Network Manager
nominated by
the European Commission

EUROCONTROL

Monthly Network Operations Report

Analysis – February 2017

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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.

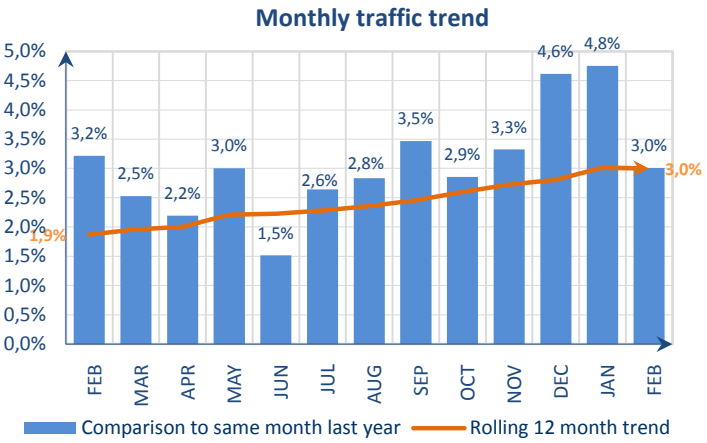
NM Area
All figures presented in this report are for the geographical area that is within Network Manager's responsibility (NM area).

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

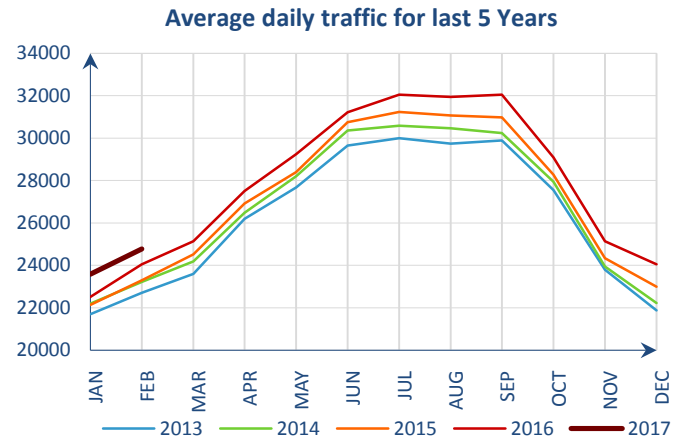
	EN-ROUTE CAPACITY (ATC)		AIRPORT CAPACITY (ATC)
	EN-ROUTE STAFFING (ATC)		AIRPORT STAFFING (ATC)
	EN-ROUTE DISRUPTIONS (ATC)		AIRPORT DISRUPTIONS (ATC)
	EN-ROUTE CAPACITY		AIRPORT CAPACITY
	EN-ROUTE DISRUPTIONS		AIRPORT DISRUPTIONS
	EN-ROUTE EVENTS		AIRPORT EVENTS
	EN-ROUTE WEATHER		AIRPORT WEATHER

Reporting Assumptions and Descriptions
For further information on the NM Area and 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**.

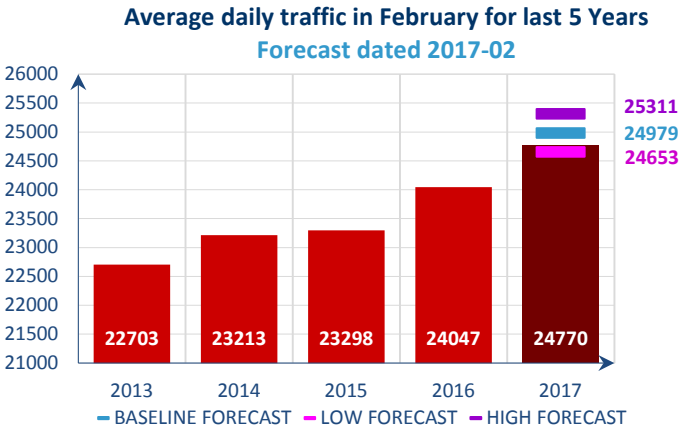
1. TOTAL TRAFFIC



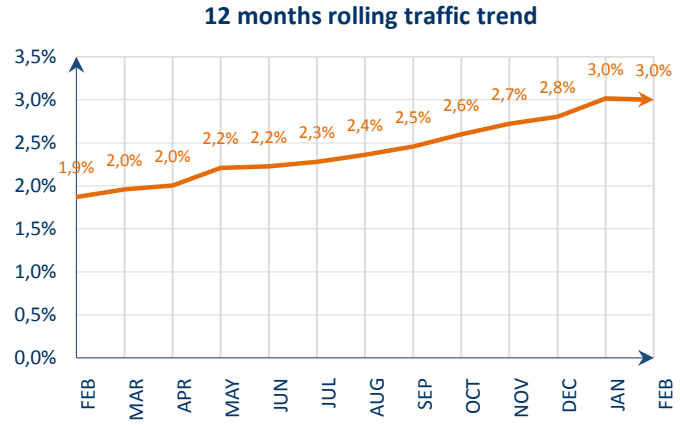
Traffic increased by 3.0% in February 2017[i].



Average daily traffic in February 2017 was the highest for February in the last five years.



The traffic increase of 3.0% for February was at the low-end of the forecast updated in February 2017.



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 2016 to February 2017 was 3.0% higher than the average from March 2015 to February 2016. The trend shows a continuous growth in traffic.

Ten states contributed the most to the growth of local traffic[ii] in Europe in February by adding more than 50 flights per day. UK was by far the top contributor bringing 244 extra daily flights mainly due to strong flows to/from Spain and to/from Canary Islands, adding together 95 daily flights to the network. Spain was the second contributor with 165 extra daily flights; Germany was the third contributor with 137 extra daily flights. France and Lisbon FIR added 113 daily flights and 85 daily flights respectively and completed the top five contributors in February. The following five states completed the list of the top 10 contributors: Canary Islands (+66 flts/day), Poland and Ukraine (each +60 flights/day), the Netherlands and Romania (each +53 flights/day). Altogether these 10 states added a total of 1,035 daily flights to the network in February.

Turkey which added 228 daily flights to the network in February 2016 recorded 103 fewer daily flights in February 2017. Italy hit by industrial action which mostly impacted its internal flow saw 57 fewer flights per day.

Removing the effect of the leap day in February last year, the low-cost and business aviation segments were the main drivers of growth with an increase of 8.8% and 7.5% respectively. The all-cargo segment grew 3.5% and the traditional scheduled segment was up 2.7%. The charter segment recorded a decrease of 6% in February.

The five aircraft operators which added the most flights to the network on a daily basis in February 2017 were Ryanair (+184 flts/day), easyJet (+104 flts/day), LOT (+58 flts/day), Vueling (+47 flts/day) and Wizz Air (45 flts/day).
The top five extra-European partners in average daily flights on flows in both directions in February 2017 were the United States (727 flights, down 0.1%), the Russian Federation (576 flights, up 11.2%), the United Arab Emirates (330 flights, up 0.5%), Morocco (273 flights, up 7.7%) and Israel (223 flights, up 8.4%).

Traffic flows between Europe and Egypt and Europe and Tunisia continued their recovery and increased by 29% to an average of 160 daily flights and by 9% to an average of 100 daily flights respectively.

For more information on EUROCONTROL Forecasts, go to **http://www.eurocontrol.int/statfor/sid**

Six of the top ten airports had positive traffic growth. Overall, the largest traffic increases in February 2017 were at Berlin/Schoenefeld, Lisbon, London/Luton, Warsaw and Manchester airports. The largest traffic decreases were at Istanbul/Ataturk, Rome/Fiumicino, Istanbul/Sabiha Gökcen, Stuttgart and Berlin/Tegel airports. New connections available to Northern and Eastern Europe at Berlin/Schoenefeld airport explain the traffic growth in February 2017. Increase of traffic in Lisbon airport due to the increase of flights by TAP Portugal airline. The traffic variation at Warsaw airport is due to the opening of new connections to Canada and Eastern Europe. Non-ATC Industrial action in Italy on 23 February impacted operations at Rome/Fiumicino and resulted in 336 fewer flights during the action.

Four of the top ten aircraft operators had more traffic compared to February 2016. The operators with the highest traffic growth were Olympic, Norwegian Air International, Eurowings, LOT/Polish and Ukraine International airlines. Aegean, Alitalia, Germanwings, HOP and Air Europa airlines recorded the highest traffic decrease.

The traffic variation of Olympic and Aegean is due to Aegean flights operated with Olympic callsign. LOT/Polish airline increase of traffic is due to the opening of new routes inside Europe. The Transavia traffic increase is mainly due to Northern European growth with direct links between UK and European capitals. Qatar airways increase of traffic is partially explained by the opening of new routes and an increase in fleet size.

N°	ADEP	ADEP NAME	201702	%
1	EGLL	LONDON/HEATHROW	627	-0,1%
2	EHAM	AMSTERDAM/SCHIPHOL	612	5,1%
3	LFPG	PARIS CH DE GAULLE	605	2,2%
4	EDDF	FRANKFURT MAIN	584	-0,6%
5	LTBA	ISTANBUL-ATATURK	554	-6,9%
6	EDDM	MUENCHEN	524	4,2%
7	LEMD	ADOLFO SUAREZ MADRID-BARAJA	492	2,3%
8	LEBL	BARCELONA/EL PRAT	360	5,1%
9	LIRF	ROMA/FIUMICINO	352	-6,3%
10	EGKK	LONDON/GATWICK	347	7,6%
11	EKCH	KOBENHAVN/KASTRUP	333	-2,3%
12	LSZH	ZURICH	328	1,6%
13	ENGM	OSLO/GARDERMOEN	324	0,7%
14	ESSA	STOCKHOLM-ARLANDA	319	4,8%
15	LFPO	PARIS ORLY	300	1,1%
16	EBBR	BRUSSELS NATIONAL	290	-1,0%
17	LOWW	WIEN SCHWECHAT	280	-1,1%
18	EDDL	DUESSELDORF	276	9,6%
19	LTFJ	ISTANBUL/SABIHA GOKCEN	273	-5,5%
20	LSGG	GENEVA	262	0,2%
21	EIDW	DUBLIN	260	3,5%
22	EGCC	MANCHESTER	236	11,1%
23	EFHK	HELSINKI-VANTAA	235	2,2%
24	LPPT	LISBOA	234	13,8%
25	EDDT	BERLIN-TEGEL	227	-3,2%
26	EGSS	LONDON/STANSTED	224	0,4%
27	LIMC	MILANO MALPENSA	204	2,2%
28	EPWA	CHOPINA W WARSZAWIE	203	12,3%
29	EDDH	HAMBURG	191	3,0%
30	LGAV	ATHINAI/ELEFTHERIOS VENIZELOS	186	1,5%
31	EGGW	LONDON/LUTON	169	12,7%
32	GCLP	GRAN CANARIA	163	4,0%
33	EDDK	KOELN-BONN	161	2,6%
34	LKPR	PRAHA RUZYNE	155	9,0%
35	LIML	MILANO LINATE	152	-1,3%
36	LFLL	LYON SAINT-EXUPERY	148	2,5%
37	EGPH	EDINBURGH	147	3,4%
38	LROP	BUCURESTI/HENRI COANDA	142	9,1%
39	EGBB	BIRMINGHAM	140	10,3%
40	LTAC	ANKARA-ESENBOGA	139	2,3%
41	LFMN	NICE-COTE D'AZUR	136	1,6%
42	EDDB	SCHOENEFELD-BERLIN	134	17,0%
43	EDDS	STUTTGART	133	-5,4%
44	LFBO	TOULOUSE BLAGNAC	132	8,1%
45	LLBG	TEL AVIV/BEN GURION	131	8,7%
46	LEMG	MALAGA/COSTA DEL SOL	126	0,0%
47	LEPA	PALMA DE MALLORCA	126	7,7%
48	LFML	MARSEILLE PROVENCE	123	0,1%
49	EGLC	LONDON/CITY	119	-1,7%
50	LHBP	BUDAPEST LISZT FERENC INT.	118	7,3%
	TOTALS and % TOTAL TRAFFIC		13036	58,9%

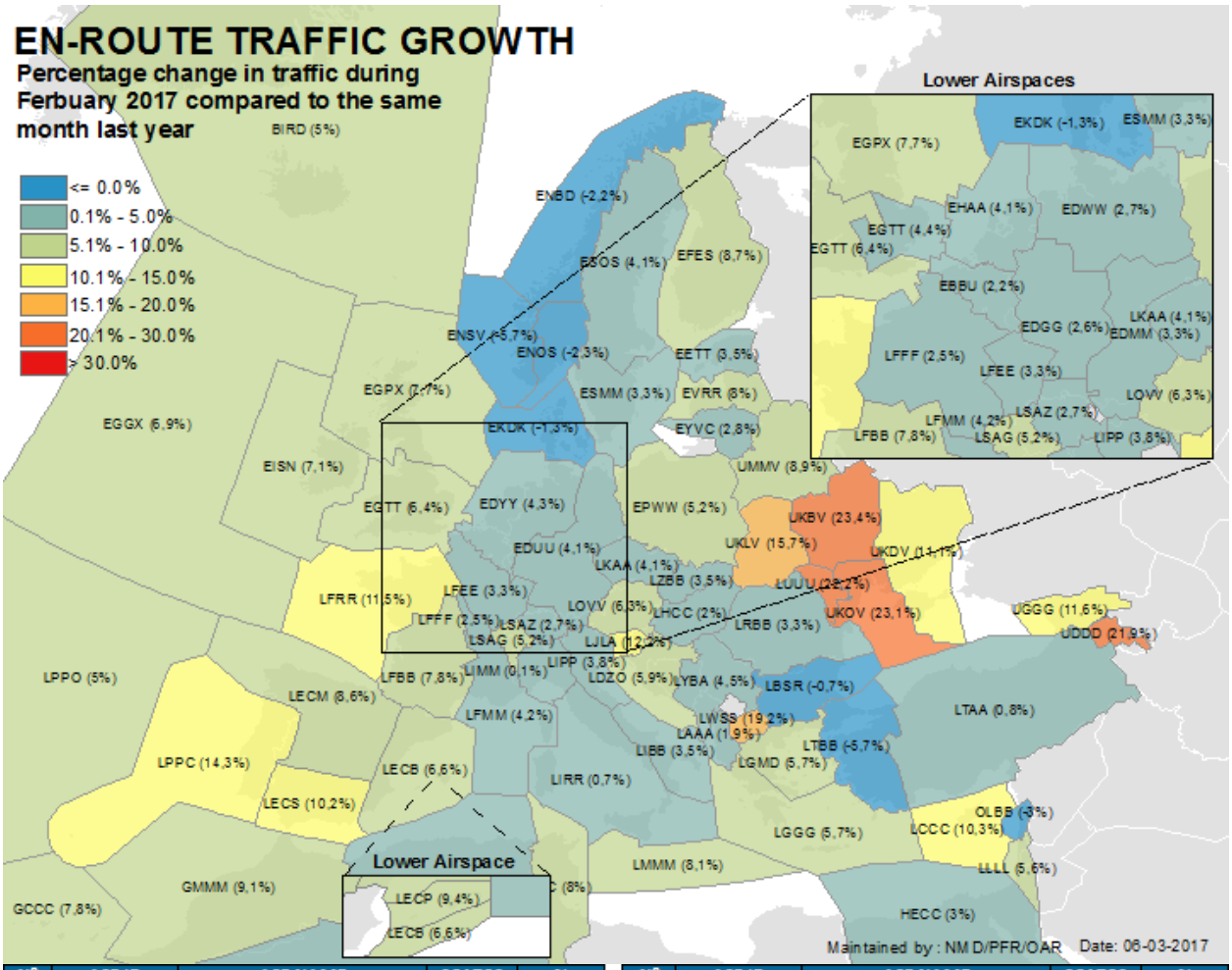
Top 50 Departure Airports with average daily traffic and percentage compared to same period of previous year

N°	ICAO	AIR OPERATOR	201702	%
1	RYR	RYANAIR	1646	12,6%
2	DLH	DEUTSCHE LUFTHANSA	1284	-0,3%
3	EZY	EASYJET	1125	10,2%
4	THY	TURKISH AIRLINES	1107	-6,4%
5	AFR	AIR FRANCE	841	-1,6%
6	SAS	SCANDINAVIAN AIRLINES SYSTEM	812	-0,7%
7	BAW	BRITISH AIRWAYS	652	0,0%
8	KLM	KLM ROYAL DUTCH AIRL	572	4,4%
9	AZA	ALITALIA	477	-12,5%
10	BER	AIR BERLIN, INC.	439	0,2%
11	BEE	JERSEY EUROPEAN T/A FLYBE	392	6,8%
12	PGT	PEGASUS HAVA TASI.	390	0,5%
13	VLG	VUELING AIRLINES SA	388	13,8%
14	SWR	SWISS INTERNATIONAL	371	-1,9%
15	WZZ	WIZZ AIR	358	14,7%
16	WIF	WIDEROE	341	-4,2%
17	NAX	NORWEGIAN AIR SHUTTLE	318	0,0%
18	FIN	FINNAIR O/Y	309	0,7%
19	TAP	TAP/AIR PORTUGAL	294	8,5%
20	AUA	AUSTRIAN AIRLINES	284	0,7%
21	AFL	AEROFLOT-RUSSIAN	266	9,5%
22	LOT	LOT-POLISH AIRLINES	258	29,0%
23	GWI	GERMAN WINGS	250	-10,7%
24	HOP	HOP (MERGE OF BZH + RAE + RLA)	232	-8,7%
25	IBE	IBERIA	221	-1,3%
26	BEL	BRUSSELS AIRLINES	203	3,0%
27	AEA	AIR EUROPA	201	-8,2%
28	ANE	AIR NOSTRUM	196	-2,0%
29	UAE	EMIRATES	191	-1,0%
30	QTR	QATAR AIRWAYS COMP.	188	16,0%
31	RAM	ROYAL AIR MAROC	185	9,5%
32	IBK	NORWEGIAN AIR INTERNATIONAL	170	39,3%
33	EIN	AER LINGUS TEORANTA	163	-1,2%
34	EWG	EUROWINGS AG	161	32,0%
35	BCS	EUROPEAN AIR TRANSP.	152	4,1%
36	AUI	UKRAINE INTERNATIONA	135	25,0%
37	EZS	EASY JET SWITZERLAND	127	2,4%
38	TRA	TRANSAVIA.COM	115	23,7%
39	OAL	OLYMPIC	110	41,0%
40	LOG	LOGANAIR	109	7,9%
41	NJE	NETJETS	106	5,0%
42	BTI	AIR BALTIC CORPORAT.	106	15,2%
43	UAL	UNITED AIRLINES INC.	105	-0,9%
44	SHT	BAW SHUTTLE	104	-1,9%
45	TOM	THOMSON FLY LTD	103	13,2%
46	CFE	CITYFLYER EXPRESS	102	2,0%
47	TAY	TNT INTERNATIONAL	96	4,3%
48	AEE	AEGEAN AIRLINES	95	-31,7%
49	DAH	AIR ALGERIE	95	10,5%
50	ROT	TAROM	91	-3,2%
	TOTALS and % TOTAL TRAFFIC		17036	68,7%

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

N°	ICAO	AIR OPERATOR	201702	%
		Unidentified	1740	-5,2%

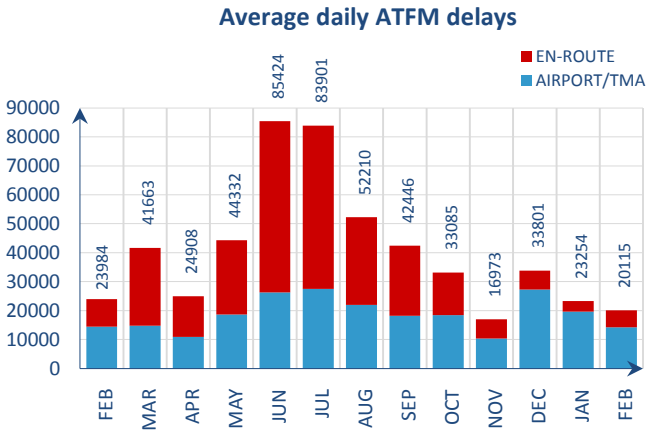
Average daily traffic and percentage compared to same period of previous year for all flights where Air Operators can't be identified



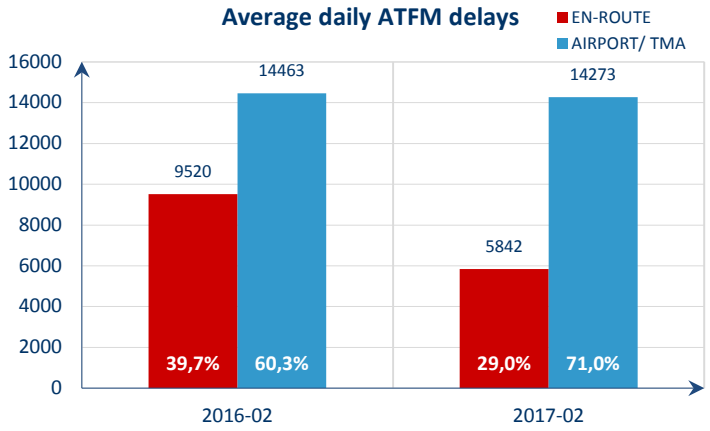
Nº	ASP ID	ASP NAME	201702	%	Nº	ASP ID	ASP NAME	201702	%
1	BIRDACC	REYKJAVIK ACC	313	5,0%	39	LFBBALL	BORDEAUX ALL ACC	2048	7,8%
2	DAAAACC	ALGERS ACC	452	2,7%	40	LFEEACC	REIMS U/ACC	2328	3,3%
3	DTTCACC	TUNIS ACC	242	8,0%	41	LFFFALL	PARIS ALL ACC	2998	2,5%
4	EBBUACC	BRUSSELS CANAC	1449	2,2%	42	LFMMACC	MARSEILLE ACC	2247	4,2%
5	EDGGALL	LANGEN ACC_FIR	3047	2,6%	43	LFMMAPP	MARSEILLE TMA	671	1,2%
6	EDMMACC	MUNCHEN ACC	2761	3,3%	44	LFRRACC	BREST U/ACC	2321	11,5%
7	EDUUUAC	KARLSRUHE UAC	4314	4,1%	45	LGGGACC	ATHINAI CONTROL	897	5,7%
8	EDWWACC	BREMEN ACC	1627	2,7%	46	LGMDACC	MAKEDONIA CONTROL	634	5,7%
9	EDYYUAC	MAASTRICHT UAC	4466	4,3%	47	LHCCACC	BUDAPEST ACC	1556	2,0%
10	EETTACC	TALLIN ACC	473	3,5%	48	LIBBACC	BRINDISI ACC	509	3,5%
11	EFESACC	TAMPERE ACC	486	8,7%	49	LIMMACC	MILANO ACC	1783	0,1%
12	EGGXOCA	SHANWICK OACC	1104	6,9%	50	LIPPACC	PADOVA ACC	1334	3,8%
13	EGPXALL	SCOTTISH ACC	2393	7,7%	51	LIRRACC	ROMA ACC	1654	0,7%
14	EGTTACC	LONDON ACC	4871	6,4%	52	LJLAACC	LJUBLJANA ACC	542	12,2%
15	EGTTTC	LONDON TMA TC	3541	4,4%	53	LKAAACC	PRAGUE ACC	1741	4,1%
16	EHAAACC	AMSTERDAM ACC(245-)	1448	4,1%	54	LLLLACC	TEL AVIV ACC	319	5,6%
17	EIDWACC	DUBLIN ACC	558	4,9%	55	LMMMACC	MALTA ACC	266	8,1%
18	EISNACC	SHANNON ACC	995	7,1%	56	LOVVACC	WIEN ACC	1701	6,3%
19	EKDKACC	COPENHAGEN ACC	1390	-1,3%	57	LPPCACC	LISBOA ACC/UAC	1398	14,3%
20	ENBDACC	BODO ACC	582	-2,2%	58	LPPOOAC	SANTA MARIA OACC	397	5,0%
21	ENOSACC	OSLO ATCC	902	-2,3%	59	LQSBACC	BOSNIA-HERZEGOVINA	71	2,9%
22	ENSVACC	STAVANGER ATCC	567	-5,7%	60	LRBBACC	BUCURESTI ACC	1388	3,3%
23	EPWWACC	WARSZAWA ACC	1660	5,2%	61	LSAGACC	GENEVA ACC	1539	5,2%
24	ESMMACC	MALMO ACC	1318	3,3%	62	LSAZACC	ZURICH ACC	1784	2,7%
25	ESOSACC	STOCKHOLM ACC	1112	4,1%	63	LTAAACC	ANKARA ACC	2939	0,8%
26	EVRRACC	RIGA ACC	597	8,0%	64	LTBBACC	ISTANBUL ACC	1771	-5,7%
27	EYVCACC	VILNIUS ACC	520	2,8%	65	LUUUACC	CHISINAU ACC	88	22,2%
28	GCCCACC	CANARIAS ACC/FIC	918	7,8%	66	LWSSACC	SKOPJE ACC	217	19,2%
29	GMMMACC	CASABLANCA ACC	1090	9,1%	67	LYBAACC	BEOGRADE ACC	1122	4,5%
30	HECCACC	CAIROACC	611	3,0%	68	LZBBACC	BRATISLAVA ACC	994	3,5%
31	LAAAACC	TIRANA ACC	326	1,9%	69	OLBBACC	BEIRUT ACC	128	-3,0%
32	LBSRACC	SOFIA ACC	1509	-0,7%	70	UDDDACC	YEREVAN ACC	100	22,0%
33	LCCCACC	NICOSIA ACC	769	10,3%	71	UGGGACC	TBILISI ACC	327	11,6%
34	LDZOACC	ZAGREB ACC	899	5,9%	72	UKBVACC	KIEV ACC	306	23,4%
35	LECBACC	BARCELONA ACC	1588	6,6%	73	UKDVACC	DNIPROPETROVSK ACC	40	11,1%
36	LECMALL	MADRID ALL ACC	2591	8,6%	74	UKLVACC	L'VIV ACC	214	15,7%
37	LECPACC	PALMA ACC	338	9,4%	75	UKOVACC	ODESSA ACC	165	23,1%
38	LECSACC	SEVILLA ACC	861	10,2%	76	UMMVACC	MINSK ACC	622	8,9%

The Madrid and Lisbon ACCs variation is due to increased of traffic in the South/West axis and especially between UK and Canarias. However, the highest traffic increases in February 2017 were in Kiev, Odessa, Yerevan, Skopje and Lisbon ACCs. Low traffic in February 2016 during ERATO system transition in Brest ACC explains some of the variation.

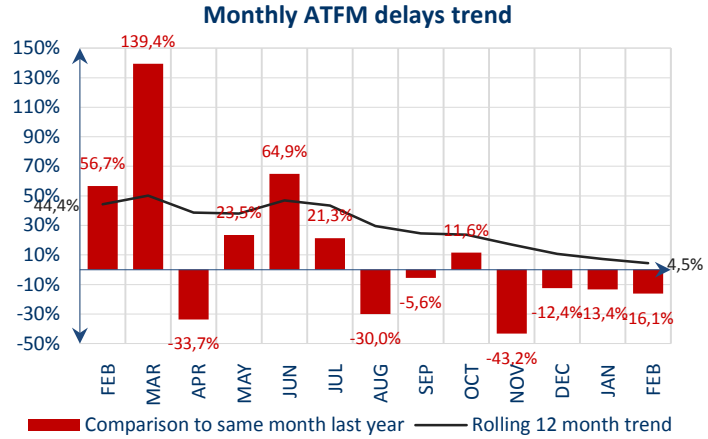
2. ATFM DELAY AND ATTRIBUTIONS



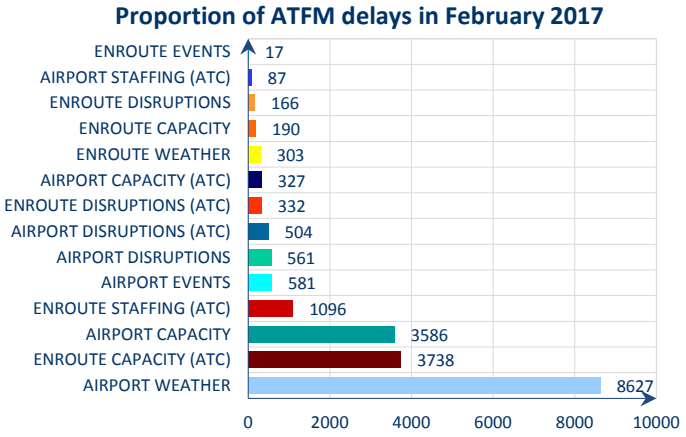
Total ATFM delays decreased by 16.1% in February 2017.



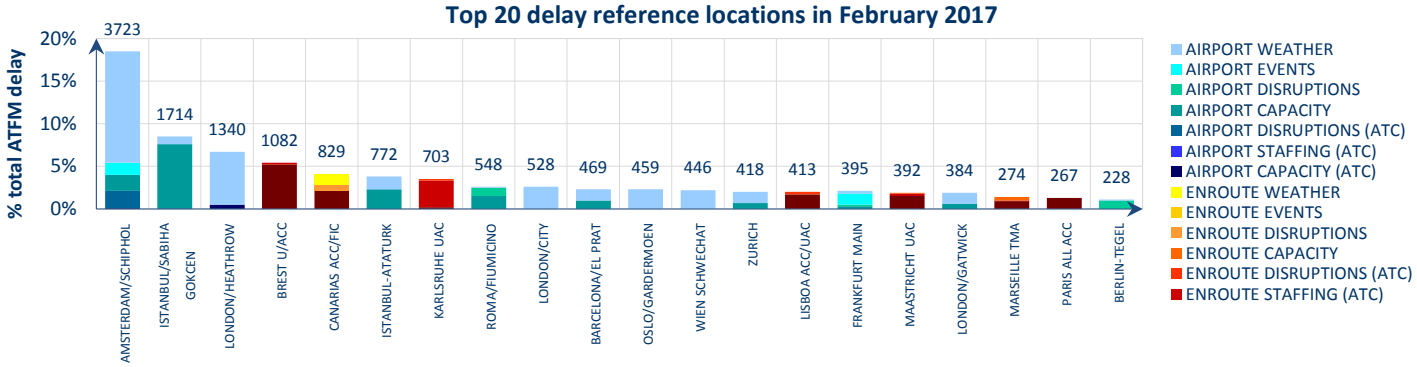
En-route ATFM delays decreased by 38.6% and airport ATFM delays decreased by 1.3%.



The rolling 12-month trend shows continuous improvement since June 2016. ATFM delay was 4.5% higher during the period March 2016 – February 2017 compared to March 2015 – February 2016.



Airport weather (42.9%), en-route ATC capacity (18.6%) and airport capacity (17.8%) were the main causes of ATFM delays in February 2017.

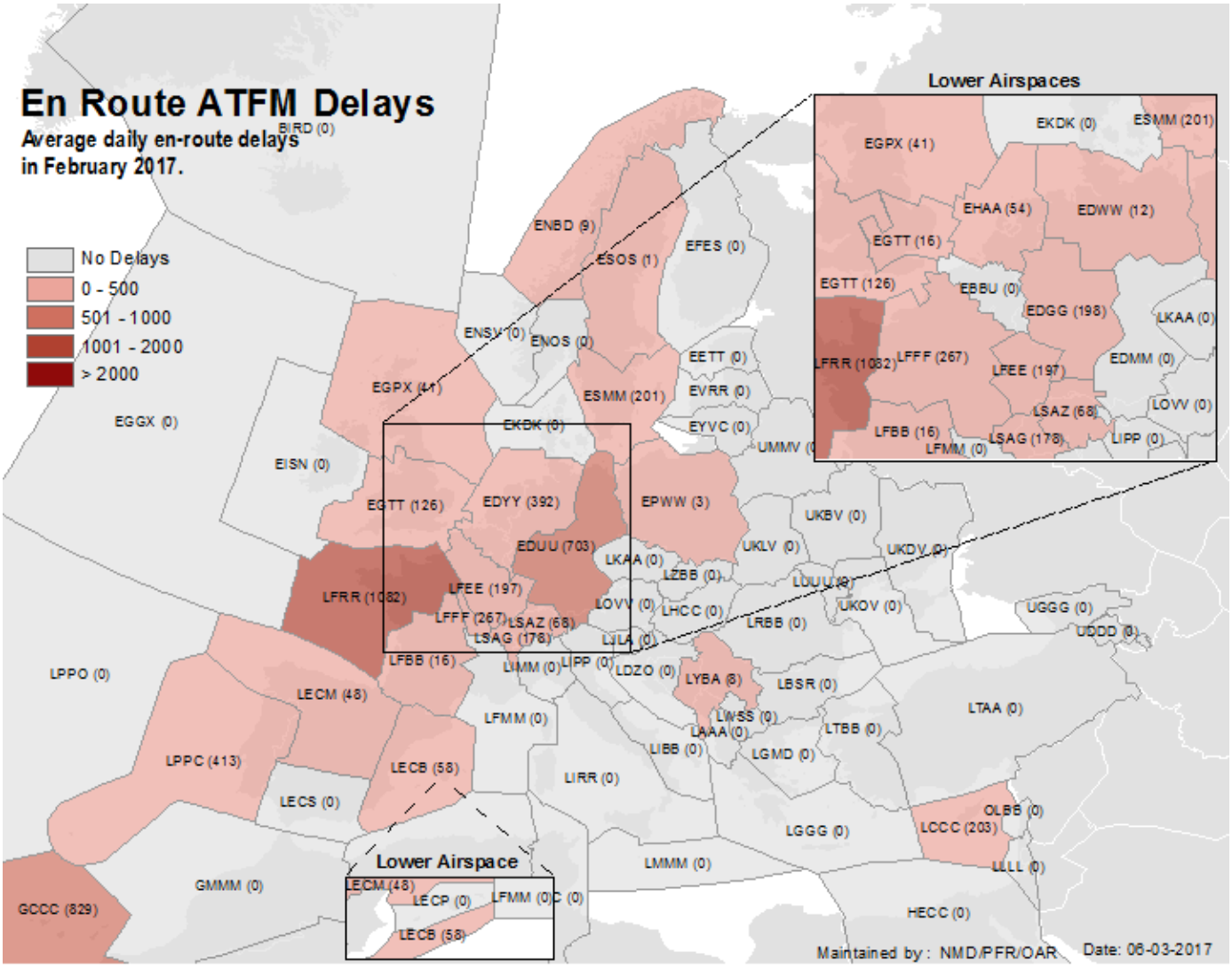


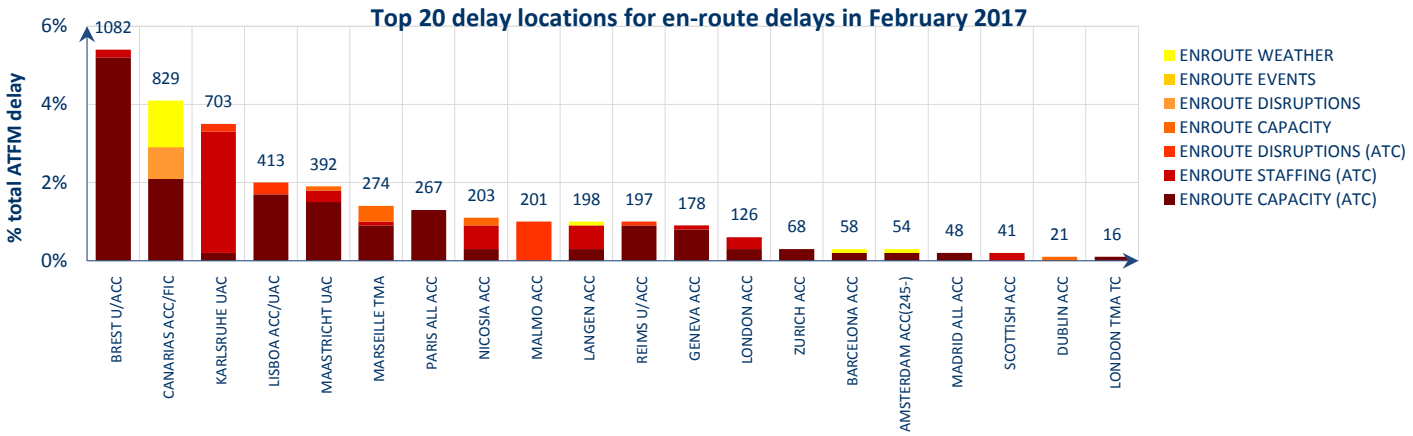
These are the top 20 delay generating locations for the reporting month with respect to total ATFM delays. Figures are the average daily delays in minutes for the individual locations.

- Seasonal weather impacted several airports, especially Amsterdam/Schiphol, London/Heathrow and to a lesser extent London/City and Oslo/Gardermoen;
- Aerodrome capacity issues generated delays at Istanbul/Sabiha Gökcen, Istanbul/Ataturk and Amsterdam/Schiphol airports;
- En-route ATC capacity issues in Brest, Canarias, Lisbon and Maastricht ACCs;
- En-route staffing issues in Karlsruhe ACC;
- PSS implementation in Langen ACC impacted Frankfurt/Main airport;
- Capacity reduction at Amsterdam/Schiphol airport due to on-going implementation of a new ATM system (AAA system);
- Airport ATFM delays at Rome/Fiumicino due to single runway operations during work on runways.

3. EN-ROUTE ATFM DELAYS

EN-ROUTE ATFM DELAY PER LOCATION



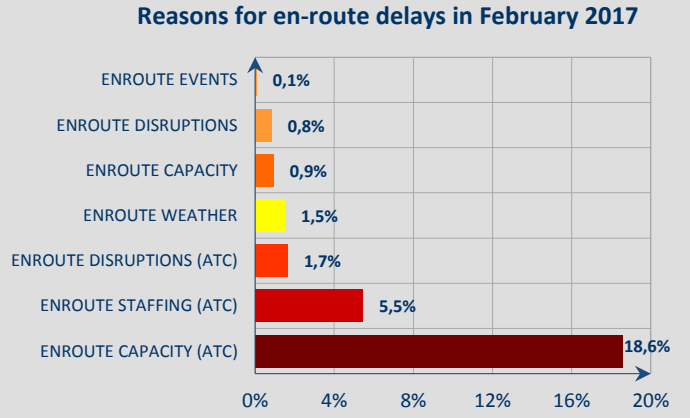


These are the top 20 en-route ATFM delay generating locations for the reporting month with respect to total ATFM delays. Figures are the average daily delays in minutes for the individual locations.

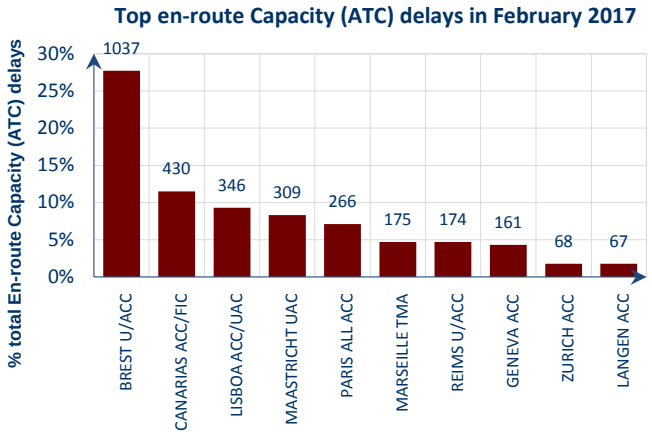
The top 20 en-route ATFM delay locations generated **26.7%** of the monthly total (network) ATFM delay.
The top 5 en-route ATFM delay locations generated **16.9%** of the monthly total (network) ATFM delay.

More detailed information available in the Monthly per ACC Summary Report via the **NM ATFCM Statistics website**.

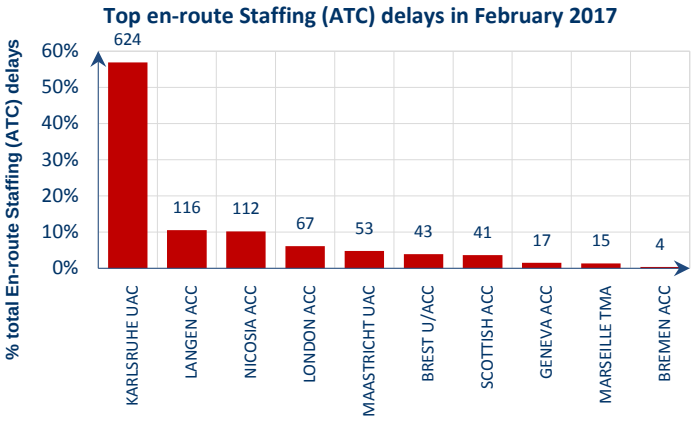
EN-ROUTE ATFM DELAY PER DELAY GROUP



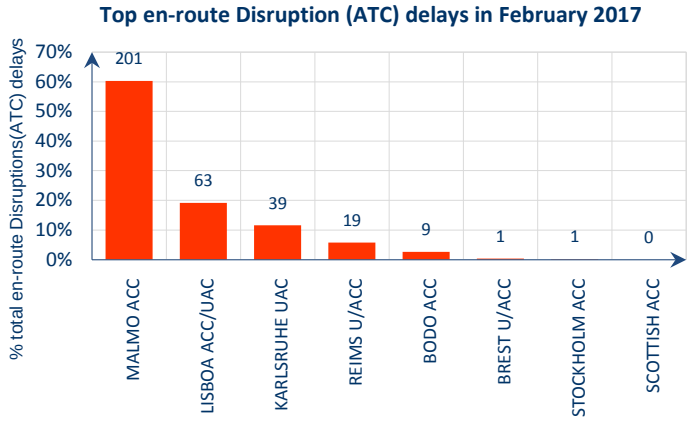
En-route ATFM delays accounted for 29% of all ATFM delays. Most of this delay was caused by en-route ATC capacity, en-route ATC staffing and en-route ATC disruptions as explained in detail below. The other causes were:
En-route weather; Strong winds impacted operations in Canarias ACC on 11 and 15 February;
En-route capacity; Delays generated in Chambery TMA on 11 February due to high ski demand;
En-route disruptions; Delays in Canarias ACC on 18 February.



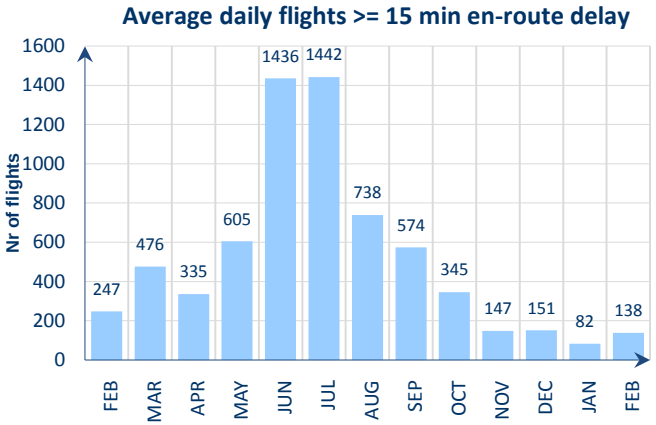
ATC capacity delays in Brest ACC mainly during weekends. High traffic in the South-West axis generated delays in Canarias and Lisbon ACCs.



Karlsruhe ACC was the biggest generator of en-route ATC staffing delays in February these delays were almost double compared to January 2017. Delays decreased in all other ACCs.

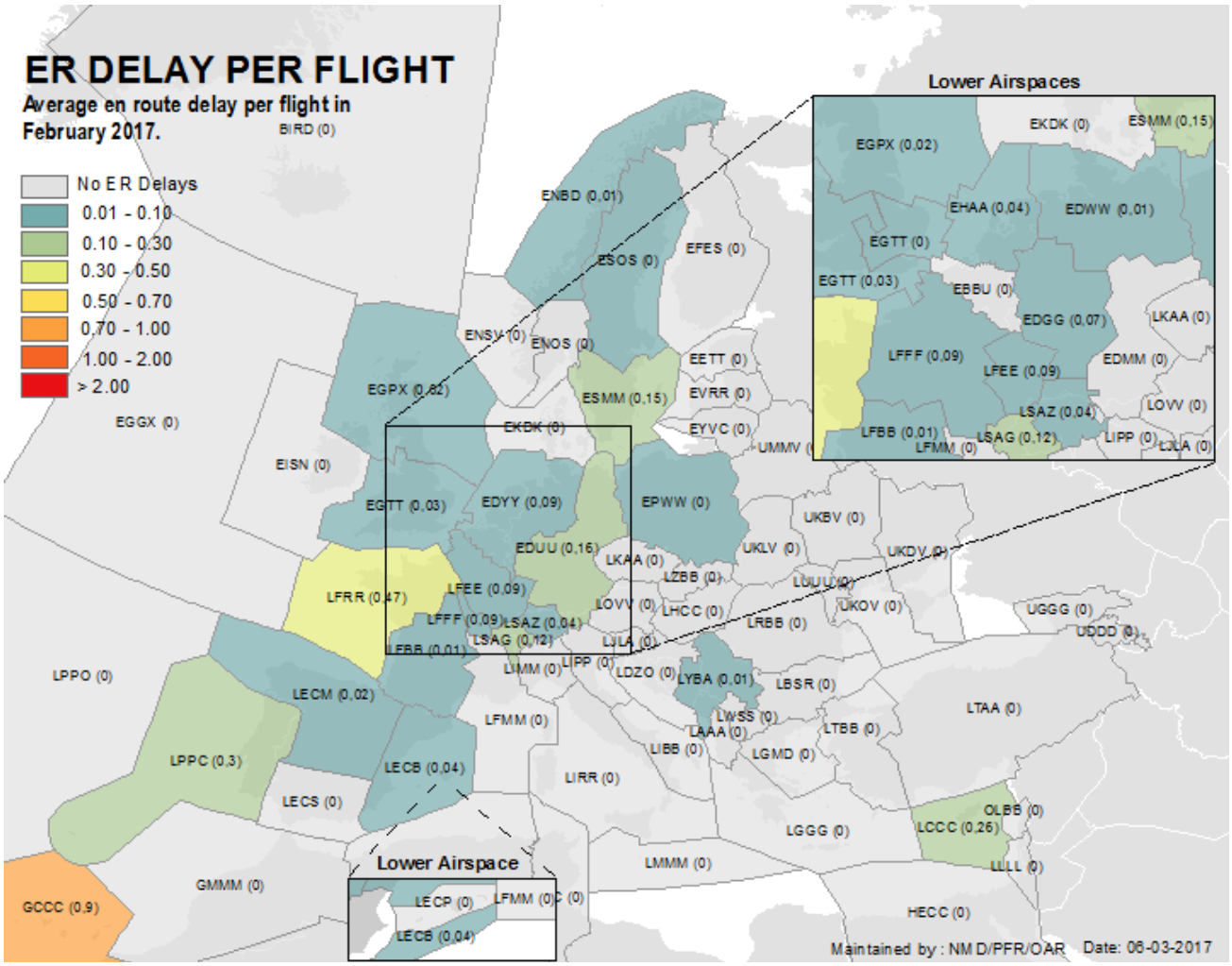


Non-availability of ATM back up system in Malmo ACC on 14 and 15 February due to weather phenomena resulted in ATFM delays. Frequency issues in Lisbon ACC from 19 to 24 February and in Karlsruhe ACC on 23 February.

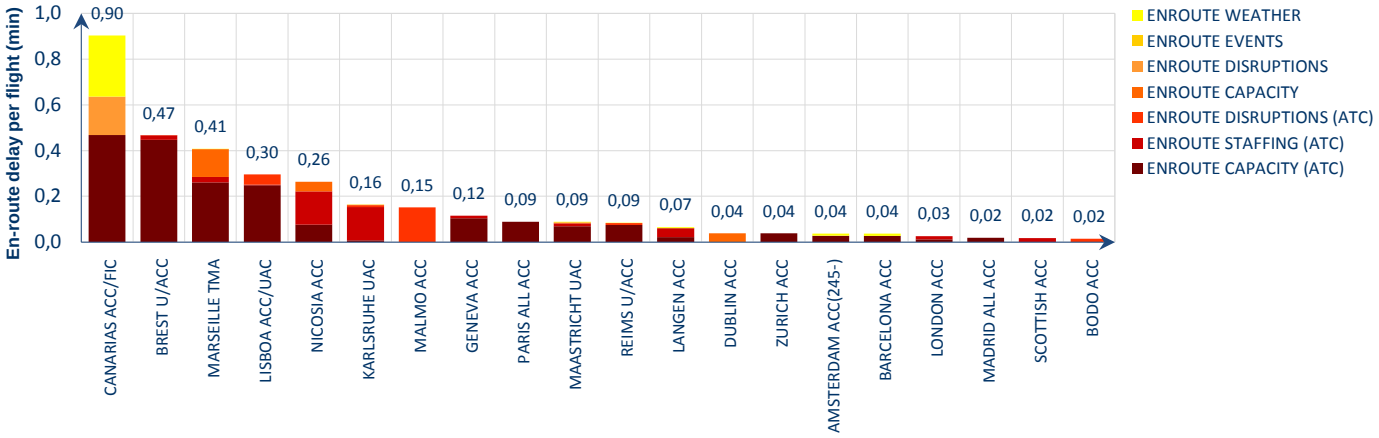


The average daily flights with an en-route ATFM delay of at least 15 minutes decreased from 247 flights/day in February 2016 to 138 flights/day in February 2017.

EN-ROUTE ATFM DELAY PER FLIGHT



Top 20 delay locations for en-route ATFM delays in February 2017



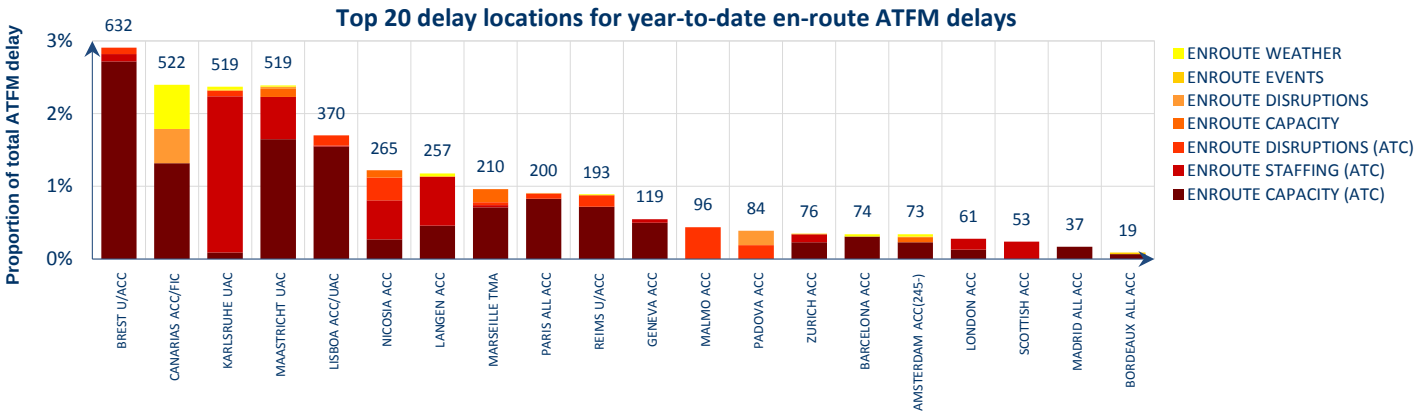
These are the top 20 average en-route ATFM delay per flight generating locations for the reporting month. Figures are the average en-route ATFM delay per flight in minutes for the individual locations.

Nicosia ACC average en-route ATFM delay/flight decreased from 0.43 min/flt in January 2017 to 0.26 min/flt in February 2017.

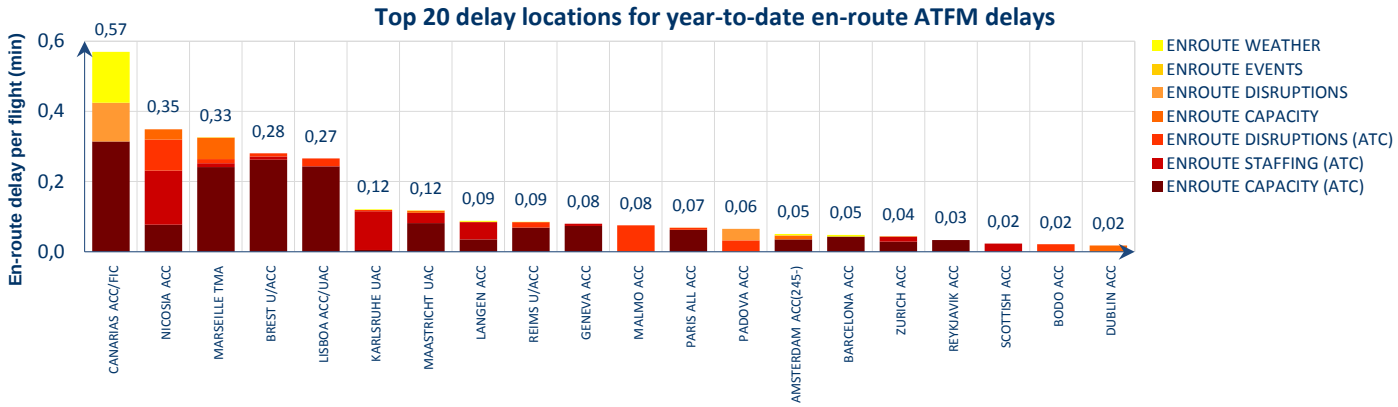
Canarias ACC average en-route ATFM delay/flight increased from 0.27 min/flt in January 2017 to 0.90 min/flt in February 2017.

Brest ACC average en-route ATFM delay/flight increased from 0.10 min/flt in January 2017 to 0.47 min/flt in February 2017.

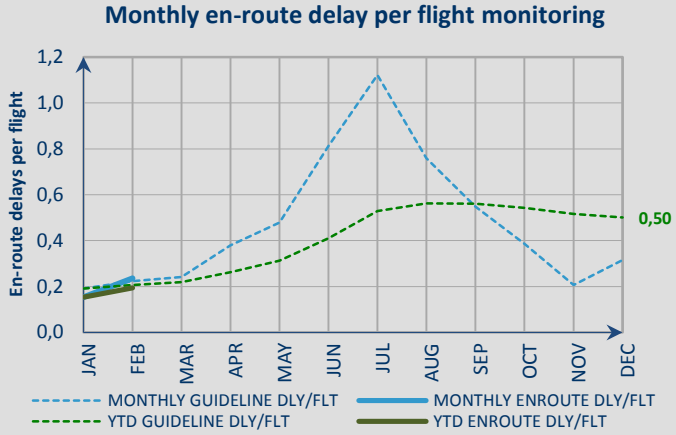
EN-ROUTE ATFM DELAY YEAR-TO-DATE

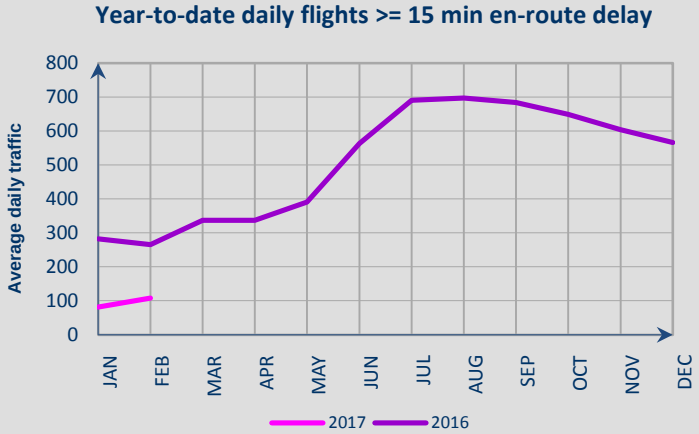


These are the top 20 en-route delay locations for 2017 with respect to the total ATFM delay. Figures are the average daily en-route delay in minutes for the individual locations.
The top 20 en-route delay locations generated **20.1%** of the total ATFM (network) delay.
The top 5 en-route delay locations generated **11.8%** of the total ATFM (network) delay.



These are the top 20 average en-route ATFM delay per flight generating locations for 2017 with respect to the total ATFM delay. Figures are the average daily en-route delay in minutes for the individual locations.



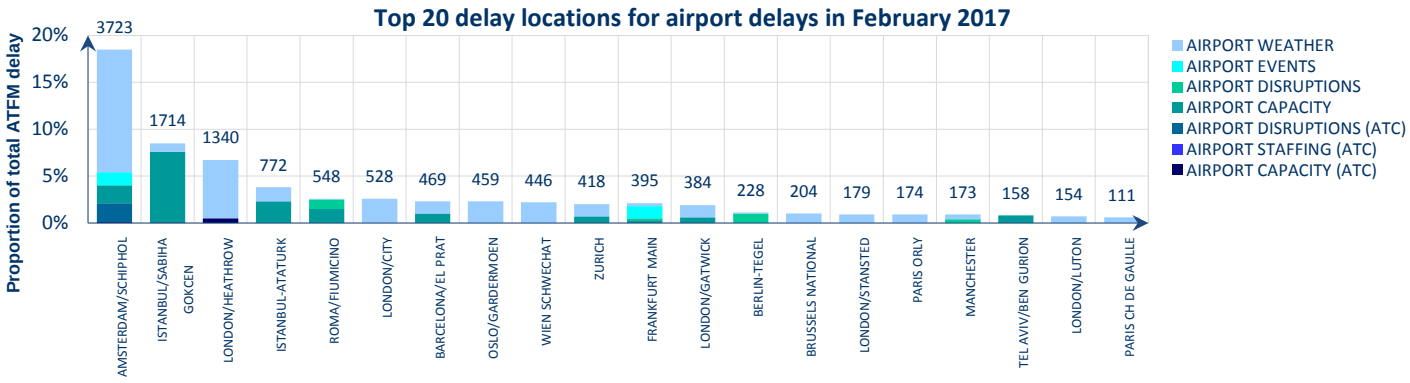


Reporting month: The average en-route ATFM delay per flight in the NM area[iii] in February was 0.24 min/flt ,which is above the corresponding monthly guideline[iv] value of 0.22 min/flt.
Year To Date: The average YTD en-route ATFM delay per flight in 2017 in the NM area[iii] is 0.19 min/flt which is below the corresponding guideline value of 0.21 min/flt.

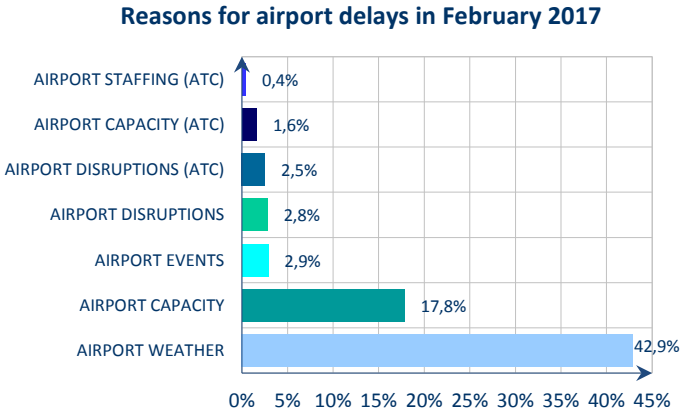
Year to date: An average of 138 flights/day had an en-route ATFM delay of at least 15 minutes in February 2017. The corresponding figure in 2016 was 265 flights/day.

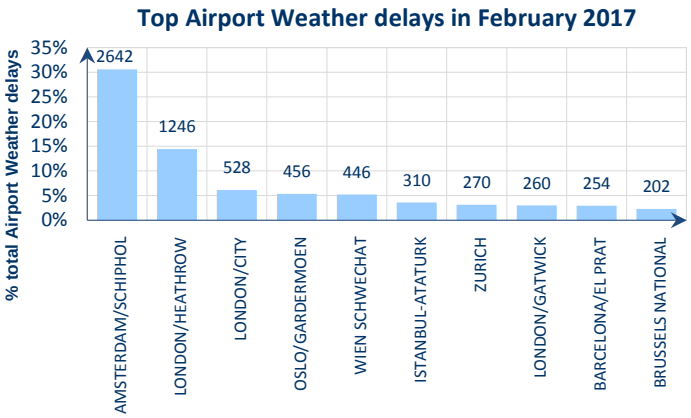
4. AIRPORT/TMA ATFM DELAYS

AIRPORT/TMA ATFM DELAY PER LOCATION



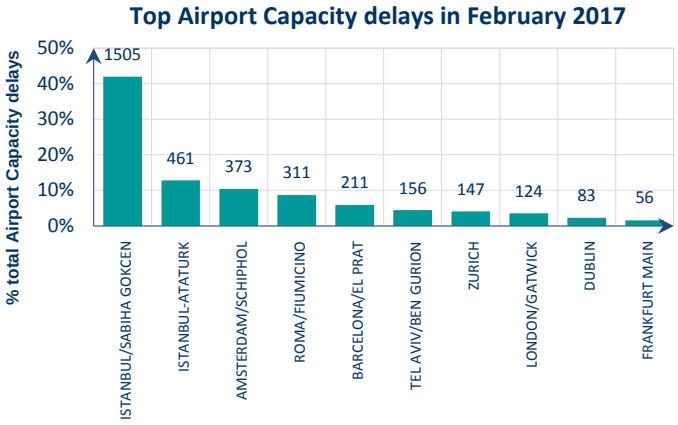
AIRPORT/TMA ATFM DELAY PER DELAY GROUPS

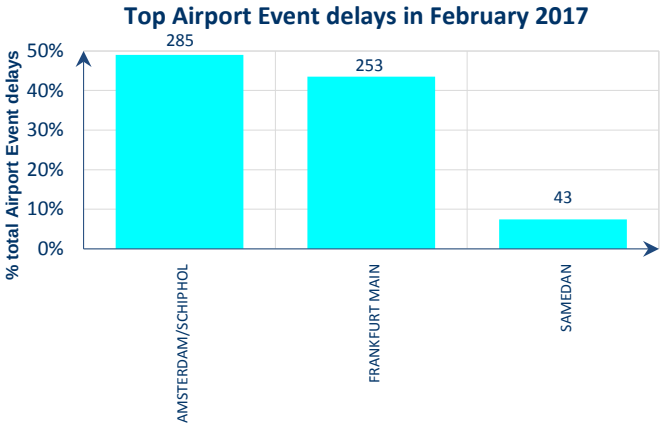




Airports accounted for 71% of all ATFM delays in February 2017, mainly due to airport weather and to a lesser extent aerodrome capacity.

Adverse seasonal weather impacted operations strongly at Amsterdam/Schiphol airport with the worst day on 23 February (31,321 minutes of ATFM delay). High weather delays generated at London/Heathrow airport with a peak of 8,241 minutes of delay on 23 February, a demand reduction program was applied because of the weather.

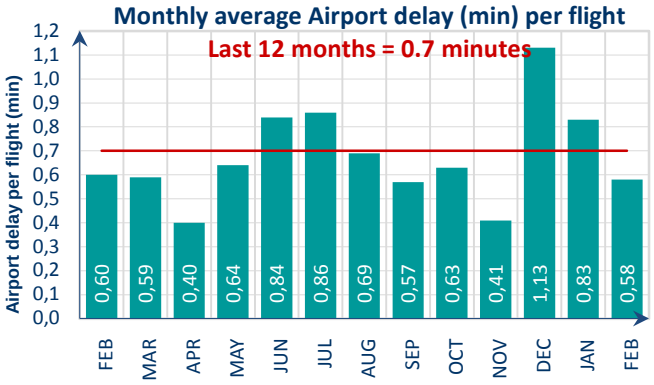


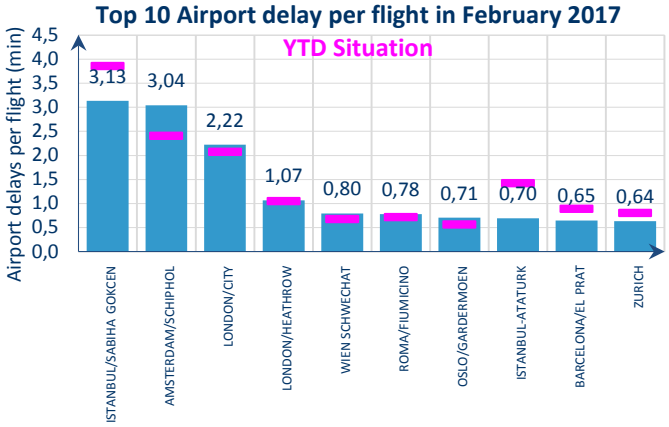


Though there was an 8.8% decrease in traffic with a 30% decrease in delays compared to February 2016, Istanbul Sabiha/Gökcen airport continues to generate high delays due to airport capacity.

Capacity reduction at Amsterdam/Schiphol airport due to the implementation of a new ATM system (AAA system). PSS implementation in Langen ACC impacted operations at Frankfurt approach. Relativaly high demand due to Ski Alpine World Championship generated delays in Samedan airport.

AIRPORT/TMA ATFM DELAY PER FLIGHT

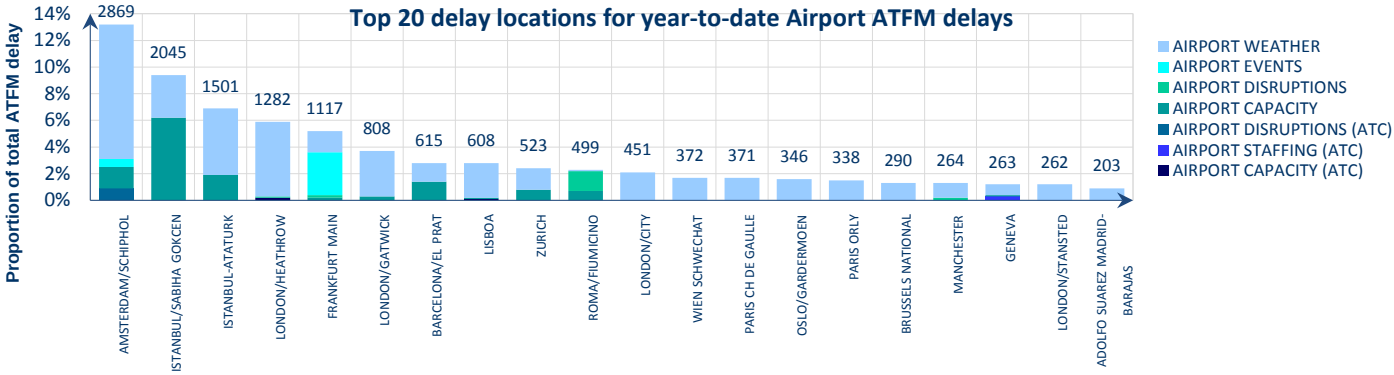




Average airport/TMA delay per flight decreased from 0.60 min/flt in February 2016 to 0.58 min/flt in February 2017.

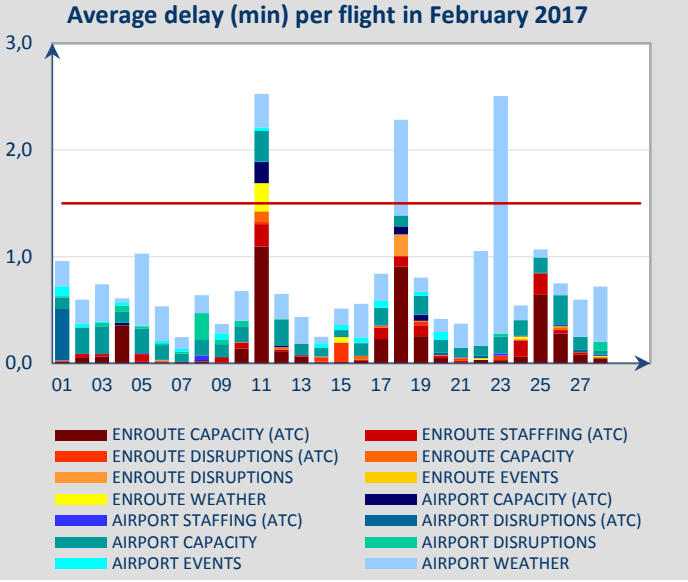
Istanbul/Sabiha Gökcen airport had the highest delay per flight in February. Amsterdam/Schiphol airport delay per flight increased from 2.40min/flt in February 2016 to 3.04 min/flt in February 2017.

AIRPORT/TMA ATFM DELAY YEAR-TO-DATE



The top 20 Airport/TMA delay locations have generated **69.1%** of the total ATFM (network) delay in 2017.
The top 5 Airport/TMA delay locations have generated **40.6%** of the total ATFM (network) delay in 2017.

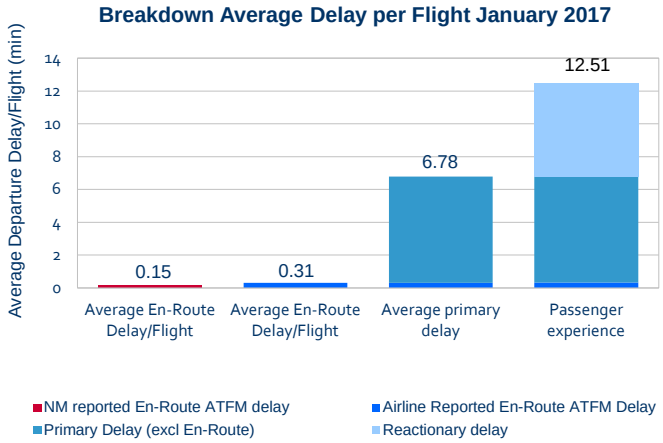
5. DAILY EVOLUTION



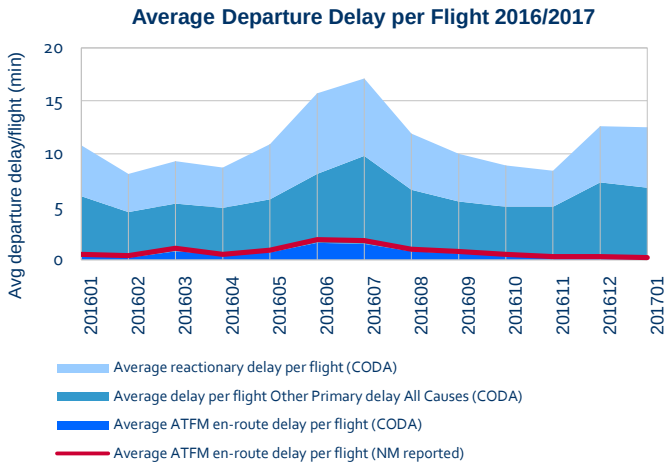
There were 3 days in February 2017 when average ATFM delay/flt exceeded 1.5 min/flt. These were the most significant days;
11 February; En-route ATC capacity issues in Lisbon, Paris, Brest, Geneva and Maastricht ACCs due to high demand; Snow impacted operations at Amsterdam/Schiphol airport, strong winds at Gran Canaria airport; Aerodrome capacity issue at London/Gatwick airport; En-route weather issues in Canarias ACC; En-route staffing issue in Karlsruhe ACC; Airport ATC capacity at London/Heathrow airport;
18 February; Low visibility impacted operations strongly at Amsterdam/Schiphol airport, and to a lesser extent at London/Gatwick, Warsaw, Paris/Orly and Paris/Charles de Gaulle airports; En-route ATC capacity issues in Brest, Lisbon, Paris, Reims and Marseille ACCs due to high demand; En-route disruptions in Canarias ACC; En-route staffing issues in Karlsruhe ACC;
23 February; Storm 'Doris' generated strong winds and heavy precipitation impacting Amsterdam/Schiphol, London/Heathrow, London/Stansted, London/City, Manchester, London/Gatwick, London/Luton and Frankfurt airports; Aerodrome capacity reduction at Istanbul/Sabiha Gökcen airport due to strong winds; A demand reduction program was applied at London/Heathrow as a result of the weather; Frequency issues in Karlsruhe ACC.

6. ALL AIR TRANSPORT DELAYS (SOURCE: CODA)

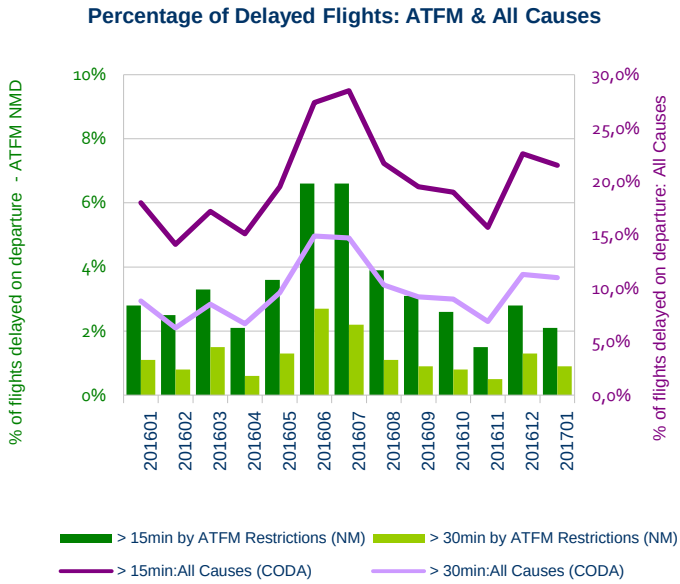
This section presents the all air transport delay situation as seen from the airlines by using the data collected by Central Office for Delay Analysis (CODA) from airlines. Data coverage is 69% of the commercial flights in the ECAC region for January 2017. ATFM delays reported by airlines may be lower 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. For the airline, a part of this delay is the ATFM delay and the remaining amount is the handling delay.



Based on airline data, the average departure delay per flight from ‘All-Causes’ was 12.51 minutes per flight, this was an increase of 18% in comparison to January 2016 where the average delay was 10.61 minutes per flight. Primary delays counted for 54% (or 6.78 min/flt), with reactionary delays representing the smaller remaining share of 46% at (5.72 min/flt).

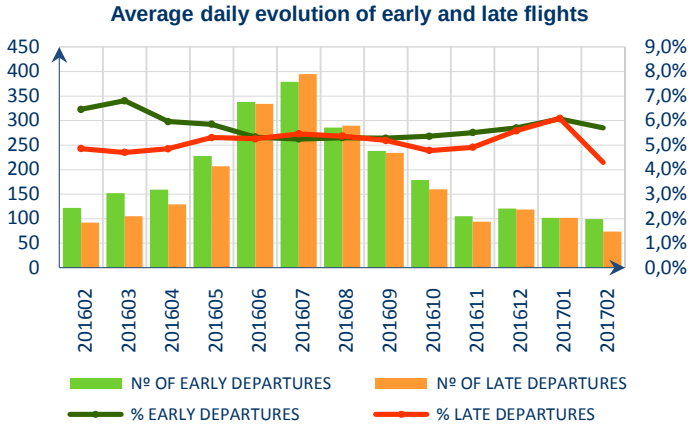


Further analysis of the past 12 months shows that the average ‘All-Causes’ en-route ATFM delay reported by airlines was 0.31 minutes per flight. This was above the NM reported average en-route ATFM delay of 0.24 minutes per flight in January 2017.



The percentage of flights delayed from ‘All-Causes’ increased with (those exceeding 15 minutes) increasing by 4 percentage points to 21.5%. Those (exceeding 30 minutes) also increased with 11.0% of flights delayed in January 2017.

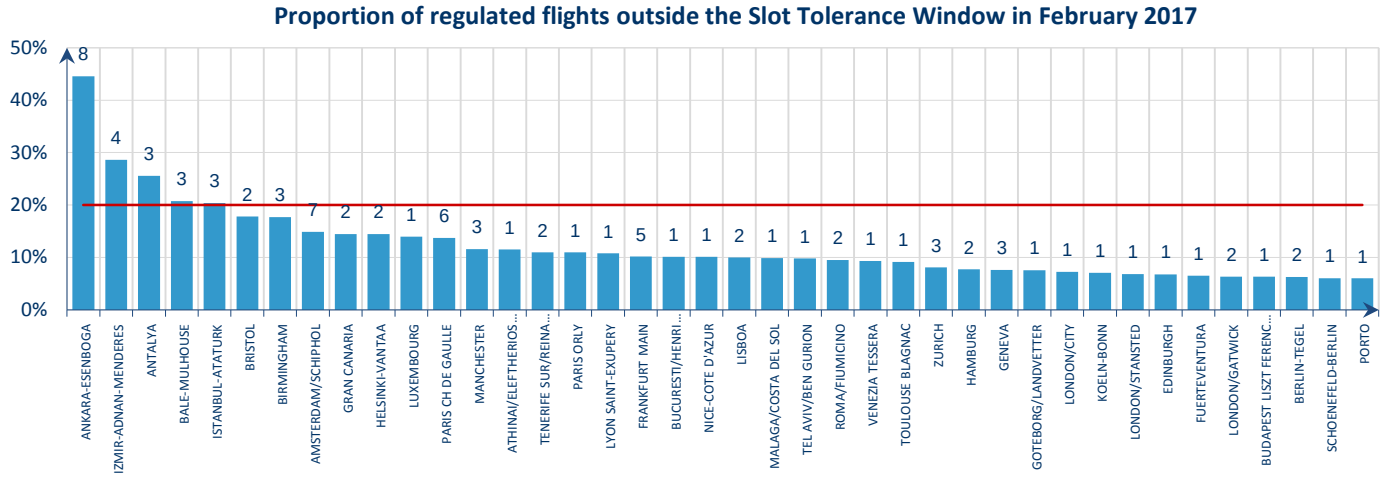
7. ATFM SLOT ADHERENCE



The percentage of early departures for February 2017 is 5.7% of regulated flights, which is a decrease of 0.8 percentage points compared to February 2016.

The percentage of late departures for February 2017 is 4.3% of regulated flights, which is a decrease of 0.6 percentage points compared to February 2016.

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

Two ACCs carried out projects involving ATM system changes/upgrades during this reporting period.

The ERATO system implementation in Bordeaux ACC went through the Transition period 5 (Recovery phase 2) throughout the entire month of February generating only 261 minutes of ATFM delay. The ACC had previously estimated the capacity reductions to range between 15% - 10%.

Langen ACC went through the transition phase (until 12 February) of the implementation of PSS system in SWG 10 (Frankfurt APP sectors), generating 8,076 minutes of ATFM. A 10% arrival capacity reduction at EDDF had been estimated during the transition period, with maximum sector configuration.

OTHER PROJECTS

Transition to new ATM system (AAA system) in Amsterdam ACC generated 8,063 minutes of ATFM delay, between 14 – 20 February.

Division flight level (DFL) change in central sector of Karlsruhe ACC generated 113 minutes of ATFM delay.

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.

Special Events

- EU summit in Malta from 2 to 4 February;
- Ski Alpine World Championship from 6 to 19 February impacting Samedan airport in Switzerland (1,207 minutes of ATFM delay).

Completed:

- Runway maintenance at Athens (1,018 minutes of ATFM delay), Istanbul/Ataturk (1,528 minutes of ATFM delay), Larnaca and Pardubice airports;
- Taxiway construction at Antalya and Athens airports.

Ongoing

- Runway maintenance at Barcelona, Cologne, Dublin, Istanbul/Sabiha Gökcen, Krakow, Nice, Rome/Fiumicino (14,576 minutes of ATFM delay), Tallinn, Tel Aviv/Ben Gurion (4,417 minutes of ATFM delay - in combination with airport capacity constraints), Thessaloniki and Venice airports;
- Taxiway(s) and/or apron(s) improvements at Alicante, Amsterdam, Barcelona, Berlin, Burgas, Dublin, Frankfurt/Main, Hamburg, Istanbul/Sabiha Gökcen, Lisbon, London/Heathrow, Malta, Palma de Mallorca, Pardubice, Tallinn and Thessaloniki airports;
- ILS maintenance at Düsseldorf airport;
- Terminal building(s) improvements/works at Belgrade, Budapest, Bergen, Frankfurt/Main and Oslo/Gardermoen airports.

DISRUPTIONS

Industrial actions

- Ground service strike on 8, 16 and 23 February at Berlin/Tegel airport generated 5,687 minutes of ATFM delay;

Technical

- Radar problems at Amsterdam/Schiphol airport on 01 February generated 11,406 minutes of ATFM delay, approximately 80 flights did not take place and NM estimates that ten flights were diverted to alternative aerodromes;
- Frequency issues in Brest ACC between 19 and 24 February generated 1,775 minutes of ATFM delay;
- Frequency failure in Karlsruhe ACC on 23 February generated 1,082 minutes of ATFM delay;
- Non-availability of ATM back up system on 14 February in Malmö ACC due to weather phenomena resulted in an initial 50% capacity reduction. Tactical coordination between the FMP and NMOC, combined with the application of the optimum available sector configuration by the FMP, contributed to the overall ATFM delay being kept to a minimum. Anticipation by the FMP of the phenomena recurring during the following days due to similar weather patterns also contributed to a reduction of the potential impact. Total ATFM delay 5,616 mins.

Other

- Canarias ACC generated 4,328 minutes of ATFM delays on 18 February due to locally reported effect of regulations in the network;
- A vehicle fire in a public tunnel in the vicinity of the runways at Manchester airport on 28 February resulted in the application of a short ATFM zero rate measure due to security considerations. The initial measure was followed by a reduced arrival rate due to air holding. 2,056 minutes of ATFM delay were generated and NM estimates that approximately eight flights were diverted to alternative aerodromes.
- An aircraft incident at Amsterdam/Schiphol airport on 23 February during gale force winds resulted in the application of a short ATFM zero rate measure due to the non-availability of the optimum landing runway. Co-ordination between neighbouring Belgian and German airports and NMOC resulted in the communication of the available diversion capacity of these airports, which was communicated to Amsterdam FMP. NM estimates that eight flights were diverted due to the temporary ATFM measure;

9. NM ADDED VALUE

FLIGHTS WITH DELAY > 30'

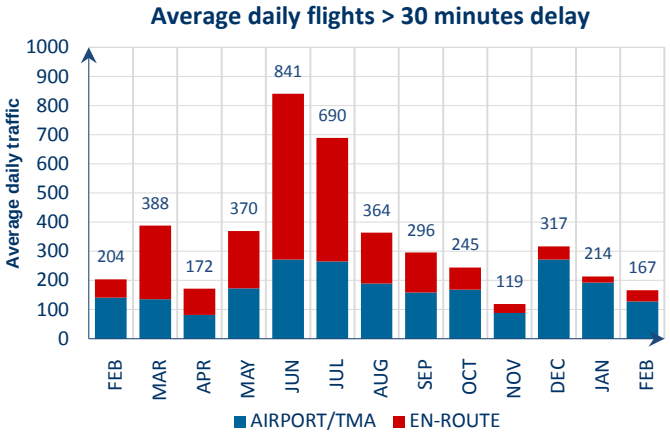
With a traffic increase of 3.0%, the number of flights with more than 30 minutes of ATFM delay decreased between February 2016 and February 2017.

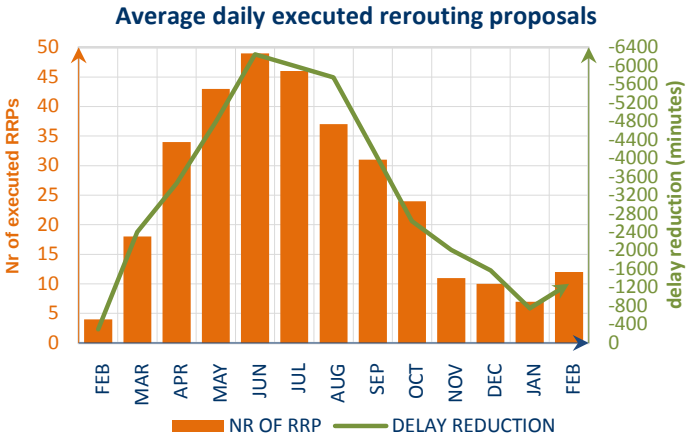
23.4% of flights with more than 30 minutes of ATFM delay in February 2017 were en-route and 76.6% were airport.

RRP DIRECT DELAY SAVINGS

A daily average of 16 RRPs were offered in February 2017 of which 12 RRPs were executed, saving 1281 minutes of daily delay.

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





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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).