

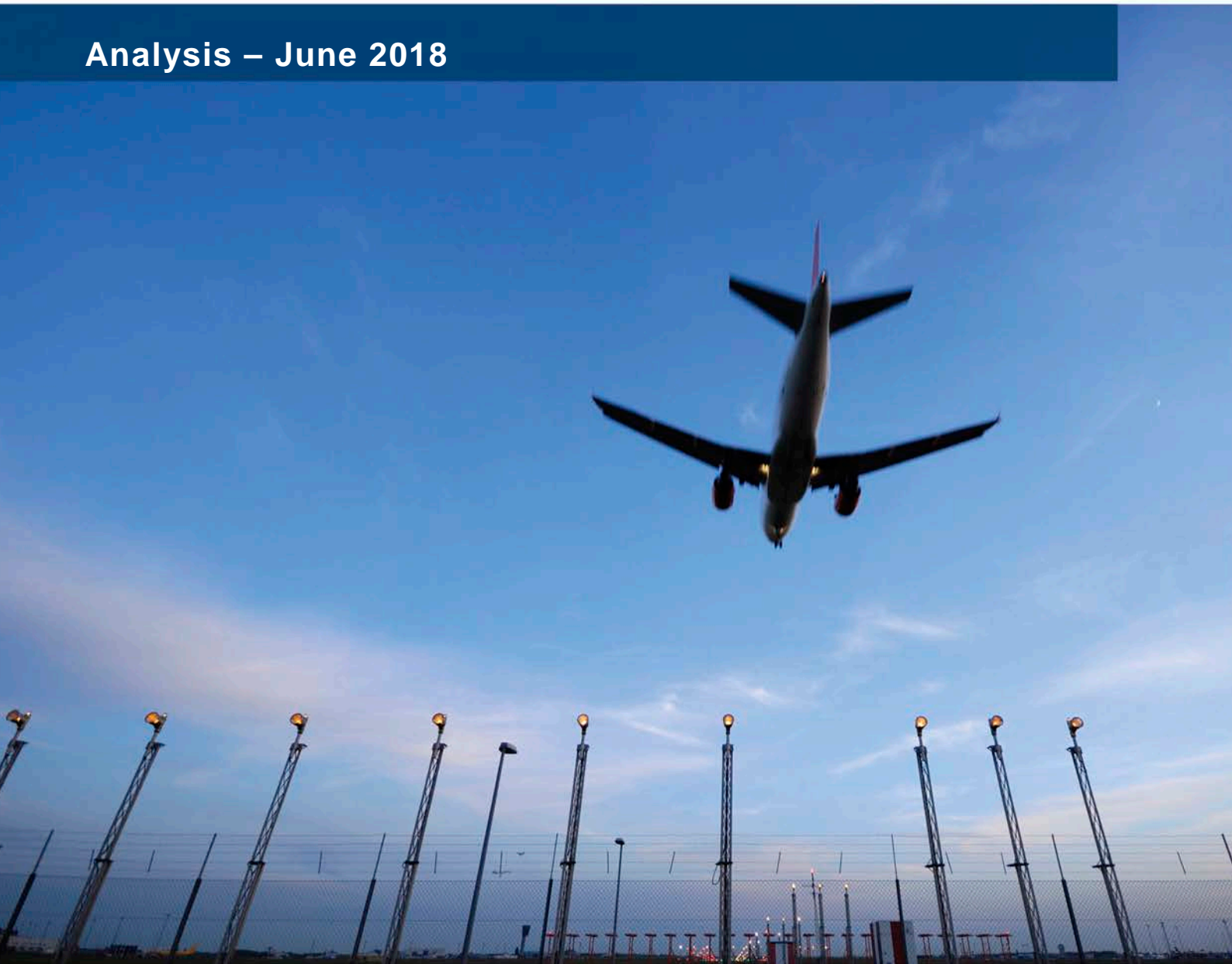


**Network Manager**  
nominated by  
the European Commission



# Monthly Network Operations Report

Analysis – June 2018



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## NOTICE

### Incomplete traffic data – 3 April

NM operational data archive for 3 April is incomplete due to NM system outage (See note i)

### 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 chapters 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.

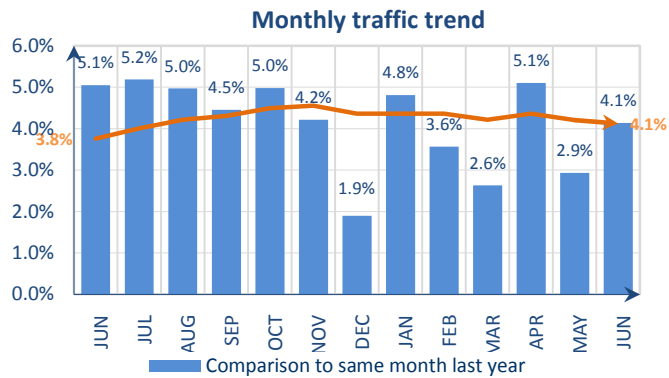
	EN-ROUTE CAPACITY (ATC)		AIRPORT CAPACITY (ATC)
	EN-ROUTE STAFFING (ATC)		AIRPORT STAFFING (ATC)
	EN-ROUTE DISRUPTIONS (ATC)		AIRPORT DISRUPTIONS (ATC)
	EN-ROUTE CAPACITY		AIRPORT CAPACITY
	EN-ROUTE DISRUPTIONS		AIRPORT DISRUPTIONS
	EN-ROUTE EVENTS		AIRPORT EVENTS
	EN-ROUTE WEATHER		AIRPORT WEATHER

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>.

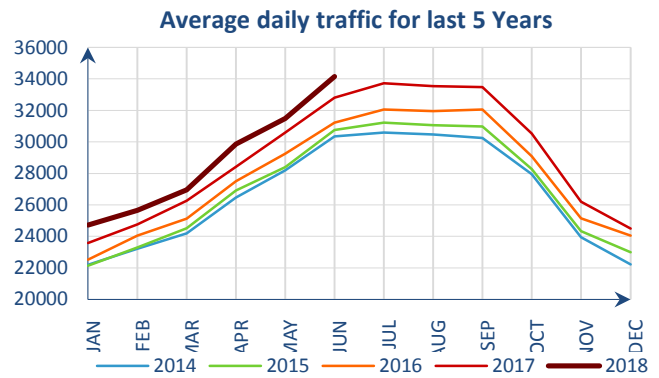
### ATFM Statistics dashboard

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

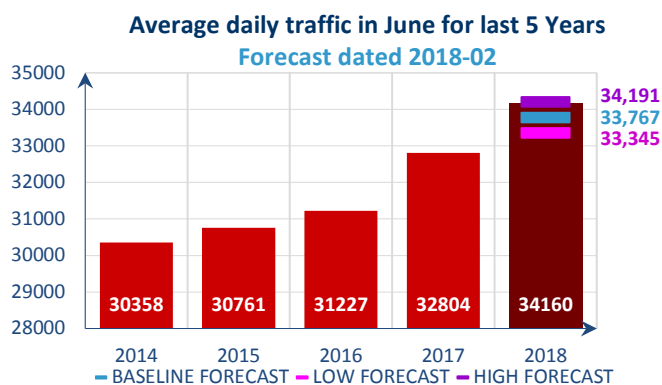
# 1. TOTAL TRAFFIC



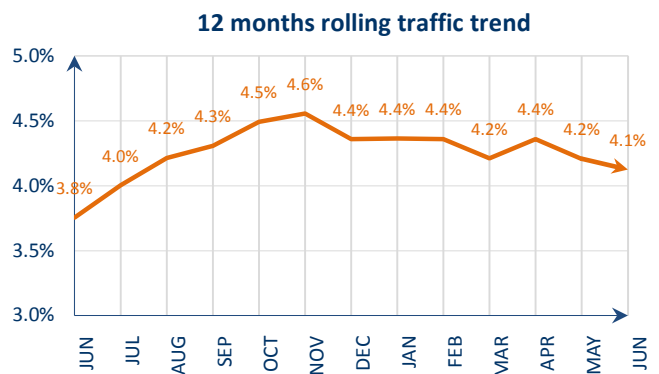
Traffic increased by 4.1% in June 2018<sup>ii</sup>.



Average daily traffic in June 2018 was the highest for June in the last five years. Several events slowed down the growth: industrial action and weather.



The traffic increase of 4.1% for June was in line with the high forecast published in February 2018. Last week of June was the busiest ever week for the network, with a record of 36,825 flights on Friday 29 June.



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 July 2017 to June 2018 was 4.1% higher than the average from July 2016 to June 2017.

Twelve states added more than 50 flights per day to the European local<sup>iii</sup> traffic growth. Turkey was the main contributor, adding 306 flights/day to the network, thanks mainly to its traffic with the Russian federation that grew by around 30% and added itself 73 flights/day. Traffic from Western Europe grew also significantly, in particular from Germany (+42 flights/day, +15%) and the UK (+29 flights/day, +27.7%). Greece was the second highest contributor with 222 flights/day added to the network, a growth mainly due to traffic from Western Europe and in particular from Germany (+42 flights/day, +21%). Its internal traffic was also strong with a growth of +7.2%, adding 28 flights/day. Germany was the third contributor, adding 193 flights/day in June. Such a growth can be attributed to the traffic to Greece (+42 flights/day), Turkey (+42 flights/day, +15%), Spain (+35 flights/day) and Egypt (+21 flights/day). Spain came next with an additional 187 flights/day: this was mainly linked to the growth of its internal traffic (+36 flights/day, +4.6%) and also from Western Europe (in particular from Germany and Italy). Poland was the fifth contributor adding 169 flights/day: this traffic was particularly strong to Greece (+21 flights/day, +36%), Turkey (+21 flights/day, +127%) and Ukraine (+13 flights/day) but traffic also grew from other European countries. Italy was the following contributor with 87 flights/day more added to the network thanks to a growth of traffic from Europe (Spain in particular: +30 flights/day +10%) and the Russian Federation (+21 flights/day, +32%).

At the other end of the scale, Sweden lost 60 daily flights because of the weakness of its domestic traffic that lost 13.4% in June 2018 (i.e. 55 flights/day), in part as a consequence of the failure of Nextjet that represented around 9% of the market share in Domestic traffic in June 2017.

With an increase of 23%, the charter segment had the fastest growth owing to strong increases of flights between Turkey and the Russian Federation, Ukraine and Egypt and Germany and Egypt. The traditional scheduled saw a 5.1% increase. The business aviation and low-cost segments grew respectively by 3.7% and 1%. The all-cargo segment declined by 2.3%.

The top six external partners in average daily flights on flows in both directions were the Russian Federation (1280 flights, up 15.3%), the United States (1160 flights, down 1.1%), Israel (380 flights, up 6.3%), The United Arab Emirates (330 flights, up 8.4%), Morocco (325 flights, up 16.6%), and Egypt (245 flights, up 40.4%).

The airlines which added the most flights to the European network on a daily basis compared to June 2017 were Eurowings (+340 flights/day – 30 new airbus A320 in operation), easyJet UK (+119 flights), Ryanair (+115 flights/day), Lufthansa (+101 flights/day), Turkish Airlines (+98 flights/day), and Wizzair (+86 flights/day: they have grown their fleet to 100 Airbus A320/321 aircraft in June). Compared to last year, Eurowings and Lufthansa have taken over aircraft from AirBerlin, which has participated to the growth of their contribution.

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

Eight of the top ten airports had positive traffic growth. Overall, the largest traffic increases in June 2018 were at Antalya, Athens, Tel Aviv/Ben Gurion, Budapest and Warsaw airports. The largest traffic decreases were at Birmingham, Hamburg, Düsseldorf, Stockholm/Arlanda and Milano/Linate airports. Traffic recovery in Turkey explained the traffic variation at Antalya airport. The Tel Aviv/Ben Gurion traffic increase was due to the expansion of routes made available by low-cost airlines and increased tourism. Athens traffic increase is mainly attributed to the expanded route network from summer 2018. Traffic decreases at Düsseldorf and Hamburg airports are due in part to Air Berlin cessation of operations. Birmingham airport traffic variation is partially due to the Monarch cessation of operations.

Nine of the top ten aircraft operators flew more compared to June 2017. The operators with the highest traffic growth were Eurowings, Condor, Jet2.com, Air Europa and Travel Service airlines. The highest traffic decreases were recorded by Flybe, Wideroe, Aegean, Alitalia and Transavia.com airlines.

The traffic variation of Eurowings follows the continued integration of Germanwings, some Lufthansa routes and more recently ex Air Berlin operated routes into the Eurowings operation. Condor airline has also recuperated routes from Air Berlin cessation of operations and particularly long haul to the Caribbean. Alitalia traffic decrease is partially due to ATC industrial action in Italy on 08 June.

N°	ADEP	ADEP NAME	201806	%	N°	ICAO	AIR OPERATOR	201806	%
1	EDDF	FRANKFURT MAIN	754	9,0%	1	RYR	RYANAIR	2297	5,3%
2	EHAM	AMSTERDAM/SCHIPHOL	745	-0,9%	2	EZY	EASYJET	1586	8,1%
3	LFPG	PARIS CH DE GAULLE	712	1,6%	3	DLH	DEUTSCHE LUFTHANSA	1548	7,0%
4	EGLL	LONDON/HEATHROW	675	-0,3%	4	THY	TURKISH AIRLINES	1446	7,3%
5	LTBA	ISTANBUL-ATATURK	645	1,2%	5	AFR	AIR FRANCE	943	-1,2%
6	EDDM	MUENCHEN	603	0,9%	6	SAS	SCANDINAVIAN AIRLINES SYSTEM	902	0,6%
7	LEMD	ADOLFO SUAREZ MADRID-BARAJA	593	3,2%	7	BAW	BRITISH AIRWAYS	747	2,6%
8	LEBL	BARCELONA/EL PRAT	522	2,4%	8	EWG	EUROWINGS AG	713	94,0%
9	LIRF	ROMA/FIUMICINO	461	2,3%	9	KLM	KLM ROYAL DUTCH AIRL	710	0,2%
10	LEPA	PALMA DE MALLORCA	450	7,0%	10	VLG	VUELING AIRLINES SA	672	8,3%
11	EGKK	LONDON/GATWICK	443	-0,7%	11	AZA	ALITALIA	564	-4,2%
12	EKCH	KOBENHAVN/KASTRUP	404	3,9%	12	WZZ	WIZZ AIR	558	18,3%
13	LSZH	ZURICH	400	3,2%	13	PGT	PEGASUS HAVA TASI	497	6,4%
14	LTAI	ANTALYA	398	28,4%	14	BEE	JERSEY EUROPEAN T/A FLYBE	432	-7,9%
15	LOW	WIEN SCHWECHAT	388	6,1%	15	AUA	AUSTRIAN AIRLINES	426	5,5%
16	ENGM	OSLO/GARDERMOEN	378	2,5%	16	SWR	SWISS INTERNATIONAL	418	4,9%
17	EIDW	DUBLIN	361	4,5%	17	TAP	TAP/AIR PORTUGAL	390	9,2%
18	LGAV	ATHINA/ELEFTHERIOS VENIZELOS	355	12,8%	18	NAX	NORWEGIAN AIR SHUTTLE	364	6,0%
19	ESSA	STOCKHOLM-ARLANDA	345	-5,6%	19	FIN	FINNAIR OY	358	11,7%
20	EBBR	BRUSSELS NATIONAL	342	-2,5%	20	LOT	LOT-POLISH AIRLINES	355	18,4%
21	LFPO	PARIS ORLY	342	-1,1%	21	AFL	AEROFLOT-RUSSIAN	322	10,5%
22	LPPT	LISBOA	323	7,5%	22	WIF	WIDEROE	320	-6,0%
23	LTFJ	ISTANBUL/SABIHA GOKCEN	323	5,5%	23	EXS	JET2.COM	314	23,5%
24	EDDL	DUESSELDORF	322	-6,0%	24	IBK	NORWEGIAN AIR INTERNATIONAL	313	10,5%
25	EGCC	MANCHESTER	318	-1,0%	25	AEA	AIR EUROPA	281	20,3%
26	EGSS	LONDON/STANSTED	306	8,5%	26	IBE	IBERIA	265	2,9%
27	LIMC	MILANO MALPENSA	290	4,5%	27	TOM	THOMSON FLY LTD	247	4,5%
28	EPWA	CHOPINA W WARSZAWIE	283	10,8%	28	BEL	BRUSSELS AIRLINES	246	-2,9%
29	EFHK	HELSINKI-VANTAA	273	7,9%	29	EIN	AER LINGUS TEORANTA	245	2,8%
30	EDDT	BERLIN-TEGEL	267	-1,8%	30	QTR	QATAR AIRWAYS COMP.	235	18,5%
31	LSGG	GENEVA	255	-1,5%	31	HOP	HOP (MERGE OF BZH + RAE + RLA)	231	-3,9%
32	LKPR	PRAHA RUZYNE	247	6,4%	32	ANE	AIR NOSTRUM	227	0,4%
33	LFMN	NICE-COTE D'AZUR	239	-0,4%	33	VOE	VOLOTEA	218	14,4%
34	LLBG	TEL AVIV/BEN GURION	232	12,7%	34	OAL	OLYMPIC	202	1,6%
35	LEMG	MALAGA/COSTA DEL SOL	227	1,8%	35	UAE	EMIRATES	198	4,6%
36	EDDH	HAMBURG	217	-7,5%	36	TRA	TRANSVIA.COM	194	-4,2%
37	EDDK	KOELN-BONN	208	0,3%	37	AUI	UKRAINE INTERNATIONAL	188	10,9%
38	EGGW	LONDON/LUTON	207	-1,4%	38	CFG	CONDOR FLUGDIENST	188	35,6%
39	EGPH	EDINBURGH	200	1,4%	39	RAM	ROYAL AIR MAROC	188	4,2%
40	EDDS	STUTTGART	200	7,0%	40	SXS	SUNEXPRESS AIRLINES	177	10,8%
41	LROP	BUCURESTI/HENRI COANDA	182	5,2%	41	AEE	AEGEAN AIRLINES	171	-5,7%
42	EGBB	BIRMINGHAM	175	-10,0%	42	TVS	TRAVEL SERVIS	170	19,3%
43	LHBP	BUDAPEST LISZT FERENC INT.	170	11,7%	43	TCX	THOMAS COOK AIT LTD	170	11,9%
44	LIML	MILANO Linate	170	-4,3%	44	NJE	NETJETS	169	1,3%
45	LEIB	IBIZA	168	3,0%	45	BTI	AIR BALTIC CORPORAT.	169	9,7%
46	LFLL	LYON SAINT-EXUPERY	167	-0,2%	46	DAL	DELTA AIR LINES INC.	169	-0,9%
47	LTAC	ANKARA-ESENBOGA	165	9,2%	47	BCS	EUROPEAN AIR TRANSP.	165	3,7%
48	GCLP	GRAN CANARIA	163	0,0%	48	UAL	UNITED AIRLINES INC.	154	-1,4%
49	LEAL	ALICANTE	157	-1,5%	49	EZS	EASY JET SWITZERLAND	150	-2,2%
50	LIPZ	VENEZIA TESSERA	153	-1,4%	50	TVF	TRANSVIA FRANCE	139	19,1%
<b>TOTALS and % TOTAL TRAFFIC</b>			<b>16923</b>	<b>55,7%</b>	<b>TOTALS and % TOTAL TRAFFIC</b>			<b>22351</b>	<b>65,4%</b>

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

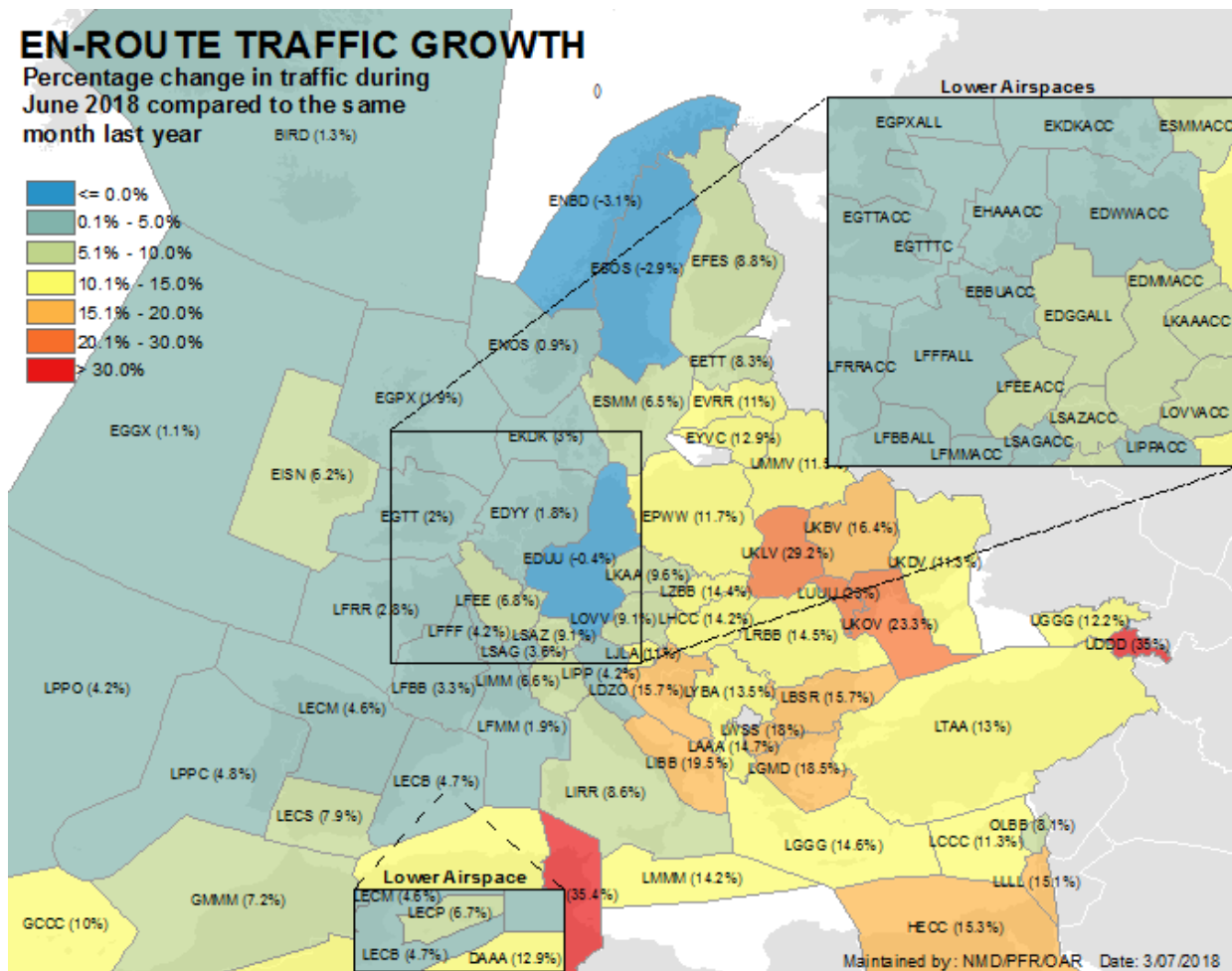
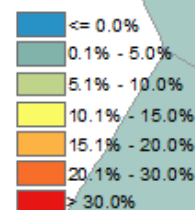
N°	ICAO	AIR OPERATOR	201806	%
		Unidentified	2449	0,3%

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 June 2018 compared to the same month last year

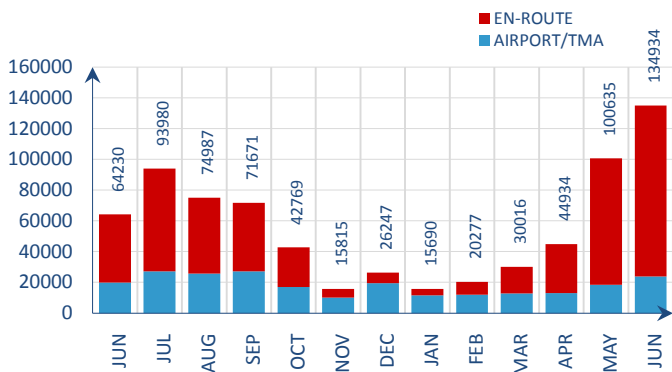


Nº	ASP ID	ASP NAME	201806	%	Nº	ASP ID	ASP NAME	201806	%
1	BIRDACC	REYKJAVIK ACC	475	1,3%	39	LFBBALL	BORDEAUX ALL ACC	3235	3,3%
2	DAAAACC	ALGERS ACC	515	12,9%	40	LFEEACC	REIMS U/ACC	3389	6,8%
3	DTTCACC	TUNIS ACC	409	35,4%	41	LFFFALL	PARIS ALL ACC	3847	4,2%
4	EBBUACC	BRUSSELS CANAC	1994	3,6%	42	LFMMACC	MARSEILLE ACC	3700	1,9%
5	EDGGALL	LANGEN ACC_FIR	4106	7,0%	43	LFMMAPP	MARSEILLE TMA	1057	0,1%
6	EDMMACC	MUNCHEN ACC	3646	6,7%	44	LFRRACC	BREST U/ACC	3589	2,8%
7	EDUUUAC	KARLSRUHE UAC	5678	-0,4%	45	LGGGACC	ATHINAI CONTROL	2218	14,6%
8	EDWWACC	BREMEN ACC	2066	1,9%	46	LGMDDACC	MAKEDONIA CONTROL	1786	18,5%
9	EDYYUAC	MAASTRICHT UAC	5719	1,8%	47	LHCCACC	BUDAPEST ACC	2929	14,2%
10	EETTACC	TALLIN ACC	718	8,3%	48	LIBBACC	BRINDISI ACC	1195	19,5%
11	EFESACC	TAMPERE ACC	529	8,9%	49	LIMMACC	MILANO ACC	2887	6,6%
12	EGGXOCA	SHANWICK OACC	1591	1,1%	50	LIPPACC	PADOVA ACC	2392	4,2%
13	EGPXALL	SCOTTISH ACC	3225	1,9%	51	LIRRACC	ROMA ACC	2908	8,6%
14	EGTTACC	LONDON ACC	6635	2,0%	52	LJLAACC	LJUBLJANA ACC	1189	11,0%
15	EGTTTC	LONDON TMA TC	4452	3,2%	53	LKAAACC	PRAGUE ACC	2708	9,6%
16	EHAAACC	AMSTERDAM ACC(245-)	1796	1,2%	54	LLLLACC	TEL AVIV ACC	578	15,1%
17	EIDWACC	DUBLIN ACC	801	4,8%	55	LMMMACC	MALTA ACC	395	14,2%
18	EISNACC	SHANNON ACC	1525	6,2%	56	LOVVACC	WIEN ACC	2997	9,1%
19	EKDKACC	COPENHAGEN ACC	1760	3,0%	57	LPFCACC	LISBOA ACC/UAC	1704	4,8%
20	ENBDACC	BODO ACC	619	-3,1%	58	LPPOOAC	SANTA MARIA OACC	445	4,2%
21	ENOSACC	OSLO ATCC	1101	0,9%	59	LQSBACC	BOSNIA-HERZEGOVINA	149	10,4%
22	ENSVACC	STAVANGER ATCC	699	1,0%	60	LRBBACC	BUCURESTI ACC	2474	14,5%
23	EPWWACC	WARSAWA ACC	2731	11,7%	61	LSAGACC	GENEVA ACC	2175	3,6%
24	ESMMACC	MALMO ACC	1800	6,5%	62	LSAZACC	ZURICH ACC	2690	9,1%
25	ESOSACC	STOCKHOLM ACC	1216	-2,9%	63	LTAAACC	ANKARA ACC	4573	13,0%
26	EVRACC	RIGA ACC	939	11,0%	64	LTBBACC	ISTANBUL ACC	2190	4,8%
27	EYVACC	VILNIUS ACC	842	12,9%	65	LUUUACC	CHISINAU ACC	219	23,0%
28	GCCACC	CANARIAS ACC/FIC	910	10,0%	66	LWSSACC	SKOPJE ACC	759	18,0%
29	GMMMACC	CASABLANCA ACC	1090	7,2%	67	LYBAACC	BEOGRADE ACC	2466	13,5%
30	HECCACC	CAIROACC	663	15,3%	68	LZBBACC	BRATISLAVA ACC	1956	14,5%
31	LAAAACC	TIRANA ACC	773	14,7%	69	OLBBACC	BEIRUT ACC	174	8,1%
32	LBSRACC	SOFIA ACC	2863	15,7%	70	UDDACC	YEREVAN ACC	189	35,0%
33	LCCCACC	NICOSIA ACC	1189	11,3%	71	UGGGACC	TBILISI ACC	440	12,2%
34	LDZOACC	ZAGREB ACC	2221	15,7%	72	UKBVACC	KIEV ACC	576	16,4%
35	LECBACC	BARCELONA ACC	3181	4,7%	73	UKDVACC	DNIPROPETROVSK ACC	69	11,3%
36	LECMALL	MADRID ALL ACC	3381	4,6%	74	UKLVACC	L'VIV ACC	474	29,2%
37	LECPACC	PALMA ACC	1379	6,7%	75	UKOVACC	ODESSA ACC	391	23,3%
38	LECSACC	SEVILLA ACC	1215	7,9%	76	UMMVACC	MINSK ACC	971	11,5%

The Canarias, Casablanca, Lisbon, Santa Maria, Madrid and Sevilla ACCs variation is due to increased traffic in the South/West axis. However, the highest relative traffic increases in June 2018 were in Tunis, Yerevan, L'viv, Odessa, Chisinau and Brindisi ACCs. Traffic increase in Ukraine is partially due to an increase of overflights from/to Turkey. Israel is now integrated in IFPS and the inclusion of Israeli domestic traffic explains much of the traffic growth for Tel Aviv ACC. The traffic increase in Turkish airspace is due to domestic and Russian flights recovery. The traffic variation in Tunis and Algiers ACCs is partly due to the relative effects of several days of ATC industrial action in Marseille ACC throughout the month. Overall, there is double digit growth in South East Europe ACCs.

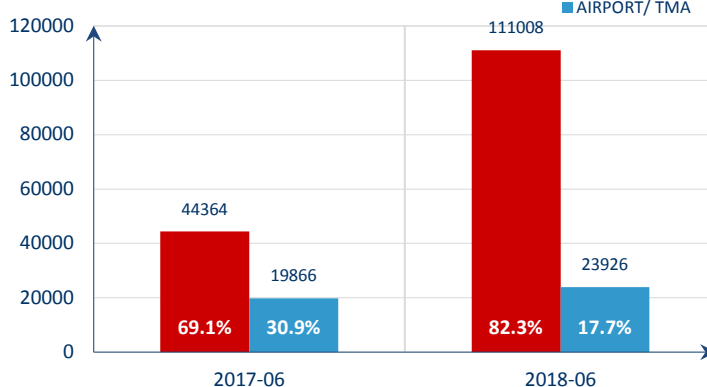
## 2. ATFM DELAY AND ATTRIBUTIONS

Average daily ATFM delays



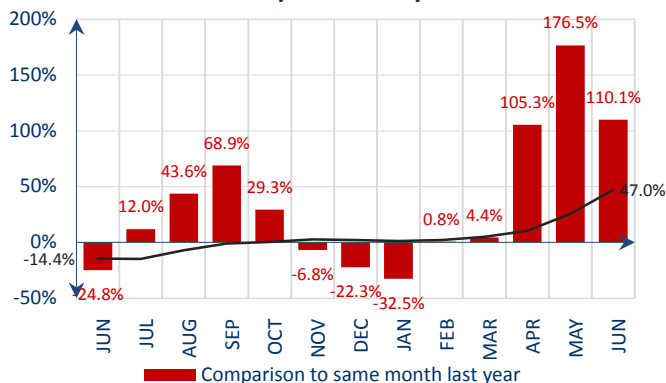
Total ATFM delays increased by 110.1% in June 2018<sup>ii</sup>.

Average daily ATFM delays



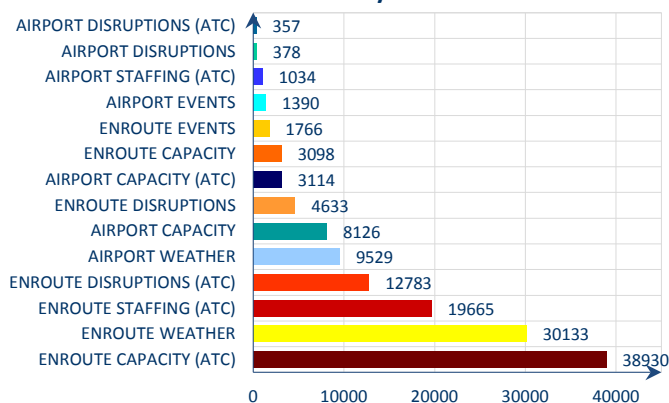
En-route ATFM delays increased by 150.2% and airport ATFM delays increased by 20.4%.

Monthly ATFM delays trend



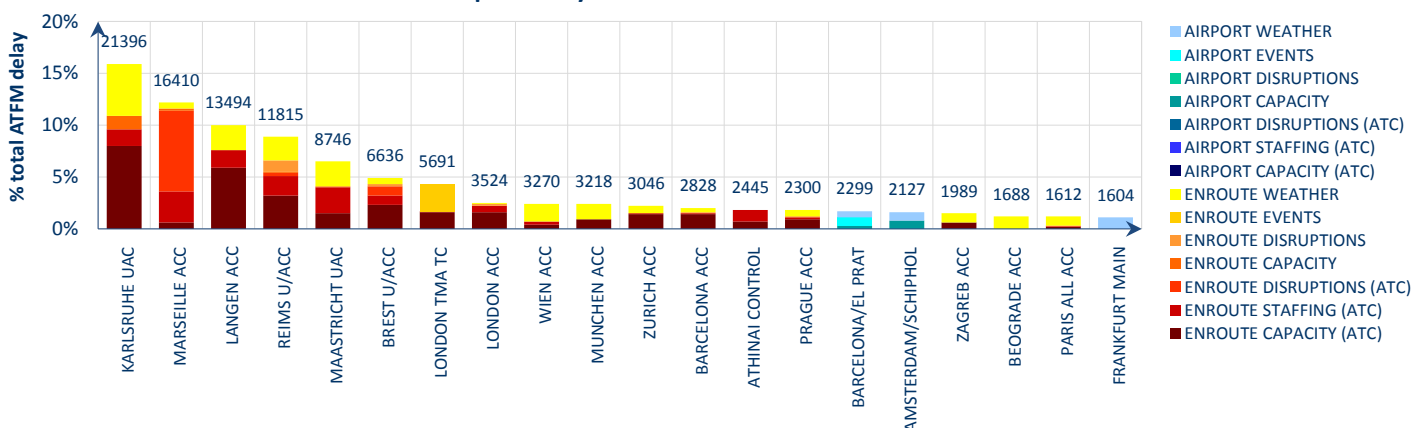
The rolling 12-month trend shows that ATFM delay was 47% higher during the period July 2017 – June 2018 compared to July 2016 – June 2017.

Reasons for ATFM delays in June 2018



En-route ATC capacity (28.9%), en-route weather (22.3%) and en-route ATC staffing (14.6%) were the main causes of ATFM delays in June 2018.

Top 20 delay reference locations in June 2018

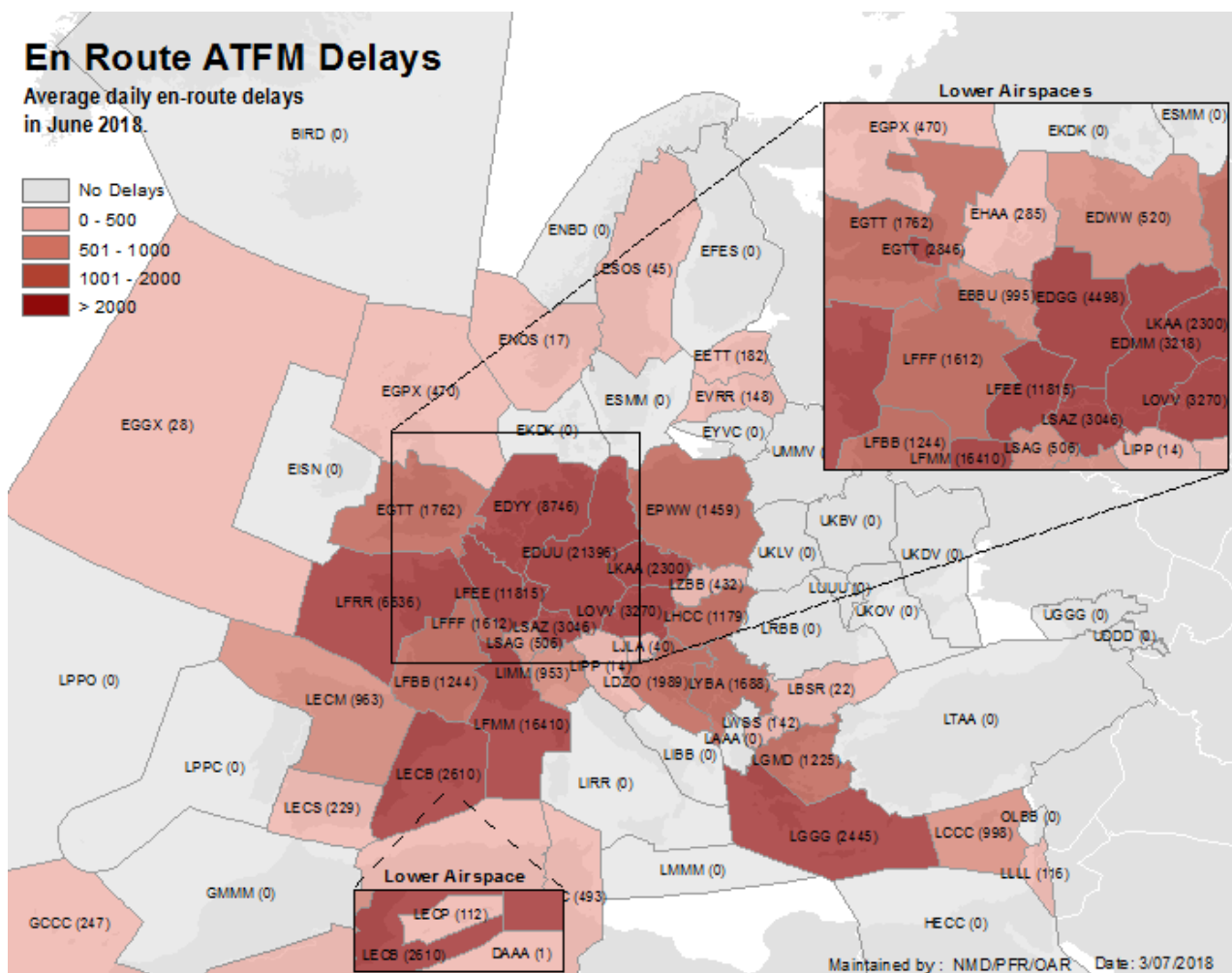


These are the top 20 delay generating locations for the reporting month with respect to total ATFM delays. Figures are the average daily delays in minutes for the individual locations.

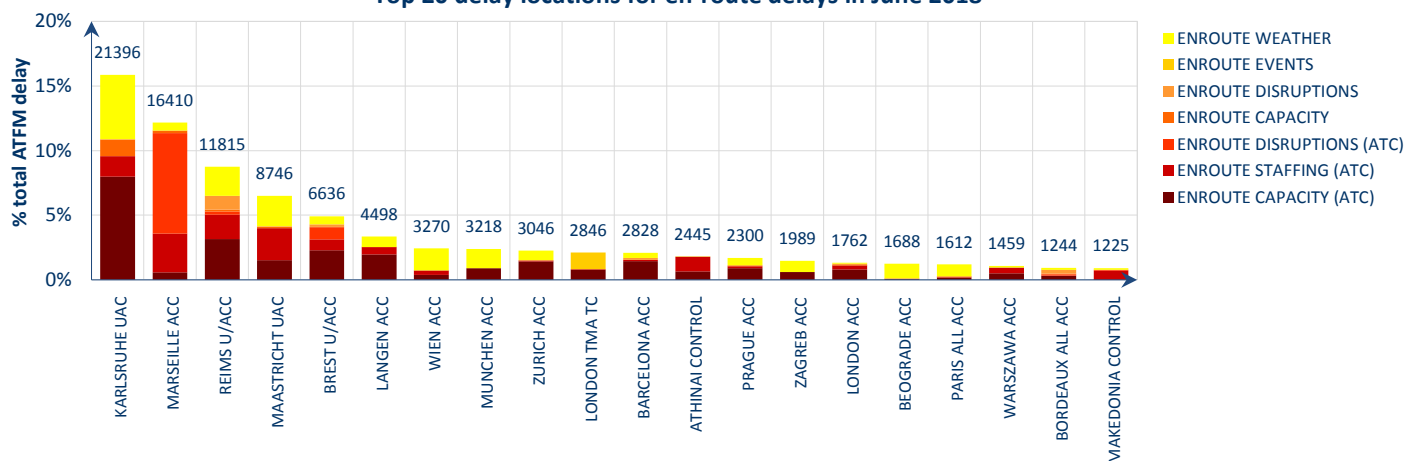
- High en-route capacity delays in Karlsruhe UAC, and to a lesser extent in Langen, Reims, Brest, Maastricht and London ACCs;
- En-route weather issues in Karlsruhe, Langen, Reims, Maastricht and Vienna ACCs;
- En-route ATC staffing issues in Marseille, Maastricht, Reims, Karlsruhe, Brest and Athens ACCs;
- ATC industrial action in Marseille ACC generated disruptions in Marseille ACC with additional delays in Reims ACC;
- Implementation of Extended Computer Display system in London TC.
- Delays at Barcelona airport due to BRAIN (Barcelona RNAV Approach Innovations) implementation in Barcelona TMA.

### 3. EN-ROUTE ATFM DELAYS

#### EN-ROUTE ATFM DELAY PER LOCATION



**Top 20 delay locations for en-route delays in June 2018**



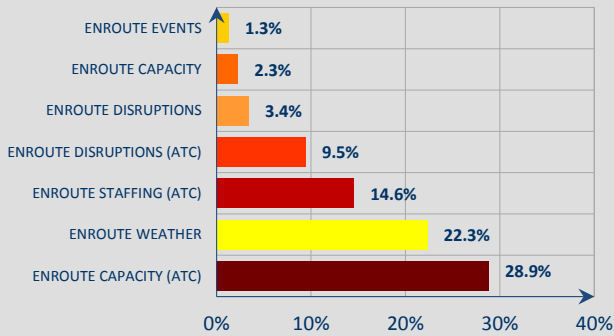
These are the top 20 en-route ATFM delay generating locations for the reporting month with respect to total ATFM delays. Figures are the average daily delays in minutes for the individual locations.

The top 20 en-route ATFM delay locations generated **74.4%** of the monthly total (network) ATFM delay. The top 5 en-route ATFM delay locations generated **48.2%** 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

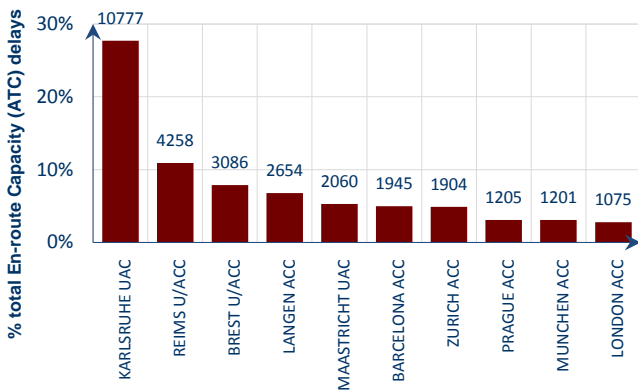
Reasons for en-route delays in June 2018



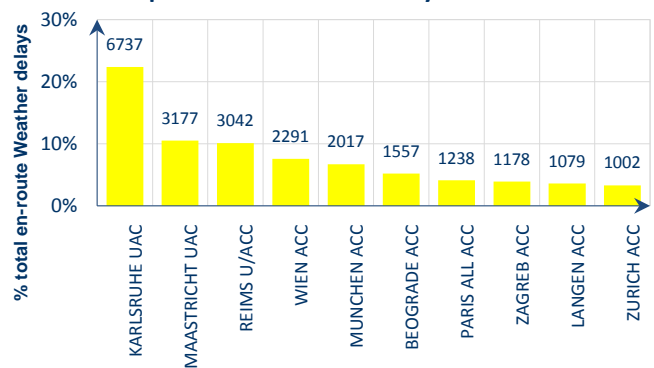
En-route ATFM delays accounted for 82.3% of all ATFM delays. Most of this delay was caused by en-route ATC capacity, en-route weather and en-route ATC staffing as explained in detail below. The other causes were:

*En-route ATC disruptions;* ATC industrial action in Marseille ACC throughout the month; ATC industrial action in Italy on 08 June. Instability within the French Flight Data processing System (FDPS) on 26 June resulted in high delays; Communication failure in Makedonia ACC on 30 June; *En-route disruptions;* ATFM delay due to locally reported traffic onload in Reims, Milano, Tunis, Brest and London ACCs due to several ATC industrial action in Marseille ACC; Bordeaux ACC delays due to the reorganized interface with LECB/LEBL; *En-route capacity;* Military exercises in Karlsruhe, Nicosia, Marseille, Reims and Maastricht ACCs.

Top en-route Capacity (ATC) delays in June 2018



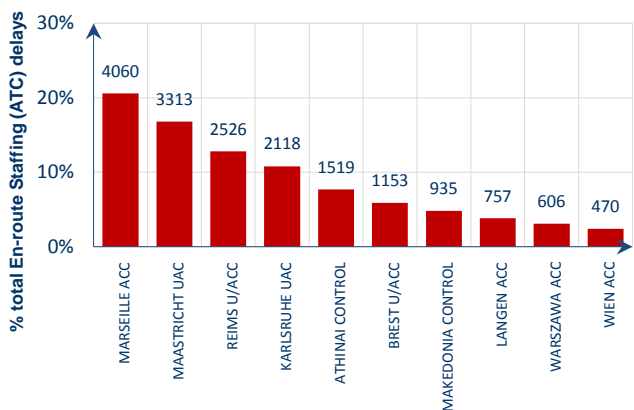
Top en-route Weather delays in June 2018



Karlsruhe UAC was the biggest generator of en-route ATC capacity delays in June. Delays in Reims and Brest ACCs due to locally reported traffic onload during Marseille ACC industrial action. Strong seasonal traffic growth added complexity in several ACCs.

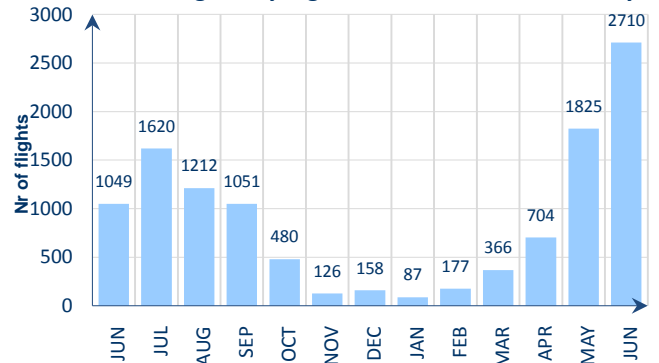
Thunderstorms affected large areas of North West Europe with intense local convective activity, especially in Karlsruhe and Maastricht UACs, with a total of 164,078 minutes of delay in Karlsruhe UAC and a total of 79,918 minutes of delay in Maastricht UAC between 06 and 11 June.

Top en-route Staffing (ATC) delays in June 2018



Several staffing issues throughout the month in Marseille, Maastricht, Reims and Karlsruhe ACC.

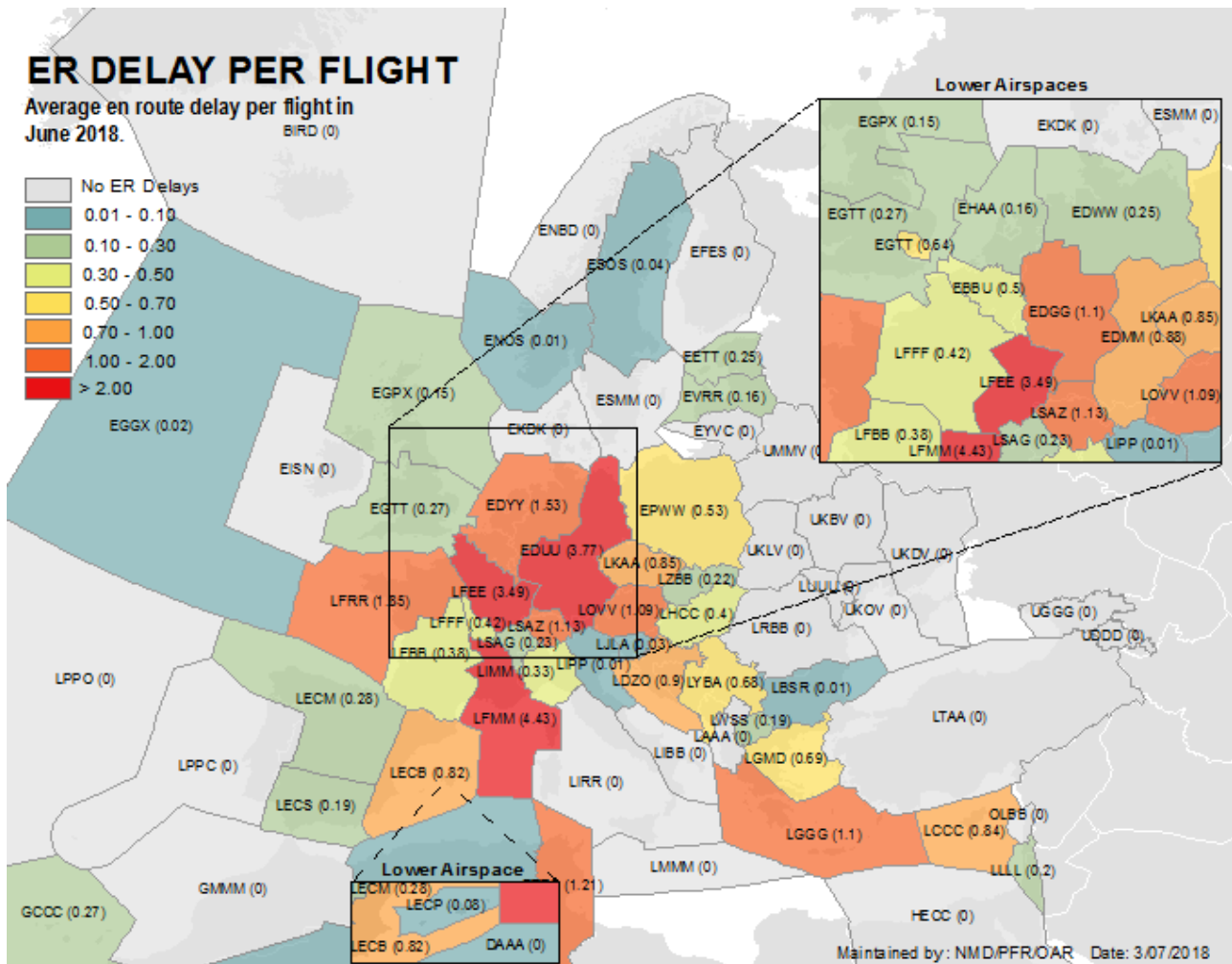
Average daily flights >= 15 min en-route delay



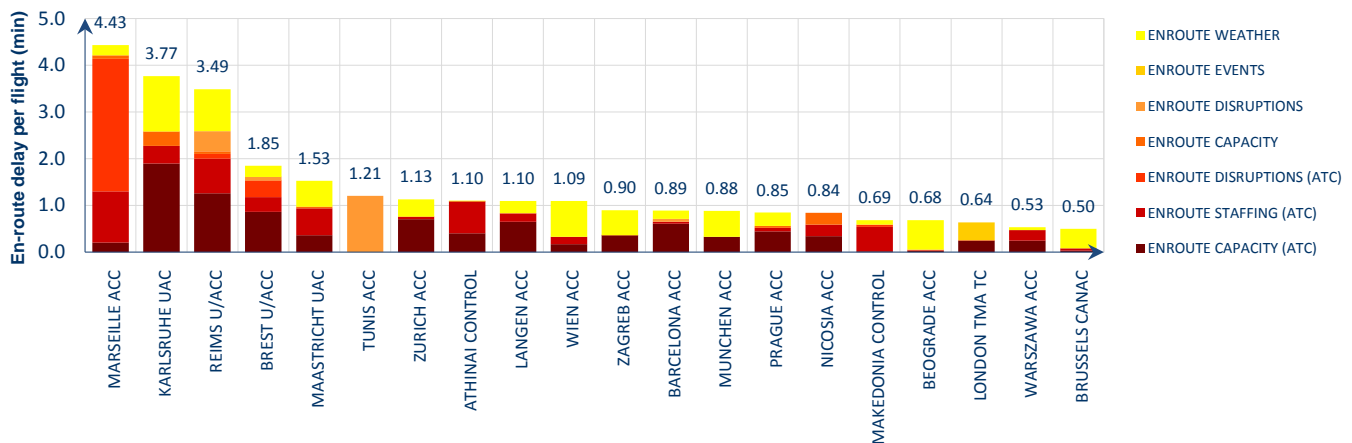
The average daily flights with an en-route ATFM delay of at least 15 minutes increased from 1,049 flights/day in June 2017 to 2,710 flights/day in June 2018, which represents 7.9% of all traffic.



# EN-ROUTE ATFM DELAY PER FLIGHT



**Top 20 delay locations for en-route delays in June 2018**



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.

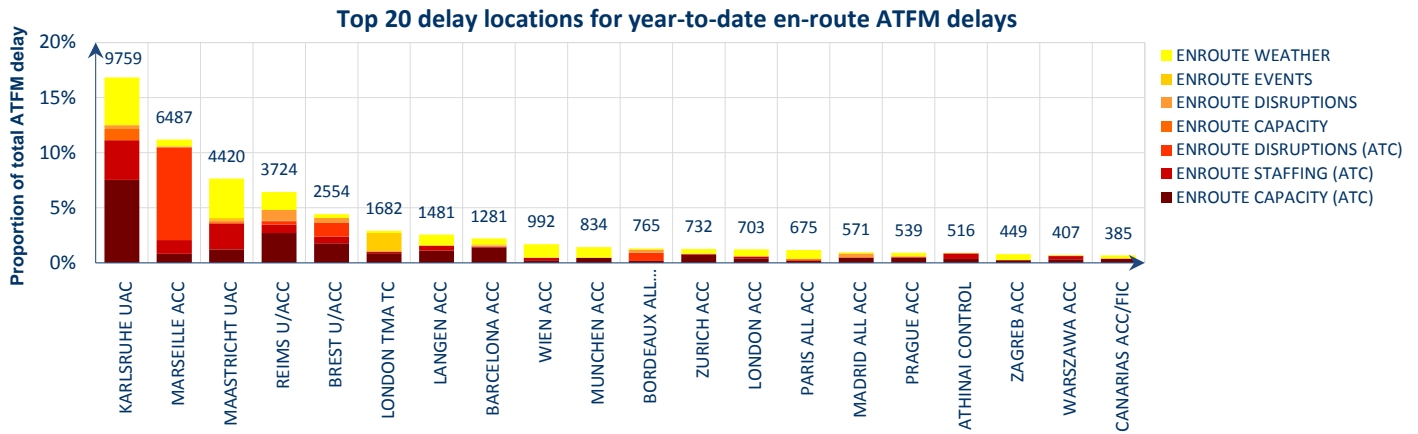
Marseille ACC en-route ATFM delay/flight increased from 4.01 min/flight in May 2018 to 4.43 min/flight in June 2018, mainly due to several ATC industrial actions and staffing issues;

Karlsruhe UAC en-route ATFM delay/flight increased from 3.35 min/flight in May 2018 to 3.77 min/flight in June 2018, mainly due to ATC capacity and weather;

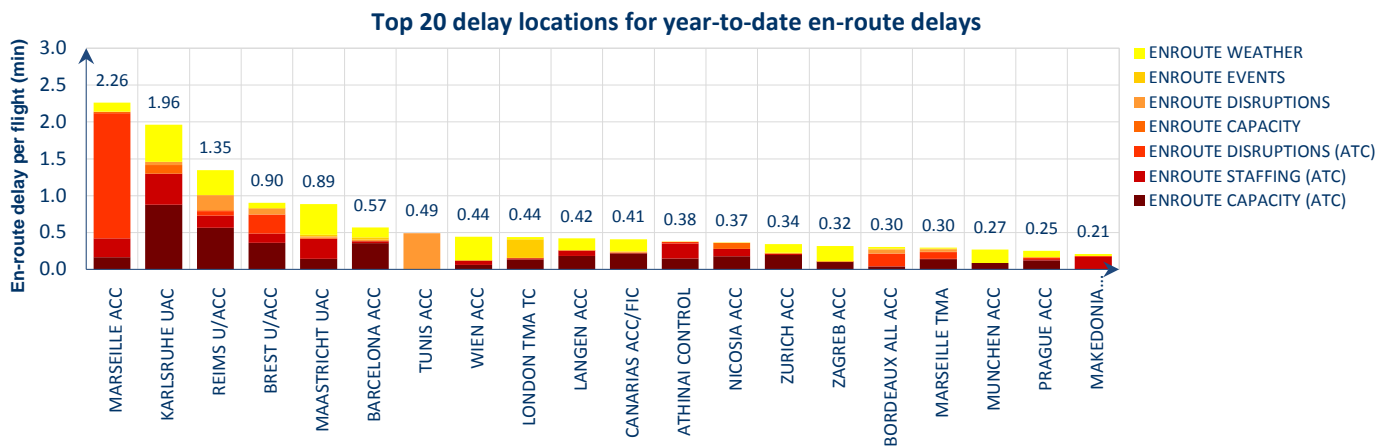
Reims ACC en-route ATFM delay/flight increased from 2.33 min/flight in May 2018 to 3.49 min/flight in June 2018, mainly due to ATC capacity, staffing and weather;

Maastricht UAC en-route ATFM delay/flight decreased from 2.06 min/flight in May 2018 to 1.53 min/flight in June 2018, mainly due reduced weather impact.

# EN-ROUTE ATFM DELAY YEAR-TO-DATE

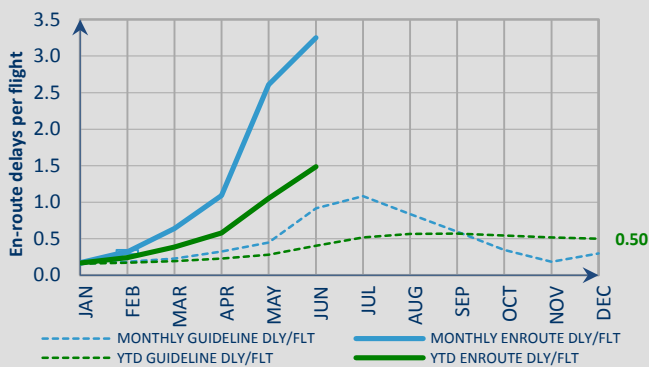


These are the top 20 en-route delay locations for 2018 with respect to the total ATFM delay. Figures are the average daily en-route delay in minutes for the individual locations.  
 The top 20 en-route delay locations generated **67.2%** of the total ATFM (network) delay.  
 The top 5 en-route delay locations generated **46.5%** of the total ATFM (network) delay.

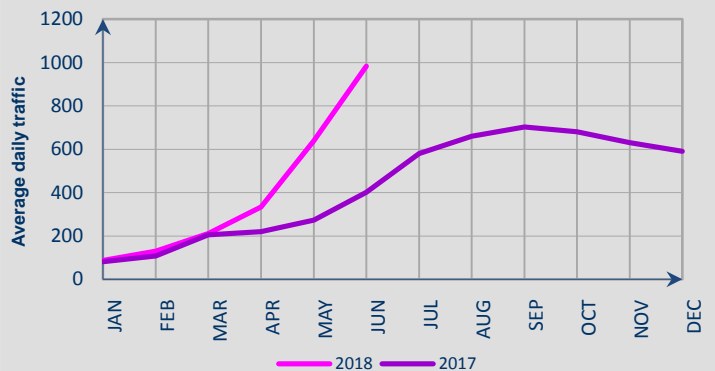


These are the top 20 average en-route ATFM delay per flight generating locations in 2018 with respect to the total ATFM delay. Figures are the average daily en-route delay in minutes for the individual locations.

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<sup>iv</sup> in June was 3.25 min/ft, which is well above the corresponding monthly guideline<sup>v</sup> value of 0.92 min/ft.

**Year To Date:** The average YTD en-route ATFM delay per flight in 2018 in the NM area<sup>iv</sup> is 1.49 min/ft which is more than three times the corresponding guideline value of 0.40 min/ft.

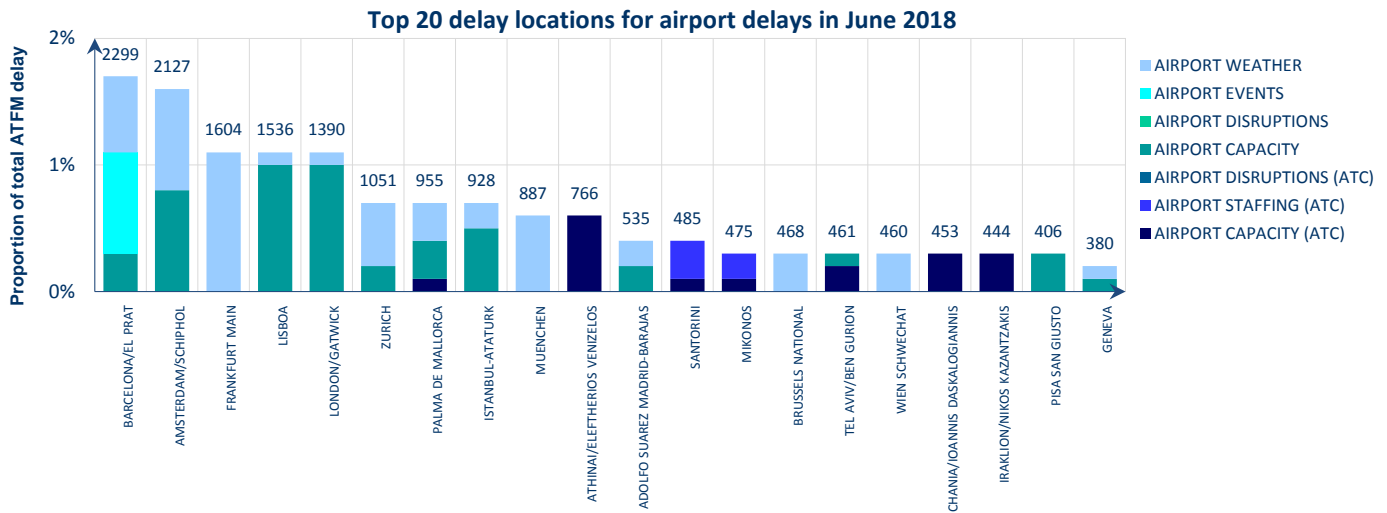
An average of 983 flights/day had an en-route ATFM delay of at least 15 minutes in 2018. The corresponding figure in 2017 was 402 flights/day.

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

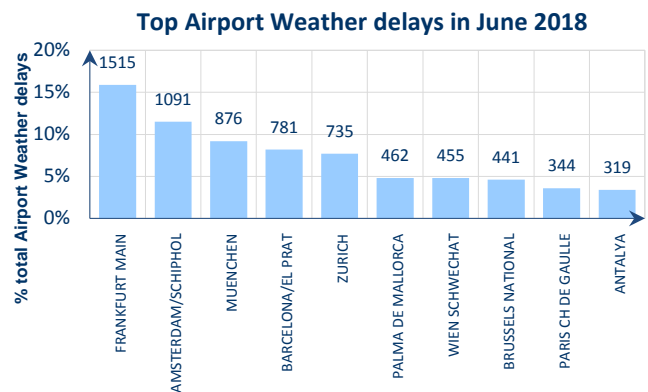
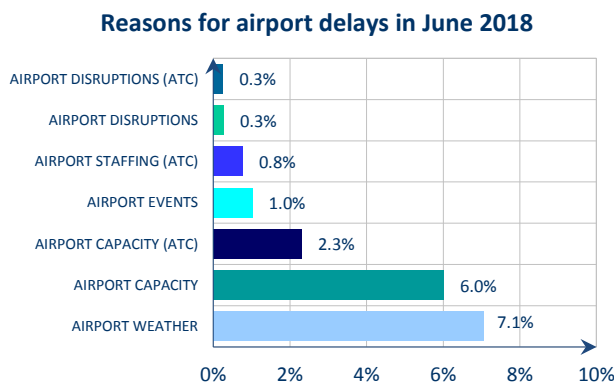
- Karlsruhe UAC with 218 flights/day
- Marseille ACC with 143 flights/day
- Maastricht UAC with 103 flights/day

# 4. AIRPORT/TMA ATFM DELAYS

## AIRPORT/TMA ATFM DELAY PER LOCATION

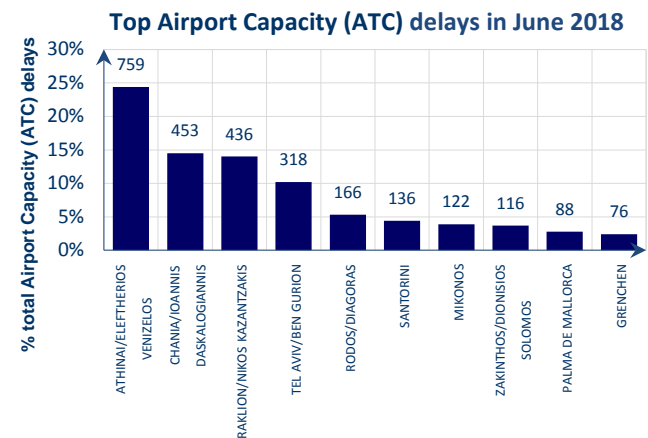
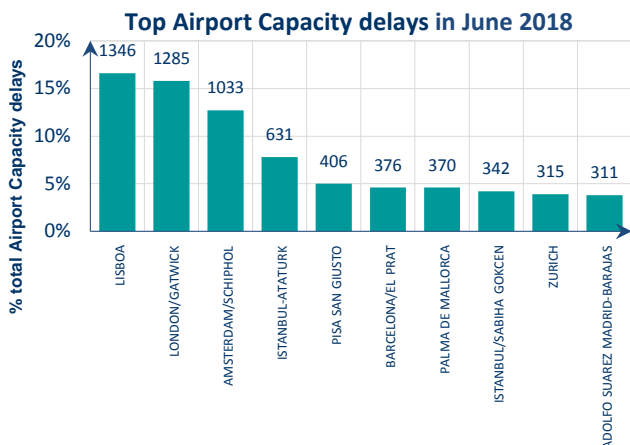


## AIRPORT/TMA ATFM DELAY PER DELAY GROUPS



Airports accounted for 18.4% of all ATFM delays in June 2018, mainly due to airport weather and aerodrome capacity.

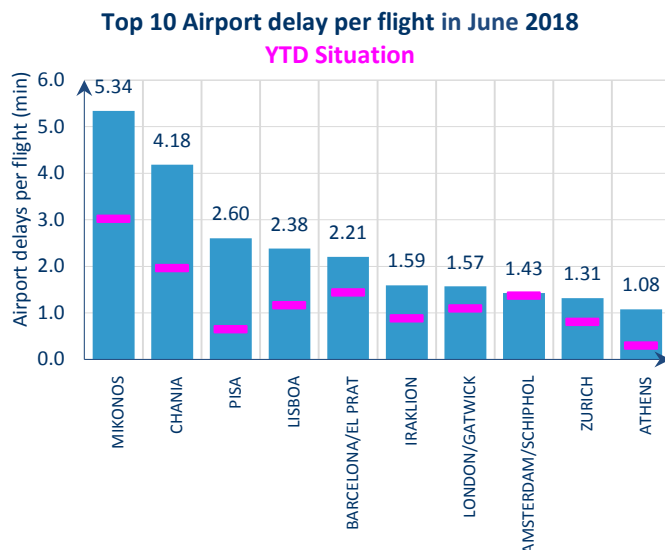
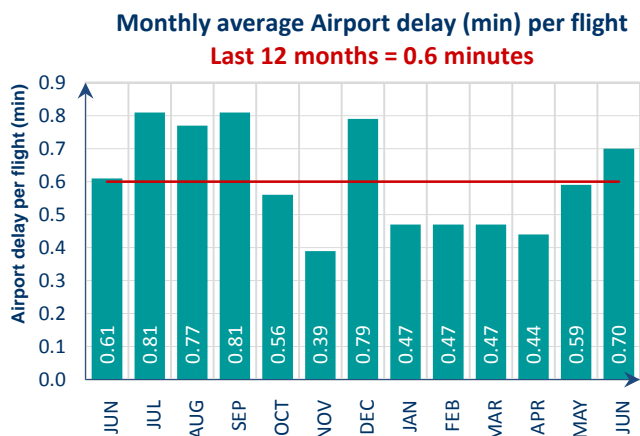
Thunderstorms impacted operations strongly at Frankfurt/Main airport, mainly from 07 to 11 June with a total of 40,455 minutes of delay. Capacity was reduced at Amsterdam/Schiphol airport on 01 June due to low visibility condition which generated 16,384 minutes of delay.



Arrivals regulated at Lisbon and London/Gatwick airport to balance with departures throughout the month.

Greek island and Athens airports generated delays due to high demand relative to their capacity throughout the month.

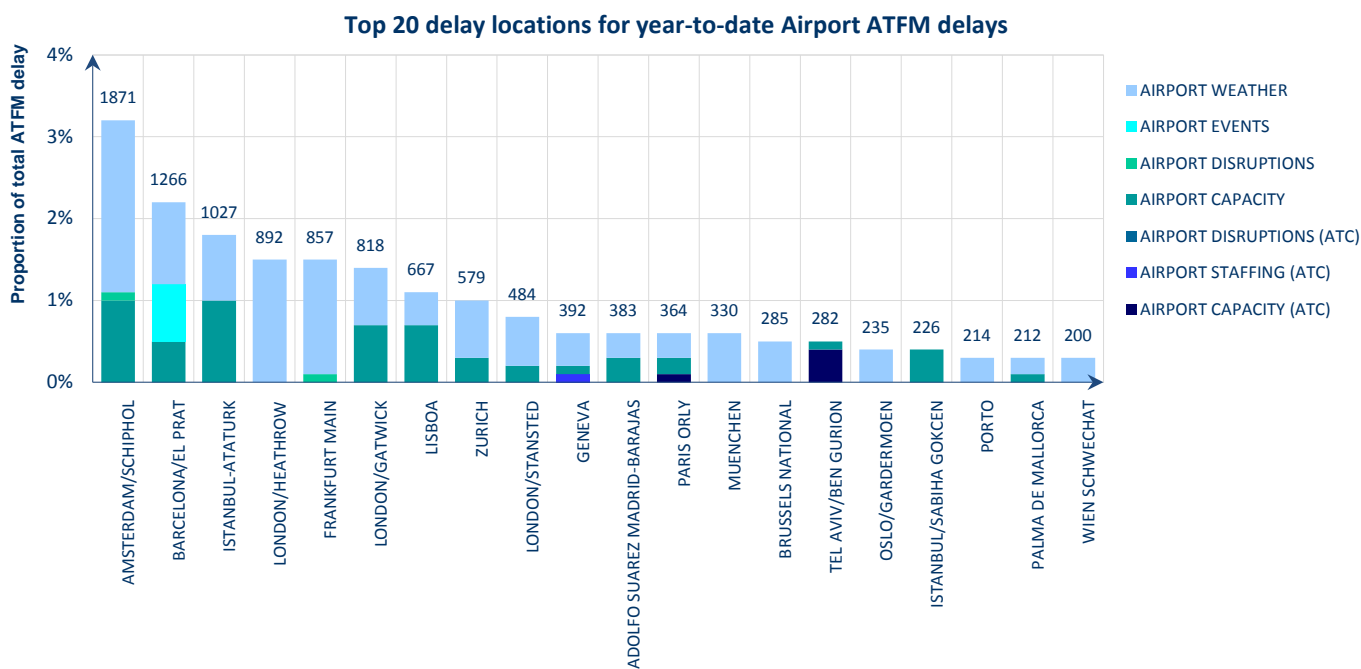
# AIRPORT/TMA ATFM DELAY PER FLIGHT



Average airport/TMA delay per flight increased from 0.61 min/ft in June 2017 to 0.70 min/ft in June 2018.

Mikonos, Chania and Pisa airports generated an average delay per flight well above their year to date average. Mikonos and Chania airports were impacted by ATC capacity and staffing. Work in progress at Pisa airport.

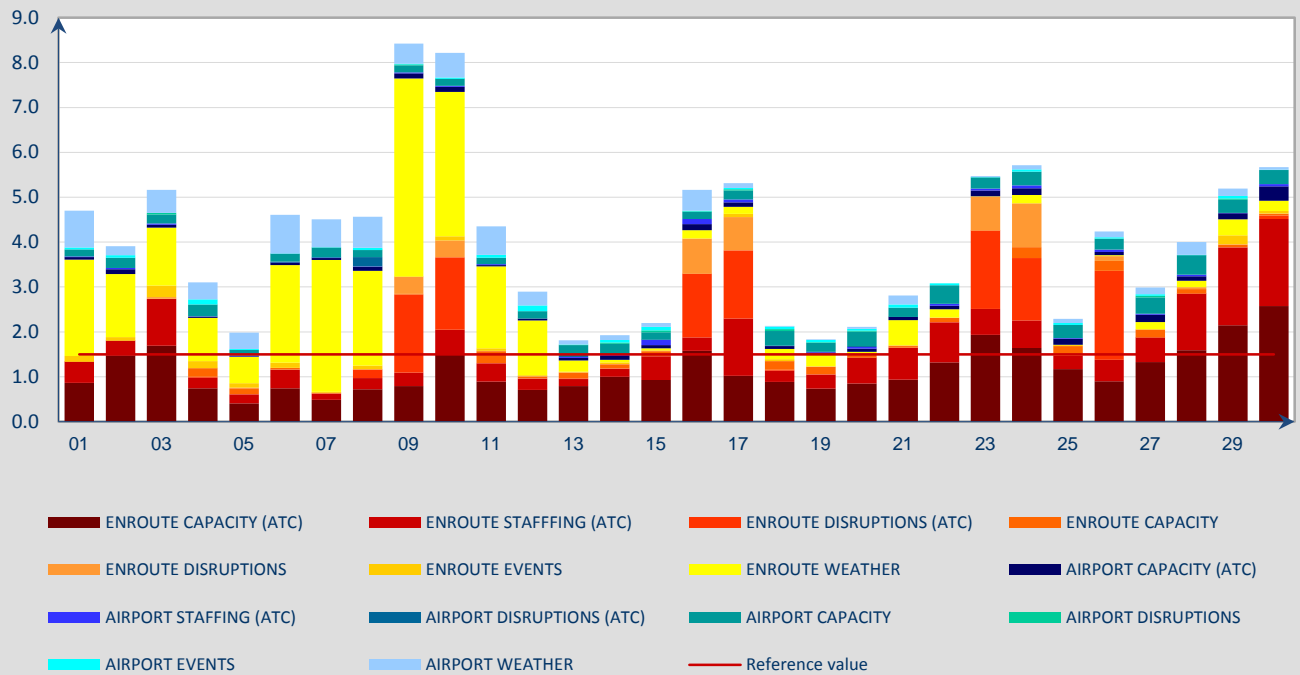
# AIRPORT/TMA ATFM DELAY YEAR-TO-DATE





## 5. DAILY EVOLUTION

Average delay (min) per flight in June 2018



All days in June 2018 had an average ATFM delay per flight exceeding 1.5 min and most weekend days had an average over 5.00 min. These were the most significant days:

**01-03 June:** Convective activity dominated the network particularly in Germany, France and central Europe with high weather delays in Vienna, Karlsruhe, Maastricht, Prague and Brussels ACCs; En-route ATC capacity delays in Karlsruhe, Reims, Brest, Marseille and Munich ACCs; ATC staffing issues in Maastricht, Marseille, Reims and London ACCs; Thunderstorms impacted operations at Amsterdam/Schiphol, Palma de Mallorca, Barcelona and Madrid airports;

**09-10 June:** En-route disruptions delays in Marseille ACC due to ATC industrial action, with additional delays in Milano, Brest, Reims, Bordeaux and Madrid ACCs; Convective activity impacted operations in Karlsruhe, Reims, Maastricht, Munich and Brest ACCs; En-route capacity delays in Karlsruhe, Reims, Barcelona, Brest and Maastricht ACCs; Seasonal weather impacted operations at Frankfurt/Main, Palma de Mallorca and Paris/Charles de Gaulle airports; ATC staffing issues in Reims and Maastricht ACCs;

**16-17 June:** En-route disruptions delays in Marseille ACC due to ATC industrial action, with additional delays in Reims, Tunis, Milano and Bordeaux ACCs; En-route ATC capacity issues in Karlsruhe, Maastricht, Brest, Barcelona and Scottish ACCs; ATC staffing issues in Maastricht, Brest, Vienna, Athens and Makedonia ACCs; Thunderstorms impacted operations at Antalya and Istanbul/Atatürk airports; Airport ATC capacity issues at Greek island and Tel Aviv/Ben Gurion airports due to high demand; ATC staffing issues at Frankfurt/Main, Mikonos and Santorini airports;

**23-24 June:** En-route disruptions delays in Marseille ACC due to ATC industrial action, with additional delays in Reims, Milano, Tunis, Brest and London ACCs; En-route ATC capacity delays in Karlsruhe, Brest, Maastricht, Barcelona, Reims and Athens ACCs; ATC staffing issues in Maastricht, Brest, Karlsruhe, Makedonia and Athens ACCs; Aerodrome capacity delays at Istanbul/Atatürk, London/Gatwick, Pisa, Istanbul/Sabiha Gökçen and Amsterdam/Schiphol airports; Airport ATC capacity issues at Greek island and Athens airports due to high demand;

**26 June:** Instability within the French FDPS resulted in ATC disruptions delays in Brest, Marseille, Reims, Bordeaux and Paris ACCs; En-route ATC capacity delays in Karlsruhe, Reims, Langen, Zagreb and Marseille ACCs; ATC staffing issues in Marseille, Karlsruhe, Reims, Maastricht and Makedonia ACCs;

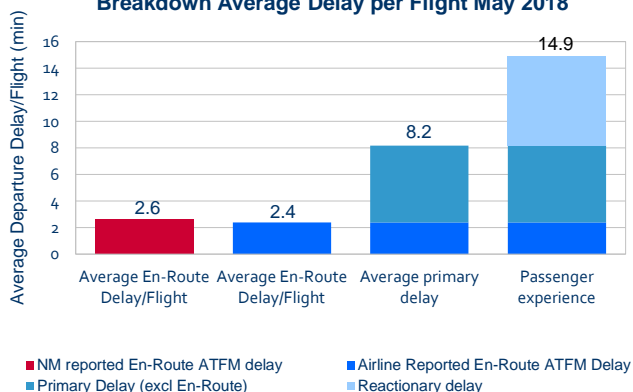
**29-30 June:** En-route ATC capacity delays in Karlsruhe, Reims, Athens, Maastricht, Zurich, Brest, Barcelona and Zagreb ACCs; ATC staffing issues in Marseille, Maastricht, Reims, Athens, Karlsruhe, Makedonia and Brest ACCs; Convective activity impacted operations in Budapest, Beograd, Madrid and Zagreb ACCs; Aerodrome capacity issues at London/Gatwick, Istanbul/Atatürk, Lisbon, Palma de Mallorca and Amsterdam/Schiphol airports; Airport ATC capacity issues at Greek island and Athens airports due to high demand.

## 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 67% of the commercial flights in the ECAC region for May 2018. ATFM delays reported by airlines could 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.

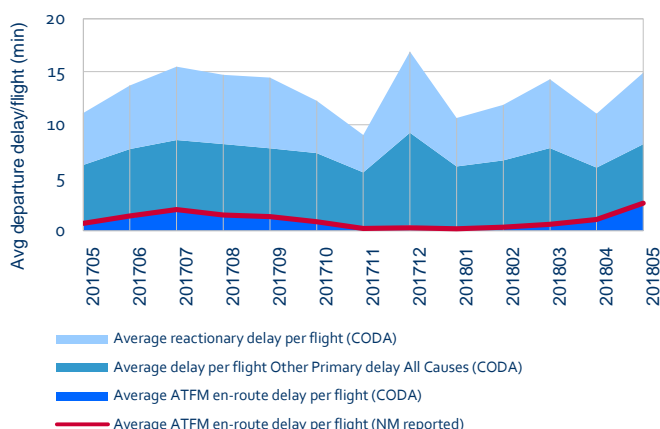
For instance, a flight with an ATFM delay may also have a handling delay absorbed within the ATFM delay. In the event of a long delay an example being during ATC industrial action a flight may keep its original schedule however when it's flight plan is submitted for example a day later any ATFM delay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

**Breakdown Average Delay per Flight May 2018**



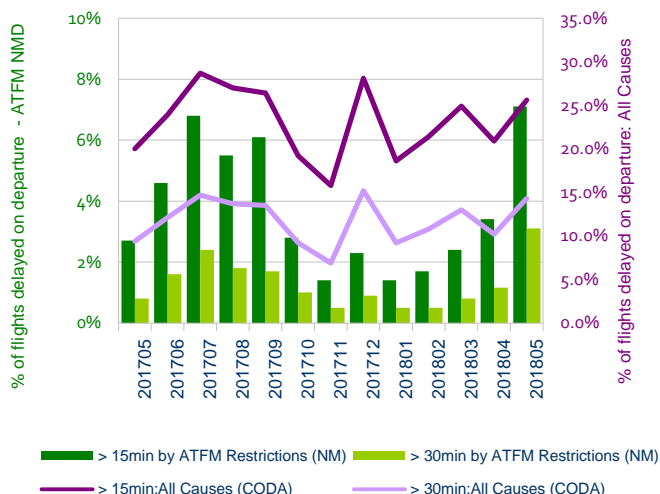
Based on airline data, the average departure delay per flight from ‘All-Causes’ was 14.9 minutes per flight, an increase in comparison to May 2017 where the average delay was 10.8 minutes per flight. Primary delays counted for 54.8% or 8.2 min/ft, with reactionary delays representing the smaller remaining share of 45% at 6.7 min/ft, and increase of 1.9 min/ft compared to May 2017

**Average Departure Delay per Flight 2017/2018**



Further analysis of the past 12 months shows that the average ‘All-Causes’ en-route ATFM delay reported by airlines was 2.4 minutes per flight in May 2018. This was significantly higher when compared to May 2017 when the ‘All-Causes’ en-route ATFM delay was 0.7 minutes per flight. May 2018 saw Weather related ATFM delays and ATC industrial actions, which in turn caused an increase in reactionary delays for airlines.

**Percentage of Delayed Flights: ATFM & All Causes**

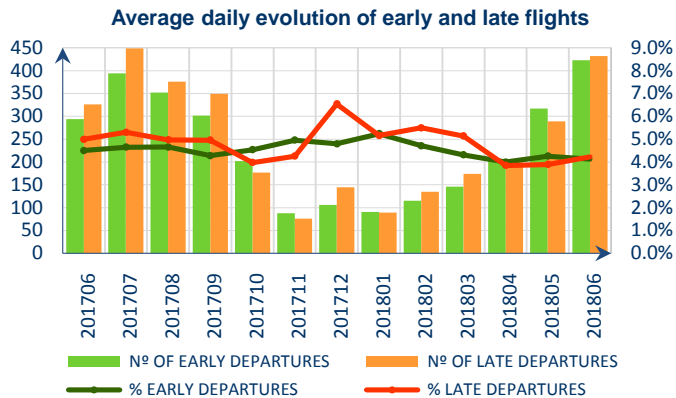


The percentage of flights delayed greater than 15 minutes from ‘All-Causes’ increased by 6.1 percentage points to 25.6%. Delays exceeding 30 minutes also increased, with 14.3% of flights delayed in May 2018.

For more information on CODA delays:

<http://www.eurocontrol.int/sites/default/files/content/documents/official-documents/facts-and-figures/coda-reports/flad-april-2018.pdf>

## 7. ATFM SLOT ADHERENCE

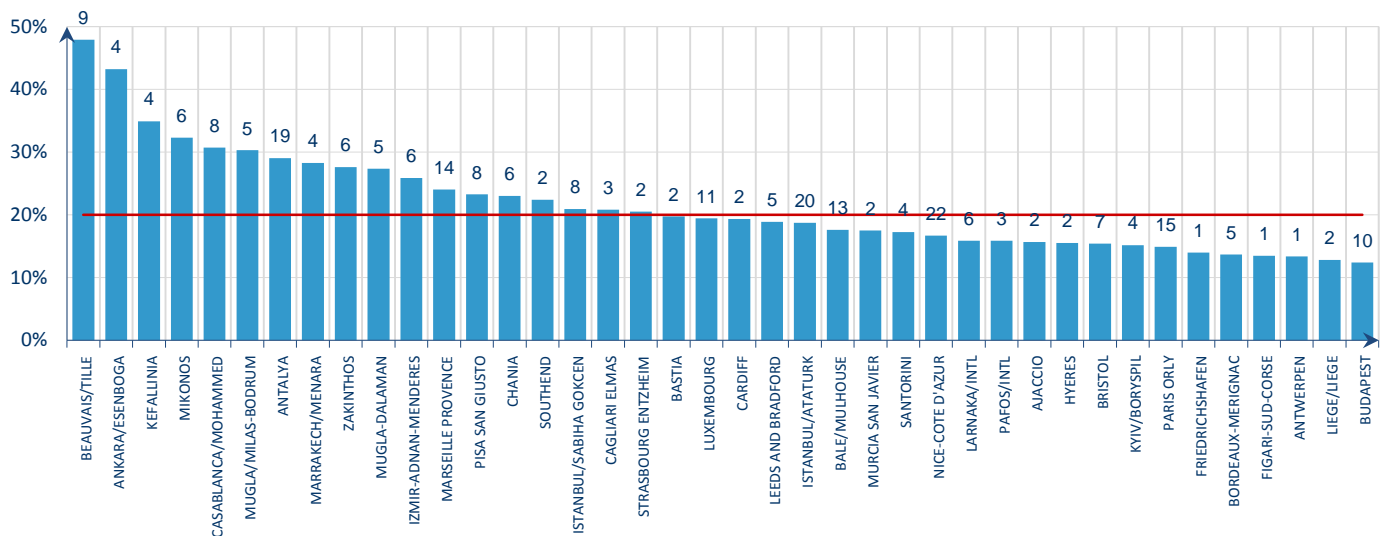


The percentage of early departures for June 2018 is 4.1% of regulated flights, which is a decrease of 0.4 percentage points compared to June 2017.

The percentage of late departures for June 2018 is 4.2% of regulated flights, which is a decrease of 0.8 percentage points compared to June 2017.

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 June 2018**



## 8. SIGNIFICANT EVENTS AND ISSUES

### PLANNED EVENTS

#### ACC

#### MAJOR AIRSPACE OR ATM SYSTEM IMPROVEMENT PROJECTS

##### PLANNED EVENTS

London TC introduced ExCDS into the TMA East and Thames sectors and generated 52,099 min of ATFM delay across the whole month. Previously, 20% of capacity reductions had been planned up to 21 June for the said sectors. This amount of delay presented 61% of total delay (85,367 min) by London TC in June.

##### ADDITIONAL INFORMATION

Bordeaux ACC generated 9,090 minutes of ATFM delay due to the reorganized interface with LECB/LEBL, and 291 minutes due to the new TMA at LFBZ.

Barcelona ACC generated 602 minutes of ATFM delay due to the improved interface with LFBB.

# AIRPORTS

## Local Plans in June

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

## Special Events

- Art Basel generated 3,598 minutes of ATFM delay at Basel airport from 11 to 14 June.

## Completed

- Runway maintenance at Bucharest (generated 6,207 minutes of ATFM delay from 13 to 20 June), Budapest, Hamburg, Tenerife/Sur and Thessaloniki airports;
- Taxiway and/or apron improvements at Hamburg and Warsaw airports;
- Tower works at Tenerife/Sur airport;
- Terminal building improvements/works at Malta airport.

## Ongoing

- Runway maintenance at Amsterdam/Schiphol, Cologne, Istanbul/Sabiha Gökçen, Krakow, Pisa (11,562 minutes of ATFM delay throughout the month) and Stockholm/Arlanda airport;
- Taxiway and/or apron improvements at Bergamo, Catania (generated 2,603 minutes of ATFM delay on 24 June), Copenhagen, Dusseldorf, Frankfurt/Main, Helsinki, Manchester, Paris/Orly, Paris/Charles de Gaulle, Rome/Fiumicino, Stuttgart and Tenerife/Sur airports;
- ILS maintenance at Milan/Malpensa, Porto (1,012 minutes of ATFM delay) and Poznan airports;
- Terminal building improvements/works at Budapest, Frankfurt/Main, Malta, Manchester, Oslo/Gardermoen and Paris/Charles de Gaulle airports.

# DISRUPTIONS

## Technical

- Power issues at Hamburg airport generated 1,212 minutes of ATFM delay on 03 June. NM estimates that approximately 290 flights did not operate, while 24 diversions were noted as a result of the outage;
- Communication system failure in Reims ACC on 08 June generated 1,088 minutes of ATFM delay;
- Surveillance system failure in Marseille TMA on 09 June generated 1,252 minutes of ATFM delay ;
- Instability within the French Flight Data Processing System (FDPS) on 26 June generated a total of 69,402 minutes of ATFM delay across all of the French ACCs;
- Disabled aircraft on runway generated 1,188 minutes of ATFM delay at Geneva airport on 27 June;
- Communication system failure in Makedonia ACC on 30 June generated 2,533 minutes of ATFM delay.

## Industrial Action

- Italian ATC industrial action on 08 June generated 12,056 minutes of en-route ATFM delay in Italy; NM estimates there were 350 flights which did not operate to/from Italian airports.
- Marseille ACC industrial action from 0430 UTC on Saturday 09 June to 0430 UTC on Monday 11 June generated 115,359 minutes of en-route ATFM delay in France; Neighbouring states generated 10,831 minutes due to ATFM protective measures;
- Marseille ACC industrial action from 0430 UTC on Saturday 16 June to 0430 UTC on Monday 18 June generated 118,303 minutes of en-route ATFM delay in France; Neighbouring states generated 15,039 minutes due to ATFM protective measures;
- Marseille ACC industrial action from 0430 UTC on Saturday 23 June to 0430 UTC on Monday 25 June generated 127,177 minutes of en-route ATFM delay in France; Neighbouring states generated 27,814 minutes due to ATFM protective measures;



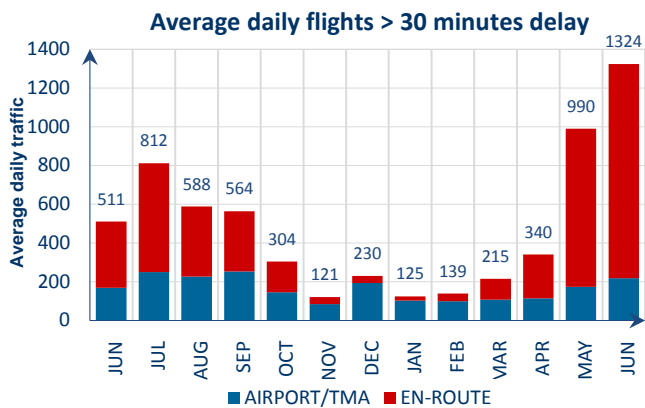
## 9. NM ADDED VALUE

### FLIGHTS WITH DELAY > 30'

The number of flights with more than 30 minutes of ATFM delay increased between June 2017 and June 2018.

In June 2018, 83.5% of flights with more than 30 minutes of ATFM delay were en-route and 16.5% were airport.

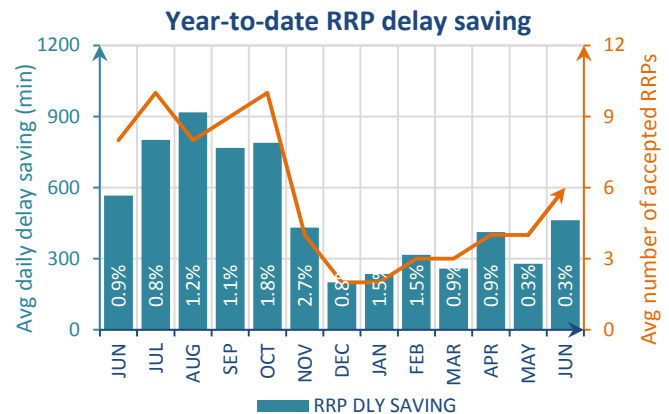
An average 147 flights per day had their delay reduced to less than 30 min by NM.



### RRP DIRECT DELAY SAVINGS

On average 6 RRP/day were executed saving 463 min/day, accounting for 0.3% of ATFM delays.

This graph shows the actual daily averages for the previous 13 months' period<sup>vi</sup>.



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

i On the 03 April the Network Manager suffered an outage of its technical system affecting its operational services, which resulted in the non-availability of traffic data. Therefore the NOR traffic data for this date are based on guideline estimated traffic.

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

iii Internals, international arrivals and departures, excluding overflights.

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

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

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