



Monthly Network Operations Report

Overview December 2024



1. Summary

In December, there were 781,027 flights, reflecting a 4.9% increase compared to December 2023. On 04 December, the 10 million flights milestone for the year was achieved. There were 10,690,602 flights in 2024, representing a 4.9% growth from 2023.

The network had an average of 25,200 flights/day in December, about 1,180 flights/day more than in December 2023. The busiest day was Friday 20 December with 29,611 flights, which exceeded the busiest day of December 2023 (27,789 flights). The intra-NM southwest axis saw 4.9% growth compared to 2023 while the southeast axis saw a 5.0% increase, contributing to the overall network growth of 4.9%.

The conflict in Ukraine still affects overflights in several countries. EUROCONTROL continues to help manage the war's impact on aviation.

The Mainline segment surpassed the Low-cost segment as the top contributor of flight growth in December 2024 compared to December 2023, adding 522 daily flights (+6.4%) to the network.

All Top 20 ACCs experienced increased traffic in December 2024 compared to December 2023.

Ryanair was the busiest operator averaging 2,530 movements per day (+5.9%) with no flights on Christmas Day. They were followed by easyJet (1,411), Turkish Airlines (1,371), Lufthansa (964) and Air France (943). Three aircraft operators in the Top 10 – Pegasus, Eurowings, Norwegian Air Shuttle - had double-digit growth compared to December 2023.

The busiest airport was Istanbul airport (1,362 flights/day) followed by London Heathrow (1,259 flights/day), Amsterdam Schiphol equals Paris Charles de Gaulle (1,244 flights/day), and Madrid (1,147 flights/day).

Network departure punctuality was at 68.4% and arrival punctuality was 73.8%, both higher than in December 2023. The network was mainly impacted by airport weather and en-route ATC capacity issues. Domestic routes had a departure punctuality of 76.0%, which was higher than the network level. Punctuality on the south-east axis was 69.7% which is an increase of 5.1 percentage point (p.p.) compared to December 2023. Network first rotation departure punctuality was 79.1%, which is an increase of 2.3 p.p compared to 2023. Arrival punctuality improved by 13.2 p.p., reaching 83.5%. Improving first rotation punctuality remains a key objective for the Network Manager (NM).

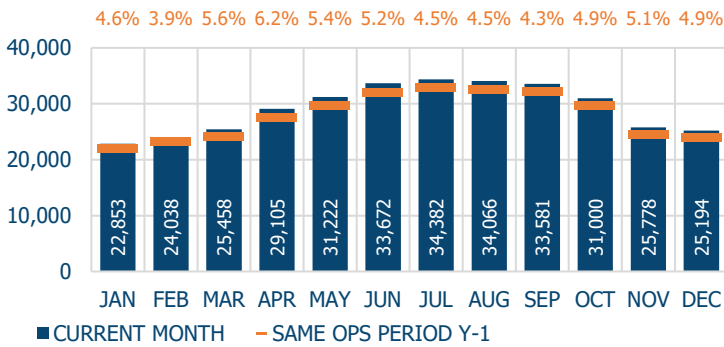
There were 1.2 million minutes of ATFM delay in December, a 41.0% increase compared to December 2023. Total ATFM delay for 2024 was 30,284,356 minutes which is an increase of 19.2% compared to 2023. En-route ATFM delay represented 46.3% of the December ATFM delays and airport 53.7%. The average en-route ATFM delay per flight for the network was 0.7 minutes in December and en-route ATFM delay per flight for 2024 was 2.1 minutes. Total airport ATFM delays increased by 41.9% and total en-route ATFM delays increased by 39.9% in December. Airport weather and en-route ATC capacity were the main issues. Freezing fog and strong winds throughout the month impacted operations at London Heathrow airport. Storm Darragh brought a spell of heavy rain and strong winds in Ireland and in the United Kingdom. ATC capacity issues were recorded in Sevilla ACC due to demand exceeding capacity to and from Canarias Islands.

NM's Operational Centre reduced en-route ATFM delays by 10.2% and airport ATFM delays by 7.7% through direct actions.

NM estimates that 2.5 million tonnes of fuel was burnt in the en-route flight phase in the NM area in December 2024.

2. Traffic evolution

Last 12 months average daily traffic

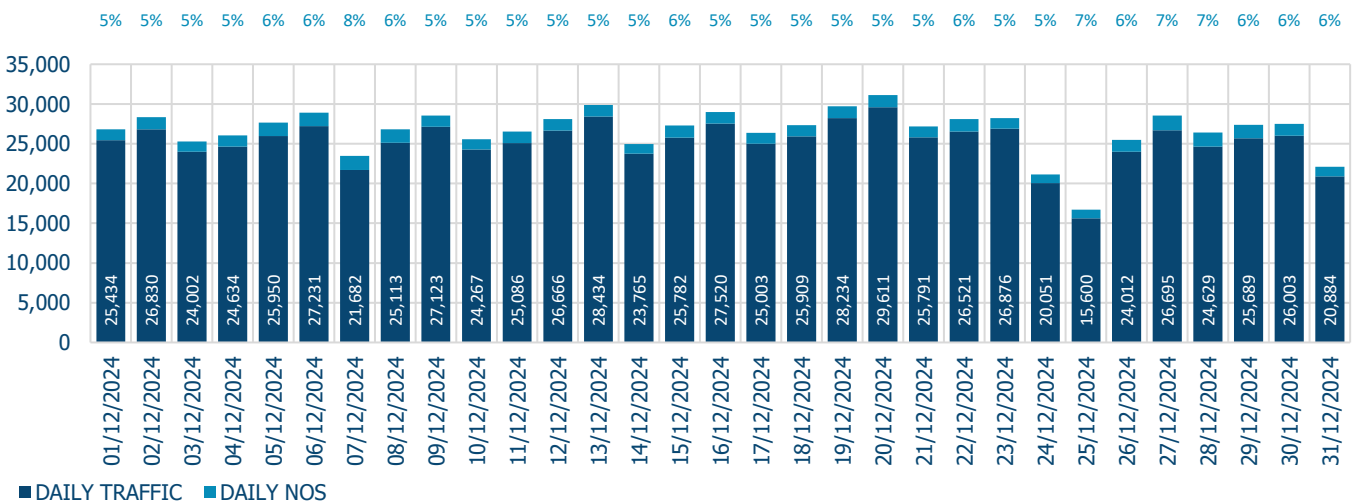


There were 781,027 flights throughout Europe in December 2024, 4.9% up compared to the same period last year.

On 04 December, the network achieved 10 million flights for the year and a total of 10,690,602 flights were recorded in 2024 (+4.9% compared to 2023).

All market segments experienced growth compared to December 2023, albeit with notable differences. The Mainline segment surpassed the Low-cost segment as the top contributor to flight growth in the NM area, with an additional 522 flights per day compared to 502 flights per day for Low-cost. The Charter segment had the highest growth at +7.8%, driven by increases in daily flights between Poland and Egypt (+6), Germany and Serbia/Montenegro (+6), domestic traffic in Israel (+5), and between the Czech Republic and Egypt (+4). Among other passenger segments, Low-cost and Mainline grew by 7.8% and 6.4%, respectively, while the Regional segment lagged significantly with a modest 0.6% increase. Business aviation and All-cargo flights grew by 1.7% and 1.4%, respectively. In December 2024, and throughout the year, only the Low-cost (+7.2%) and Business aviation (+7.0%) segments exceeded their December 2019 flight levels. Total traffic in December 2024 remained 2.0% below December 2019 levels.

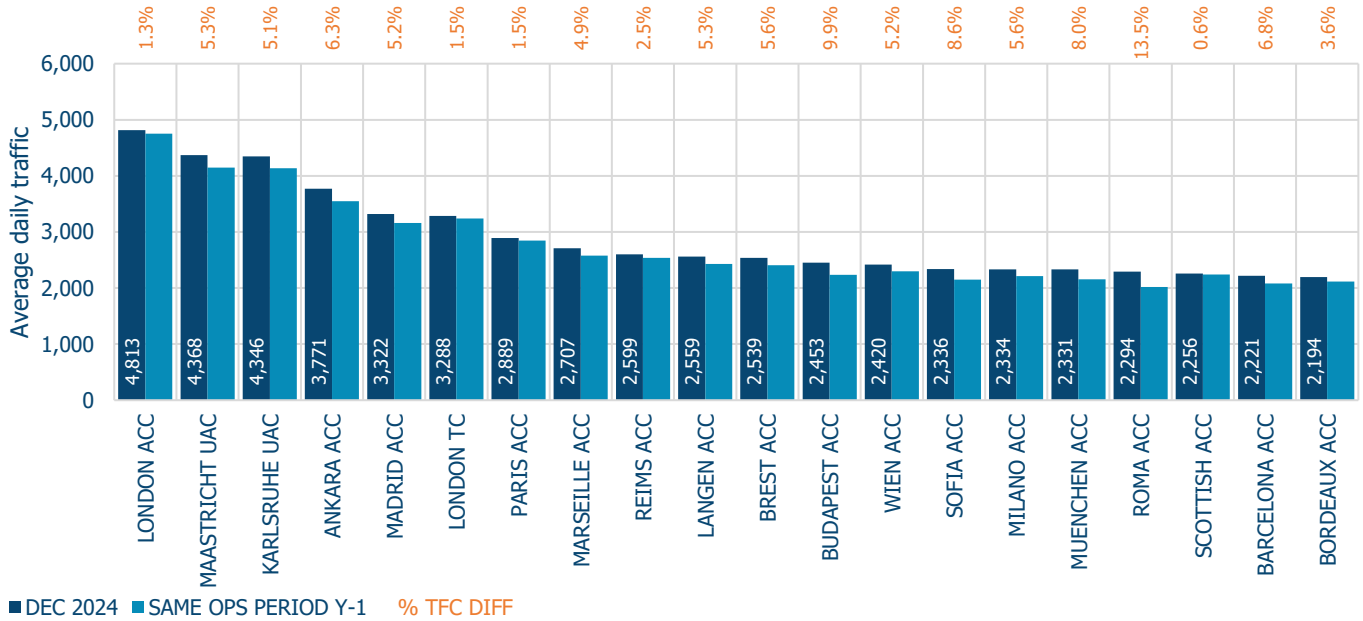
Daily network traffic evolution



The busiest day was Friday 20 December (29,611 flights), which exceeded the busiest day of December 2023 (27,789 flights). The lowest traffic level was on 25 December, which was partially due to Ryanair and Wideroe not flying on Christmas day.

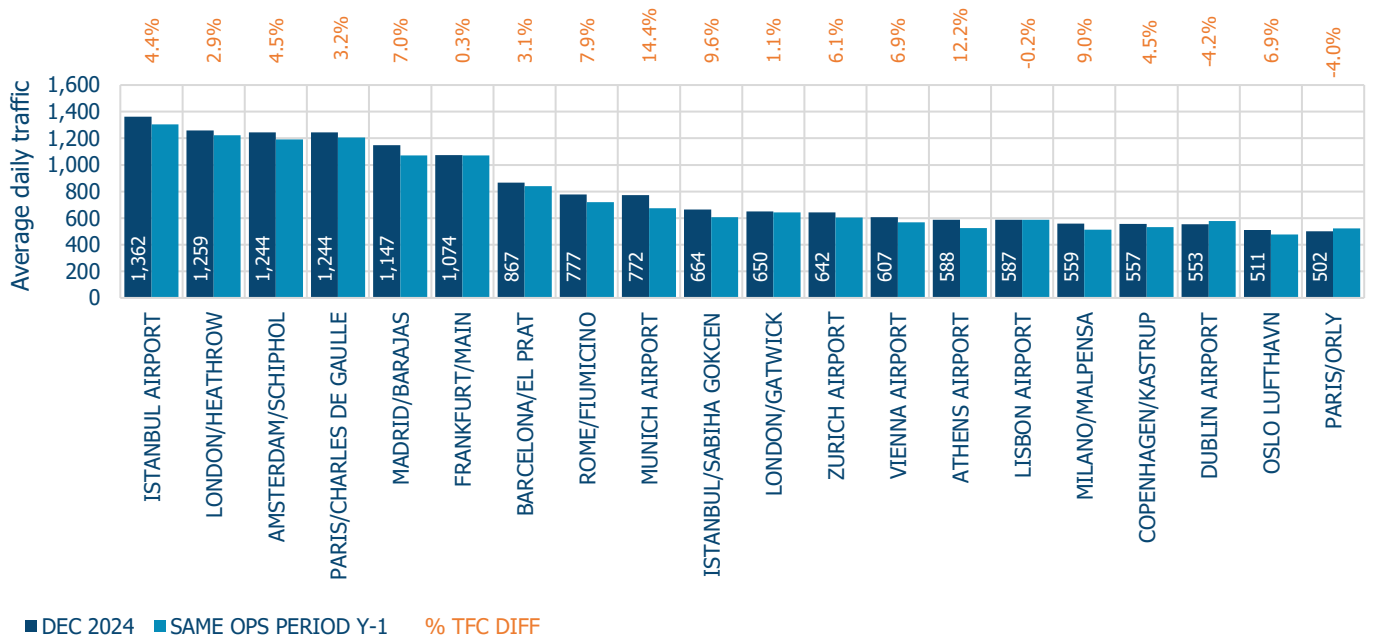
On average, 5.7% of scheduled traffic did not operate in December (see Non-Operated Schedules, NOS, above). Seasonal weather affected operations on 7 December leading to fewer flights and higher NOS (8%).

December 2024 | Top 20 ACC daily traffic



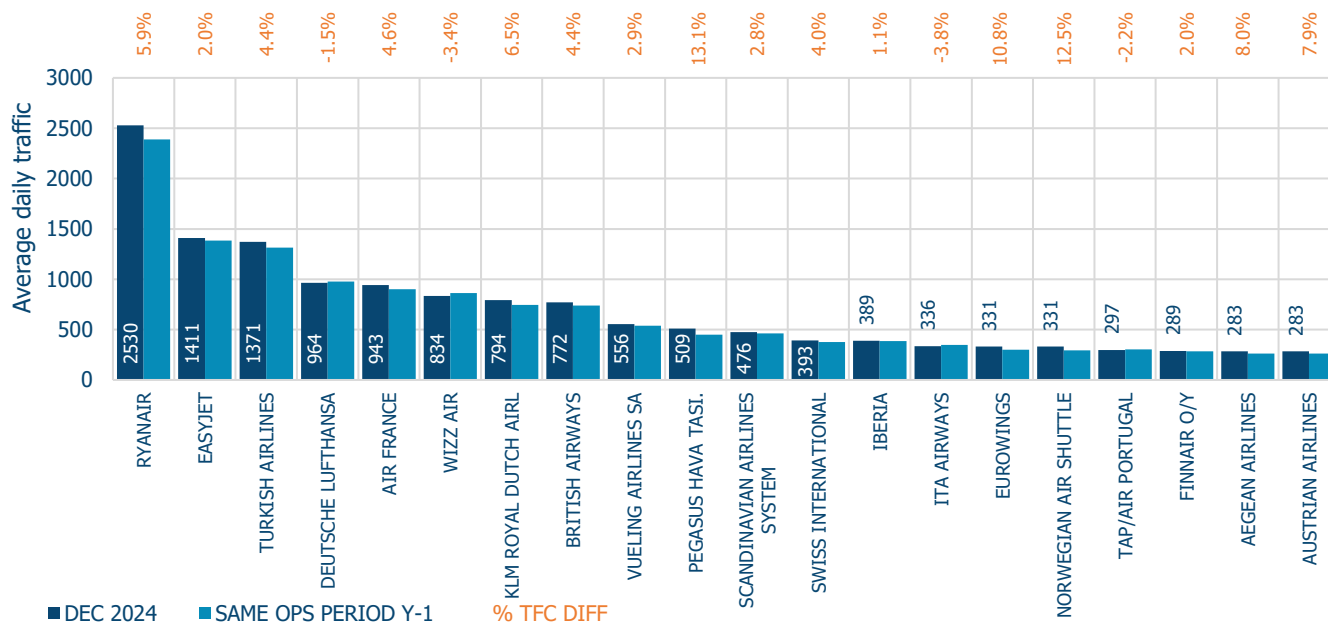
London ACC remained the busiest ACC followed by Maastricht UAC, Karlsruhe UAC, Ankara ACC and Madrid ACC. Among Top 20 ACCs saw increase in traffic compared to December 2023. Double digit traffic increased in Cairo, Cyprus, Nicosia, Makedonia, Tirana and Athens ACCs due to aircraft operators avoiding routes through Teheran due to geopolitical tensions in the Middle East.

December 2024 | Top 20 Airports daily traffic



Istanbul Airport was the busiest airport with an average of 1,362 flights per day, followed by London Heathrow (1,259 flights/day), Amsterdam Schiphol equals Paris Charles de Gaulle (1,244 flights/day) and Madrid (1,147 flights/day). Lisbon, Dublin and Paris/Orly had less traffic compared to the same period last year. There was ground handling industrial action at Lisbon and Storm Darragh impacted Dublin operations. The Paris airports had a traffic reduction programme due to the 4Flight system implementation.

December 2024 | Top 20 Air Operator groups daily traffic



Three air operators, Pegasus, Eurowings and Norwegian had a double-digit percentage traffic growth compared to last year: Pegasus seeing the highest increase, following an increase in fleet size as new A321neo’s joined the fleet.

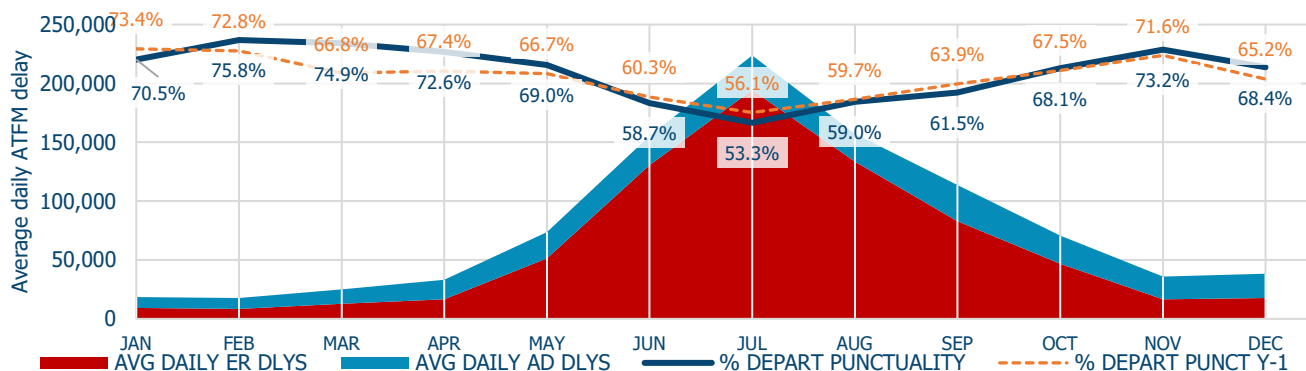
Ryanair was the busiest operator with, on average, 2,530 movements per day and with no flights on Christmas Day, followed by easyJet (1,411), Turkish Airlines (1,371), Lufthansa (964) and Air France (943).

Lufthansa, Wizz Air, SAS, ITA Airways and TAP saw a traffic decrease compared to December 2023.

3. Punctuality

3.1 Departure Punctuality

Network departure punctuality and ATFM delay



Network departure punctuality (68.4%) decreased by 4.8 p.p. compared to November 2024 and was above the level of December 2023.

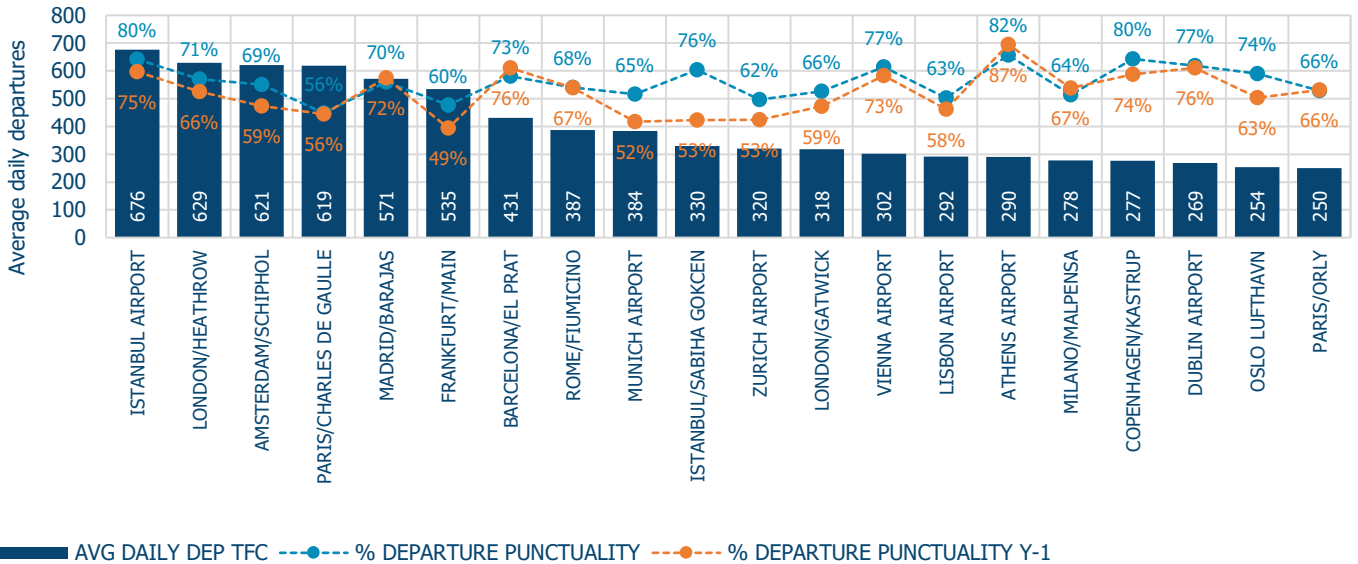
Punctuality on the domestic routes was higher (76.0%) than punctuality at network level. Punctuality on the south-east axis was 69.7% which is an increase of 5.1 p.p. compared to December 2023.

Network first rotation departure punctuality was 79.1% and was higher (2.3 p.p.) than 2023 level. Improving first rotation punctuality remains a key objective for NM.

*This view of operational punctuality can be tracked in near real-time by aircraft operator and airport level in the [NORTI Dashboard](#) and in [MIRROR](#). Archived data can be found in the [FATHOM interactive dashboard](#).

The Central Office for [Delay Analysis CODA reports](#) provide further detailed analysis of airline reported delay reasons.

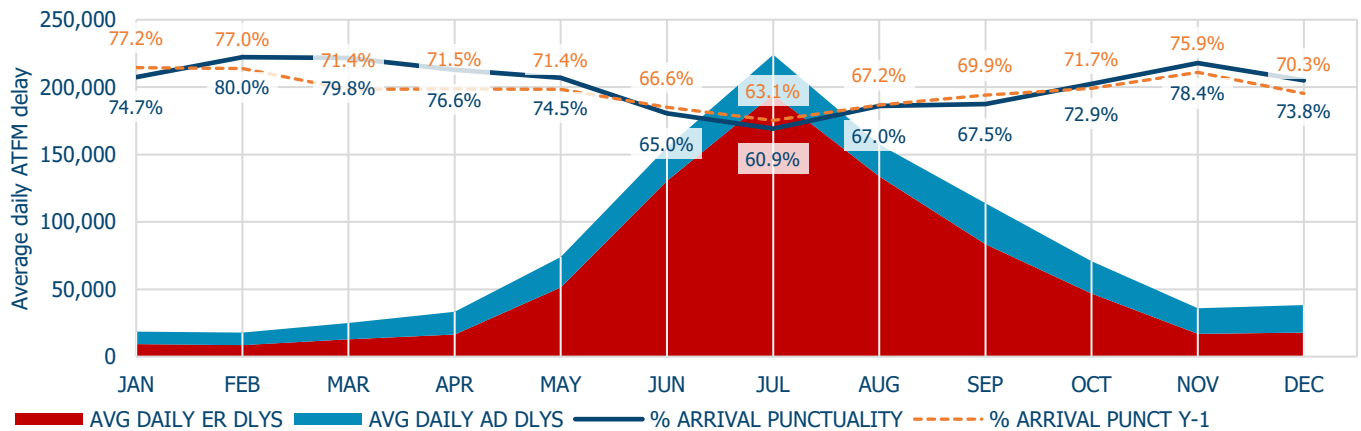
December 2024 | Top 20 Airport departure traffic and punctuality



A high-pressure weather system over Europe towards the end of the month caused low visibility at many airports, however punctuality in general improved at the Top 20 airports. Elsewhere in the month, seasonal weather (mainly low visibility, high winds and snow) continued to impact airports. London airports (Heathrow, Gatwick, Stansted) notably suffered from low visibility on 27, 28 and 29 December. Both Istanbul airports saw fewer weather regulations improving performance compared to December 2023.

3.2 Arrival Punctuality

Network arrival punctuality and ATFM delay

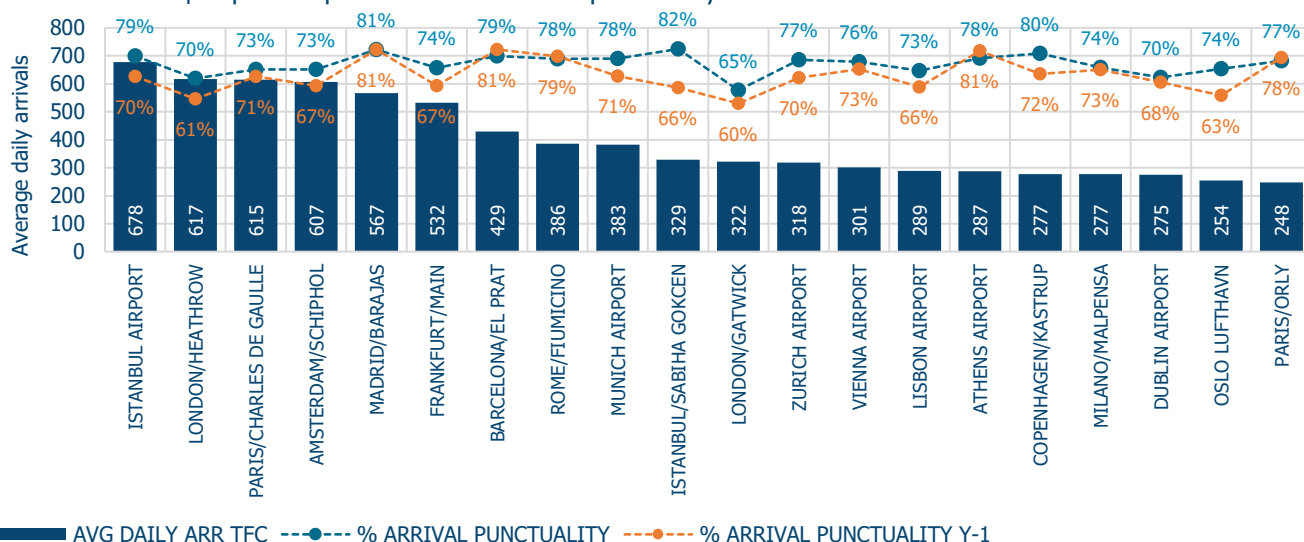


Network arrival punctuality (73.8%) was higher than December 2023 level (+3.5 p.p.) and decreased by 4.6 p.p. compared to November 2024.

Domestic routes (78.1%) arrival punctuality was higher than the network level. Punctuality on the south-east axis was 74.0% which is an increase of 6.5 p.p. compared to December 2023.

First rotation arrival punctuality increased by 2.6 p.p. compared December 2023 and was 83.9%.

December 2024 | Top 20 Airport arrival traffic and punctuality



As per the departure section 3.1 above, seasonal weather (mainly high winds, low visibility and snow) also influenced airport arrival punctuality during December. Amsterdam Schiphol saw near daily regulations for multi-factors of weather (mainly high winds and low visibility) and aerodrome capacity arrival regulations as the airport alternated between using two runways for arrivals or two runways for departures according to demand. Frankfurt suffered from freezing fog on 01 December, tower radio frequency issues also caused regulations in the month.

4. Operations

4.1 Network Manager

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.

For Tel-Aviv FIR the NM provided a consolidated view of relevant NOTAMs on the NOP Portal and the EUROCONTROL Network Manager Operations Centre (NMOC) continues working 24/7 to implement State required airspace restrictions and in support to daily airline operations for routings and delay mitigation. The Conflict Zone Information Bulletins (CZIB) concerning Israel, Lebanon, and Syrian airspace remain unchanged.

The FMP Exchange took place on 10-11 December 2024 in EUROCONTROL HQ, providing a platform for exchange and discussion on topics important to the network operations, notably:

- Network Pre-tactical Plan and PREDICT;
- Strategic Network Capacity Assessment;
- Overdelivery management and FPL adherence;
- Weather management;
- Occupancy usage;
- Open session for airlines to exchange ideas on best practices to improve operations.

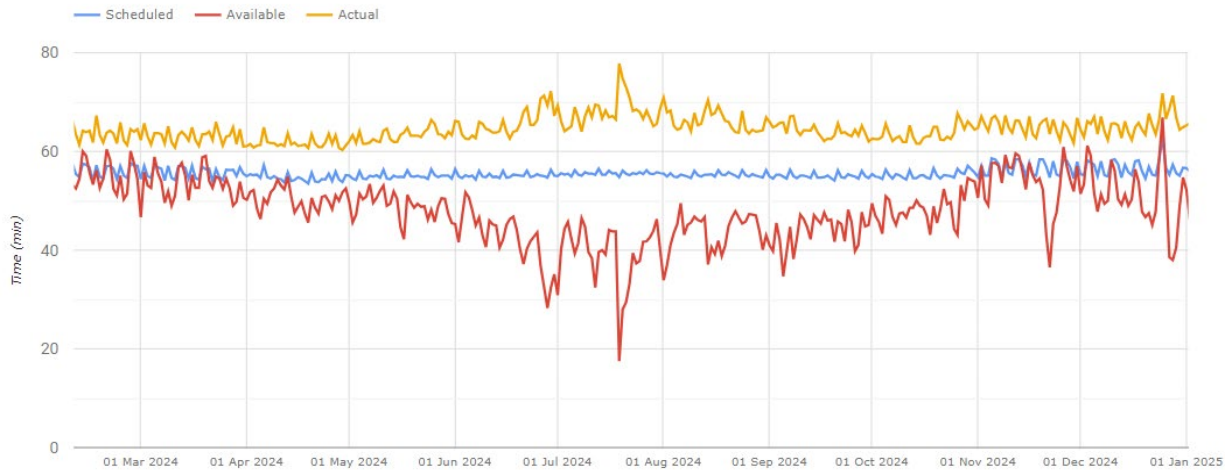
The event was well attended with more than 160 participants from several stakeholder groups: ANSPs, NM and AOs. The discussions elicited recommendations that feed into network operational improvements, coordinated with the stakeholders through the Network Manager CDM working arrangements.

NMOC's E-Helpdesk received 27,000 requests in December: 19,000 from AOs, 5,000 from FMPs and 3,000 from Towers. 3,000 of these requests were about flights that the AO considered "critical". The average delay saved per processed request was 27 minutes.

NMOC reduced en-route ATFM delays by 10.2% and airport ATFM delays by 7.7% through direct actions.

4.2 Ground

MIRROR'sⁱ indicator shows that in December the network (average) available turnaround time remained stable compared to December 2023 as punctuality improved. Available turnaround time sharply increased on 25 December as the number of flights and delays decreased. Elsewhere in the month, high winds at Amsterdam Schiphol and London Heathrow on 22 December saw turnaround performance fall. There was further weather (mainly low visibility) airport disruption between 27 and 29 December, here available turnaround time fell as reactionary (knock-on) delays increased.



NM is monitoring TTOTⁱⁱ calculation quality for the A-CDM airports. The average error at a network level (calculation for 29 airports) was 8.7 minutes and is an increase of 0.9 minutes as compared to November. Copenhagen (EKCH) presented the lowest error value among 29 airports – 6.5 minutes. Paris/Charles de Gaulle (LFPG) notices the highest error value at 10.9 minutes. NM is providing the details of the TTOT error to the A-CDM airports and is working with selected airport operators to improve the TTOT quality.

4.3 Network

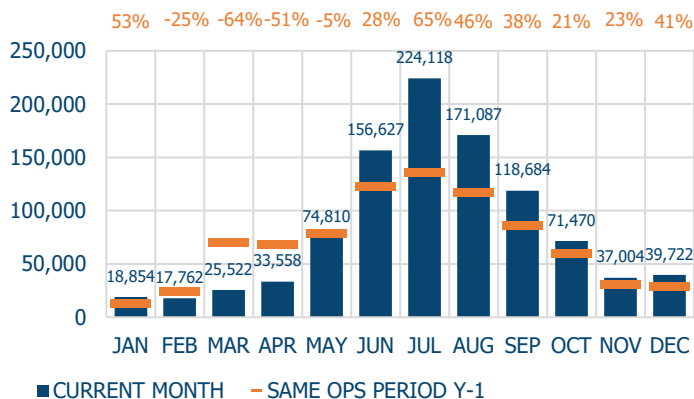
There were 1,231,383 minutes of ATFM delay in December, 41.0% higher than December 2023.

En-route ATFM delays accounted for 46.3% and airport ATFM delays accounted for 53.7%. Most of ATFM delays were due to airport weather and en-route ATC capacity issues.

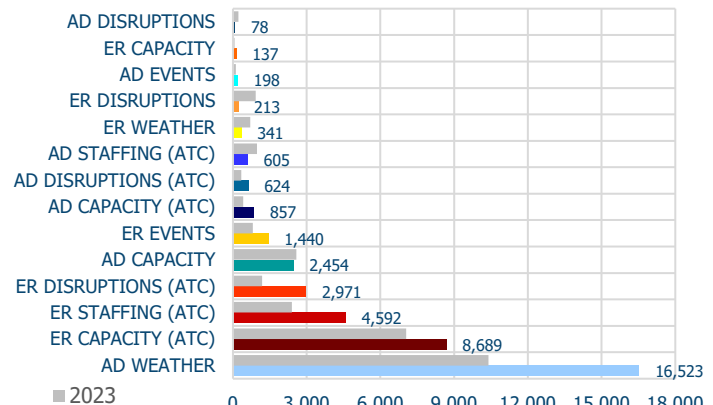
The average en-route ATFM delay per flight for the network was 0.7 minutes in December. En-route ATFM delay per flight for 2024 was 2.1 minutes which was an increase compared to 2023 (1.8 minutes).

Network schedule delay was 18.1 minutes/flight in December and 16.2 for 2024.

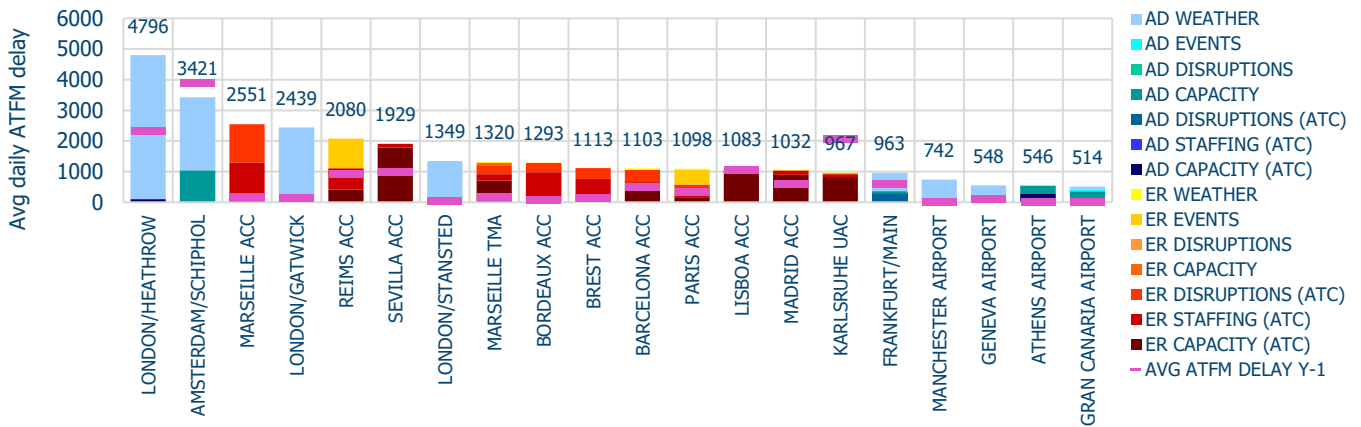
Last 12 months average daily ATFM delays



December 2024 | Reasons for ATFM delays



Top 20 delay reference locations in December 2024



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 ATFM delays in minutes for the individual locations:

- Seasonal weather - snow, low visibility, strong winds – impacted operations strongly at London airport and Amsterdam Schiphol airport.
- ATC capacity issues in the south-west Axis – Sevilla, Lisbon, Madrid ACCs - due to demand exceeding capacity to/from Canarias Islands.
- ATC industrial action in France generated delays in Marseille, Bordeaux and Brest ACCs.

4.4 Significant Events

Events

- On-going implementation of the new ATM system 4 Flight in Paris ACCs, with capacity reduction of -20% in en-route sectors, generated 14,730 minutes of ATFM delays. These measures were suspended from early afternoon on 10 December for the festive period, to resume Tuesday 07 January 2025
- Transition to new Electronic Flight Progress Strips (EFPS) equipment at Edinburgh airport from 12 to 16 December generated 3,665 minutes of ATFM delay.
- Transfer of airspace below FL195 from Reims ACC to Basel and Strasbourg Approach sectors generated 29,340 minutes of en-route ATFM delay and 1,391 minutes of airport ATFM delay at Strasbourg airport.
- Bordeaux and Brest ACCs have started the training and live trial periods in preparation for the implementation of the 4-Flight system. Details (dates and corresponding capacity reductions) are detailed in the European Transition Plan for major projects 2024-2025. The document is available here [European Transition Plan for major projects 2024-2025](#).

Technical

- Due to the unavailability of a radio antennas, the number of available sectors provided by Brest ACC in the Bay of Biscay was limited, prompting 6,645 minutes of ATFM delay.
- Local radar issues in Valencia TMA throughout the month generated 11,537 minutes of ATFM delay in Barcelona ACC.

Industrial action

- ATC industrial in France throughout the month affected various airport and ACCs.
 - From 04 to 06 December, it generated a total of 58,582 minutes of en-route ATFM delay and 7,311 minutes of airport ATFM delay. Paris-East and Marseille-West ACCs were the most impacted ensuring 50% capacity
 - From 12 to 13 December ATC industrial action in Marseille ACC generated a total of 7,430

minutes of en-route ATFM delays. ATFM measures were only necessary from 13 December early morning until mid-afternoon and only in the Eastern Sector Group, with a staffing issue limiting sector availability late evening.

- From 17 to 18 December local ATC industrial action at Lyon, Montpellier and Ajaccio airports generated no delays but flight reduction programs were implemented at Lyon (-47% capacity), Ajaccio (-36% capacity) and Montpellier, which was heavily impacted, reduced capacity by -91%. En-route delays – 7,654 minutes - were also recorded in Marseille TMA.
- ATC industrial action at Malpensa airport on 15 December generated 776 minutes of airport ATFM delays.
- Ground handling industrial action at Lisbon, Faro and Porto airports from 22 to 31 December generated no delays.

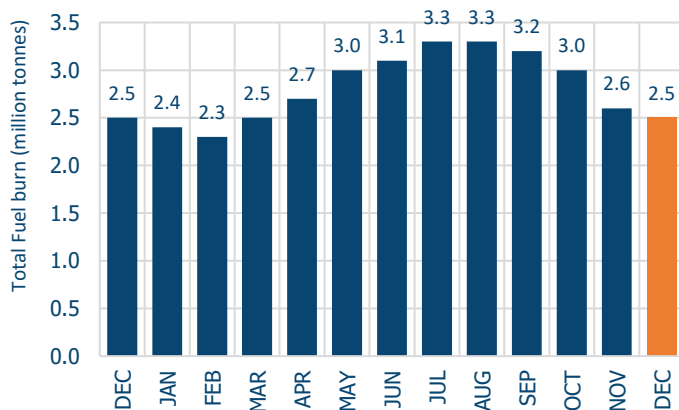
Other

- An aircraft experienced a hydraulics failure shortly after departing Oslo-Gardermoen. The aircraft diverted to Oslo-Torp-Sandefjord, where after landing safely Saturday 28/18:04 UTC the aircraft ran off the runway shoulder area onto soft verge. No further movements were recorded before operations resumed at the airfield on Sunday evening.
- Budapest ACC recorded 5,697 minutes of ATFM delay owing to daily protective capacity measures with significant on-load of traffic avoiding L'viv ACC and limited availability of ATCOs.
- The additional complexity due to the Ukrainian crisis generated 2,152 minutes of ATFM delays in Warsaw ACC.

5. Flight Efficiency

5.1 Fuel Burn

Total fuel burn within NM area (tonnes)



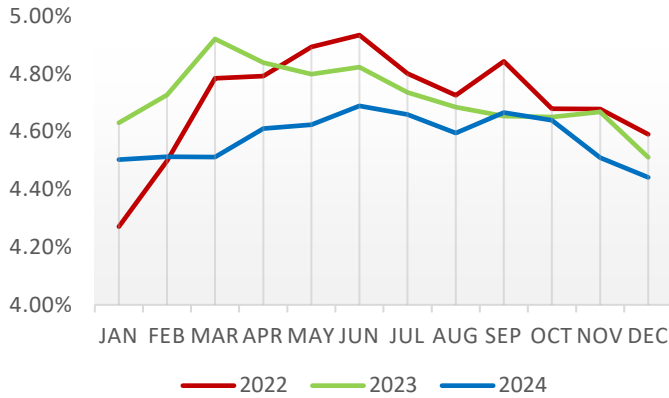
NM estimates that 2.5 million tonnes of fuel was burnt in the en-route flight phase in the NM area in December.

En-route fuel burn was at the same level as December 2023 with an extra 36,500 flights. NM believes this is due to more efficient narrow body aircraft operating in the network.

5.2 Horizontal Flight Efficiency

There are two horizontal flight efficiency KPIsⁱⁱⁱ. The indicators provide a measure of the average en-route additional distance with respect to the great circle distance. One is based on the last filed flight plan (KEP) and the other on actual trajectory (KEA). KEA and KEP decreased compared to October 2024.

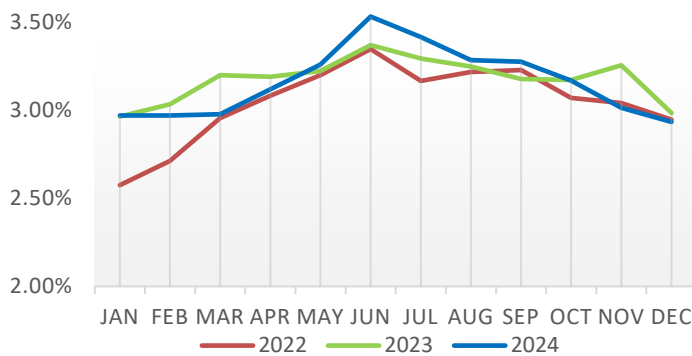
KEP evolution in NM Area



KEP indicator (4.44%) was lower than 2022 and 2023 levels.

NM Flight Efficiency Taskforce continues to support AOs to further improve their flight planning.

KEA evolution in NM Area



KEA indicator (2.93%) was well below 2023 level and almost at the same level as 2022.

6. Notice

Traffic and Delay Comparisons

All traffic and delay comparisons are between report month and equivalent operational period of the previous year.

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>

Airline Groupings

Description and definition available on the EUROCONTROL website at <https://www.eurocontrol.int/directory/airline-groups-lookup>

ATFM Statistics dashboard

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

FATHOM dashboard

Interactive analysis tool to access archived data [FATHOM interactive dashboard](#)

Network Operations Analysis document

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 The apparent growth in traffic for Iceland is partly accounted for by Reykjavik FIR joining the IFPZ from 30-November 2023 (IFPZ = IFPS-Zone, the area for which the Integrated Initial Flight Plan Processing System collects, processes and distributes flight plans). Consequently, Flight Plans previously not counted (Icelandic domestic, departures or arrivals to-from North America) became visible. The growth in traffic for Tbilisi and Baku FIRs is partly due to a change in air operators routings resulting from the situation in the Middle East. Brindisi ACC traffic decrease was due to a new sector configuration: The northern sectors of Brindisi ACC are under Roma ACC control since 13 June 2024.

ⁱⁱ Target Take-Off Time (TTOT) calculation quality at A-CDM airports is the average absolute difference between ATOT and TTOT at IOBT-30 minutes for non-regulated flights.

ⁱⁱⁱ More information on KEP and KEA, see [ANS performance page](#).



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