Network Manager
nominated by
the European Commission

EUROCONTROL

Monthly Network Operations Report

Analysis – June 2016

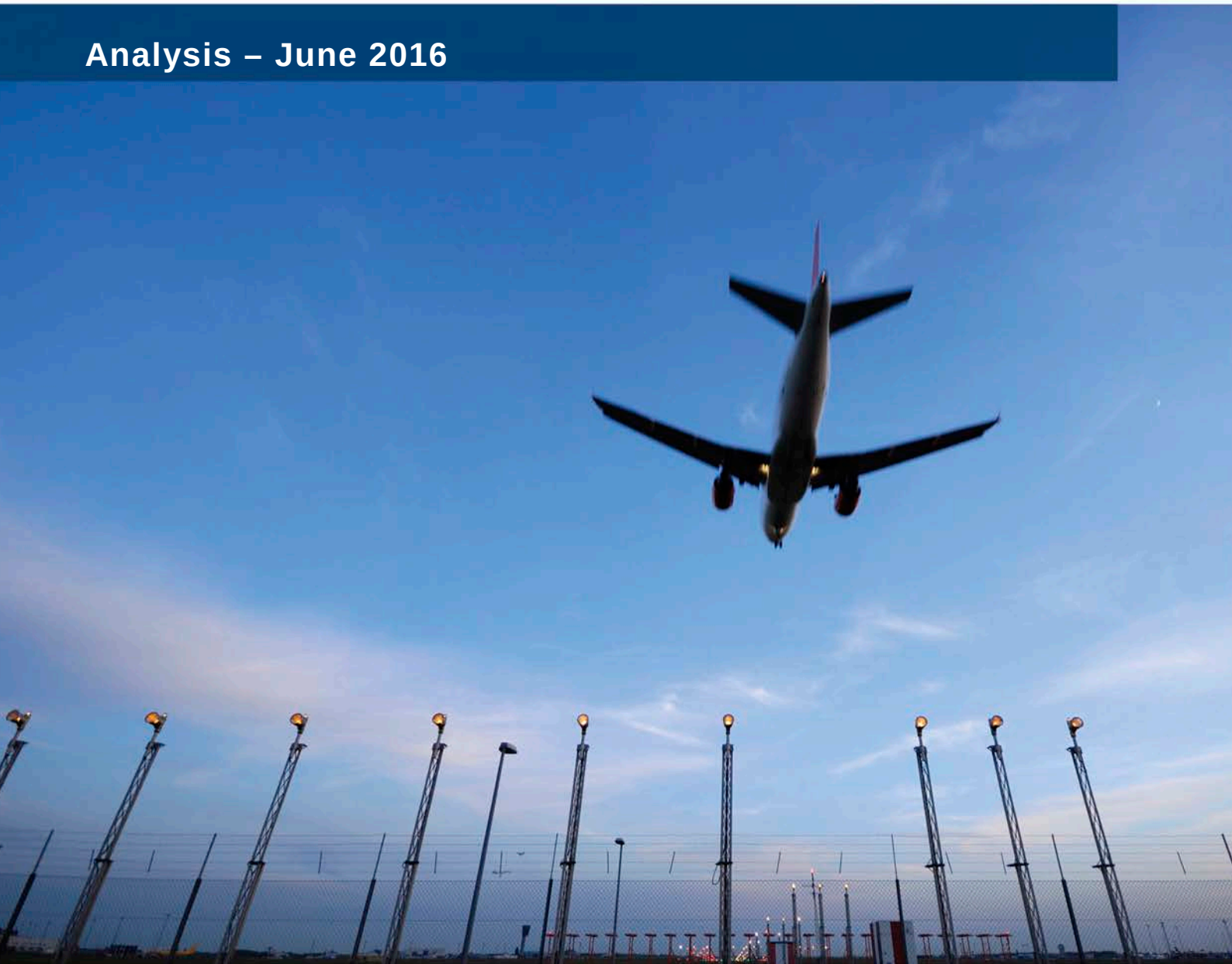


TABLE OF CONTENTS

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.

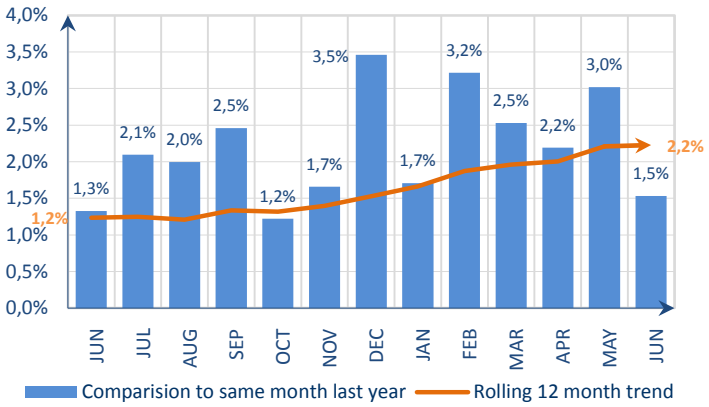
	EN-ROUTE CAPACITY (ATC)		AIRPORT CAPACITY (ATC)
	EN-ROUTE STAFFING (ATC)		AIRPORT STAFFING (ATC)
	EN-ROUTE DISRUPTIONS (ATC)		AIRPORT DISRUPTIONS (ATC)
	EN-ROUTE CAPACITY		AIRPORT CAPACITY
	EN-ROUTE DISRUPTIONS		AIRPORT DISRUPTIONS
	EN-ROUTE EVENTS		AIRPORT EVENTS
	EN-ROUTE WEATHER		AIRPORT WEATHER

- **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**.

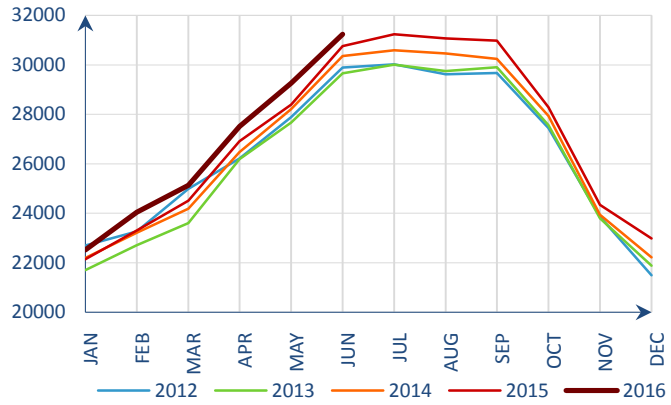
1. TOTAL TRAFFIC

Monthly traffic trend



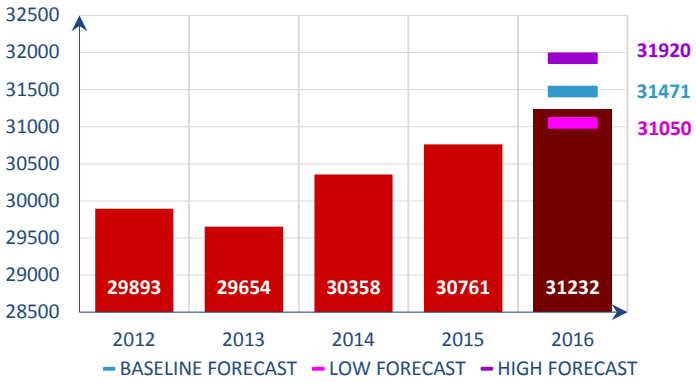
Traffic increased by 1.5 % in June 2016[i].

Average daily traffic for last 5 Years



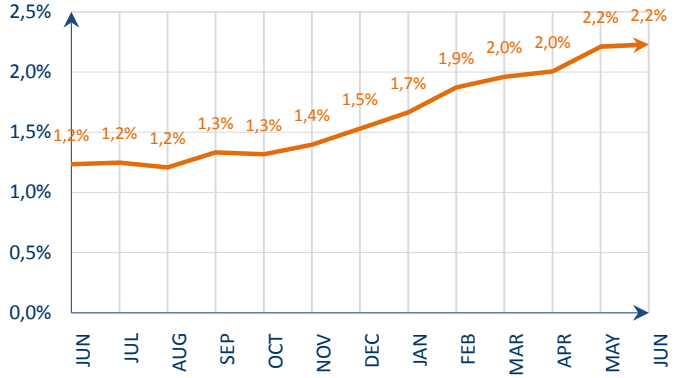
Average daily traffic in June 2016 was the highest June traffic recorded since 2009.

Average daily traffic in June for last 5 Years
Forecast dated 2016-02



The traffic increase of 1.5% for June was above the low forecast updated in February 2016.

12 months rolling traffic trend



This graph shows the variation in average daily traffic for the last 12-month period relative to previous 12-months. The average daily traffic from July 2015 to June 2016 was 2.2% higher than the average from July 2014 to June 2015. The trend shows a continuous recovery in traffic.

The traffic increase of 1.5% in June 2016 was at the lower end of the forecast, with industrial action by both ATC and pilots resulting in a reduction of flights from the network.

Twelve states contributed most to the European local traffic growth[ii] in June, adding more than 50 daily flights to the network. UK was the top contributor for the third consecutive month, with 294 extra daily flights, closely followed by Spain which added 275 daily flights. The Canary Islands were in the third position with 91 extra daily flights mainly due to a strong international departures/arrivals flow which increased by 17%, and partly due to the shift of holiday traffic from Turkey and North-African destinations to South-Western Europe. Despite the industrial action, France added 89 daily flights to the network. Portugal, Italy and Greece added together 250 flights per day and Germany, Poland, Ireland, Romania and Bulgaria contributed together to 290 extra daily flights.

Turkey continued to suffer from repeated terrorist attacks and the Russian travel ban in place since November last year and saw its international departures/arrivals decline by 18% in June representing 320 fewer daily flights. Norway saw 88 fewer daily flights partly due to a weak domestic flow. Belgium/Luxembourg had 45 fewer daily flights due to a weak international departures/arrivals flow.

Low-cost was the strongest market segment with a growth rate of 6.6% and was followed by the traditional scheduled segment which grew 2.3%. The business aviation segment was up 1.1% whereas the all-cargo segment was down 0.5%. The charter segment declined by 17.4% which is mainly due to Transaero's failure, the ban on charter flights between Russia and Turkey and some aircraft operators filing a different flight type than last year.

The top three extra-European partners in average daily flights bi-directional in June 2016 were the United States (1,100 flights, up 6%), the Russian Federation (830 flights, down 21%) and Israel (300 flights, +8%) ex-aequo with the United Arab Emirates (300 flights, +5%). Traffic flows between Europe and North-Africa declined by 29%; individually daily flights to/from the following countries were as follows: Egypt (120 flights, down 41%), Tunisia (110 flights, down 41%), Morocco (250 flights, down 11%).

For the first six months of the year (compared with the year-ago period) traffic flows between Europe and the Middle-East have shown a robust progression and increased by 17% for Iran, 15% for Qatar and between 7% and 9% for Saudi Arabia, United Arab Emirates, Israel and Lebanon.

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 June 2016 were at Birmingham, Malaga, Palma de Mallorca, Bucharest and Manchester airports. The largest traffic decreases were at Antalya, Brussels, Milano/Linate, Helsinki and Frankfurt airports. The increase at Amsterdam/Schiphol is partially explained by commencement of operations by Ryanair and Jet Airways. The traffic decrease at Istanbul/Atatürk airport is partially due to a terrorist attack on 28 June 2016.

Seven of the top ten aircraft operators had more traffic compared to June 2015. The operators with the highest traffic growth were Olympic, Volotea, Qatar, LOT/Polish airlines, Emirates and Wizz Air airlines. Germanwings, Norwegian Air Shuttle, Aegean and Air France recorded the highest traffic decrease.

ATC industrial action in France (multiple days) as well as in Air France (11-14 June), together with industrial action by SAS pilots' in Sweden (10-14 June) also removed flights from the network.

Ryanair's increase is partially due to an increase in fleet size which is due to continue throughout 2016, although it slowed down from a growth rate of circa 20% during winter to 8% with the introduction of the summer schedule. The traffic variation of Finnair, Norwegian Air Shuttle and Norwegian Air International is due to the transfer of flights between the aircraft operators. The traffic variation of Olympic and Aegean is due to Aegean flights operated with Olympic callsign. Volotea increase of traffic is mainly due to the opening of new routes inside Europe.

N°	ADEP	ADEP NAME	201606	%
1	EHAM	AMSTERDAM/SCHIPHOL	727	5,9%
2	LFPG	PARIS CH DE GAULLE	694	-0,9%
3	EDDF	FRANKFURT MAIN	686	-2,6%
4	EGLL	LONDON/HEATHROW	669	-1,6%
5	LTBA	ISTANBUL-ATATURK	630	-1,9%
6	EDDM	MUENCHEN	593	5,6%
7	LEMD	ADOLFO SUAREZ MADRID-BARAJA	550	1,5%
8	LEBL	BARCELONA/EL PRAT	481	4,2%
9	LIRF	ROMA/FIUMICINO	468	3,7%
10	EGKK	LONDON/GATWICK	429	3,5%
11	EKCH	KOBENHAVN/KASTRUP	400	4,3%
12	LEPA	PALMA DE MALLORCA	392	11,5%
13	LSZH	ZURICH	385	1,2%
14	LOWW	WIEN SCHWECHAT	366	-1,5%
15	ENGM	OSLO/GARDERMOEN	362	-1,7%
16	LFPO	PARIS ORLY	347	-0,6%
17	EBBR	BRUSSELS NATIONAL	341	-5,9%
18	EDDL	DUESSELDORF	335	3,4%
19	EIDW	DUBLIN	333	7,3%
20	ESSA	STOCKHOLM-ARLANDA	328	-2,2%
21	LTFJ	ISTANBUL/SABIHA GOKCEN	321	3,8%
22	EGCC	MANCHESTER	301	9,9%
23	LGAV	ATHINAI/ELEFTHERIOS VENIZELOS	299	5,7%
24	EDDT	BERLIN-TEGEL	275	1,3%
25	LPPT	LISBOA	269	9,1%
26	EGSS	LONDON/STANSTED	264	6,2%
27	LSGG	GENEVA	257	-1,1%
28	LIMC	MILANO MALPENSA	247	-0,9%
29	LFMN	NICE-COTE D'AZUR	239	4,7%
30	EPWA	CHOPINA W WARSZAWIE	238	9,3%
31	EFHK	HELSINKI-VANTAA	235	-3,6%
32	EDDH	HAMBURG	230	0,6%
33	LKPR	PRAHA RUZYNE	214	7,0%
34	EGGW	LONDON/LUTON	206	9,3%
35	LTAI	ANTALYA	206	-40,3%
36	EDDK	KOELN-BONN	203	6,8%
37	LEMG	MALAGA/COSTA DEL SOL	201	13,0%
38	EGPH	EDINBURGH	186	5,3%
39	EDDS	STUTTGART	185	-1,9%
40	LLBG	TEL AVIV/BEN GURION	177	8,8%
41	LIML	MILANO LINATE	174	-3,7%
42	EGBB	BIRMINGHAM	172	15,2%
43	LFLL	LYON SAINT-EXUPERY	169	2,0%
44	LROP	BUCURESTI/HENRI COANDA	158	10,2%
45	LEIB	IBIZA	150	9,0%
46	LIPZ	VENEZIA TESSERA	150	0,0%
47	LFML	MARSEILLE PROVENCE	147	2,3%
48	EGPF	GLASGOW	146	6,4%
49	LHBP	BUDAPEST LISZT FERENC INT.	145	2,9%
50	LEAL	ALICANTE	143	0,0%
	TOTALS and % TOTAL TRAFFIC		15823	56,1%

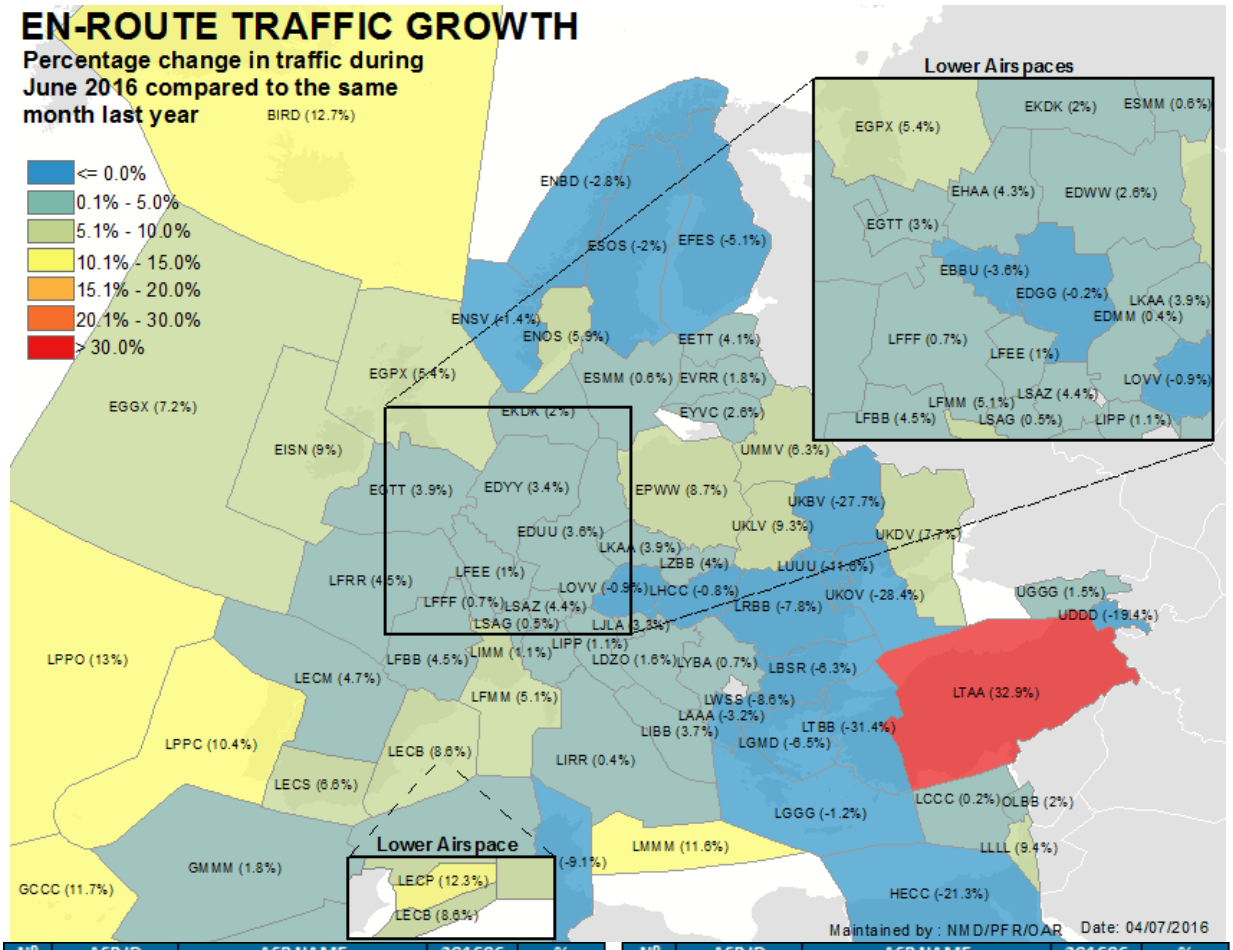
Top 50 Departure Airports with average daily traffic and percentage compared to same period of previous year

N°	ICAO	AIR OPERATOR	201606	%
1	RYR	RYANAIR	1983	9,1%
2	DLH	DEUTSCHE LUFTHANSA	1445	-2,4%
3	EZY	EASYJET	1341	4,3%
4	THY	TURKISH AIRLINES	1278	0,3%
5	AFR	AIR FRANCE	911	-8,1%
6	SAS	SCANDINAVIAN AIRLINES SYSTEM	894	-3,0%
7	BAW	BRITISH AIRWAYS	721	0,2%
8	KLM	KLM ROYAL DUTCH AIRL	671	3,2%
9	BER	AIR BERLIN, INC.	630	0,4%
10	VLG	VUELING AIRLINES SA	617	8,2%
11	AZA	ALITALIA	610	-2,7%
12	BEE	JERSEY EUROPEAN T/A FLYBE	443	8,2%
13	PGT	PEGASUS HAVA TASI.	427	3,4%
14	SWR	SWISS INTERNATIONAL	420	1,5%
15	WZZ	WIZZ AIR	401	13,0%
16	NAX	NORWEGIAN AIR SHUTTLE	392	-26,2%
17	GWI	GERMAN WINGS	378	-27,5%
18	AUA	AUSTRIAN AIRLINES	375	3,5%
19	WIF	WIDEROE	357	-7,3%
20	TAP	TAP/AIR PORTUGAL	325	0,9%
21	FIN	FINNAIR O/Y	305	-3,1%
22	AFL	AEROFLOT-RUSSIAN	265	3,4%
23	AEE	AEGEAN AIRLINES	261	-18,5%
24	HOP	HOP (MERGE OF BZH + RAE + RLA)	260	1,1%
25	IBE	IBERIA	250	4,1%
26	LOT	LOT-POLISH AIRLINES	243	19,6%
27	BEL	BRUSSELS AIRLINES	236	1,3%
28	ANE	AIR NOSTRUM	235	-0,5%
29	AEA	AIR EUROPA	234	-5,0%
30	EIN	AER LINGUS TEORANTA	231	-0,2%
31	TOM	THOMSON FLY LTD	227	2,9%
32	EXS	JET2.COM	197	6,7%
33	UAE	EMIRATES	195	13,9%
34	TRA	TRANSAVIA.COM	186	11,4%
35	IBK	NORWEGIAN AIR INTERNATIONAL	178	
36	QTR	QATAR AIRWAYS COMP.	177	26,3%
37	NJE	NETJETS	171	3,0%
38	RAM	ROYAL AIR MAROC	166	-5,6%
39	UAL	UNITED AIRLINES INC.	162	1,6%
40	DAL	DELTA AIR LINES INC.	161	2,7%
41	BCS	EUROPEAN AIR TRANSP.	155	4,6%
42	VOE	VOLOTEA	153	33,6%
43	EWG	EUROWINGS AG	152	0,0%
44	EZS	EASY JET SWITZERLAND	150	-5,0%
45	TVS	TRAVEL SERVIS	148	7,8%
46	AUI	UKRAINE INTERNATIONA	143	12,1%
47	OAL	OLYMPIC	142	133,6%
48	TCX	THOMAS COOK AIT LTD	140	4,3%
49	BTI	AIR BALTIC CORPORAT.	134	-0,6%
50	MON	MONARCH AIRLINES LTD	131	2,4%
	TOTALS and % TOTAL TRAFFIC		20407	65,3%

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

N°	ICAO	AIR OPERATOR	201606	%
		Unidentified	2479	-5,6%

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

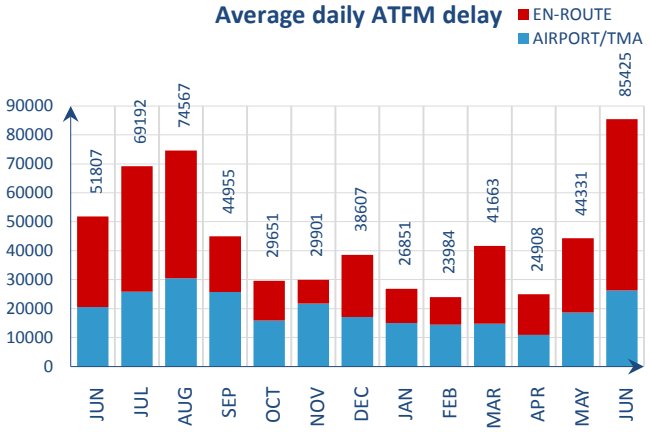


Nº	ASP ID	ASP NAME	201606	%
1	BIRDACC	REYKJAVIK ACC	416	12,7%
2	DAAAACC	ALGERS ACC	448	3,2%
3	DTTCACC	TUNIS ACC	292	-8,8%
4	EBBUACC	BRUSSELS CANAC	1787	-3,6%
5	EDGGALL	LANGEN ACC_FIR	3738	-0,2%
6	EDMMACC	MUNCHEN ACC	3299	0,4%
7	EDUUUAC	KARLSRUHE UAC	5579	3,6%
8	EDWWACC	BREMEN ACC	1994	2,6%
9	EDYYUAC	MAASTRICHT UAC	5389	3,4%
10	EETTACC	TALLIN ACC	604	4,1%
11	EFESACC	TAMPERE ACC	442	-5,2%
12	EGGXOCA	SHANWICK OACC	1479	7,2%
13	EGPXALL	SCOTTISH ACC	2937	5,4%
14	EGTTACC	LONDON ACC	6179	3,9%
15	EGTTTC	LONDON TMA TC	4135	3,0%
16	EHAAACC	AMSTERDAM ACC(245-)	1727	4,3%
17	EIDWACC	DUBLIN ACC	730	8,6%
18	EISNACC	SHANNON ACC	1458	9,0%
19	EKDKACC	COPENHAGEN ACC	1681	2,0%
20	ENBDACC	BODO ACC	632	-2,8%
21	ENOSACC	OSLO ATCC	1085	5,9%
22	ENSVACC	STAVANGER ATCC	724	-1,4%
23	EPWWACC	WARSZAWA ACC	2345	8,7%
24	ESMMACC	MALMO ACC	1590	0,6%
25	ESOSACC	STOCKHOLM ACC	1152	-2,0%
26	EVRRACC	RIGA ACC	776	1,8%
27	EYVCACC	VILNIUS ACC	701	2,6%
28	GCCCACC	CANARIAS ACC/FIC	774	11,9%
29	GMMMACC	CASABLANCA ACC	922	1,8%
30	HECCACC	CAIROACC	537	-21,2%
31	LAAAACC	TIRANA ACC	665	-3,2%
32	LBSRACC	SOFIA ACC	2363	-6,3%
33	LCCCACC	NICOSIA ACC	933	0,2%
34	LDZOACC	ZAGREB ACC	1756	1,6%
35	LECBACC	BARCELONA ACC	2848	8,6%
36	LECMALL	MADRID ALL ACC	2959	4,7%
37	LECPACC	PALMA ACC	1209	12,3%
38	LECSACC	SEVILLA ACC	1028	6,6%

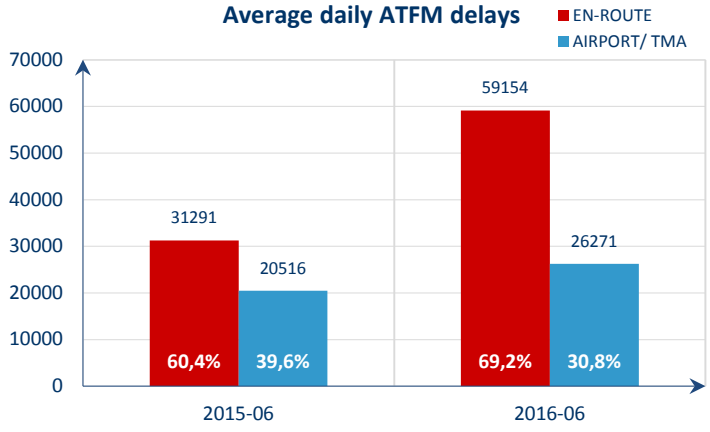
Nº	ASP ID	ASP NAME	201606	%
39	LFBBALL	BORDEAUX ALL ACC	2949	4,5%
40	LFEEACC	REIMS U/ACC	3005	1,0%
41	LFFFALL	PARIS ALL ACC	3635	0,7%
42	LFMMACC	MARSEILLE ACC	3482	5,1%
43	LFMMAPP	MARSEILLE TMA	1051	4,7%
44	LFRRACC	BREST U/ACC	3153	4,5%
45	LGGGACC	ATHINAI CONTROL	1760	-1,1%
46	LGMDACC	MAKEDONIA CONTROL	1388	-6,5%
47	LHCCACC	BUDAPEST ACC	2383	-0,8%
48	LIBBACC	BRINDISI ACC	891	3,7%
49	LIMMACC	MILANO ACC	2610	1,1%
50	LIPPACC	PADOVA ACC	2218	1,1%
51	LIRRACC	ROMA ACC	2523	0,4%
52	LJLAACC	LJUBLJANA ACC	935	3,3%
53	LKAAACC	PRAGUE ACC	2402	3,9%
54	LLLLACC	TEL AVIV ACC	420	9,4%
55	LMMMACC	MALTA ACC	338	11,6%
56	LOVVACC	WIEN ACC	2508	-1,0%
57	LPPCACC	LISBOA ACC/UAC	1472	10,4%
58	LPPOOAC	SANTA MARIA OACC	400	13,0%
59	LQSBACC	BOSNIA-HERZEGOVINA	119	3,5%
60	LRBBACC	BUCURESTI ACC	1892	-7,8%
61	LSAGACC	GENEVA ACC	1955	0,5%
62	LSAZACC	ZURICH ACC	2381	4,4%
63	LTAAACC	ANKARA ACC	3696	33,0%
64	LTBBACC	ISTANBUL ACC	2103	-31,3%
65	LUUUACC	CHISINAU ACC	137	-11,6%
66	LWSSACC	SKOPJE ACC	535	-8,6%
67	LYBAACC	BEOGRADE ACC	2106	0,7%
68	LZBBACC	BRATISLAVA ACC	1598	4,0%
69	OLBBACC	BEIRUT ACC	150	2,0%
70	UDDDACC	YEREVAN ACC	86	-20,4%
71	UGGGACC	TBILISI ACC	342	1,5%
72	UKBVACC	KIEV ACC	381	-27,7%
73	UKDVACC	DNIPROPETROVSK ACC	56	7,7%
74	UKLVACC	L'VIV ACC	328	9,3%
75	UKOVACC	ODESSA ACC	244	-28,5%
76	UMMVACC	MINSK ACC	827	6,3%

The highest traffic increases in June 2016 were in Ankara, Santa Maria, Reykjavik, Palma, Canarias, Malta and Lisbon ACCs. Airspace realignment in Ankara and Istanbul ACCs accounts for the variation. Increased usage of the Oceanic ATS routes by traffic avoiding French ACCs during the French ATC industrial action and increased traffic between UK and Spain accounts for the variation in Shannon, Shanwick, Lisbon, Palma, Barcelona and Canarias ACCs. The Santa Maria and Lisbon ACCs variation is also due to increased traffic to/from the Canary Islands and the Azores, and South American destinations. Increased usage of more southerly routes for traffic routing to/from Turkey accounts for the increase in Malta ACC. Reykjavik ACCs increase is due to increased international arrivals/departures as well as unseasonable weather patterns which resulted in transatlantic flights adopting more northerly routes

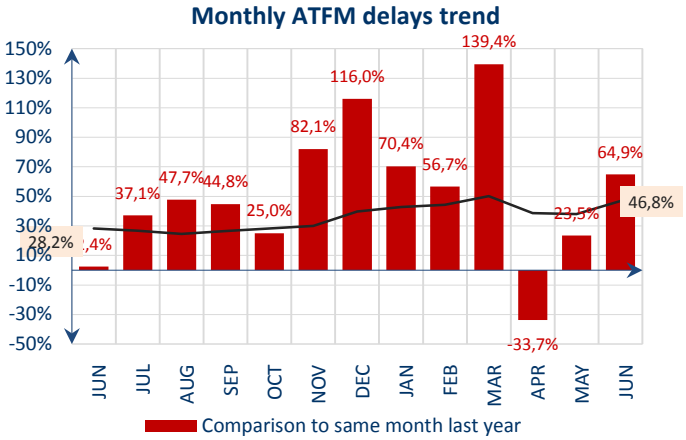
2. ATFM DELAY AND ATTRIBUTIONS



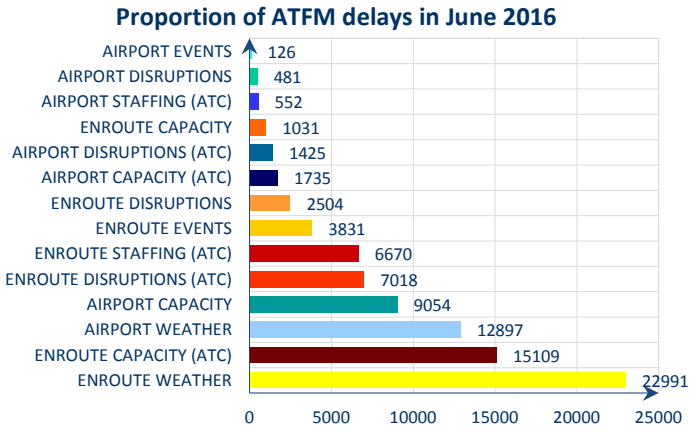
Total ATFM delays increased by 64.9% in June 2016[i].



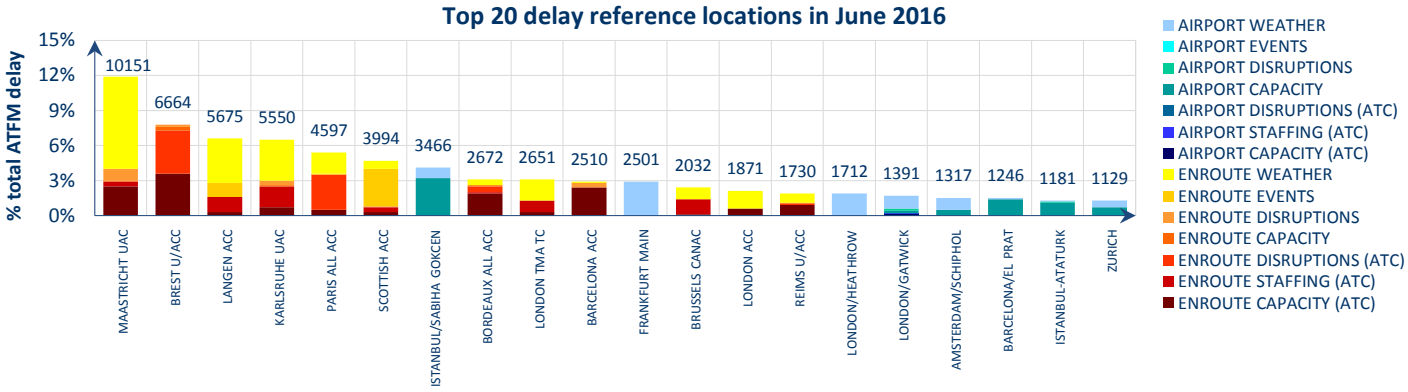
En-route ATFM delays increased by 89% and airport ATFM delays increased by 28.1%.



The rolling 12-month trend shows that ATFM delay was 46.8% higher during the period July 2015 – June 2016 compared to July 2014 – June 2015.



En-route weather (26.9%), en-route ATC capacity (17.7%) and airport weather (15.1%) were the main causes of ATFM delays in June 2016.

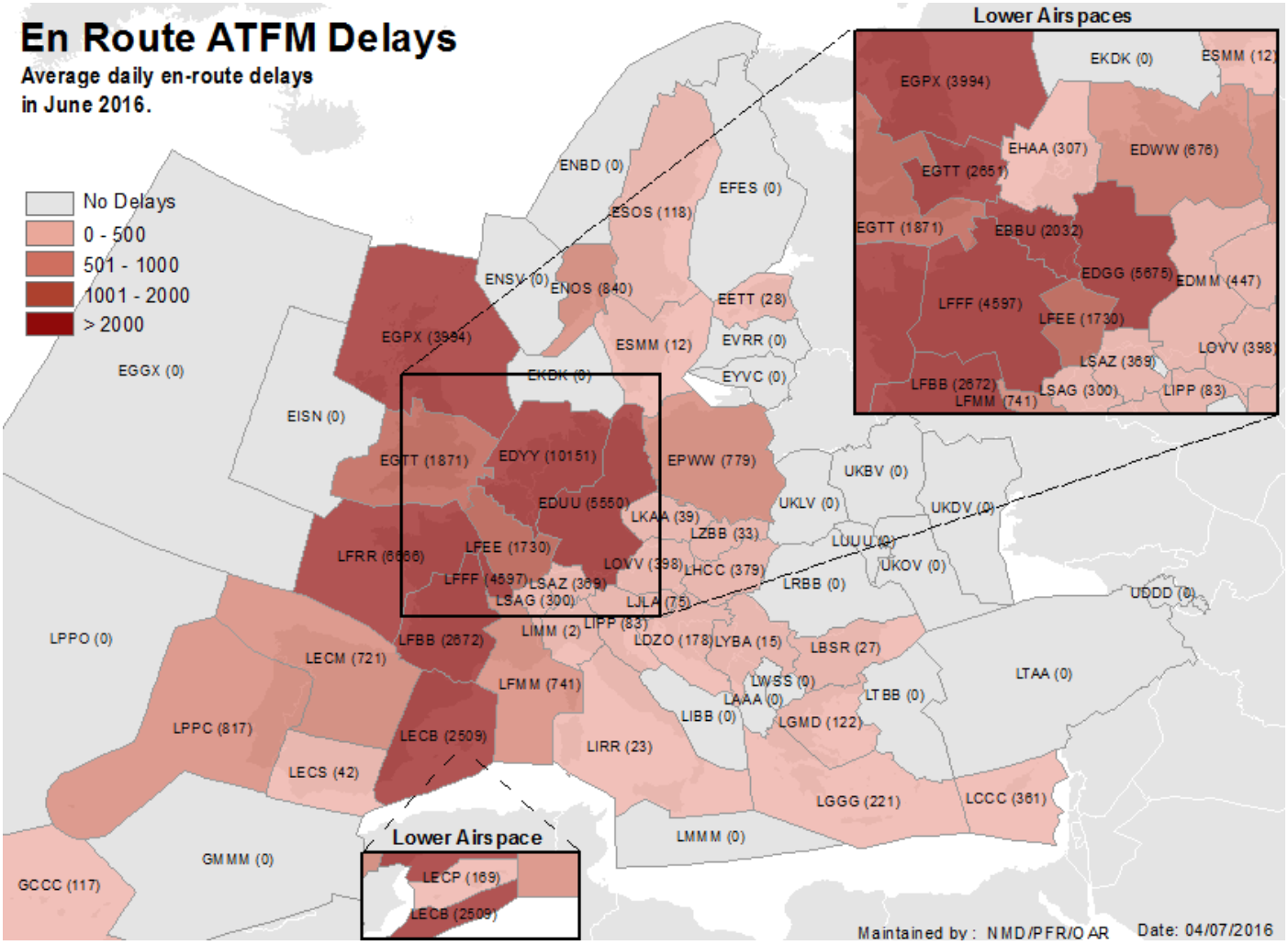


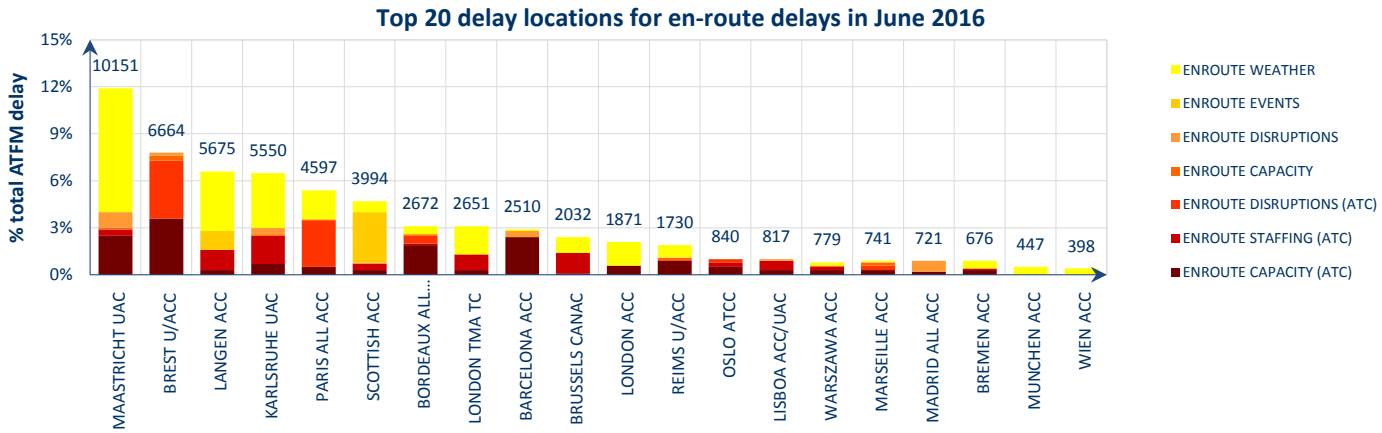
These are the top 20 delay generating locations for the reporting month with respect to total ATFM delays. Figures are the average daily delays in minutes for the individual locations.

- En-route weather generated delays in Maastricht, Langen, Karlsruhe, Paris, Scottish, London, Brussels and Reims ACCs;
- French industrial action on 02,14, 23 and on 28 June resulted in delays for Brest, Paris and Bordeaux ACCs;
- En-route staffing issues in Langen, Karlsruhe, London and Brussels ACCs;
- En-route ATC capacity delays in Maastricht, Brest, Karlsruhe, Bordeaux, Barcelona, London and Reims ACCs;
- Aerodrome capacity issues generated delays at Istanbul/Sabiha Gökcen airport and to a lesser extent at Istanbul/Ataturk Barcelona, Zurich, Amsterdam/Schiphol and London/Gatwick airports;
- Scottish ACC generated delays due to the implementation of the iTEC system[iii]; Langen ACC recorded delays to the on-going PSS implementation.
- Seasonal weather impacted operations particularly at Frankfurt Main, London/Heathrow, Istanbul/Sabiha Gökcen, London/Gatwick, Amsterdam/Schiphol and Zurich airports;
- Military exercise Bellerophon generated ATFM delay in Brest; locally reported traffic onload in Barcelona, Canarias ACCs resulted in the application of ATFM protective measures.

3. EN-ROUTE ATFM DELAYS

EN-ROUTE ATFM DELAY PER LOCATION

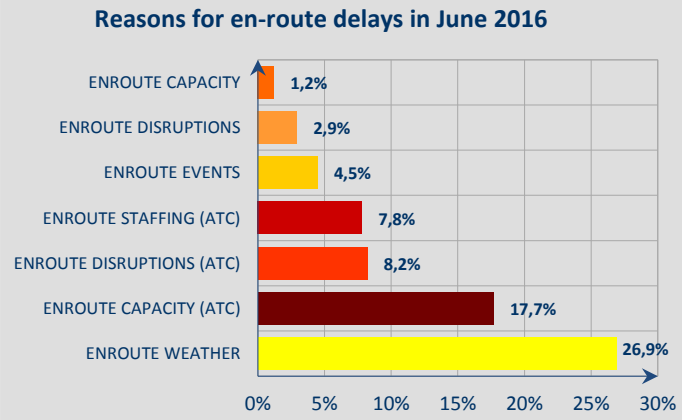




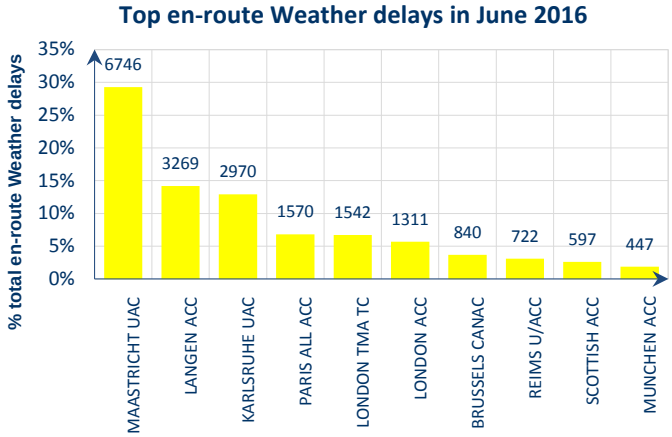
These are the top 20 en-route ATFM delay generating locations for the reporting month with respect to total ATFM delays. Figures are the average daily delays in minutes for the individual locations.

The top 20 en-route ATFM delay locations generated **65%** of the monthly total (network) ATFM delay.
The top 5 en-route ATFM delay locations generated **38%** of the monthly total (network) ATFM delay.

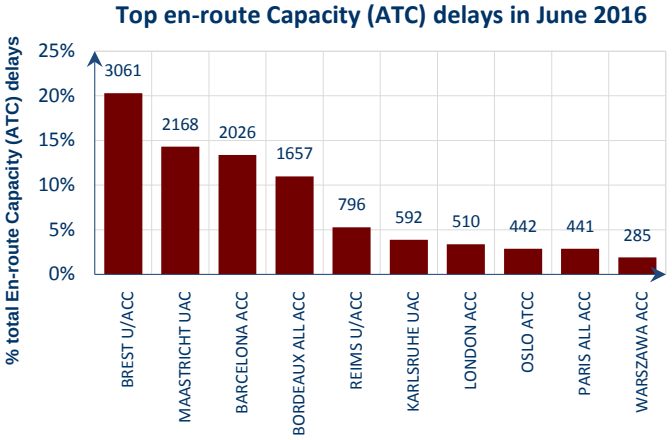
EN-ROUTE ATFM DELAY PER DELAY GROUP



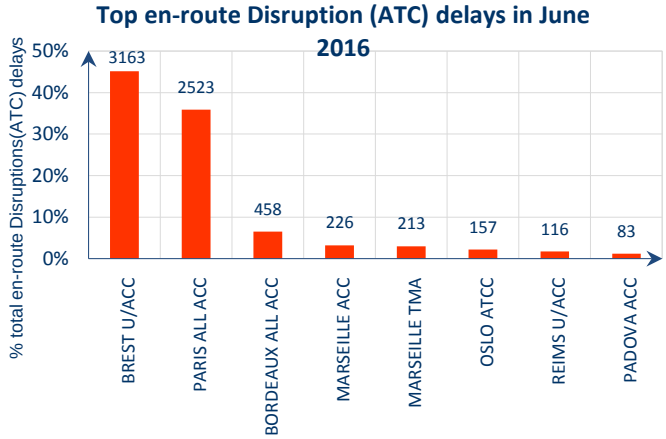
En-route ATFM delays accounted for 69.2% of all ATFM delays. Most of this delay was caused by en-route weather, en-route ATC capacity and en-route ATC disruptions as explained in detail below. The other causes were:
En-route ATC staffing; Karlsruhe, Langen, Brussels and London TMA ACCs generated 68% of all en-route ATC staffing delays.
En-route events; Scottish ACC carried out iTEC implementation and generated 83,359 minutes of ATFM delay in June which represented 72% of all en-route events delay;
En-route disruptions; Maastricht, Madrid, Karlsruhe, Barcelona ACCs all generated delays due to the application of ATFM protective measures during the French ATC industrial action; Some ATFM delays in Karlsruhe ACC due to Italian ATC industrial action on 17 June; Military exercise Bellerophon in Brest ACC resulted in the application of ATFM protective measures in Barcelona, Canarias ACCs due to locally reported traffic onload.
En-route Capacity; Military exercise Bellerophon generated ATFM delay in Brest ACC.



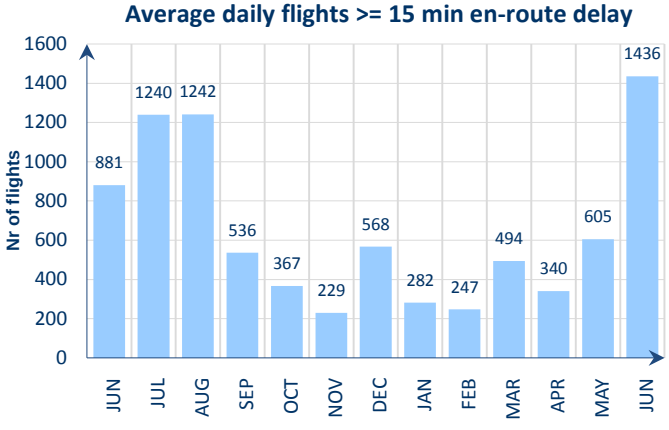
Thunderstorms, rain and/or turbulence impacted operations at several ACCs. Maastricht ACC was the most impacted throughout the month.



En-route ATC capacity delays increased in Brest, Maastricht, Barcelona, Bordeaux, Reims, London and Paris ACCs. Oslo, Karlsruhe and Warsaw ACCs entered the top 10.

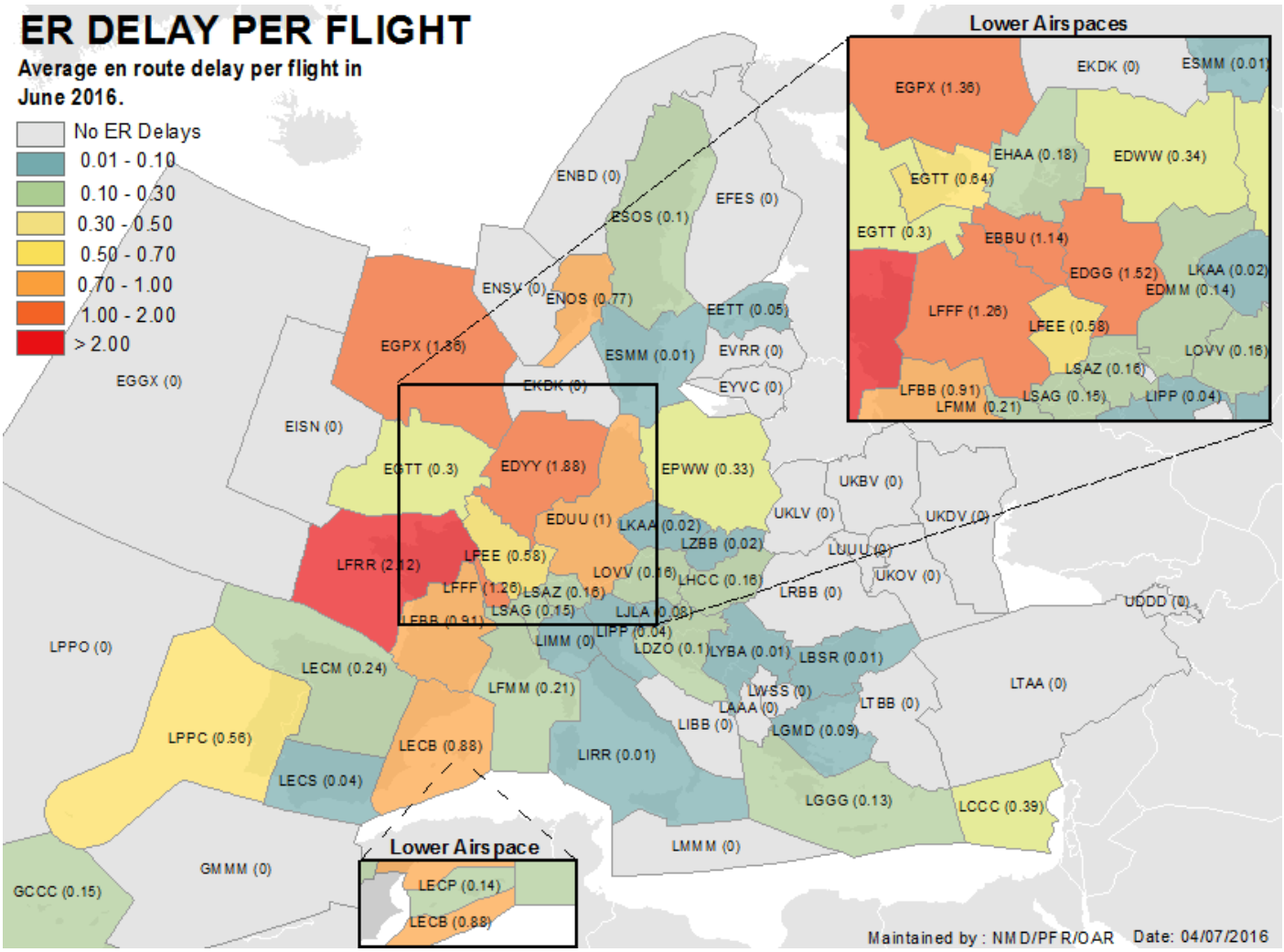


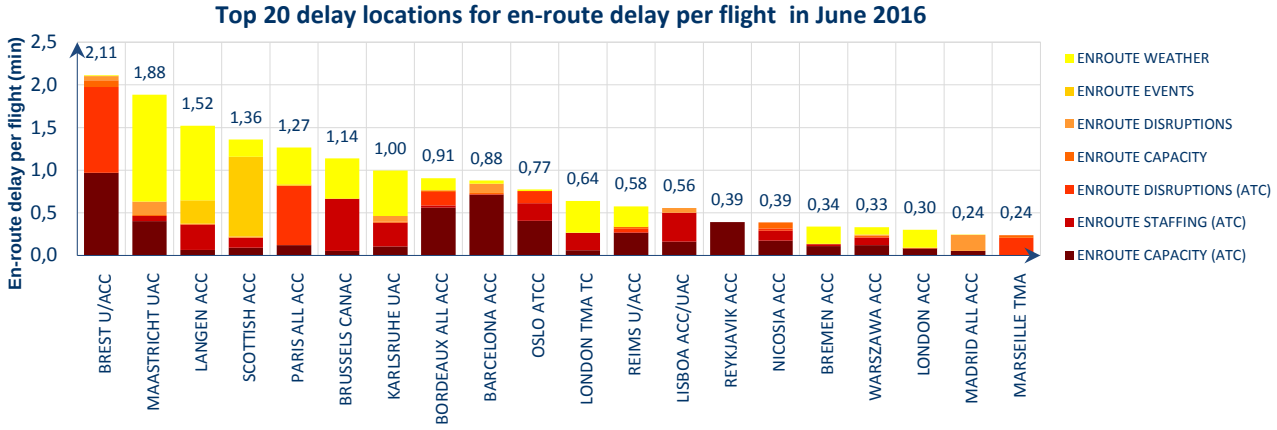
The French ATC industrial action generated significant en-route disruption delays at French ACCs. Delays recorded at Oslo ACC due to radar failure on 14 June.



An average of 1436 flights/day received an en-route ATFM delay of at least 15 minutes in June 2016. The corresponding figure for June 2015 was 881 flights/day.

EN-ROUTE ATFM DELAY PER FLIGHT





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.

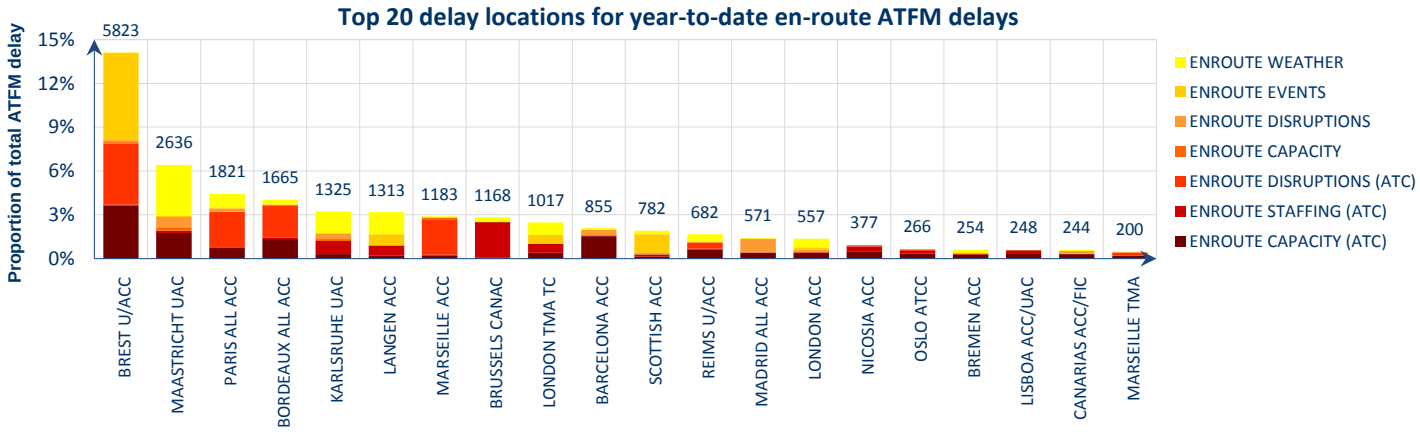
With a huge impact of en-route weather throughout the month, Maastricht, Langen, Karlsruhe, Paris and London TMA ACCs average ATFM delay per flight increased compared to May 2016.

Brest ACC average en-route ATFM delay/flight increased from 1.08 min/flt in May 2016 to 2.11 min/flt in June 2016 (mainly due to ATC industrial action and en-route ATC capacity).

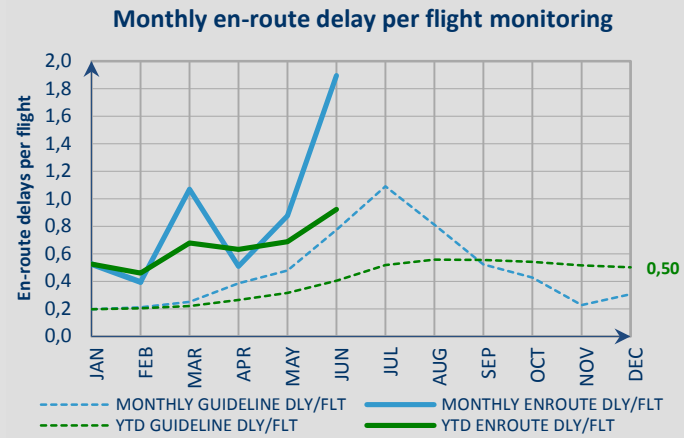
Brussels ACC average en-route ATFM delay/flight decreased from 1.84 min/flt in May 2016 to 1.14 min/flt in June 2016.

Oslo ACC average en-route ATFM delay/flight increased from 0.20 min/flt in May 2016 to 0.77 min/flt in June 2016, mainly due to en-route ATC capacity, en-route ATC staffing and technical issues).

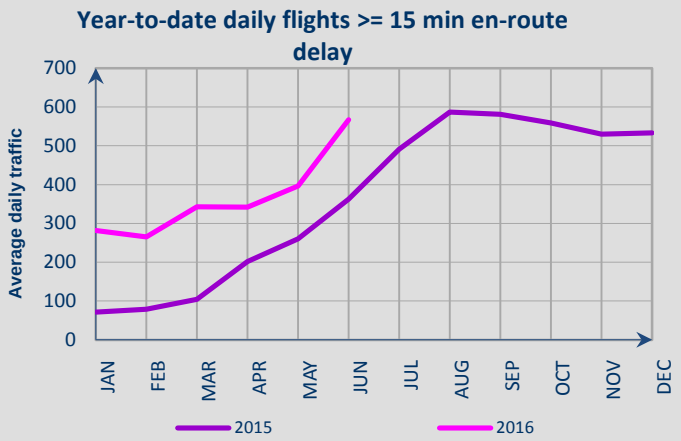
EN-ROUTE ATFM DELAY YEAR-TO-DATE



These are the top 20 en-route delay locations for 2016 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 **55.7%** of the total ATFM (network) delay.
The top 5 en-route delay locations generated **32.2%** of the total ATFM (network) delay.



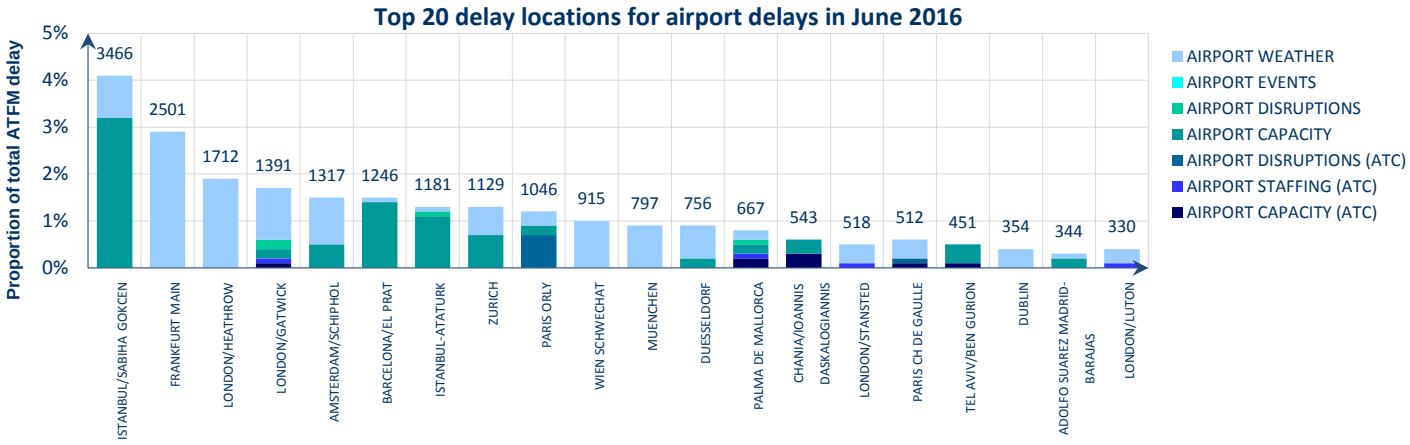
Reporting month: The average en-route delay per flight in the NM area[iv] in June was 1.89 min/flt which is above the corresponding monthly guideline[v] value of 0.78 min/flt.
Year To Date: The average YTD en-route ATFM delay per flight in 2016 in the NM area is 0.92 min/flt which is above the corresponding guideline value of 0.40 min/flt.



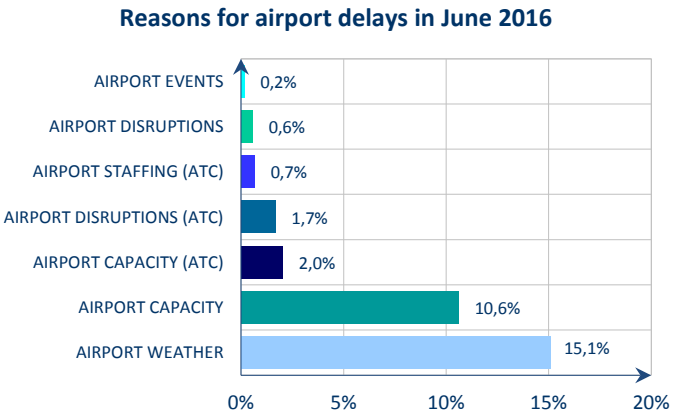
Year to date: An average of 567 flights/day had an en-route ATFM delay of at least 15 minutes in 2016. The corresponding figure in 2015 was 363 flights/day.

4. AIRPORT/TMA ATFM DELAYS

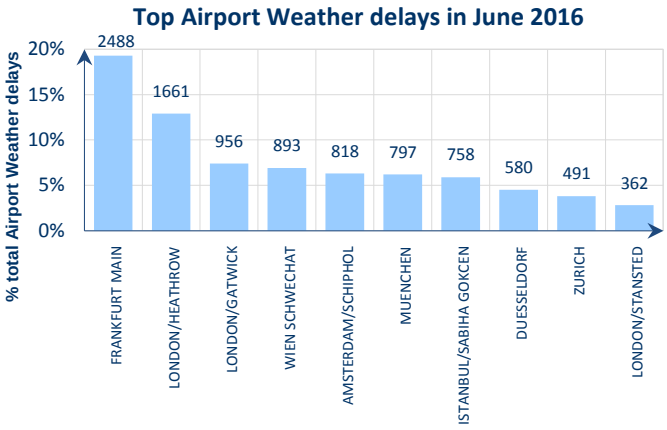
AIRPORT/TMA ATFM DELAY PER LOCATION



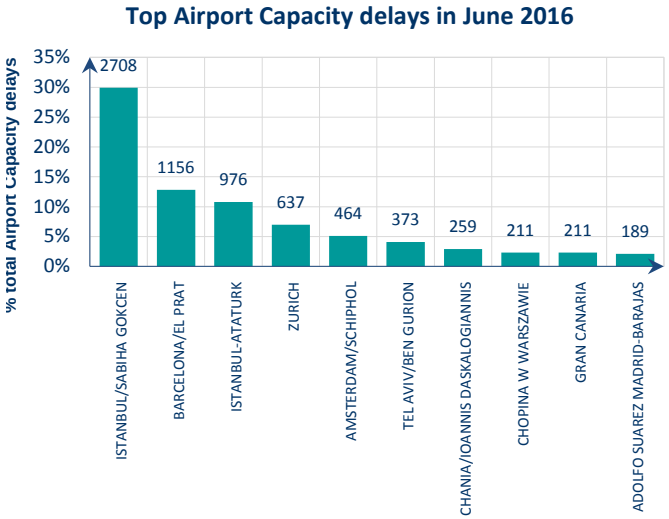
AIRPORT/TMA ATFM DELAY PER DELAY GROUPS



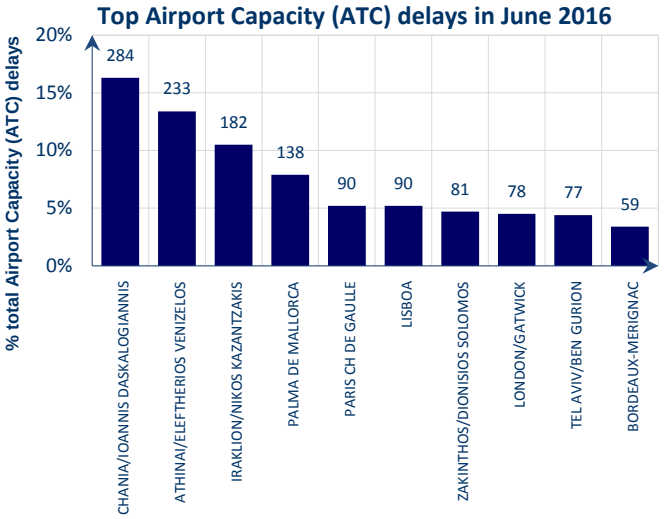
Airports accounted for 30.8% of all ATFM delays in June 2016, mainly due to airport weather and capacity.



Adverse seasonal weather particularly impacted operations at Frankfurt, London/Heathrow and, to a lesser extent, London/Gatwick Vienna and Amsterdam Schiphol airports.

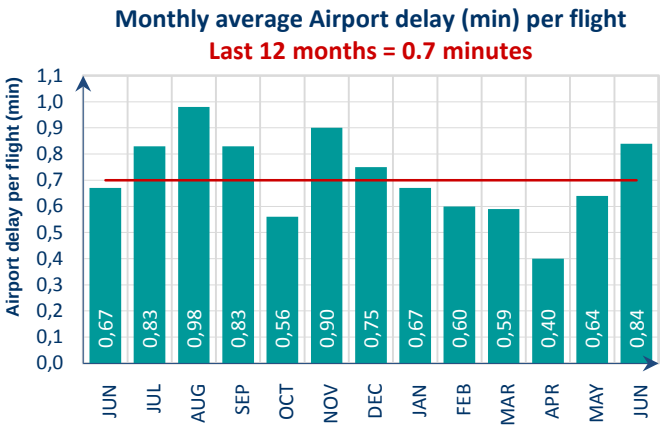


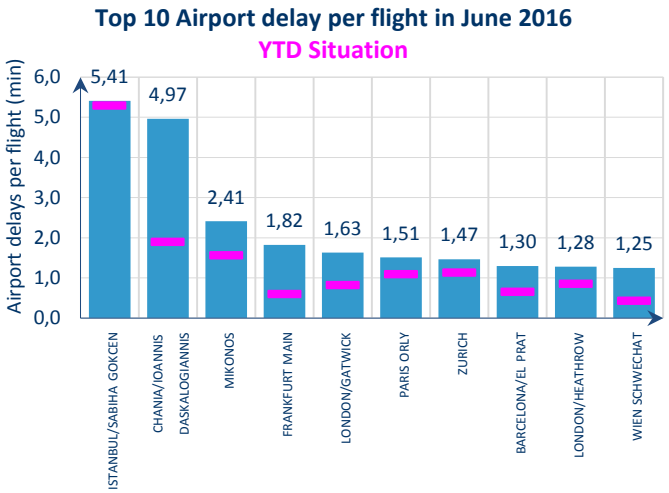
Airport capacity delays at Istanbul/Sabiha Gökcen, Barcelona, Istanbul/Ataturk and Zurich airports. Environmental constraints generated delays at Barcelona and Zurich airports.



Greek islands airports generated delay due to high demand. Athens airport generated delay due to the application of ATFM measures on departing aircraft.

AIRPORT/TMA ATFM DELAY PER FLIGHT

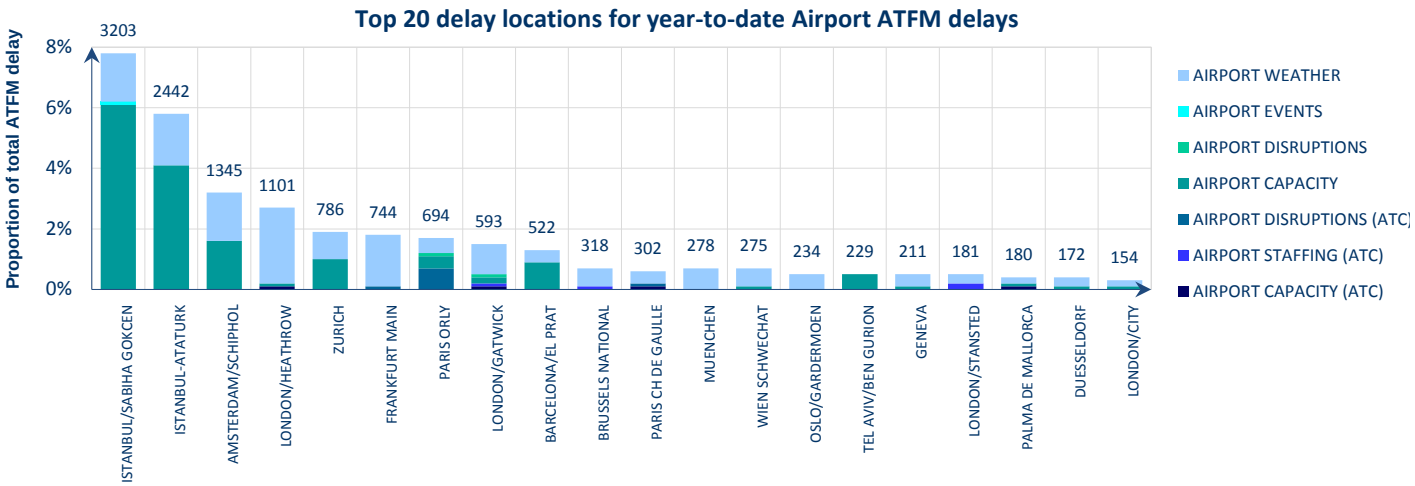




Average airport/TMA delay per flight increased from 0.67 min/flt in June 2015 to 0.84 min/flt in June 2016.

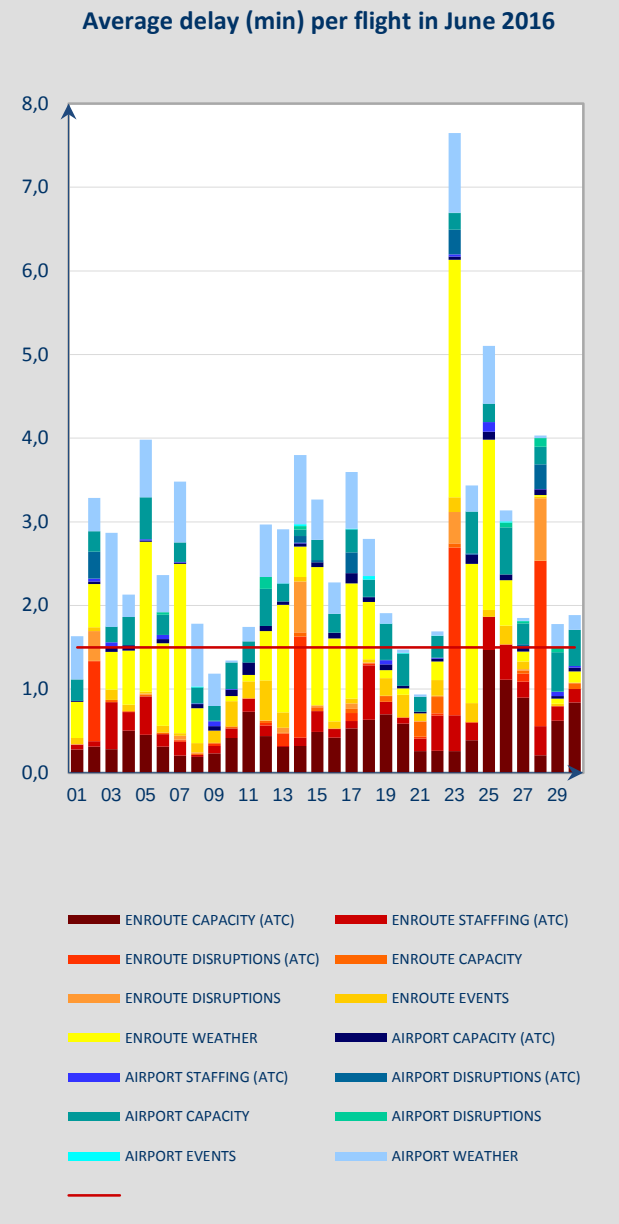
Istanbul/Sabiha Gökcen had the highest delay per flight in June, mainly due to airport capacity and adverse seasonal weather. Summer destinations like Mikonos and Chania registered a high delay per flight. All of the top 10 delay airports generated a daily average ATFM per flight above their year to date values.

AIRPORT/TMA ATFM DELAY YEAR-TO-DATE



The top 20 Airport/TMA delay locations have generated **33.5%** of the total ATFM (network) delay in 2016.
The top 5 Airport/TMA delay locations have generated **21.4%** of the total ATFM (network) delay in 2016.

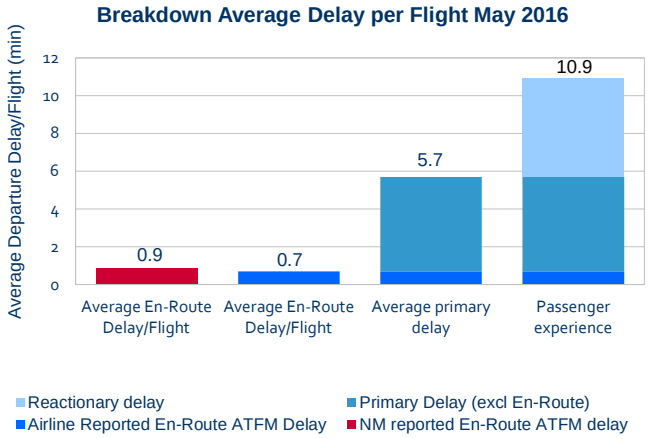
5. DAILY EVOLUTION



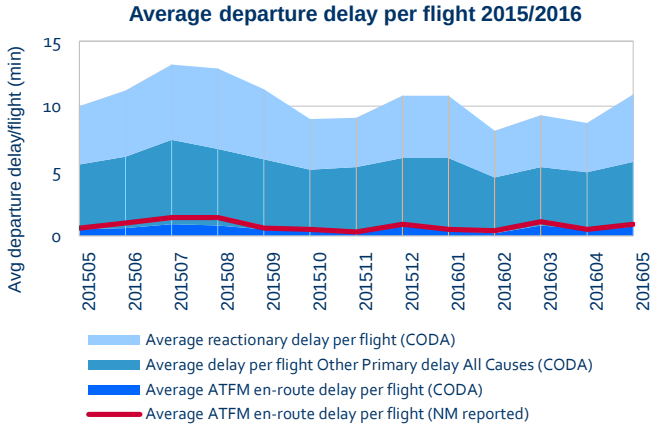
All but 4 days in June 2016 had an average delay/flt above 1.5 min/flt. These were the most significant days;
02 June; En-route ATC disruption delays in Brest, Marseille, Paris and Bordeaux ACCs due to the French ATC industrial action; Wide spread weather issues, in particular in Maastricht ACC.
03 June; Weather issues affecting both airports and airspaces; Staffing issues in Langen and Brussels ACCs and at London TMA.
05-07 June; En-route weather delays in Maastricht, Karlsruhe, Langen, London, Brussels, Munich, Paris, Reims and Scottish ACCs. Airport weather issues at Brussels, Frankfurt, Geneva, Oslo, Paris, Zurich and London airports;
12-13 June; En-route events delays in Langen ACC due to the on-going PSS implementation and ATFM delays in Scottish ACC due to implementation of the iTEC system; En-route weather delays in Bremen, Brussels, Karlsruhe, Langen, Maastricht and Munich ACCs and at London TMA; High airport weather delays at Frankfurt, London/Heathrow and London Gatwick airports and, to a lesser extent, at Dublin, Düsseldorf, Munich, Zurich and Vienna airports; Airport disruption delays due to runway damage at London/Gatwick airport;
14 June; En-route ATC disruptions delays in Bordeaux, Brest and Paris ACCs due to French ATC industrial action; Radar issue in Oslo ACC; Weather significantly impacting en-route and airport operations;
15-18 June; Weather issues affecting both en-route and airports in Central, Northern and Western Europe; En-route ATC staffing delays in Karlsruhe, Langen and Lisbon ACCs; Italian ATC industrial action on 17 June generated 11,473 minutes of ATFM delay.
23 June; En-route ATC disruption delays in Reims, Brest, Marseille, Paris, Bordeaux ACCs due to the French ATC industrial action, with additional delays in Madrid, Barcelona and Lisbon ACCs; Marseille and Paris airports were the most impacted by the French ATC industrial action and generated delays; En-route weather delays in Maastricht, Paris, Brussels and London ACCs;
24-26 June; En-route weather delays in Karlsruhe, Amsterdam, Bordeaux, Bremen, Geneva, Langen, Ljubjana, London, Maastricht, Munich, Paris, Reims, Scottish, Warsaw, Vienna and Zurich ACCs; En-route staffing issues in Brussels, Karlsruhe, Langen, Lisbon, Maastricht, Makedonia, Warsaw and Zurich ACCs; En-route ATC capacity in Athens, Barcelona, Bordeaux, Brest, Karlsruhe, Lisbon, London, Maastricht, Oslo, Reims, Reykjavik and Warsaw ACCs; Airport capacity delays in Barcelona, Gran Canaria, Istanbul/ Sabiha Gökcen, Istanbul/Ataturk and London/Gatwick airports due to high demand during the weekend;
28 June; En-route disruption delays in Bordeaux, Brest, Marseille and Paris ACCs due to the French ATC industrial action, with additional delays in Madrid, Barcelona, Karlsruhe and Maastricht ACCs; En-route staffing issues in Karlsruhe, Lisbon and Langen ACCs; Terrorist attack at Istanbul/Atatürk airport generated airport disruption delays.

6. ALL AIR TRANSPORT DELAYS (SOURCE: CODA)

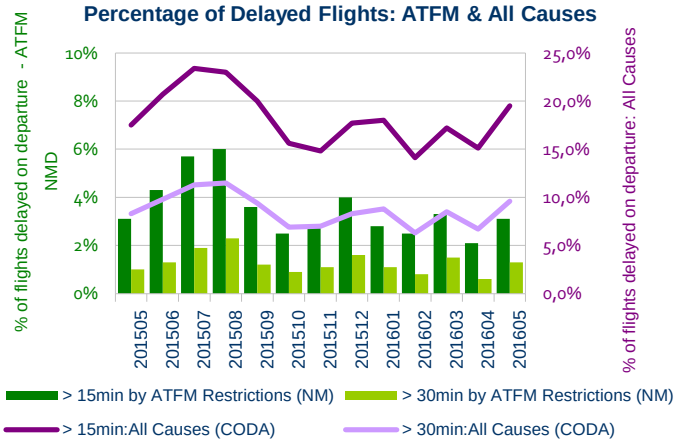
This section presents the all air transport delay situation as seen from the airlines by using the data collected by Central Office for Delay Analysis (CODA) from the airlines. Data coverage is 65% of the commercial flights in the ECAC region for May 2016. ATFM delays reported by airlines may be lower 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 10.9 minutes per flight, this was an increase of 11% in comparison to 9.7 minutes per flight in the same month of 2015. Within all air transport delays, en-route ATFM delays were 0.7 minutes/flight in May 2016. Primary delays counted for 52% (or 5.7 min/flt), with reactionary delays representing a smaller remaining share of 48% at (5.2 min/flt).

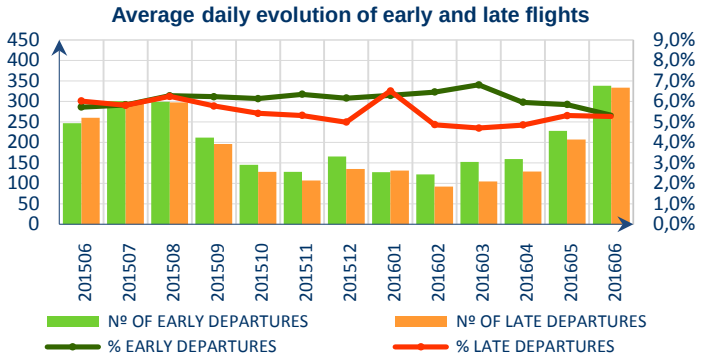


Further analysis of airline data from ’All-Causes’ shows that the average en-route ATFM delay was 0.7 minutes per flight. This was less than the NM reported average en-route ATFM delay of 0.9 minutes per flight.



The percentage of flights delayed from ‘all-causes’ increased (those exceeding 15 minutes) by 2 percentage points to 19.5% and those (exceeding 30 minutes) decreasing by 1.3 points to 9.6% of flights in May 2016.

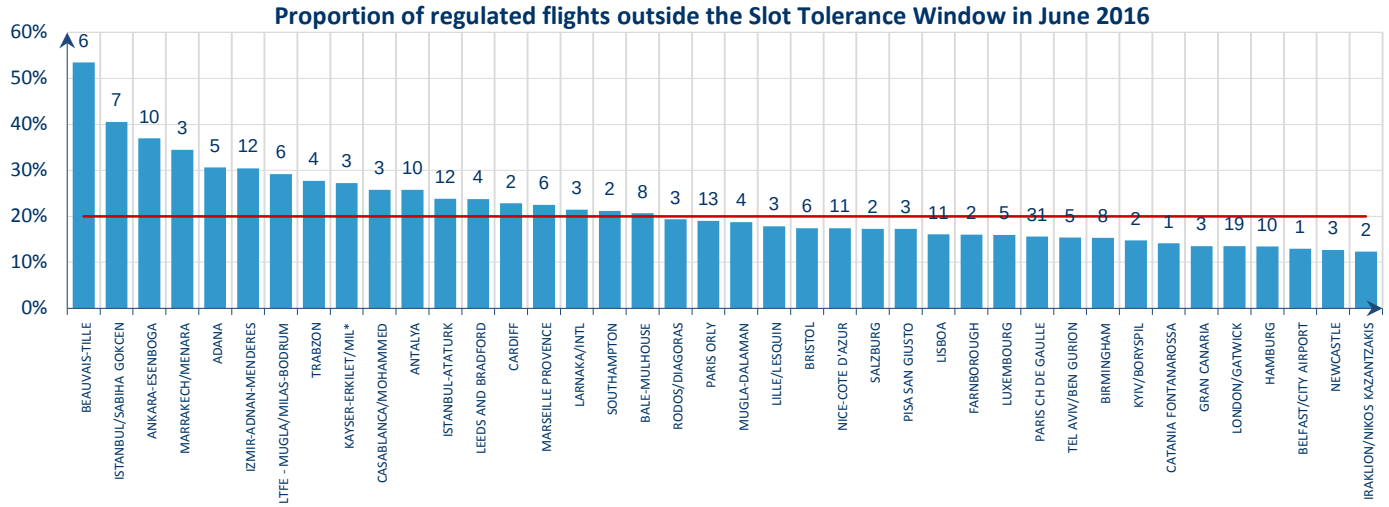
7. ATFM SLOT ADHERENCE



The percentage of early departures for June 2016 is 5.3% of regulated flights, which is a decrease of 0.4% compared to June 2015.

The percentage of late departures for June 2016 is 5.3% of regulated flights, which is a decrease of 0.8% compared to June 2015

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, planned for this reporting period, involving ATM system changes/upgrades. Both projects had been categorised as special, planned events with potential impact on the network performance.

Langen ACC
The implementation of PSS on the sector group EBG07 progressed during the month of June. The transition phase 2 of the project, originally planned to end on 12 June, generated 30,880 minutes of ATFM delays throughout the whole month. This represented 18% of total delay (170,255 min) generated by Langen ACC during June. The PSS implementation resulted in an additional 394 minutes of airport ATFM delays at Cologne-Bonn airport.
A 10% sector capacity reduction had been originally planned until 12 June with maximum configuration of 2 sectors plus feeder Cologne-Bonn airport.

L'viv ACC
The implementation of a new ATM system progressed through the transition phase during June 2016, not generating ATFM delay, despite a planned capacity reduction of 10%.

In addition to the above projects, Scottish (Prestwick) ACC carried out iTEC system[iii] implementation project generating 83,559 minutes of ATFM delay. This represented 70% of total delay (119,830 min) by Prestwick ACC for June. The details concerning iTEC implementation project had not been communicated with the NM before it started, which resulted in the impossibility to coordinate any adequate mitigation measures.

Free Route Airspace (FRA) was implemented above FL245 in Skopje FIR on 23 June. No ATFM delay was generated due to the implementation.
NEFRA (North European Free Route Airspace (NEFAB East[vi] plus Denmark/Sweden)) Phase 1 was implemented above FL285 on 23 June. Expected benefits of the implementation are the improvement of the airspace structure between Finland, Sweden, Tallinn, Riga and Copenhagen FIRs. No ATFM delay was generated due to the implementation.

AIRPORTS

Local Plans in June

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

Special Events

- The ILA Berlin Air Show between 31 May and 05 June;
- The Basel Art Fair which was held between 16 and 19 June generated a total of 812 minutes of airport ATFM delay;
- The 24-hour Le Mans car race generated a total of 1,004 minutes of ATFM delay at several French airports on 17, 18 and 19 June.

Completed:

- Runway maintenance at Amsterdam/Schiphol, Hamburg, Helsinki, Nurnberg and Warszawa/Chopin (3,326 minutes of airport ATFM delay) airports;
- Taxiway(s) and/or apron(s) improvements at Nurnberg and Prague airports;
- Terminal building(s) improvements/works at Hamburg and Munich airports.

Ongoing

- Runway maintenance at Gran Canaria (4,610 minutes of airport ATFM delay), Istanbul/Sabiha Gökcen, Kishinev, Krakow, Lisbon, Luxembourg, Paris/Charles de Gaulle (runway status lights), Stockholm and Tallinn airports;
- Taxiway(s) and/or apron(s) improvements at Bologna, Dublin, Frankfurt Main, Gran Canaria, Hamburg, Helsinki, Oslo/Gardermoen, Riga, Stuttgart, Tenerife/Sur, Thessaloniki and Venice airports;
- ILS maintenance at Bologna, Budapest, Dusseldorf, Gran Canaria airport;
- Terminal building(s) improvements/works at Belgrade, Bergen, Budapest, Frankfurt Main, Ljubljana, and Oslo/Gardermoen airports;
- PRIDEP trial at Zurich airport generated 2,055 minutes of airport ATFM delay.

DISRUPTIONS

Industrial Action

- French ATC industrial action on 02 June generated 10,276 minutes of airport ATFM delay and 30,399 minutes of en-route ATFM delay in France; Neighbouring states generated 11,033 minutes due to ATFM protective measures; Most affected airport was Paris/Orly (7,164 minutes of ATFM delay);
- Industrial action by Air France pilots between 11-14 June; Overall 1,030 flights have been cancelled over this 4-day strike action[vii].
- Industrial action by SAS pilots' in Sweden between 10-14 June impacted domestic traffic which went down 6% in Sweden and resulted in 23 fewer daily flights for the state's internal flow;
- French ATC industrial action between 1700 UTC on 13 June and 0400 UTC on 15 June generated 2,613 minutes of airport ATFM delay and 38,082 minutes of en-route ATFM delay in France; Neighbouring states generated 16,153 minutes due to ATFM protective measures; NM estimates there were 130 fewer flights due the action;
- Italian ATC industrial action between 2200 UTC on 16 June and 2200 UTC on 17 June generated 8,239 minutes of airport ATFM delay and 3,234 minutes of en-route ATFM delay in Italy; Neighbouring states generated 2,061 minutes of delay due to ATFM protective measures;
- French ATC industrial action between 1700 UTC on 22 June and 0400 UTC on 24 June generated 10,114 minutes of airport ATFM delay and 61,490 minutes of en-route ATFM delay in France; Neighbouring states generated 12,217 minutes due to ATFM protective measures; Most affected airport was Paris/Orly (6,127 minutes of ATFM delay); NM estimates there were 600 fewer flights during the action;
- French ATC industrial action between 1700 UTC on 27 June and 0400 UTC on 29 June generated 9,130 minutes of airport ATFM delay and 65,247 minutes of en-route ATFM delay in France; Neighbouring states generated 24,607 minutes due to ATFM protective measures; Most affected airport was Paris/Orly (3,977 minutes of ATFM delay); NM estimates there were 350 fewer flights during the action.

Other

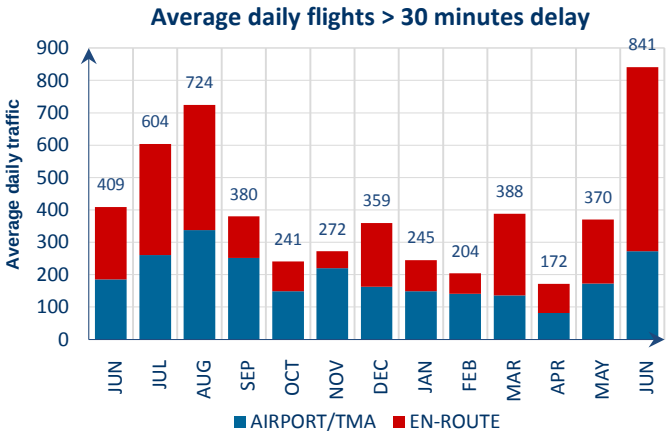
- The Euro 2016 football tournament commenced on 10 June. French airports successfully handled at least 2,720 extra flights up to the 30 June with no significant impact on the network. A flight suspension procedure was implemented by NM on behalf of the French authorities to ensure aircraft did not depart without the appropriate airport slot;
- Runway closure due to surface break up at London/Gatwick airport on 12 June generated 4,040 minutes of ATFM delay;
- Lisbon airport recorded 1,352 minutes of ATFM delay due to runway surface damage on 14 June;
- ATC equipment issue in Oslo ACC on 14 June generated 3,863 minutes of ATFM delay;
- ATC equipment issue in Brest ACC on 23 June generated 4,513 minutes of ATFM delay;
- A terrorist attack at Istanbul/Atatürk airport on 28 June generated 2,261 minutes of ATFM delay;
- Military exercise Bellerophon generated 7,739 minutes of ATFM delay in Brest; locally reported traffic onload in Barcelona, Canarias ACCs resulted in the application of ATFM protective measures.

9. NM ADDED VALUE

FLIGHTS WITH DELAY > 30'

The number of flights that had more than 30 minutes of ATFM delay increased by 105.6% from 409 flts/day in June 2015 to 841 flts/day in June 2016.

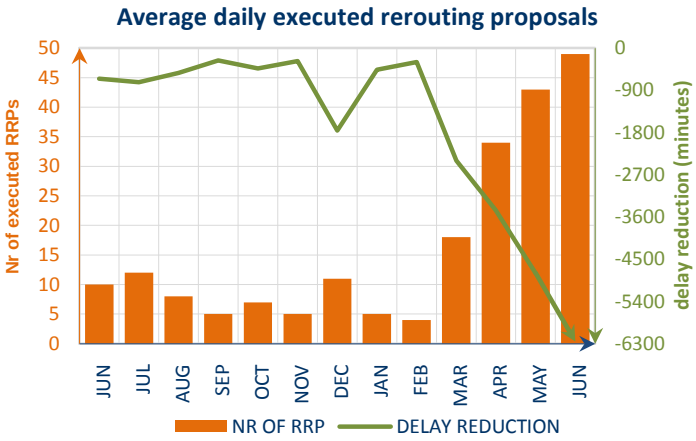
67.7% of flights with more than 30 minutes of ATFM delay in June 2016 were en-route and 32.3% were airport.



RRP DIRECT DELAY SAVINGS

A daily average of 91 RRPs were offered in June 2016 of which 49 RRPs were executed, saving 6,253 minutes of daily delay.

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



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

i See Notice on page 1 for more information on traffic and delay comparison.
ii Internals, international departures and arrivals, excluding overflights.
iii iTEC (interoperability Through European Collaboration) provides advanced flight data processing and Controller Working Position under SWIM (System Wide Information Management) which will improve information flow in control centres and airports.
iv See Notice on page 1 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 NEFAB East - Estonia, Finland, and Latvia. Norway plans to implement cross-border free route airspace in spring 2017. See http://www.nefab.eu/ for more information.
vii See http://corporate.airfrance.com/en/press/press-releases/article/item/end-of-the-pilots-strike-action-the-company-will-operate-all-its-flights-on-wednesday-15-june-201/