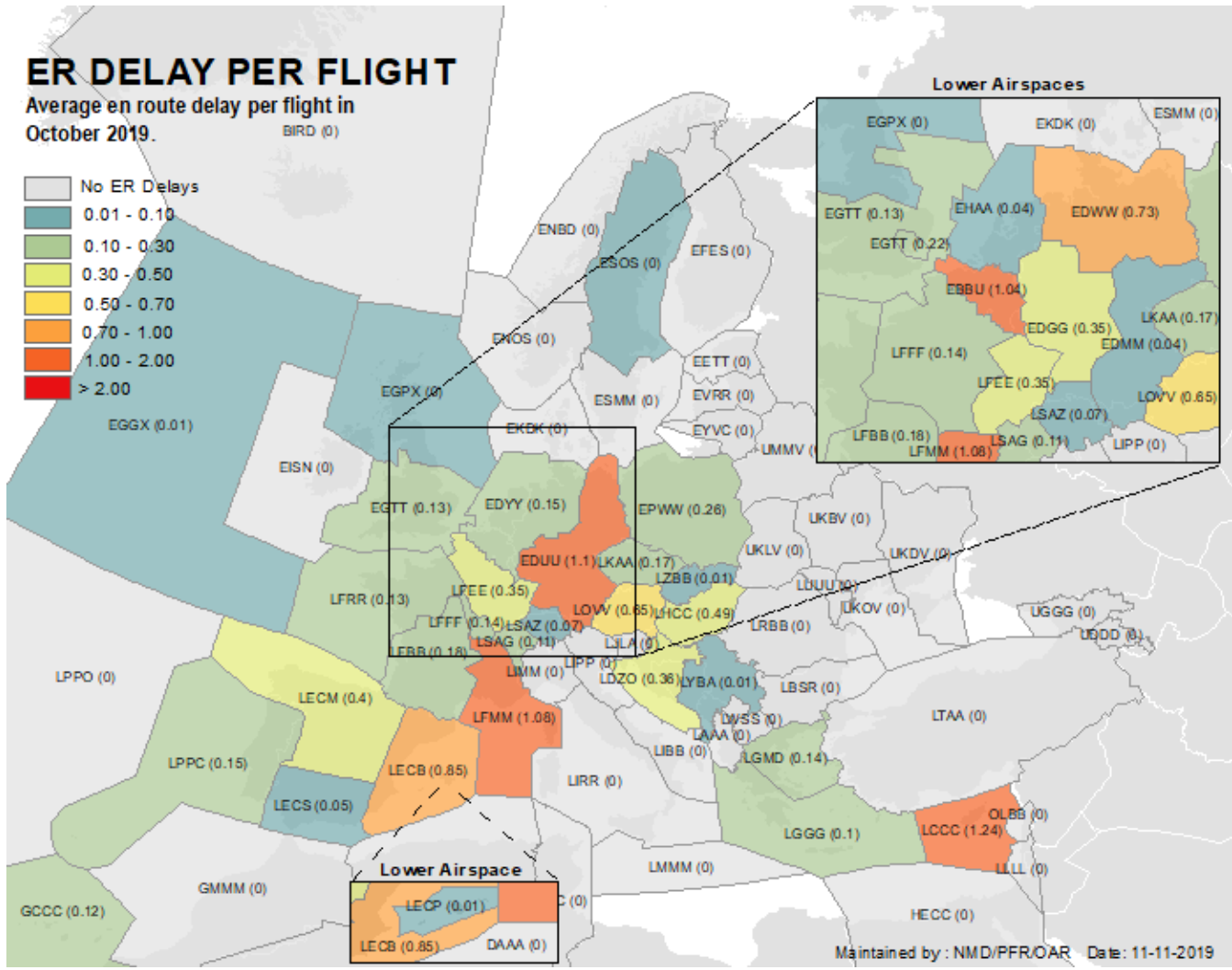
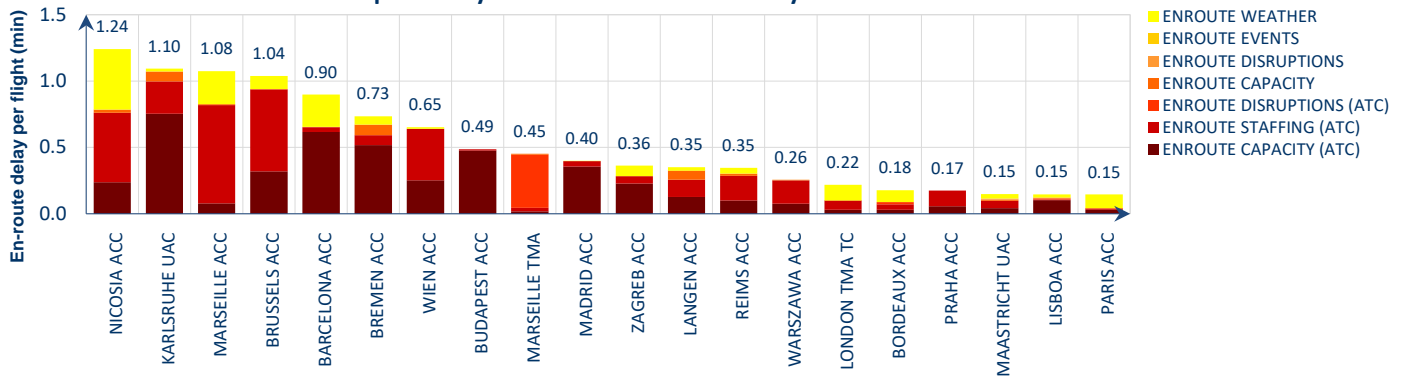## Average daily flights >= 15 min en-route delay
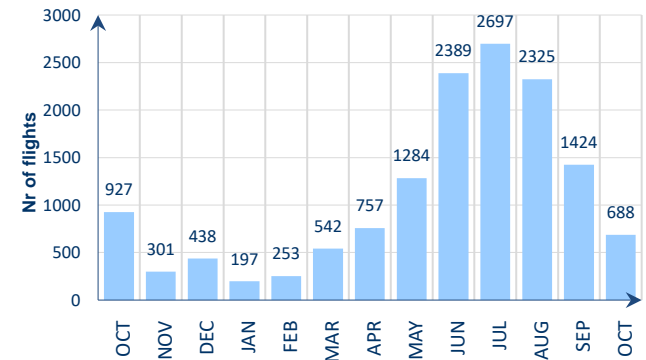
The average daily flights with an en-route ATFM delay of at least 15 minutes decreased from 927 flights/day in October 2018 to 688 flights/day in October 2019, which represents 2.2% of all traffic.

EN-ROUTE ATFM DELAY PER FLIGHT

ER DELAY PER FLIGHT
Average en route delay per flight in October 2019.

Legend:
- No ER Delays
- 0.01 - 0.10
- 0.10 - 0.30
- 0.30 - 0.50
- 0.50 - 0.70
- 0.70 - 1.00
- 1.00 - 2.00
- > 2.00

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

Legend:
- ENROUTE WEATHER
- ENROUTE EVENTS
- ENROUTE DISRUPTIONS
- ENROUTE CAPACITY
- ENROUTE DISRUPTIONS (ATC)
- ENROUTE STAFFING (ATC)
- ENROUTE CAPACITY (ATC)

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.

Budapest ACC en-route ATFM delay/flight decreased from 3.03 min/flight in September 2019 to 0.49 min/flight in October 2019 due to fewer ATC capacity and ATC staffing issues;

Karlsruhe UAC en-route ATFM delay/flight decreased from 1.81 min/flight in September 2019 to 1.10 min/flight in October 2019 due to fewer ATC capacity issues;

Zagreb ACC en-route ATFM delay/flight decreased from 1.35 min/flight in September 2019 to 0.36 min/flight in October 2019 due to fewer ATC capacity and weather issues.

EN-ROUTE ATFM DELAY YEAR-TO-DATE

Top 20 delay locations for year-to-date en-route ATFM delays
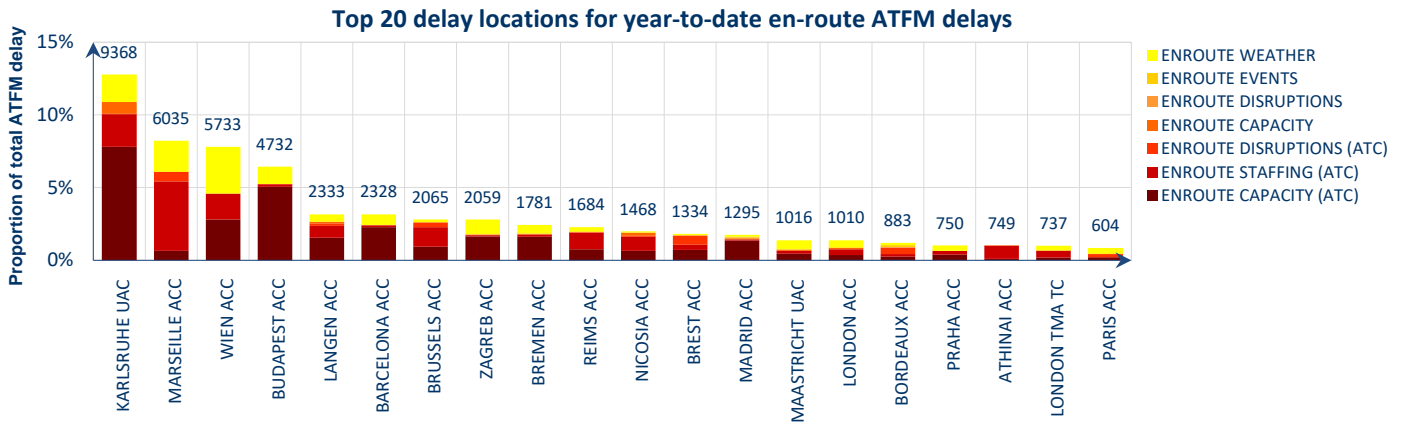
These are the top 20 en-route delay locations for 2019 with respect to the total ATFM delay. Figures are the average daily en-route delay in minutes for the individual locations.
The top 20 en-route delay locations generated **65.4%** of the total ATFM (network) delay.
The top 5 en-route delay locations generated **38.4%** of the total ATFM (network) delay.

Top 20 delay locations for year-to-date en-route delays
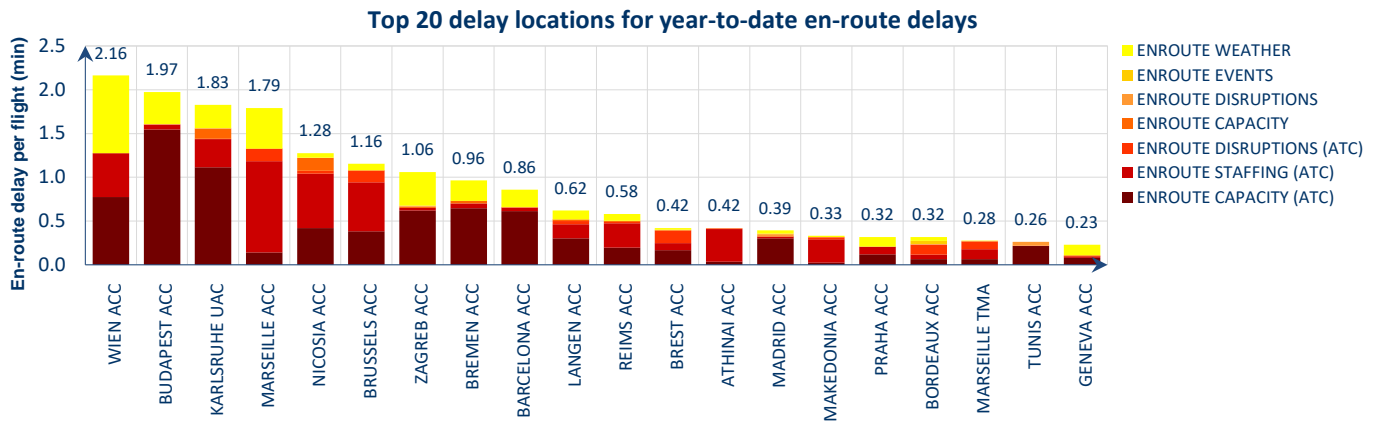
These are the top 20 average en-route ATFM delay per flight generating locations in 2019. Figures are the average daily en-route delay in minutes per flight for the individual locations.

Monthly en-route delay per flight monitoring

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

Reporting month: The average en-route ATFM delay per flight in the NM area[iii] in October was 1.00 min/flt, which is well above the corresponding monthly guideline[iv] value of 0.35 min/flt.
Year To Date: The average YTD en-route ATFM delay per flight in 2019 in the NM area[iii] is 1.71 min/flt which is three times the corresponding guideline value of 0.55 min/flt.
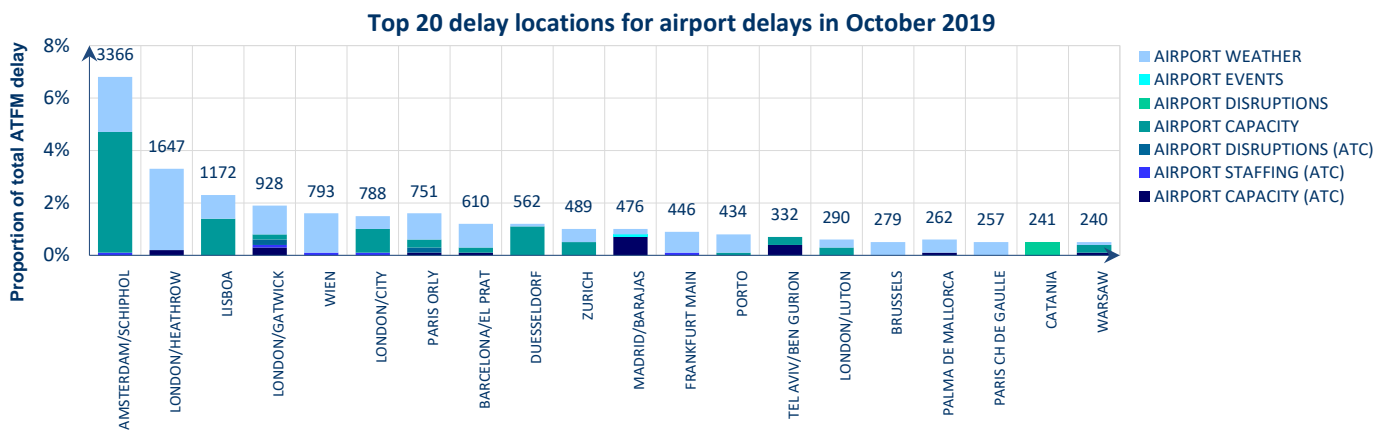
An average of 1,263 flights/day had an en-route ATFM delay of at least 15 minutes in 2019. The corresponding figure in 2018 was 1,427 flights/day.

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

- Karlsruhe UAC with 213 flights/day;
- Marseille ACC with 149 flights/day;
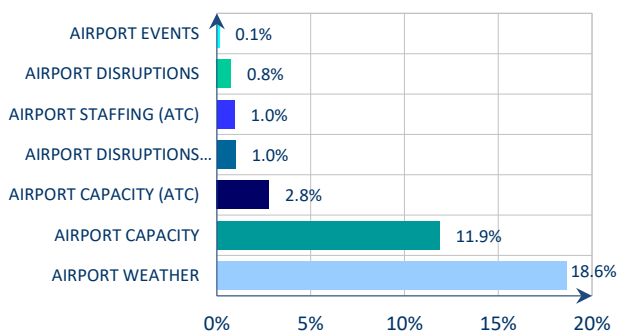- Wien ACC with 144 flights/day.

4. AIRPORT/TMA ATFM DELAYS

AIRPORT/TMA ATFM DELAY PER LOCATION

Top 20 delay locations for airport delays in October 2019

Legend:
- AIRPORT WEATHER
- AIRPORT EVENTS
- AIRPORT DISRUPTIONS
- AIRPORT CAPACITY
- AIRPORT DISRUPTIONS (ATC)
- AIRPORT STAFFING (ATC)
- AIRPORT CAPACITY (ATC)

AIRPORT/TMA ATFM DELAY PER DELAY GROUPS

Reasons for airport delays in October 2019

Category	%
AIRPORT EVENTS	0.1%
AIRPORT DISRUPTIONS	0.8%
AIRPORT STAFFING (ATC)	1.0%
AIRPORT DISRUPTIONS…	1.0%
AIRPORT CAPACITY (ATC)	2.8%
AIRPORT CAPACITY	11.9%
AIRPORT WEATHER	18.6%

Airports accounted for 36.1% of all ATFM delays in October 2019, mainly due to weather and airport capacity.

Top Airport Weather delays in October 2019
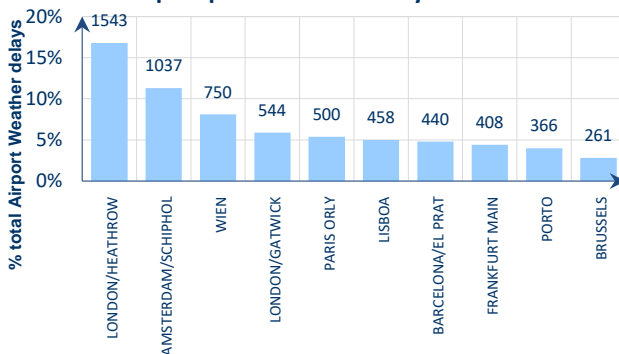
Strong winds and low visibility impacted operations strongly at London/Heathrow and Amsterdam/Schiphol airports throughout the month.

Top Airport Capacity delays in October 2019
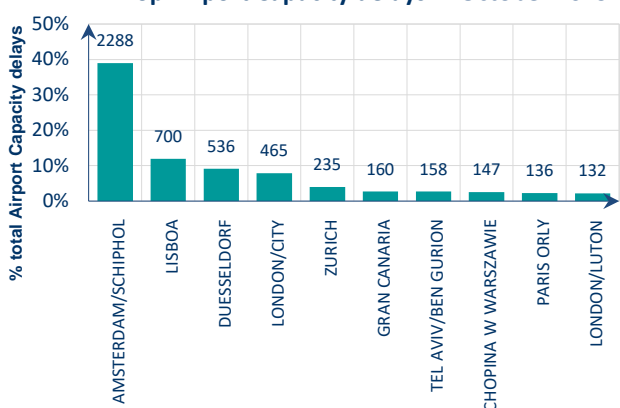
Airport capacity issues at Amsterdam/Schiphol due to high demand. The works in progress on one runway and one taxiway may have contributed as well.

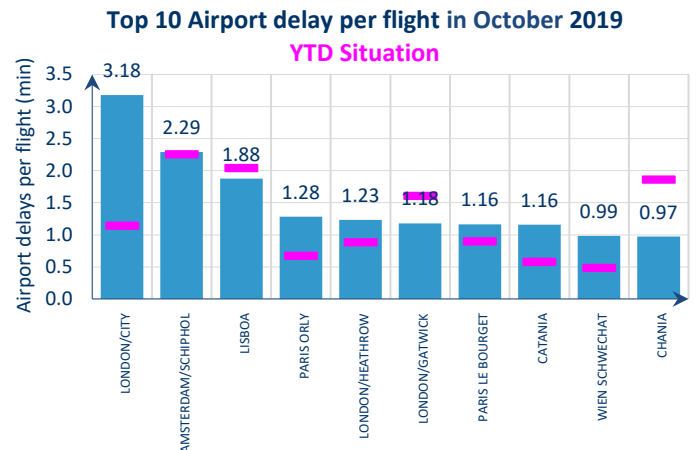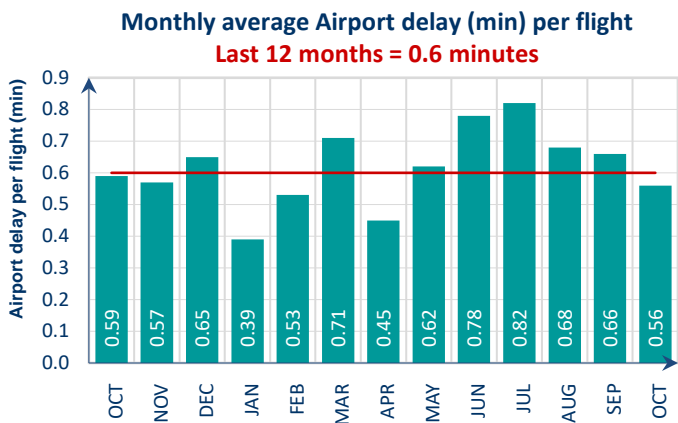**Year-to-date daily flights >= 15 min airport delay**
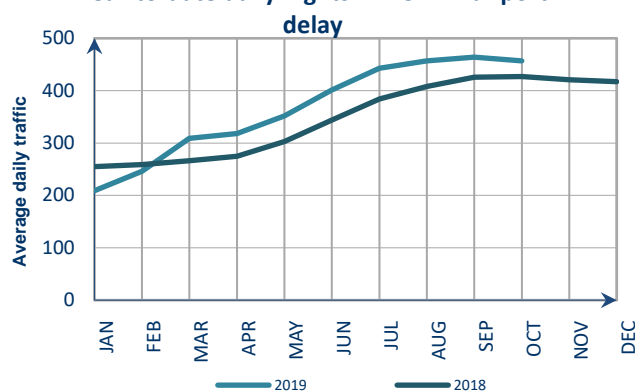
An average of 457 flights/day had an airport ATFM delay of at least 15 minutes. The corresponding figure in 2018 was 427 flights.

The top 3 locations for flights with 15 minutes or more airport ATFM delay (year-to-date) are:
- Amsterdam Schiphol with 142 flights/day;
- Madrid/Barajas with 33 flights/day;
- London/Gatwick with 31 flights/day.

AIRPORT/TMA ATFM DELAY PER FLIGHT

Monthly average Airport delay (min) per flight
Last 12 months = 0.6 minutes

Top 10 Airport delay per flight in October 2019
**YTD Situation**

Average airport/TMA delay per flight decreased from 0.59 min/flt in October 2018 to 0.56 min/flt in October 2019.

London/City airport generated an average delay per flight well above its year to date average mainly due to airport weather and capacity.

AIRPORT/TMA ATFM DELAY YEAR-TO-DATE

Top 20 delay locations for year-to-date Airport ATFM delays

5. DAILY EVOLUTION

Average delay (min) per flight in October 2019
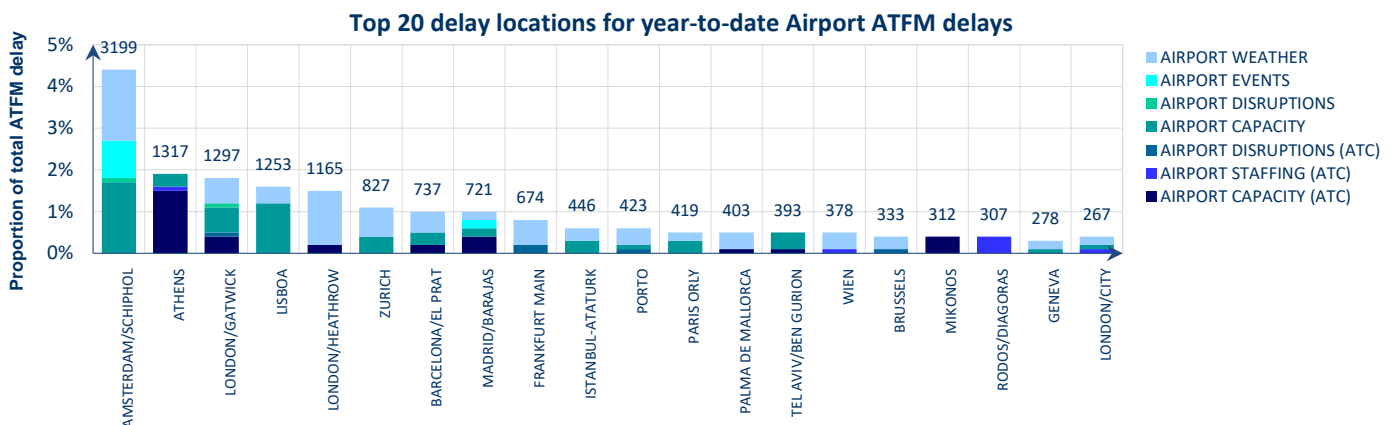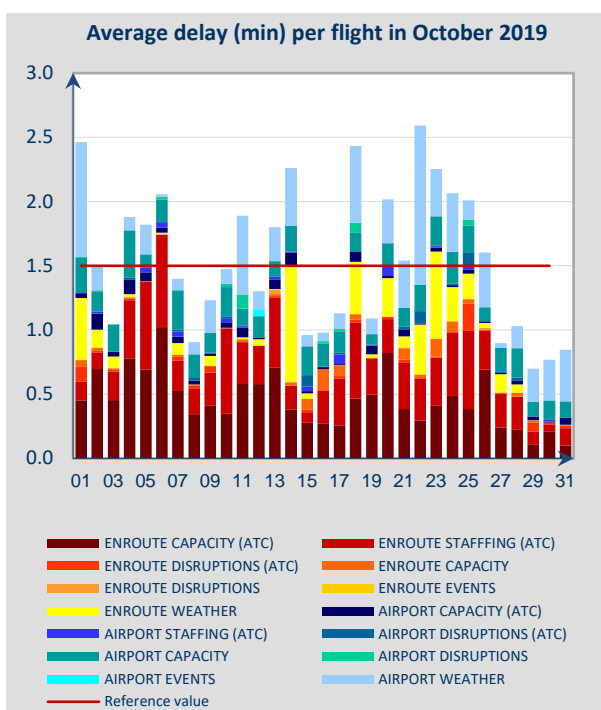
Fifteen days in October 2019 had an average ATFM delay per flight exceeding 1.5 min. These were the most significant days:
***01 October;*** Thunderstorms and strong winds impacted operations at London/Heathrow, Amsterdam/Schiphol, London/Gatwick and Frankfurt airports; Convective activity generated delays in Brussels, London TMA, Paris, Marseille and Langen ACCs; ATC capacity issues in Karlsruhe, Bremen, Budapest and Barcelona ACCs; Airport capacity issues at Amsterdam/Schiphol and Dublin airports; ATC staffing shortage in Vienna ACC; Communication failures in Bordeaux, Marseille and Brest ACCs;
06 October; ATC capacity issues in Karlsruhe, Budapest, Maastricht, Bremen, Zagreb and Vienna ACCs; ATC staffing issues in Marseille, London, Vienna, Maastricht, Warsaw and Athens ACCs; Airport capacity delays at Amsterdam/Schiphol and Düsseldorf airports;
14 October; Convective activity affected a number of North-West European ACCs with high delays in London TMA, Paris and Bordeaux ACCs; Low visibility and wind direction impacted operations at Vienna, Brussels, Venezia, London/Luton and Zurich airports; ATC capacity issues in Karlsruhe and Barcelona ACCs; Airport capacity delays at Amsterdam/Schiphol airport;
22 October; Low visibility impacted operations at Paris and London/Heathrow airports; Thunderstorms impacted operations strongly at Barcelona and Palma airports; Convective activity generated high delays in Barcelona ACC; ATC capacity issues in Karlsruhe UAC; ATC staffing shortage in Marseille, Brussels and Karlsruhe ACCs; Airport capacity delays at Amsterdam/Schiphol 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 60% of the commercial flights in the ECAC region for **September 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 Sept 2019
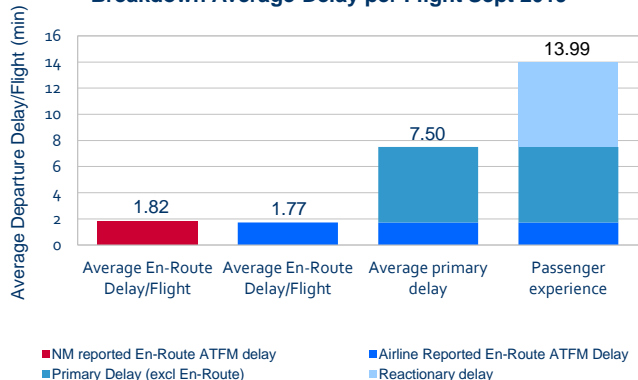
Based on airline data, the average departure delay per flight from 'All-Causes' was 13.99 minutes per flight, a 5% decrease in comparison to September 2018 where the average delay was 14.68 mins/flight. Primary delays counted for 54% or 7.50 min/flt, with reactionary delays representing the smaller remaining share of 44% at 6.49 min/flt.

Average Departure Delay per Flight 2018/2019
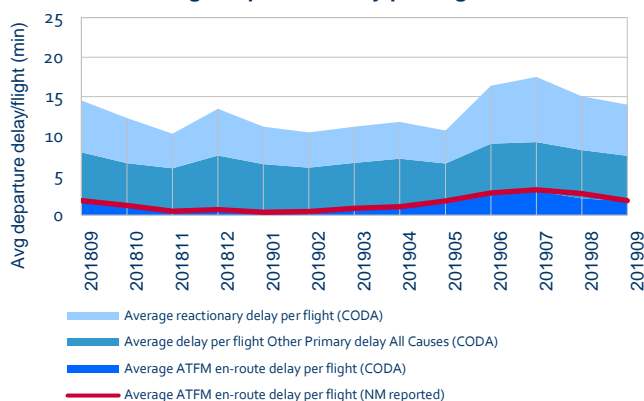
Further analysis of the past 12 months shows that the monthly average 'All-Causes' en-route ATFM delay was 1.73 min/flt in September 2019. A French central communications system failure on 01 September generated high delays in all French ACCs and neighbouring states such as London and Madrid ACCs. Weather (convective activity, strong winds and thunderstorms) affected operations in Vienna, Barcelona, Marseille, Zagreb, Budapest, Karlsruhe, Madrid and Prague ACCs as well as Palma de Mallorca and Barcelona airports during the month.
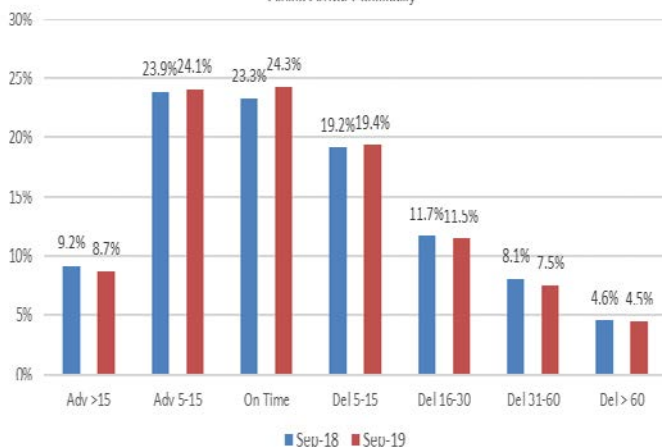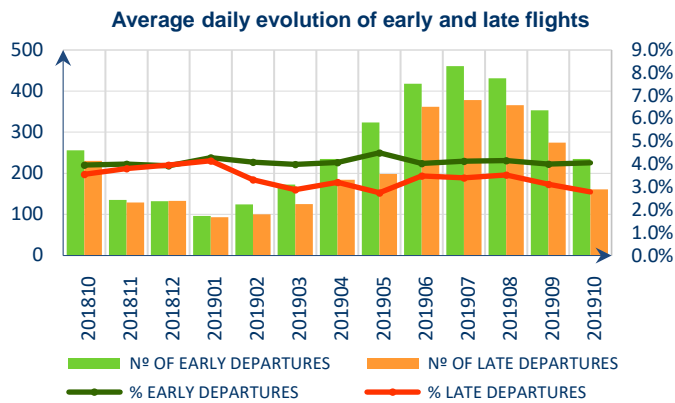

Airline punctuality improved in September 2019 with 76.5% of flights arriving within the 15-minute threshold, or earlier than their scheduled arrival time (STA) this was an increase of 0.8 percentage points in comparison to September 2018.

For more information on CODA delays:
https://www.eurocontrol.int/publication/all-causes-delay-air-transport-europe-september-2019

7. ATFM SLOT ADHERENCE

Average daily evolution of early and late flights

Legend:
- Nº OF EARLY DEPARTURES
- Nº OF LATE DEPARTURES
- % EARLY DEPARTURES
- % LATE DEPARTURES

The percentage of early departures for October 2019 is 4.1% of regulated flights, which is an increase of 0.1 percentage points compared to October 2018.

The percentage of late departures for October 2019 is 2.8% of regulated flights, which is a decrease of 0.8 percentage points compared to October 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.

Proportion of regulated flights outside the Slot Tolerance Window in October 2019
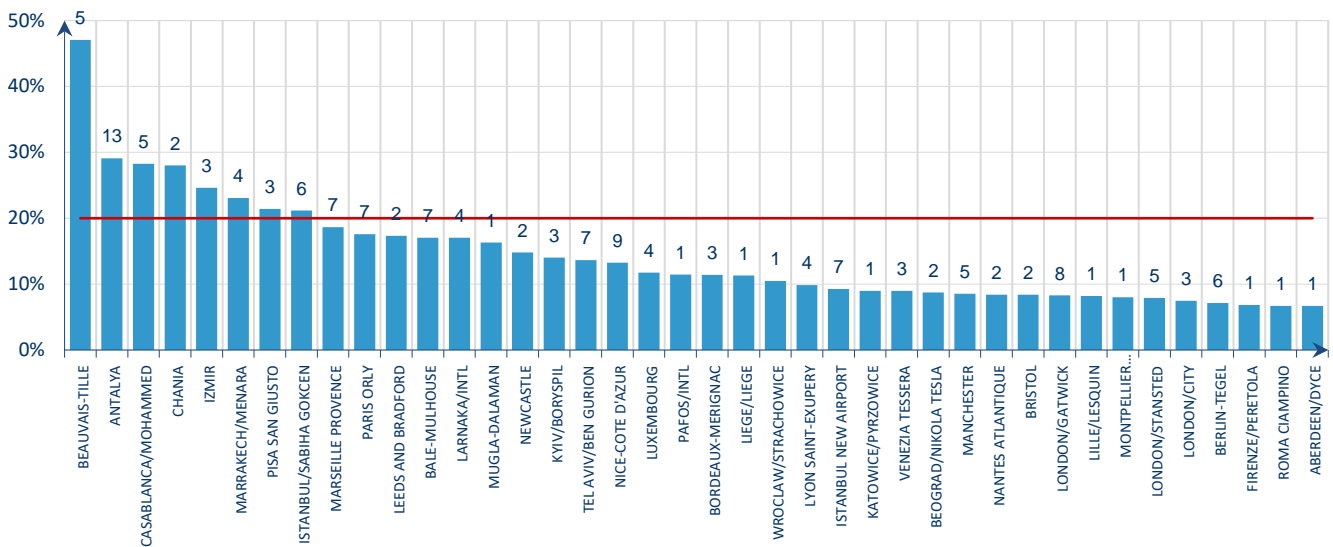
8. SIGNIFICANT EVENTS AND ISSUES

PLANNED EVENTS

ACC

MAJOR AIRSPACE OR ATM SYSTEM IMPROVEMENT PROJECTS

PLANNED EVENTS

Reims ACC started training for the implementation of the 4Flight ATM system without generating ATFM delays. Capacity reductions had not been foreseen.

AIRPORTS

Local Plans in October

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

Completed

- Complete overhaul of Milano/Linate airport. The traffic was rescheduled to Milano/Malpensa airport;
- Military parade / Air show generated 1,593 minutes of ATFM delay on 12 October at Madrid/Barajas airport;
- Runway maintenance/closure at Brussels, Katowice, London/Stansted and Paris/Le Bourget airports;
- Taxiway and/or apron improvements at Dusseldorf, Helsinki and Stuttgart airports;
- ILS maintenance on 20 October at Brussels airport;
- Conversion of runway into taxiway at Lisbon airport;
- Crystal TWR/APP implementation – tool to improve local decision making regarding ATFCM measures at Zurich airport.

Ongoing

- Runway maintenance/closure at Amsterdam/Schiphol, Frankfurt/Main, Nice, Palma de Mallorca, Paris/Orly and Venice airports;
- Taxiway and/or apron improvements at Amsterdam/Schiphol, Basel/Mulhouse, Cologne, Frankfurt/Main, Hamburg, Paris/Charles de Gaulle, Porto, Rome/Fiumicino, Tenerife/Sur and Tirana airports;
- Terminal building improvements/works at Budapest, Frankfurt/Main, Ljubljana, Oslo/Gardermoen and Paris/Charles de Gaulle airports;
- ILS and DME maintenance at Paris/Le Bourget generated 4,623 minutes of ATFM delay throughout October;
- Dassault Rafale fighter pilots training at Bordeaux airport;
- RECAT implementation at Zurich airport.

DISRUPTIONS

Technical

- Mount Etna's volcanic activity generated 7,464 minutes of ATFM delay at Catania airport throughout October;
- Major software update (RADAR and HMI) of Luxembourg APP/TWR generated 3,529 minutes of ATFM delay throughout October;
- Radio communication failure in Bordeaux and Brest ACCs on 01 October generated 1,317 minutes and 1,852 minutes of ATFM delay respectively;
- Radio communication failure in Marseille TMA throughout the month generated 11,660 minutes of ATFM delay;
- ATC system upgrade in Maastricht UAC on 13 and 14 October generated 1,088 minutes of ATFM delay;
- Airport tracking system failure at Paris/Orly generated 2,546 minutes of ATFM delay on 15 October;
- Radio communication failure in Geneva ACC on 29 October generated 1,875 minutes of ATFM delay.

Industrial Action

- Lufthansa Industrial Action on 20 October 2019 led to approximatively 400 fewer flights;
- Italian ATC industrial action on 25 October generated 6,149 minutes of en-route ATFM delay and 3,295 minutes of airport ATFM delay, mostly impacting Milano/Malpensa. NM estimates there were 600 fewer flights operated to/from Italian airspace compared to previous week.
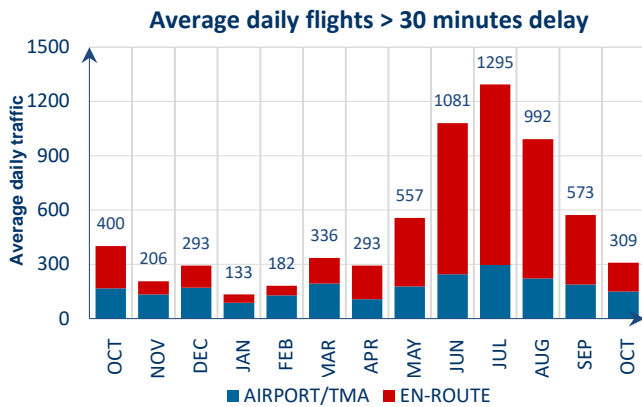
9. NM ADDED VALUE

FLIGHTS WITH DELAY > 30'

The number of flights with more than 30 minutes of ATFM delay decreased by 22.8% compared to October 2018.

In October 2019, 51.5% of flights with more than 30 minutes of ATFM delay were en-route and 48.5% were airport.
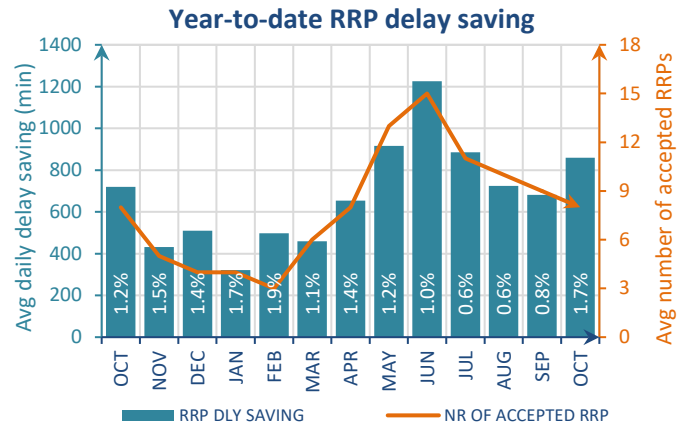
An average 56 flights per day had their delay reduced to less than 30 minutes by NM.

REROUTING PROPOSAL DIRECT DELAY SAVINGS

On average 8 RRPs/day were executed saving 860 min/day, accounting for 1.7% of ATFM delays.

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

Average daily flights > 30 minutes delay

Year-to-date RRP delay saving

Contact Us
Operational Analysis & Reporting,
Operational Performance Unit,
Network Manager Directorate (NMD),
EUROCONTROL,
96 Rue de la Fusée,
B - 1130 Brussels

e-mail: nm.ops.perf@eurocontrol.int
https://www.eurocontrol.int/network-performance

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 RRPs are considered when the RRP is sent 3 hours (or less) in advance of the EOBT.

EUROCONTROL