Monthly Network Operations Report

Overview February 2023

SUPPORTING EUROPEAN AVIATION

1. SUMMARY

Traffic in February 2023 was 22.3% higher than traffic in February 2022. Network traffic was in line with the latest EUROCONTROL baseline scenario.

The war in Ukraine continues to affect overflights in several countries. Lithuania, Poland, Estonia and Latvia have lost traffic, whereas Armenia, Albania and Bosnia-Herzegovina have gained. The EUROCONTROL NM continues to help manage the aviation crisis caused by the war.

'On average' the network saw 23,004 flights/day in February. The peak day was Friday 06 February (25,831 flights) with traffic at +21% of 2022 levels.

Ryanair was the busiest carrier in February with on average 2,181 flights/day, +13.0% higher than its 2022 traffic level. Next were Turkish Airlines (1,309 flights/day), easyJet (1,184 flights/day), Lufthansa (941 flights/day) and British Airways (752 flights/day).

The busiest airport was Istanbul/iGA (1,269 flights/day) followed by London/Heathrow (1,168 flights/day), Paris/Charles de Gaulle (1,115 flights/day), Amsterdam/Schiphol (1,051 flights/day) and Madrid/Barajas (996 flights/day).

Network departure and arrival punctuality remained stable at similar levels to January. Punctuality on the SW and SE axis was consistent with the network level.
The network (average) available turnaround time remained slightly higher than scheduled, notably on the French strike days where ATFM delays extended the turnaround time.

There were 669,076 minutes of ATFM delay in February. En-route delays accounted for 52.8% of these ATFM delays, and airports for 47.2%.
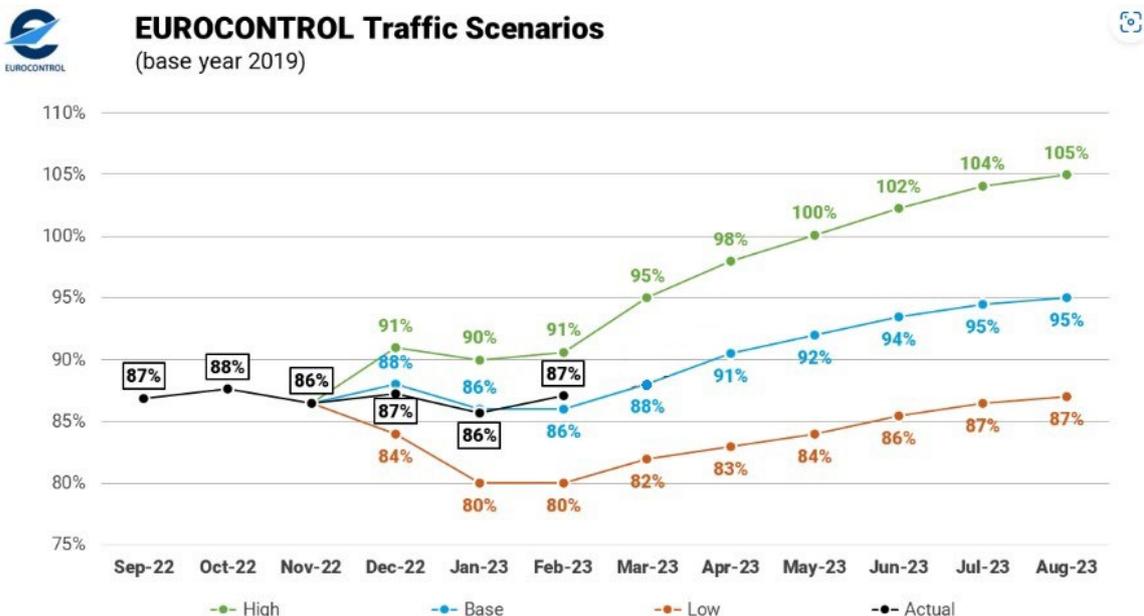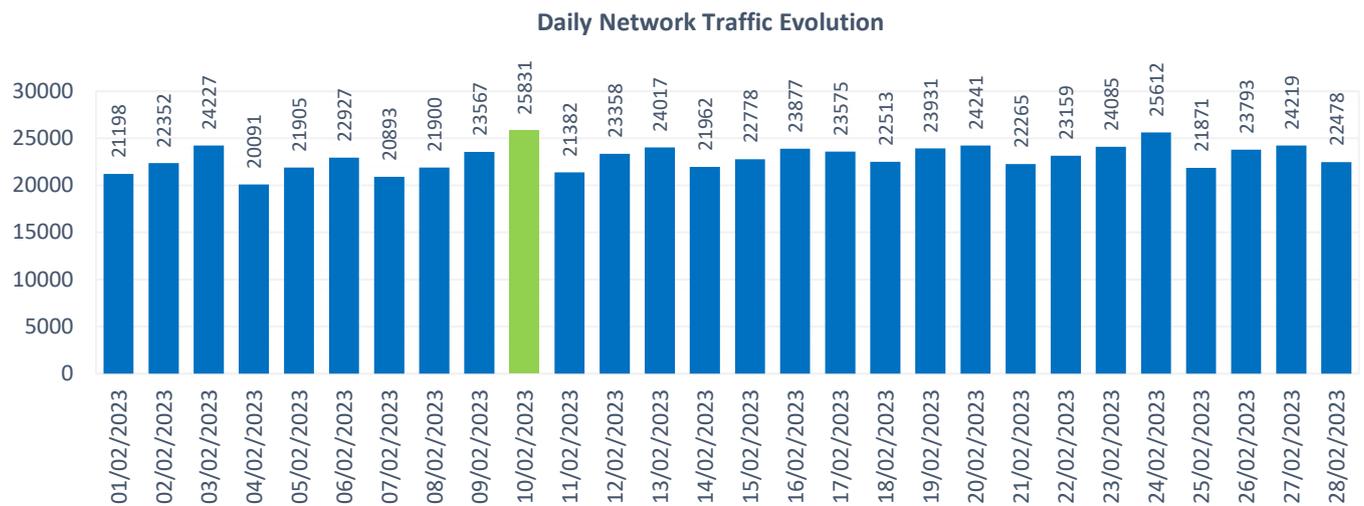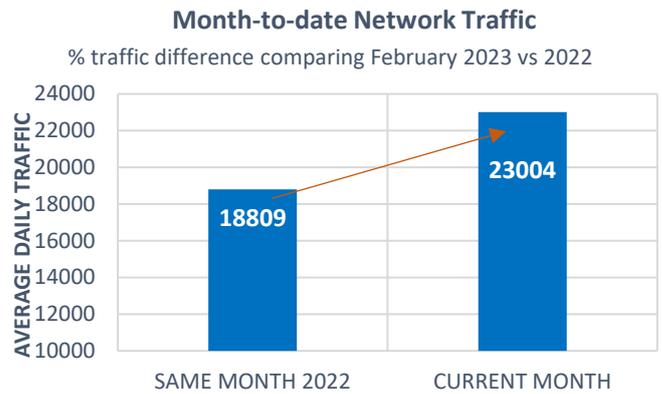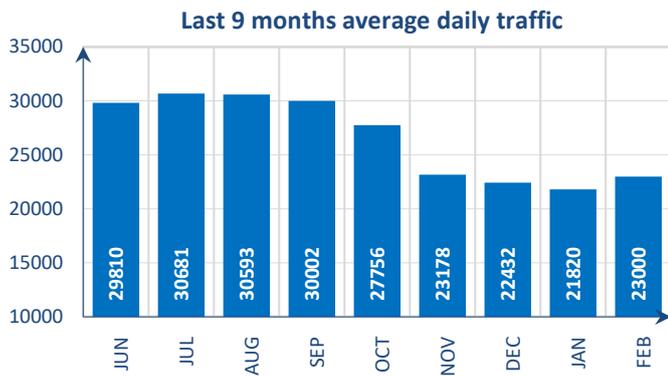The average en-route ATFM delay per flight for the network was 0.55 min in February.

Flow measures were applied mainly due to weather, ATC disruptions and ATC staffing issues.

2. TRAFFIC EVOLUTION

There were 644,098 flights throughout Europe in February 2023, 22.3% up compared to February 2022, and in line with EUROCONTROL's baseline forecast. There were 177,921 flights in the Intra-NM SW-Axis traffic flow, 180,455 domestic flights and 112,313 flights in the Intra-NM SE-Axis.

Three market segments recorded sustained growth in February 2023 compared to February 2022: Mainline (+40.3%), Regional (+28.5%) and Low-Cost (+26.9%). This was due to continuous recovery and to low levels of traffic in early 2022 as a result of the new Omicron's wave. On the other hand, the recovery of the Business Aviation (-7.6%) and All-Cargo segments (-3.2%) is now levelling off; both segments operated fewer flights in February 2023 (vs. February 2022). The Charter segment was at 93% of February 2022's level.

EUROCONTROL Traffic Scenarios
(base year 2019)

Last 9 months average daily traffic

Month	Value
JUN	29810
JUL	30681
AUG	30593
SEP	30002
OCT	27756
NOV	23178
DEC	22432
JAN	21820
FEB	23000

Month-to-date Network Traffic

% traffic difference comparing February 2023 vs 2022

	AVERAGE DAILY TRAFFIC
SAME MONTH 2022	18809
CURRENT MONTH	23004

Daily Network Traffic Evolution

Date	Value
01/02/2023	21198
02/02/2023	22352
03/02/2023	24227
04/02/2023	20091
05/02/2023	21905
06/02/2023	22927
07/02/2023	20893
08/02/2023	21900
09/02/2023	23567
10/02/2023	25831
11/02/2023	21382
12/02/2023	23358
13/02/2023	24017
14/02/2023	21962
15/02/2023	22778
16/02/2023	23877
17/02/2023	23575
18/02/2023	22513
19/02/2023	23931
20/02/2023	24241
21/02/2023	22265
22/02/2023	23159
23/02/2023	24085
24/02/2023	25612
25/02/2023	21871
26/02/2023	23793
27/02/2023	24219
28/02/2023	22478

Friday 10 February was the busiest day of the month with 25,831 flights.

February 2023 country level traffic

compared to the same period in 2022

Country	%	Avg Daily Flights
UKRAINE	-100,0%	3
ESTONIA	8,8%	87
LITHUANIA	8,9%	122
BELGIUM	11,2%	723
KFOR	12,5%	45
CROATIA	13,0%	130
LATVIA	15,3%	136
HUNGARY	15,8%	257
SLOVENIA	15,9%	51
NETHERLANDS	16,3%	1287
CZECH REPUBLIC	17,1%	260
NORWAY	17,8%	1167
LUXEMBOURG	18,2%	175
FRANCE	18,8%	3416
GREECE	19,2%	572
GERMANY	20,3%	3628
SPAIN	21,9%	3610
SWITZERLAND	22,5%	1180
SLOVAKIA	22,7%	54
MONTENEGRO	24,1%	36
FINLAND	24,6%	446
CYPRUS	26,2%	154
ITALY	26,8%	2644
GEORGIA	26,9%	99
PORTUGAL	28,5%	969
POLAND	29,6%	872
DENMARK	30,1%	695
BULGARIA	31,8%	170
IRELAND	34,1%	672
AUSTRIA	34,2%	730
TURKIYE	34,4%	2384
ALBANIA	35,4%	88
UNITED KINGDOM	37,2%	4431
SWEDEN	38,2%	792
ROMANIA	38,8%	426
SERBIA	43,3%	182
MALTA	45,5%	112
NORTH MACEDONIA	48,3%	43
BOSNIA AND HERZEGOVINA	53,3%	46
ISRAEL	60,1%	421
MOLDOVA, REPUBLIC OF	64,7%	56
ARMENIA	104,1%	513

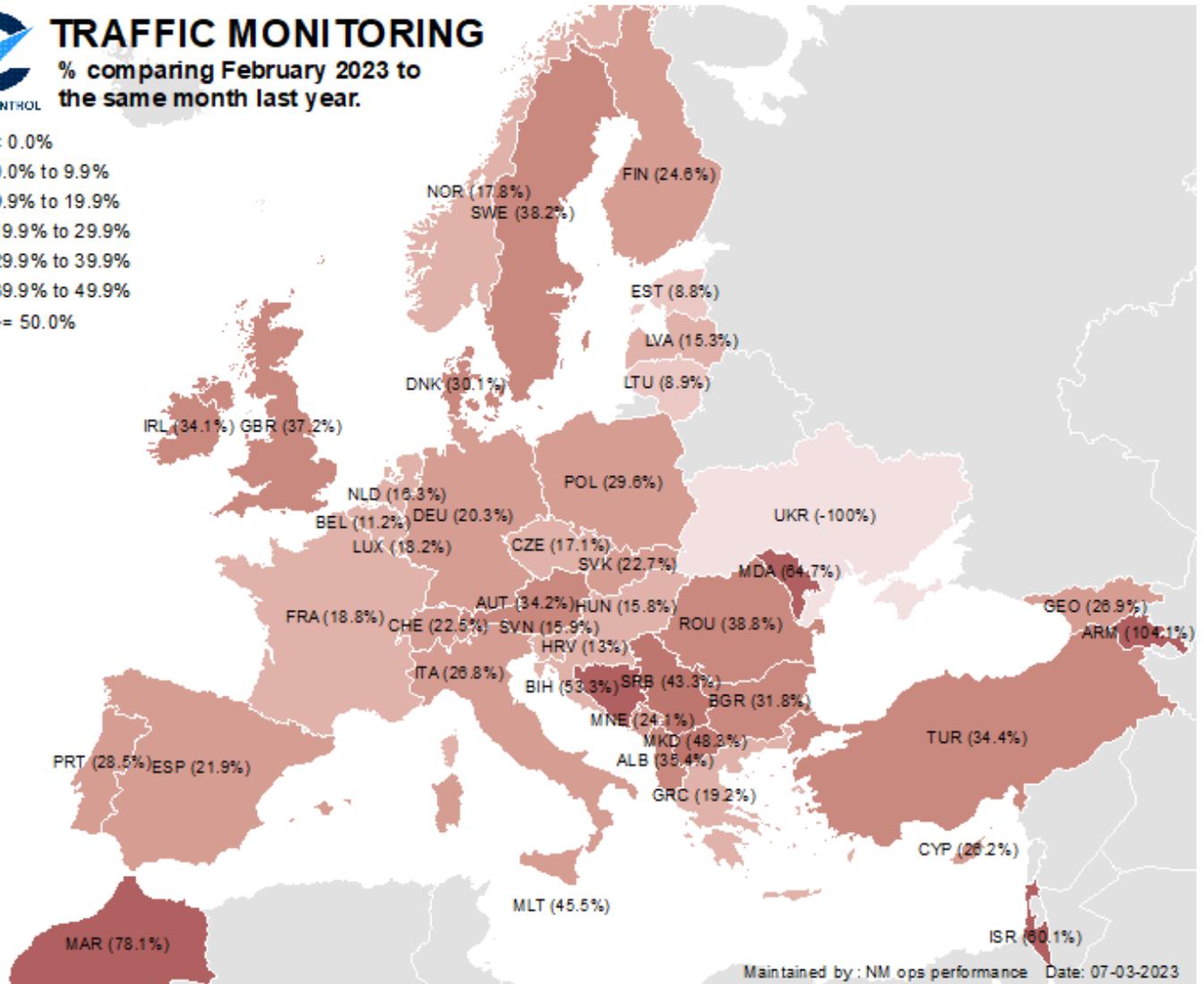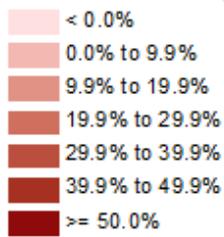Ukrainian airspace has remained closed since 24 February 2022.

All other countries have improved compared to 2022. This is again due to continuous recovery and lower traffic levels in February 2022 when Omicron was spreading in Europe. The United Kingdom (4,431 flights/day), Germany (3,628 flights/day), Spain (3,610 flights/day) and France (3,416 flights/day) recorded the highest traffic levels (excluding overflights) in the network.

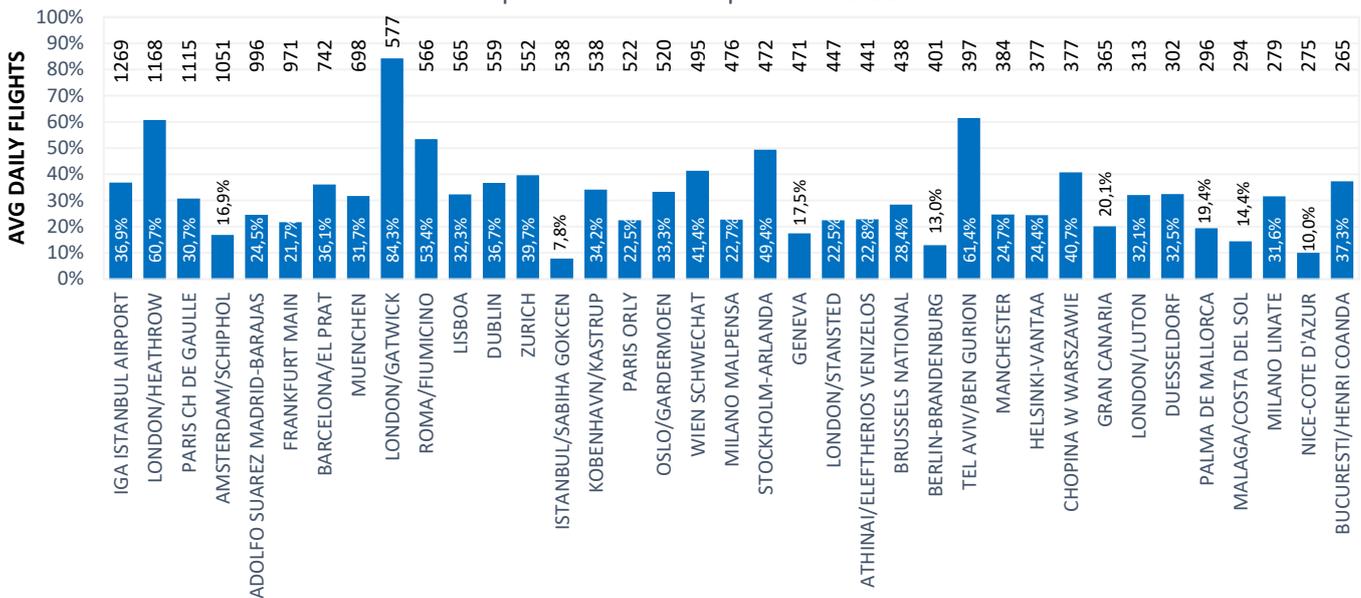**See the Notice at the end of this report for more info on traffic count**

TRAFFIC MONITORING
## % comparing February 2023 to the same month last year.

Legend:
- < 0.0%
- 0.0% to 9.9%
- 9.9% to 19.9%
- 19.9% to 29.9%
- 29.9% to 39.9%
- 39.9% to 49.9%
- >= 50.0%

FIN (24.6%)
NOR (17.8%)
SWE (38.2%)
EST (8.8%)
LVA (15.3%)
LTU (8.9%)
DNK (30.1%)
IRL (34.1%) GBR (37.2%)
POL (29.6%)
NLD (16.3%)
BEL (11.2%) DEU (20.3%)
UKR (-100%)
LUX (18.2%)
CZE (17.1%)
SVK (22.7%)
MDA (64.7%)
AUT (34.2%) HUN (15.8%)
GEO (26.9%)
FRA (18.8%) CHE (22.5%) SVN (15.9%)
ROU (38.8%)
ARM (104.1%)
HRV (13%)
ITA (26.8%)
BIH (53.3%) SRB (43.3%)
BGR (31.8%)
MNE (24.1%)
TUR (34.4%)
MKD (48.3%)
PRT (28.5%) ESP (21.9%)
ALB (35.4%)
GRC (19.2%)
CYP (26.2%)
MLT (45.5%)
ISR (60.1%)
MAR (78.1%)

Maintained by : NM ops performance   Date: 07-03-2023

February 2023 TOP 40 airports by average daily flights
compared to the same period in 2022

Airport	AVG Daily Flights	%
IGA ISTANBUL AIRPORT	1269	36,9%
LONDON/HEATHROW	1168	60,7%
PARIS CH DE GAULLE	1115	30,7%
AMSTERDAM/SCHIPHOL	1051	16,9%
ADOLFO SUAREZ MADRID-BARAJAS	996	24,5%
FRANKFURT MAIN	971	21,7%
BARCELONA/EL PRAT	742	36,1%
MUENCHEN	698	31,7%
LONDON/GATWICK	577	84,3%
ROMA/FIUMICINO	566	53,4%
LISBOA	565	32,3%
DUBLIN	559	36,7%
ZURICH	552	39,7%
ISTANBUL/SABIHA GOKCEN	538	7,8%
KOBENHAVN/KASTRUP	538	34,2%
PARIS ORLY	522	22,5%
OSLO/GARDERMOEN	520	33,3%
WIEN SCHWECHAT	495	41,4%
MILANO MALPENSA	476	22,7%
STOCKHOLM-ARLANDA	472	49,4%
GENEVA	471	17,5%
LONDON/STANSTED	447	22,5%
ATHINAI/ELEFTHERIOS VENIZELOS	441	22,8%
BRUSSELS NATIONAL	438	28,4%
BERLIN-BRANDENBURG	401	13,0%
TEL AVIV/BEN GURION	397	61,4%
MANCHESTER	384	24,7%
HELSINKI-VANTAA	377	24,4%
CHOPINA W WARSZAWIE	377	40,7%
GRAN CANARIA	365	20,1%
LONDON/LUTON	313	32,1%
DUESSELDORF	302	32,5%
PALMA DE MALLORCA	296	19,4%
MALAGA/COSTA DEL SOL	294	14,4%
MILANO LINATE	279	31,6%
NICE-COTE D'AZUR	275	10,0%
BUCURESTI/HENRI COANDA	265	37,3%

Istanbul/iGA was the busiest airport with, on average, 1,269 flights per day followed by London/Heathrow (1,168 flights/day), Paris/Charles de Gaulle (1,115 flights/day), Amsterdam/Schiphol (1,051 flights/day) and Madrid/Barajas (996 flights/day). The overall increases were due to the recovery and comparison with 2022 when Omicron was spreading in Europe.

February 2023 Air Operator Network Traffic
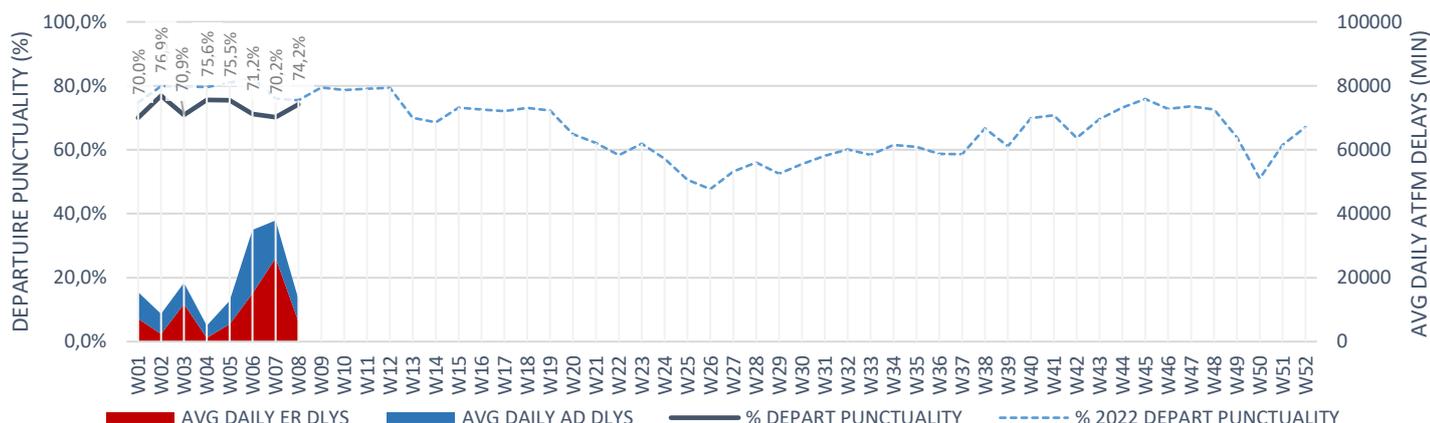### compared to the same period in 2022
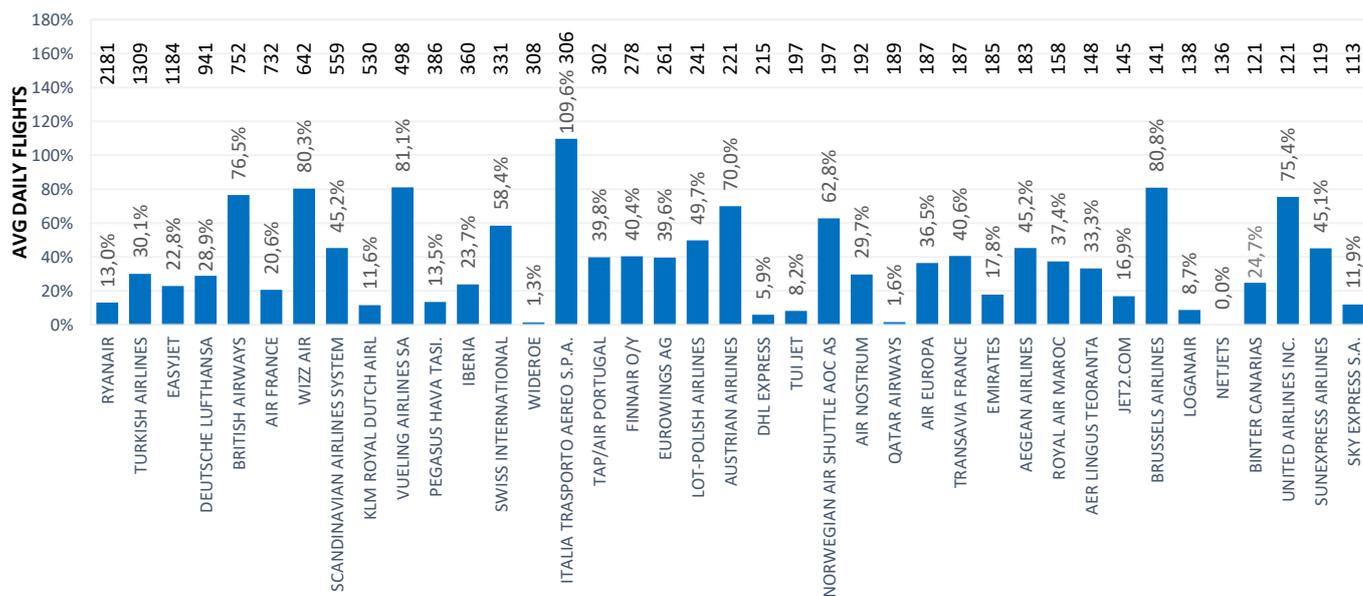
Ryanair was the busiest operator with, on average, 2,181 movements per day, followed by Turkish Airlines (1,309), Lufthansa easyJet (1,184) and Lufthansa (941).
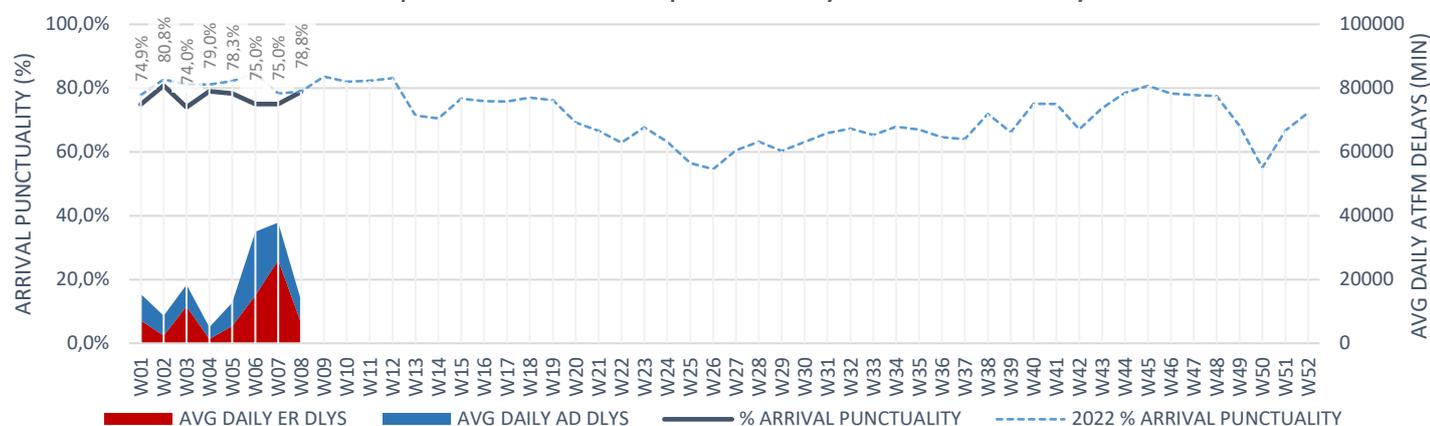
Italia Transporto Aereo (ITA) took over someAlitalia operations and is now fully operational. This explains the large increase compared to 2022.

3. PUNCTUALITY

2023 | Network Departure punctuality and ATFM delays

2023 | Network Arrival punctuality and ATFM delays

Network departure and arrival punctuality remained around 73% and 77%, respectively. This was lower than the same period in 2022. Departure punctuality for the SW-Axis and SE-Axis traffic flow were 74% and 75%, respectively, arrival punctuality for both Axis was 78% - consistent with network level.

This view of operational punctuality can be tracked in near real-time by aircraft operator and airport level in the NORTI Dashboard and in the FATHOM interactive dashboard .

The Central Office for Delay Analysis CODA reports provide further detailed analysis of airline reported delay reasons.

4. OPERATIONS

NM

The EUROCONTROL Network Manager continued monitoring the operational situation and held weekly Ad-hoc Coordination meetings to share network status.

NM continued to support operations affected by the Ukrainian war. It maintained airspace closures and NM systems supporting EU Sanctions Regulation for the Russian Federation and Belarus .
NM also monitored the network CNS/ATM infrastructure and cybersecurity.

EUROCONTROL NM provided a consolidated view of relevant NOTAMs on the NOP Portal and issued weekly versions of the Rolling Seasonal Plan. This focuses on the next eight weeks plan and on managing the execution and implementation of the five year NOP.
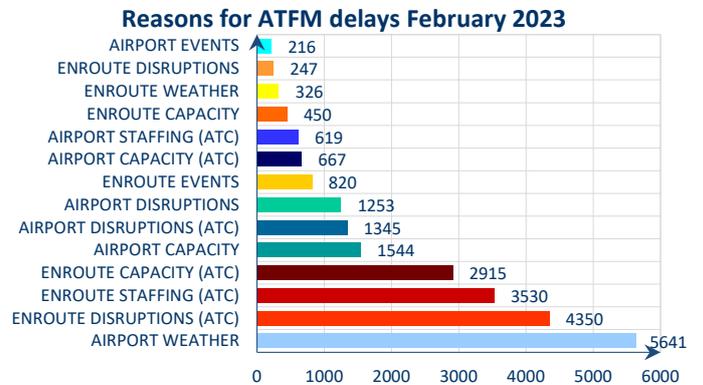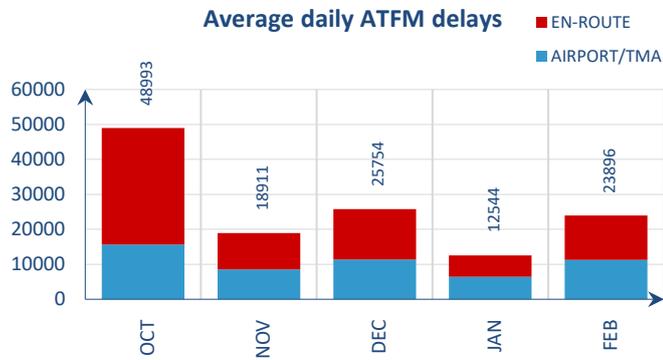
GROUND

MIRROR's[i] indicator shows that the delta between the scheduled turnaround time and the network (average) available turnaround time decreased, indicating reduced reactionary delays. The actual turnaround time remained slightly higher than scheduled, notably on the French strike days where ATFM delays extended the turnaround time.
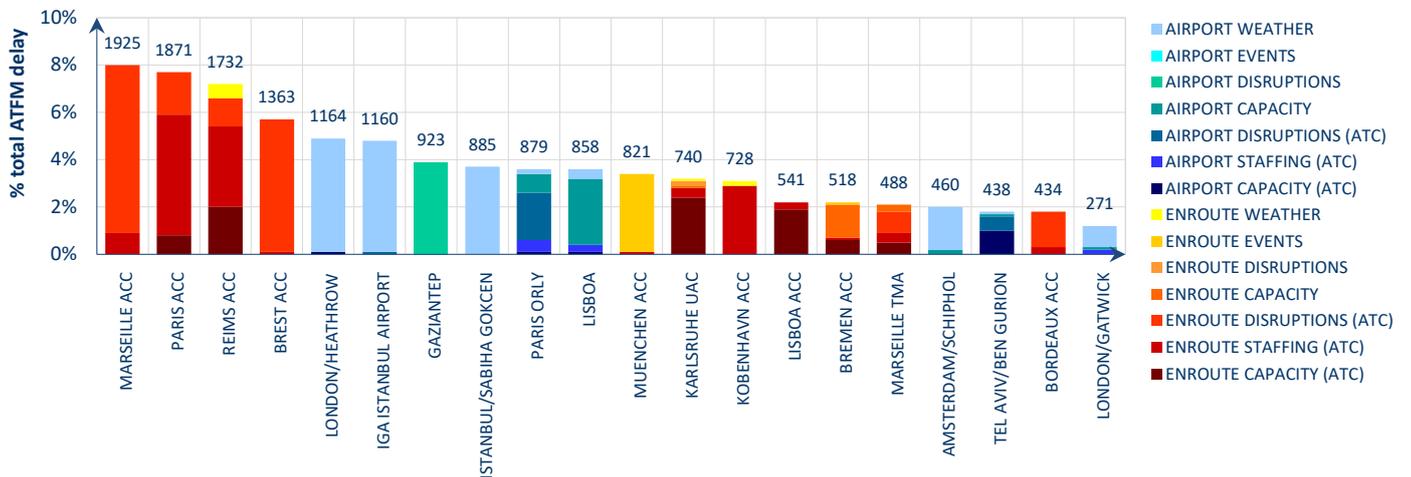

NETWORK

There were 669,076 minutes of ATFM delay in February 2023.
En-route delays accounted for 52.8% of these ATFM delays, and airports for 47.2%.
The average en-route ATFM delay per flight for the network was 0.55 min.

Average daily ATFM delays
- EN-ROUTE
- AIRPORT/TMA

Month	Total
OCT	48993
NOV	18911
DEC	25754
JAN	12544
FEB	23896

Reasons for ATFM delays February 2023

Reason	Value
AIRPORT EVENTS	216
ENROUTE DISRUPTIONS	247
ENROUTE WEATHER	326
ENROUTE CAPACITY	450
AIRPORT STAFFING (ATC)	619
AIRPORT CAPACITY (ATC)	667
ENROUTE EVENTS	820
AIRPORT DISRUPTIONS	1253
AIRPORT DISRUPTIONS (ATC)	1345
AIRPORT CAPACITY	1544
ENROUTE CAPACITY (ATC)	2915
ENROUTE STAFFING (ATC)	3530
ENROUTE DISRUPTIONS (ATC)	4350
AIRPORT WEATHER	5641

Top 20 delay reference locations in February 2023

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

The chart above shows 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.

- Industrial action in France from 06 to 08 February and from 15 to 17 February generated disruptions delays in French ACCs such as Marseille, Paris, Reims and Brest.
- Low visibility and strong winds impacted operations at London/Heathrow airport, especially on 07 February with a total of 10,586 minutes of ATFM delay;
- Snow impacted operations at IGA/Istanbul and Istanbul/Sabiha Gökcen airports between 02 and 09 February;
- Gaziantep airport (Türkiye) was impacted by the effect of the earthquake throughout the month;
- Airport capacity issues at Lisbon airport due to night curfews;
- High ATC capacity issues in Karlsruhe UAC in conjunction with increased military traffic and associated complexity;
- ATC staffing issues in Copenhagen ACC throughout the month.

SIGNIFICANT EVENTS

Event
- New ATM system ICAS2 trials in Munchen ACC generated 22,224 minutes of ATFM delay.

Operational
- Radar failure at Tel Aviv/Ben Gurion airport on 14, 16 and 20 February generated a total of 4,159 minutes of ATFM delay;

Industrial action
- ATC industrial action in France from 06 to 08 February generated 22,510 minutes of en-route ATFM delay and 6,246 minutes of airport ATFM delay;
- ATC industrial action at Paris/Orly airport on 11 February generated 11,149 minutes of airport ATFM delay;
- ATC industrial action in France from 15 to 17 February generated 96,538 minutes of en-route ATFM delay and 11,326 minutes of airport ATFM delay. Additional delays recorded in neighbouring states due to locally reported onload of traffic and generated 3,670 minutes of ATFM delay;
- Non-ATC industrial action at Germain airports on 16 and 17 February generated 1,470 minutes of ATFM delay.

5. FLIGHT EFFICIENCY

HORIZONTAL FLIGHT EFFICIENCY

There are two flight efficiency KPI's[ii]: the horizontal flight efficiency indicators, KEP and KEA, remained around 0.4pp higher since Ukrainian airspace closure in February 2022.
There were around 72 000 extra miles on FPL route length due the French strikes on 07/02 and 16/02.
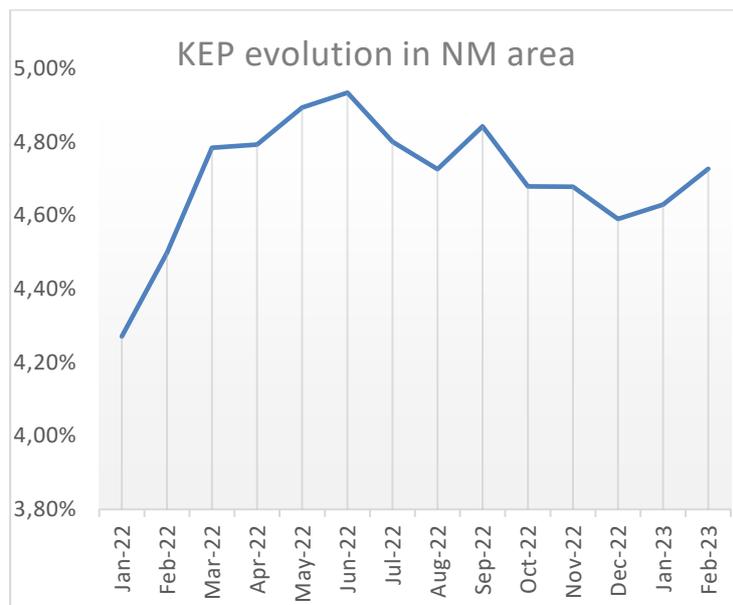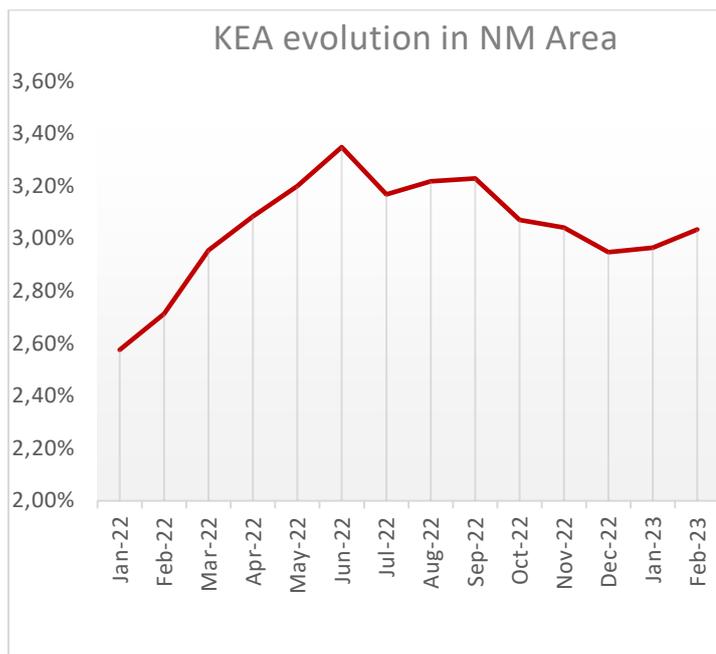
NOTICE

Traffic and Delay Comparisons
All traffic and delay comparisons are between report month and equivalent month of 2019, unless otherwise stated.

Traffic Monitoring
Country traffic counts are based on arrivals and departures traffic, overflights are excluded.

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

Regulation Reason Groupings
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 **https://www.eurocontrol.int/network-performance**

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

Network Operations Analysis document
NM will maintain the NOR Overview for the foreseeable future. NOR Analysis remains suspended.
ATFM statistics provides an alternative source of network traffic and ATFM delays.
https://www.eurocontrol.int/dashboard/air-traffic-flow-management-statistics-dashboard
And stakeholders can use FATHOM for a more detailed view of their operational performance.
https://www.eurocontrol.int/tool/network-manager-interactive-analysis-tool

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[i] *To request access to MIRROR see the EUROCONTROL MIRROR project page for more details.*
[ii] *More information on KEP and KEA, see ANS performance page.*

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