EUROCONTROL

Network Operations Report 2025

Draft report

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1 EXECUTIVE SUMMARY

The Network Operations Report 2025 provides a comprehensive of overview of 2025 network performance, highlighting the key conclusions and the issues that the EUROCONTROL Network Manager (NM) and the wider stakeholder community need to address going forward.

The performance in 2025 was much better than both 2024 and 2023. Network actors observed a more stable operating environment compared to 2024 with better stability in the delivery of the planned and executed capacity. Trust in the network was restored.

This demonstrates the clear operational benefits of improved planning, coordination and consistent network procedures being applied across European airspace by the EUROCONTROL Network Manager (NM) and operational actors, with additional support from national governments and authorities. Coordinated actions for improved and focused technology support for the operations, also contributed significantly to the better operational performance in 2025, underlining the strong link between operations and technology with the need to continue the efforts on harmonised and accelerated implementation of new technologies (data link, ATM system developments, new iNM functionalities, etc.).

The growth of the European air traffic in 2025 was 4.3% in the NM Area. This growth was supported by consistently strong daily activity, with the network averaging over 30,000 flights per day, and by a summer season (May-August) that reached an average of 35,122 flights per day, up 3% from summer 2024. Growth varied across Europe, showing clear differences between axes. Traffic on the Southeast axis grew particularly strongly, showing double-digit increases at many ACCs and making this axis one of the main contributors to the network's year-on-year expansion. In contrast, the Southwest axis grew more moderately, although still contributing positively to the overall increase.

To this significant traffic increase, other complexities are to be considered: the non-availability of the Ukrainian airspace due to the Russian war of aggression in Ukraine, the significant instability from mid-June in the Middle East and the significant increase of military requirements for more intensive training, national and multi-national military exercises as well as the requests for more airspace related to the introduction of fifth generation fighter aircraft.

1.1 Key performance outcomes

There were 11.1 million flights in the NM Area in 2025, 4.3% more than 2024 (on average 1,260 more daily flights). Total flights reached 100.2% of pre-pandemic levels. This growth could have been higher without geopolitical instability due to Russia's invasion of Ukraine and the conflict in Israel.

There were 3.1% more flights in summer 2025 (May to August) than the same operational period in 2024. A handful of ACCs, mainly in the southeast axis, saw summer traffic above predicted levels: Malta (+11.3%), Vienna (+10.6%) and Nicosia (+10.3%).

En-route operations were much better than summer 2024 with ATFM delays down by 28%. The south-east axis had 3.9% more flights (+370 flights/day) and 37.4% fewer ATFM delays mainly due to improvements in Budapest (-86.6%), Zagreb (-76.6%), Karlsruhe (-53.6%), Beograd (-28.7%) and Makedonia (-21.1%). BH ACC was the outlier in the southeast axis with an ATFM delay increase of 70.6%.

Most en-route capacity problems over summer were evident on the south-west axis with the highest level of ATFM delays in Marseille and to a lesser extension in Barcelona and Reims – but aided by lower delays in Karlsruhe. Sevilla ACC, however, performed better with a 60% reduction of en-route ATFM delays.

Many of the pre-summer network actions bore fruit. The improved NOP process – schedule data availability, weekly measures / actions, network measures – worked well. The new weather management procedures also worked and could be expanded to capacity management in Summer 2026.

Good capacity delivery by all ANSPs during Summer helped to reduce ATFM delay by increasing predictability. The forecasted delay until the end of August was 2.19 min/flt and the network projected delays reached 1.59 min/flt. It is still well above the target value of 0.90 min/flt but an improvement over last year.

In 2025, weather-related ATFM delays averaged 0.76 minutes per flight, accounting for 32.0% of total ATFM delays and representing a decrease of 13.7% compared to 2024.

Airline schedule delay during 2024 amounted to 14.7 mins/flight (vs 17.4 mins/flight in 2024). Reactionary (knock-on) delays remained the dominant delay reason. Airline delays (mostly turnaround/ground handling related delays) slightly improved.

The network departure (70.1%) and arrival punctuality (75.4%) increased compared to 2024. First rotation departure punctuality was 81.3% and 86.8% for arrival. A key objective for NM was to improve first rotation punctuality, as it sets the tone for the rest of the day's operations.

However, delays remain high and above the target levels, which clearly highlights the ongoing structural lack of capacity (largely driven by a lack of air traffic controllers (ATCOs) in some ANSPs, and the ongoing need to improve airspace design and accelerate technological modernisation). These delays continue to impact negatively passengers and airlines, and this once again underlines that all actors still have plenty to do to tackle system congestion for next summer, and for the coming years in order to meet network capacity needs as traffic continues to grow. The EUROCONTROL NM, in partnership with all operational stakeholders, is now focusing collective efforts on delivering improved 2026 performance, taking full benefit from the lessons learnt during Summer 2025.

Preparations for the winter season of 2025/2026 were completed by late 2025, with particular emphasis on enhancing the NMOC Weather Desk to better support operations during winter conditions and integrating winter scenarios into the broader CWBO framework. Additionally, preparations for the summer of 2026 began, concentrating on establishing a more stable, predictable, and resilient network. Key priorities include delivering the agreed capacities, supported by early and detailed NOP implementation, strengthened re-sectorisation action, and fully defined monthly sector opening schemes matched with adequate staffing. In addition, detailed preparations are continuing for major events and military exercises. Network impact assessments and mitigation measures have been prepared for many military exercises, while cooperation has been increased with NATO in the evaluation of possible training areas to meet the challenging needs resulting from the ongoing Russian war of aggression in Ukraine and the Middel East situation.

1.2 Main causes of delay

The decrease of en-route ATFM delays reflects significant efforts by many ANSPs to increase their operational readiness and execute the summer Network Operations Plan (NOP). Notable improvements were made by the ANSPs of Albania, Austria, Bulgaria, Croatia, the Czech Republic, Germany, Greece, Italy, Hungary, Portugal, Romania and Switzerland.

En-route ATFM delay was 1.67 minutes per flight, which corresponds to, on average, 50,890 minutes of daily ATFM delays.

In 2025, 73.3% of en-route ATFM delays were concentrated on the Intra NM south-east and south-west axes, 45.3% and 28% respectively.

En-route ATC capacity (7.8 million minutes) was the major cause for delays in 2025 and represented 42.4% of en-route ATFM delay.

En-route weather was the second most significant factor, especially in July. At 5.2 million minutes, en-route weather accounted for 28.3% of en-route ATFM delays, representing a decrease of 35.2% compared to 2024.

Weather and ATC capacity are mutually dependent as flights try to re-route into non-weather affected areas which are already saturated.

1.3 Network Manager measures and reinforced cooperation with operational stakeholders

1.3.1 Weather management

New pre-tactical procedures named Capacity and Weather Based Operations (CWBO) have been applied during summer 2025 by the Network Manager Operations Center (NMOC) to enhance Demand Capacity Balancing in the European Network, including weather management.
The main objective of the application of the new procedures was to further progress in the introduction of ATFM measures to make the best use of available capacity and promote the best provision of that capacity by ATC sectors. This includes the most efficient management of unforeseen circumstances during pre-tactical and tactical operations.
Network dynamicity entails that every summer new demand-capacity imbalances appear due to reasons such as bad weather conditions, technical failures or unforeseen lack of staff. Therefore, the application of the new procedures was not limited to address bad weather conditions in the European Network, but any capacity imbalance irrespective of the reason.

The key elements of these procedures have been:

- For weather related triggers, endorsement to NMOC for direct implementation of the NM scenarios approved during the CDM processes by all stakeholders.
- Introduction of the NMOC MET Specialists expertise within the decision-making processes (NMOC Weather Desk).
- Pre-tactical application of the Network Scenarios to bring stability and predictability to the Network.

1.3.2 Disciplined flight plans

In 2024, during the months of June, July, and August, the total number of vertical non-adherence cases for all reasons was 560,201. This number decreased to 330,122 in 2025, demonstrating a 44% year-over-year improvement. This equates to 6,450 flights per day in 2024 and 3,588 flights per day in 2025.
The total number of vertical non-adherence cases due to non-weather regulations was 366,096 during the summer period in 2024. This category saw a 46% improvement,

decreasing to 197,321 flights during June, July, and August in 2025. The daily impact was 3,980 flights per day in 2024 and 2,145 flights per day in 2025, included in all reasons for non-adherence cases.
Enhancements in flight planning, airspace and RAD management as well as airlines and ACCs joint efforts helped reach these results.

1.3.3 NOP delivery

Most ANSPs have delivered more than their agreed capacities for 2025, and many met their commitments. Note that in the pre-season NOP it has been highlighted that in some cases this was still below the required capacity for the demand.

The vast majority of ASNPs delivered the commitments made in the NOP 2025 with sector openings that matched or even exceeded the commitments.

At ACC level, the NOP delivery in Summer 2025 was estimated as follows:

- **25 ACCs** better than the NOP
- **35 ACCs** aligned to the NOP
- **5 ACCs** below the NOP

The vast majority of the airports fulfilled the commitments made in the NOP 2025-2029 or made significant progress towards fulfilling them. This includes both Remedial Measures and Operational Actions.

1.3.4 Other measures

The NM Airport Function reinforced input, advice, and coordination from within the airport community to the decision-making process of the NMOC in relation to flow management and demand/capacity-balancing (DCB).

Flight efficiency results in 2025 were better than 2024. NM estimates that 38.2 million tonnes of fuel were burnt in the en-route phase within the NM area. KEP began 2025 below 2023 and 2024 levels and finished between them. KEA stayed under 2023 and 2024 levels for most of the year, except in July and September. Part of this degradation is due to a change in an arrival procedure at an airport and repeated crisis situations in the Middle East.

NM's flight efficiency task force continued to support aircraft operators find best available routes.

Overall operational volatility decreased compared to 2024, however the volatility related to the ATC industrial action regulations increased over 2024, back at the level of 2023. NM still needs to reiterate the need for ATFM regulation discipline with FMPs. Several FMPs adjusted regulation parameters too often and too quickly. It also needs to encourage airport adoption of CDM processes which offer greater time predictability compared standard OBT update methods.

1.4 Lessons learned

NM will accordingly be working with all operational stakeholders to build on the priorities of 2025 (NOP commitment and delivery of agreed capacity, prioritise first rotation, flight level adherence, realistic schedules and turnaround times and weather management) and on the lessons learnt in 2025, paying special attention to:

- **Significant enhancements of strategic, pre-tactical and tactical network measures and procedures, addressing both weather and capacity management, as well as extensive implementation of P-DPI procedures and of additional predictability improvements**
- **Early preparation and full commitment to the implementation of the Network Operations Plan**
- **Preparation of optimum sector opening schemes and related staff availability,**
- **Improved rostering and continuous ATCO recruitment**
- **Airspace modernisation, including implementation of sectorisation changes to better manage demand**
- **Acceleration of ATM system modernisation and digitalisation, including increased utilisation of datalink and further capacity increases based on this**
- **Joint efforts between NM and operational stakeholders to address local performance issues with network impact**
- **Tangible sector capacity increases, benefitting from all the above.**

For the medium term the agreed NMB priorities will remain:

- Inject more capacity into the network
- Accelerated ATCO recruitment
- Cross-border airspace design solutions

The strategic NMB priorities are also reminded below:

- Open digital infrastructure
- Air ground integration
- Seamless airspace organisation

A few risks have been also identified for the delivery of the Summer 2026 performance:

- Lack of commitment on the delivery of the network priorities and notably on the NOP capacity plans, re-sectorisation, sector capacity increases and ATCOs recruitment
- Delayed implementation of infrastructure modernisation plans
- Lack of commitment on strengthened network capacity and weather management procedures
- The impact of the implementation of the EU entry/exit scheme on traffic predictability

The EUROCONTROL Network Manager will continue to work intensively with all aviation stakeholders on improving the performance of the European Aviation Network – and to ensure that passengers get to their destinations safely and with the least possible delay.

1.5 Conclusion

There were 26.1 million minutes of ATFM delay in 2025 – a daily average of 71,636 minutes. This is 13.6% less than 2024, but with 4.3% more traffic. En-route ATFM delay per flight was 1.67 minutes, lower than 2024 (2.07 minutes).

Summer 2025 was much better than both 2024 and 2023. Network actors observed a more stable operating environment compared to summer 2024 with better stability in the delivery of the planned and executed capacity. Trust in the network was restored.

Preparations for the Summer 2026 season have already started with particular focus on maintaining network stability and predictability. NM will accordingly be working with all operational stakeholders to build on the priorities of 2025 (NOP commitment and delivery of agreed capacity, prioritise first rotation, flight level adherence, realistic schedules and turnaround times and weather management) and on the lessons learnt in 2025.

2 INTRODUCTION & SCOPE

The purpose of this document is to provide an overview of the European ATM network performance in 2025 in the areas of traffic, punctuality, capacity / ATFM delays, network and ground operations, and flight efficiency. The airspace users' opinion on the network performance is also included.

The report analyses the annual results considering the main events that took place in the course of the year.

The document structure is as follows:

Section 1: Executive Summary.

Section 2: Introduction & Scope.

Section 3: Network Overview contains the annual performance of the European ATM network: traffic, delays and punctuality, and flight efficiency.

Section 4: Traffic in Detail is a detailed analysis of traffic growth in 2025 in the NM area and adjacent regions.

Section 5: En-Route Performance analyses the influence of events and disruptions; capacity and ACC performance.

Section 6: Airports is an analysis of the performance of airport operations.

Section 7: Flight Efficiency looks at the progress of airspace design and flight planning indicators

Section 8: References.

Annex I: Airspace Users' View outlines the users' perspective on how the network performed in 2025.

Annex II: ACC contains a traffic and capacity evolution for each ACC in 2025.

Annex III: Airports contains capacity, delay, arrival/departure punctuality status and a NM performance assessment of each of the significant airports in 2025.

3 NETWORK OVERVIEW

3.1 TRAFFIC

There were 11.1 million flights in the NM area in 2025, 4.3% more than 2024 (on average 1,260 more daily flights). Total flights reached 100.2% of pre-pandemic levels. This growth could have been higher without geopolitical instability due to Russian war of aggression in Ukraine and the middle East crisis.

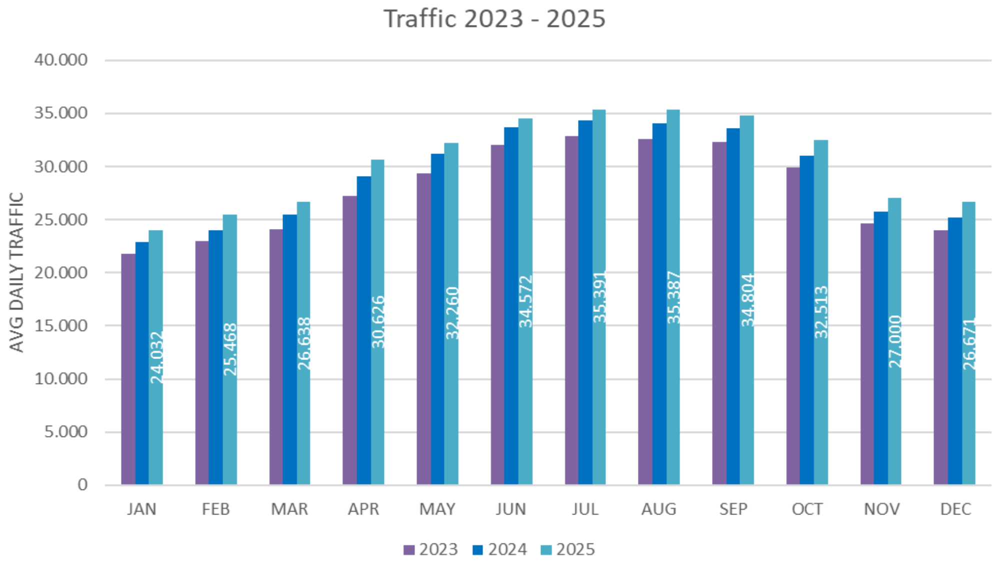


Figure 1 Monthly Network Traffic Evolution

Traffic reached 34,000 daily flights by the beginning of June and stayed at that level through to end of September. Friday 18 July was the busiest day in 2025 with 37,034 flights.

The largest market segment over 2025 was Low Cost. It averaged 10,788 flights/day, which was +8.6% growth compared to the same period in 2024. Mainline was 10,564 flights/day (+2.3%) and Regional 2,099 flights/day (+0.1%). The Business segment averaged 2,099 flights/day, which was 1.6% higher than 2024. All cargo segment remained stable compared to 2024. The restrictions following the Russian war of aggression in Ukraine particularly affected the Charter market.

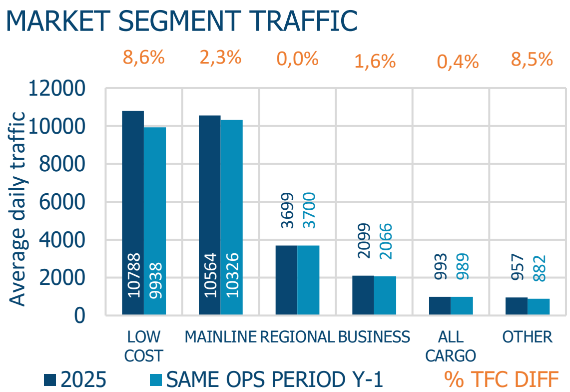


Figure 2 Market segment 2025 traffic

The level of non-operated airline schedules was 6.1% for 2025. This indicator was impacted by ATC capacity and staffing shortages, ATC Industrial actions and weather throughout the year.

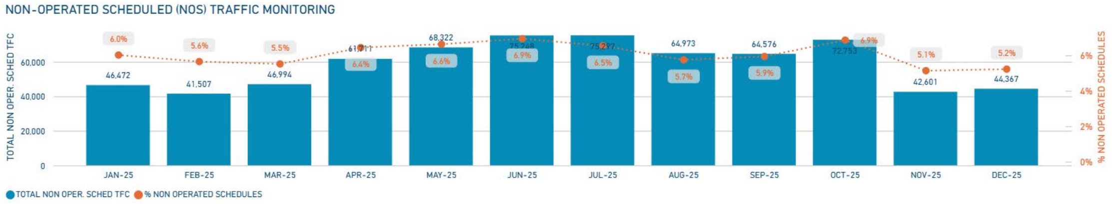


Figure 3 Non-Operated Scheduled traffic 2025

The Intra-NM traffic flow was 56.0% of the network traffic in 2025. Its growth of 5.3% drove the network growth along with the 7.0% increase in out-of-area. Together they added, on average, 1,286 flights/day to the network during 2025.
Domestic traffic increased slightly (+1.2%).

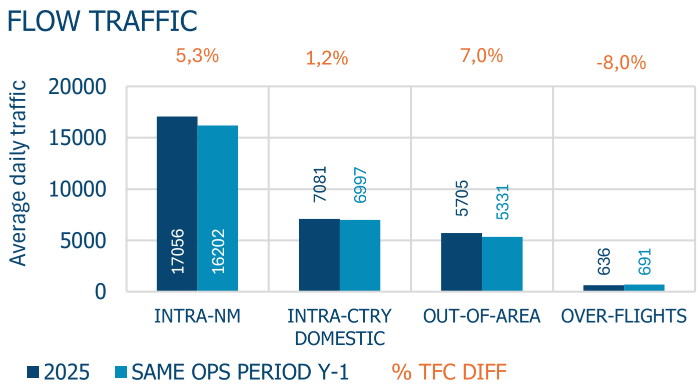


Figure 4 Flow type traffic 2025

Traffic on the Southeast axis grew particularly strongly (+5.2%), showing double-digit increases at many ACCs and making this axis one of the main contributors to the network's year-on-year expansion. In contrast, the Southwest axis grew more moderately (+3.8%), although still contributing positively to the overall increase.

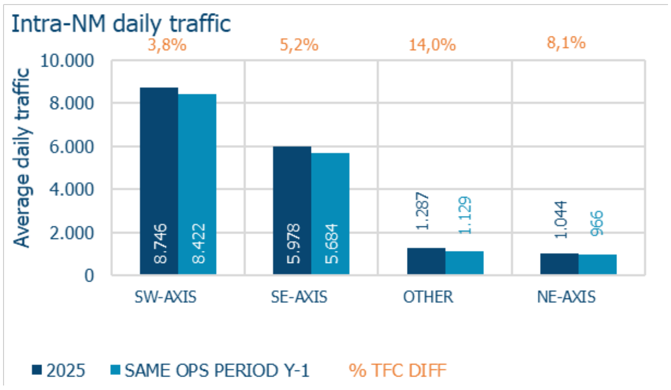


Figure 5 Intra NM daily traffic 2025

All Top 20 ACCs, except Reims (-1.1%) had more traffic than 2024. Vienna had double-digit traffic growth (+13.20%). This growth was partially accounted for by a shift of traffic due to new route charges in nearby ACCs. Budapest (+9.3%) and Sofia (+7.9%) traffic increase was partially due to the rerouting of flights from the ongoing conflict in Ukraine.
The increase in Ankara (+8.4%) was attributed to a higher volume of traffic and rerouting due to Middle East crisis.

In 2025, the Top 5 airlines remained unchanged compared to 2024 with Ryanair as the busiest carrier (3,192 flt/day), followed by easyJet (1,611 flt/day), Turkish Airlines (1,559 flt/day), Lufthansa (1,083 flt/day) and Air France (1,061 flt/day).

Istanbul airport was the busiest airport in 2025 with, on average, 1,491 flights per day, followed by Amsterdam Schiphol (1,351), London Heathrow (1,315) and Paris Charles de Gaule (1,314).
All TOP 20 airports, except London Gatwick, had more traffic in 2025 compared to 2024. Istanbul Sabiha Gökçen experienced double-digit traffic growth (+13.8%).

3.2 ALL CAUSES DELAY

Looking at all-causes delay, the average delay per flight improved in comparison to 2024. The total (all-causes) average delay per flight on departure amounted to 14.7 mins/flight (vs 17.4 mins/flight in 2024). Reactionary (knock-on) delays remained the dominant delay reason. Airline delays (mostly turnaround/ground handling related delays) slightly improved. Airline reported en-route ATFM delays also improved, this cause falling by 0.5 minutes to 1.8 minutes per flight in 2025.

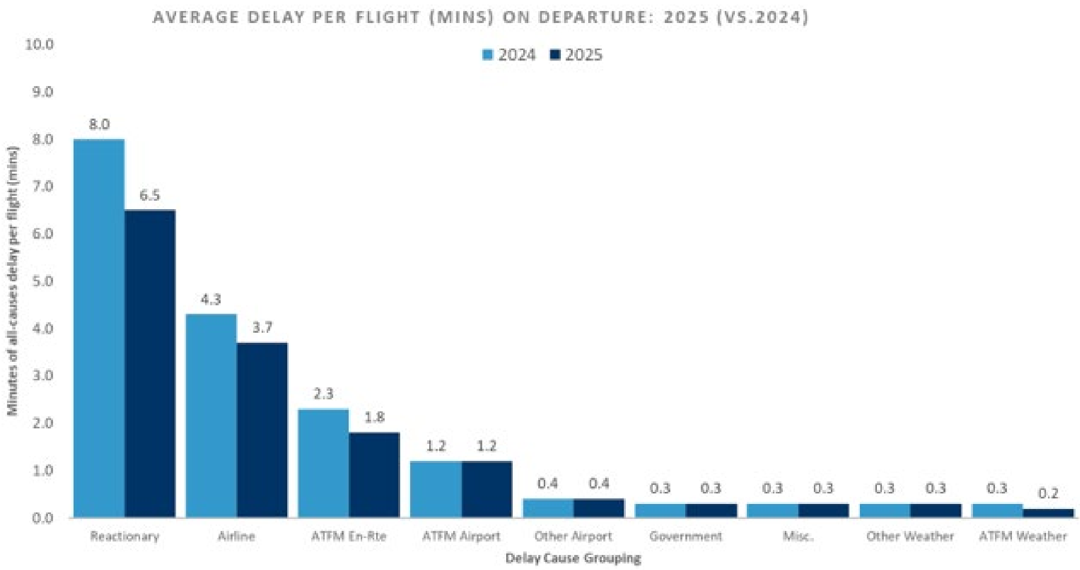


Figure 6 average delay per flight comparison 2025 v 2024

3.3 NETWORK ON-TIME PERFORMANCE

In summer 2025, network arrival punctuality was 72.3%, better by 5.6 p.p. than summer 2024, with a 3.1% rise in traffic. The SW axis and SE axis arrival punctuality were almost equal with 70.9% and 71% respectively.

In 2025, network departure punctuality (70.1%) increased by 3.9 p.p. compared to 2024 and arrival punctuality (75.4%) increased by 3.5 p.p. First rotation departure punctuality was 81.3% and 86.8% for arrival. A key objective for NM was to improve first rotation punctuality, as it sets the tone for the rest of the day's operations. This includes increasing the number of open sectors in the first rotation period during summer 2025. Moreover, it should be noted that the share of Out of Area arrivals is the highest during the First Rotation phase; a flight will be exempted from ATFM regulations if departing from outside the ATFCM area. This means that almost 1 in 5 flights arriving during the first rotation phase is not impacted by ATFM delays.

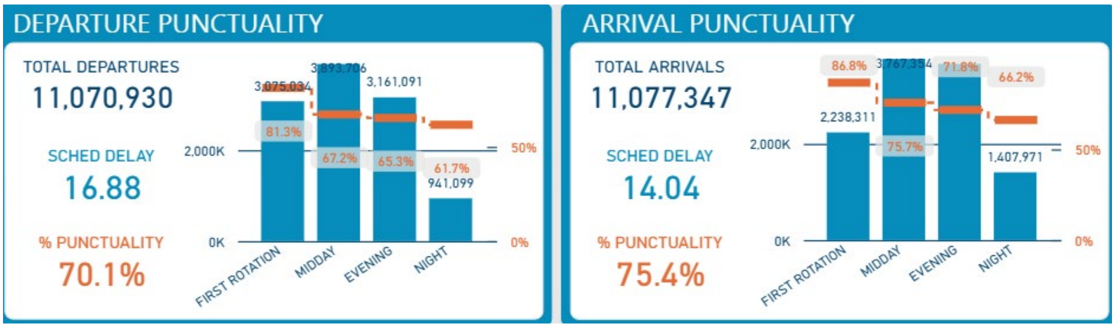


Figure 7 network punctuality 2025

3.4 ON-TIME PERFORMANCE AIRPORTS

In general, there was a mixed picture for 2025 airport departure punctuality.

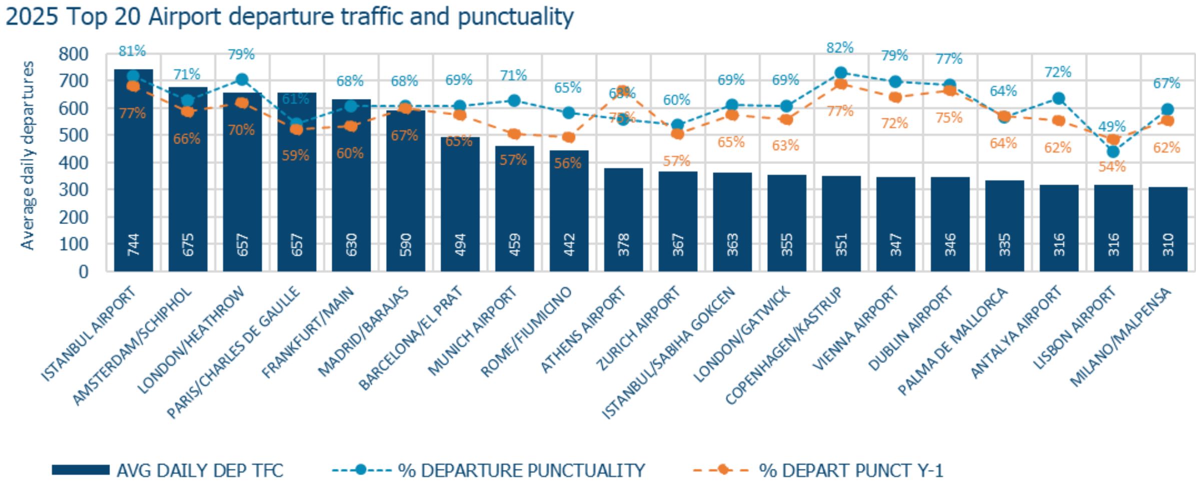


Figure 8 departure punctuality[1] of top 20 airports in 2025

Copenhagen, Istanbul, Heathrow, Vienna & Dublin had the best departure punctuality, averaging over 80%. In contrast, Lisbon had poor record with less than 50% punctuality.

These significant fluctuations are due to

- adverse weather conditions, CB's in particular.
- en-route restrictions causing traffic bunching at airports; and
- several airports operating at near full capacity with little operational buffering.

Ground delays, especially during first wave operations, decreased compared to 2024 and was up to -18% during the Summer period. This combines with the decrease in ATFM delay that was up to -10% during the Summer period, leading to a 15% reduction in average departure delay during the first wave and contributing to an overall 28% improvement in cumulative arrival delay later in the day.

The highest average departure delay per flight in the top 10 airports were observed in Rome, Paris Charles de Gaulle and Barcelona with around 25-35% of the delay coming from the ground delay."

[1] Operational estimate of departure punctuality from ETFMS and schedule data

Regarding turnaround times, the improved performance in terms of lower ATFM delays can be seen in the graph below, here the red extensions (indicating ATFM delay which extends the ground time) in the bars are less prominent than in summer 2024.

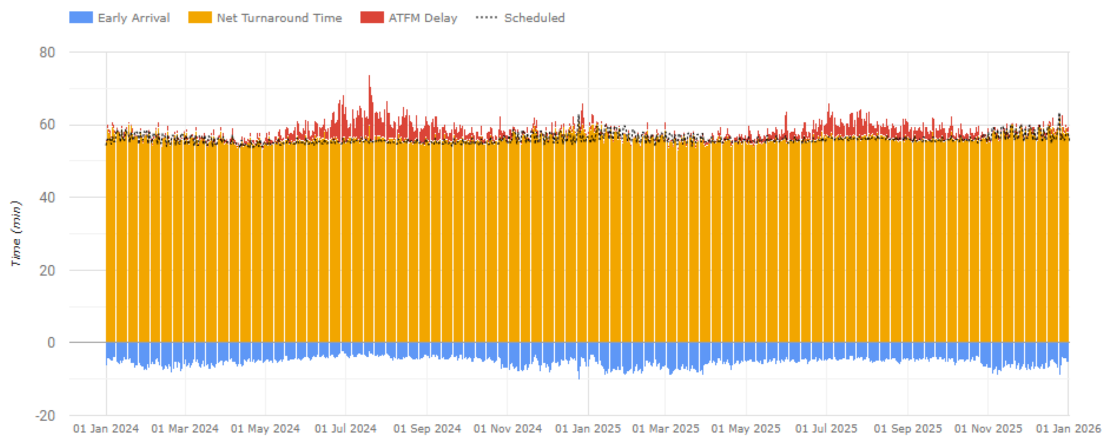


Figure 9 turnaround times 2024-2025

3.5 NETWORK ATFM OPERATIONS

3.5.1 En-route ATFM

En-route ATFM delay decreased by 20.0% compared to 2024. En-route ATFM delay was 1.67 minutes per flight, which corresponds to, on average, 50,890 minutes of daily ATFM delays. July experienced the highest delays, averaging 4.0 minutes per flight.

In 2025, 73.3% of en-route ATFM delays were concentrated on the Intra NM south-east and south-west axes, 45.3% and 28% respectively.

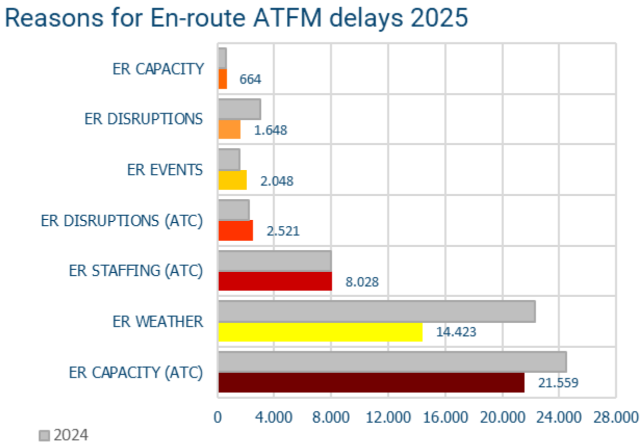


Figure 10 En route ATFM delay reasons in 2025

En-route ATC capacity accounted for 7.8 million minutes of delay in 2025, down 11.8% from 2024. It represented 42.7% of en-route ATFM delay.

En-route weather was the second most significant factor, especially in July. At 5.3 million minutes, en-route weather accounted for 28.3% of en-route ATFM delays, representing a decrease of 35.2% compared to 2024.

Weather and ATC capacity are mutually dependent as flights try to re-route into non-weather affected areas which are already saturated.

The majority of the Top 20 ACCs demonstrated improved performance compared to 2024. However, Marseille ACC notably underperformed, experiencing twice as many ATFM delays as in the previous year.

Budapest and Zagreb ACCs managed to reduce en-route ATFM delays by over 70% in comparison to 2024.

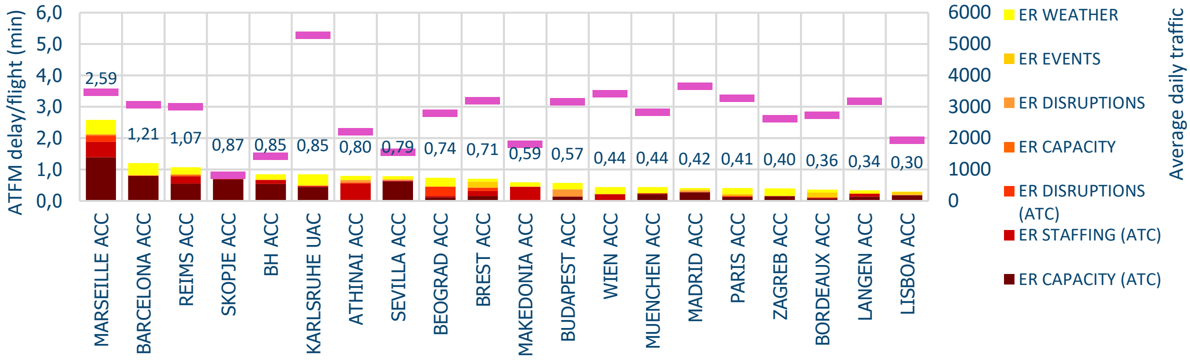


Figure 11 Top 20 en-route reference location 2025

The south-east axis had 2.18 million flights in 2025 (+5.2%) and 7.8 million minutes of ATFM delay, an important decrease of 24.7 %. This improvement was primarily attributed to decreased ATFM delays in Budapest, Zagreb, and Karlsruhe.

The south-west axis had just over 3.19 million flights (+3.8%) and 11.5 million minutes of ATFM delay, an increase of +1.8%. Although delays rose significantly at Marseille, Brest, and to a lesser extent Barcelona ACC, the overall increase was moderate because Karlsruhe and Sevilla ACC experienced fewer delays.

3.5.2 Airports ATFM

Airport ATFM decreased by 0.5% compared to last year and was at 0.68 minutes per flight, corresponding to approximately 20,745 minutes of daily delay. Airport weather, aerodrome capacity and airport ATC capacity were the main regulation reasons. Weather impact on airports decreased by 11.4% compared to 2024, airport capacity issues decreased by 2.9% while ATC capacity constraints increased by 40.3% mainly at Greeks airports.

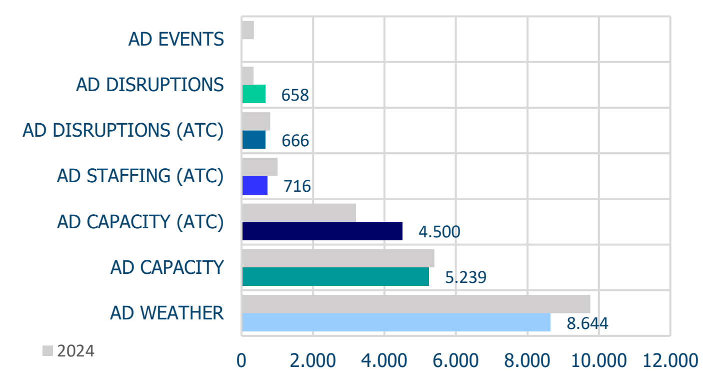


Figure 12 ***Airport ATFM delay reasons in 2025***

The figure below shows the Top 20 airports for ATFM delay / flight. Operations were primarily affected by weather conditions across Western Europe. Amsterdam Schiphol was the most impacted airport with a total of 579,738 minutes followed by Lisbon, Porto, Palma de Mallorca and London Heathrow. Heraklion recorded the greatest amount of delay minutes attributed to aerodrome capacity constraints and Chania airport saw the highest number of delays due to ATC capacity constraints.

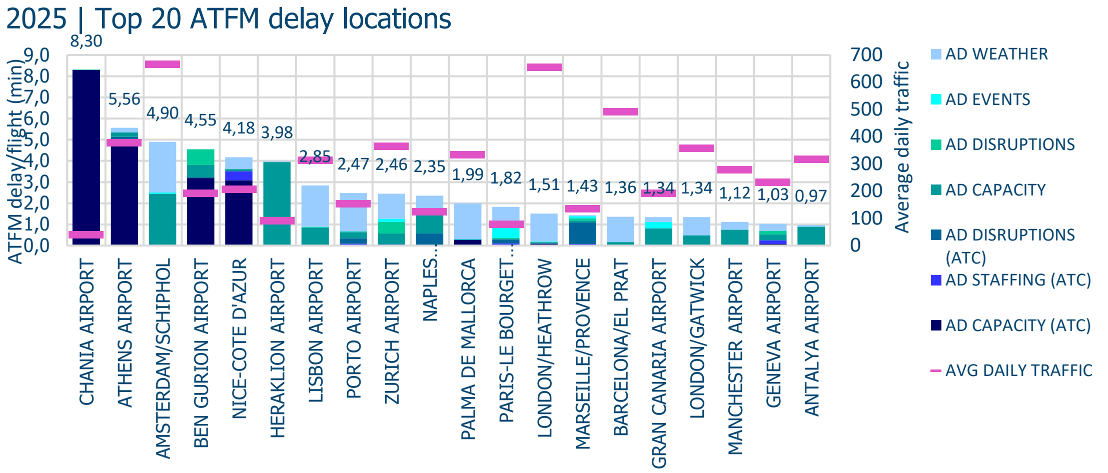


Figure 13 Top 20 airport reference location 2025

3.5.3 Weather

There were 5.2 million minutes of weather ATFM delay during the summer period, -35.2% compared to 2025.

New pre-tactical procedures named Capacity and Weather Based Operations (CWBO) have been applied during summer 2025 by the Network Manager Operations Centre (NMOC) to enhance Demand Capacity Balancing in the European Network, including weather management.
The main objective of the application of the new procedures was to further progress in the introduction of ATFM measures to make the best use of available capacity and promote the best provision of that capacity by ATC sectors. This includes the most efficient management of unforeseen circumstances during pre-tactical and tactical operations.
Network dynamicity entails that every summer new demand-capacity imbalances appear due to reasons such as bad weather conditions, technical failures or unforeseen lack of staff. Therefore, the application of the new procedures was not limited to address bad weather conditions in the European Network, but any capacity imbalance irrespective of the reason.

The key elements of these procedures have been:

- For weather related triggers, endorsement to NMOC for direct implementation of the NM scenarios approved during the CDM processes by all stakeholders.
- Introduction of the NMOC MET Specialists expertise within the decision-making processes (NMOC Weather Desk)
- Pre-tactical application of the Network Scenarios to bring stability and predictability to the Network

The estimated direct delay saving of the procedure was just under 1 million minutes (890,834 minutes).

3.5.4 Regulated traffic volatility

In 2025 the volatility related to capacity and staffing regulations decreased slightly over 2024, back at the 2023 level. The weather-related volatility decreased over both 2024 and 2023 (as it was the case for event-related regulations). The volatility related to the ATC industrial action regulations increased over 2024, back at the level of 2023.

Several FMPs adjusted regulation parameters too often and too quickly. This led to frequent updates to CTOTs (via slot messages.)

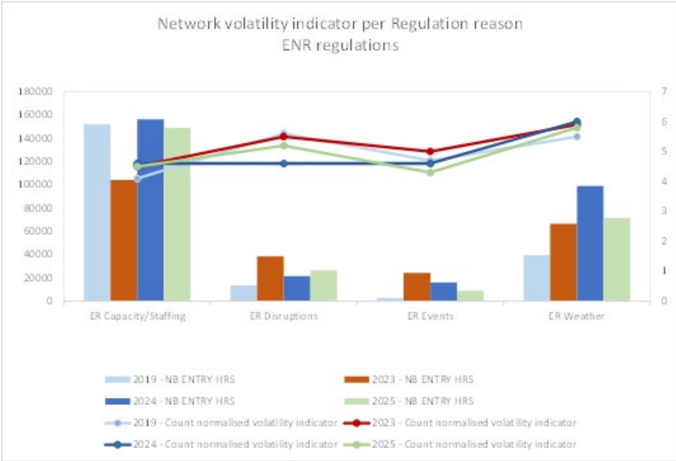


Figure 14 regulation volatility 2025

NM also noted that airline updates of OBT at non-CDM airports have greater impact on volatility. NM believes the stricter update procedures of CDM processes improve network predictability and it will continue to advance the uptake of CDM and equivalent practices.

3.6 FLIGHT EFFICIENCY

NM estimates that 37.2 million tonnes of fuel were burnt in the en-route phase within the NM area during 2025.

Aircraft burned 3.6 million tonnes of fuel within "NM area en-route" at the peak of summer (July and August).

The average fuel burn per "narrow-body" flight in the NM area was slightly higher at 4.37 tonnes.

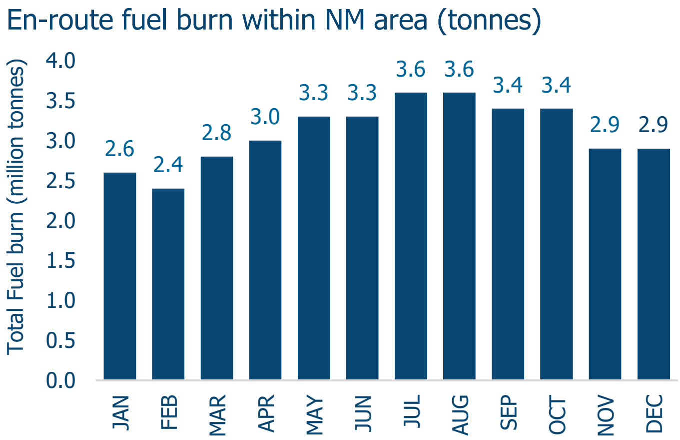


Figure 15 NM area en-route fuel burn 2025

Ukrainian airspace closure since February 2022 has impacted flight efficiency significantly. In addition, political unrest in the Middle East, and the south Mediterranean region created inefficiencies at the interface of NM.

3.6.1 Horizontal flight efficiency

KEP began 2025 below 2023 and 2024 levels and finished between them. KEA stayed under 2023 and 2024 levels for most of the year, except in July and September. part of this degradation is due to a change in an arrival procedure at an airport and repeated crisis situations in the Middle East.

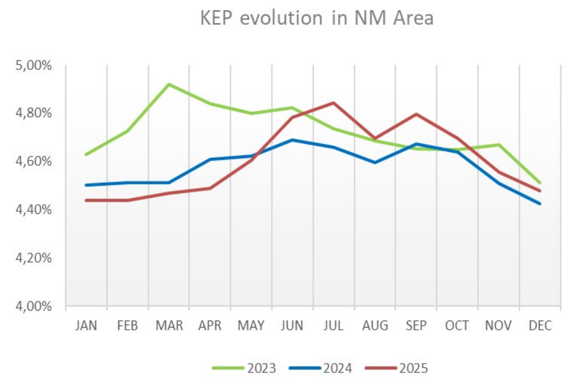


Figure 16 Flight planning indicator

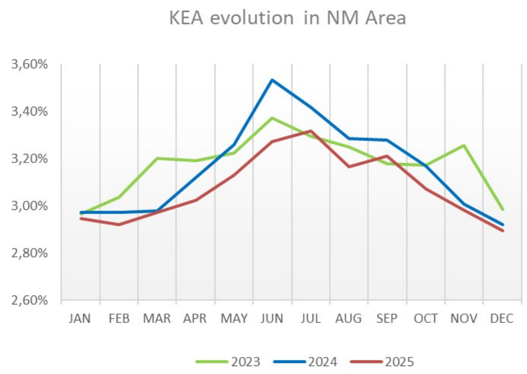


Figure 17 Actual distance flown indicator

3.6.2 Vertical flight efficiency

The VFE indicator measures the percentage of the length of the actual trajectory flown within 1 000ft below, or at any altitude above the planned flight level from the last filed flight plan, summed over all IFR flights within or traversing the NM area.

The VFE indicator improved by 0.03pp in 2025

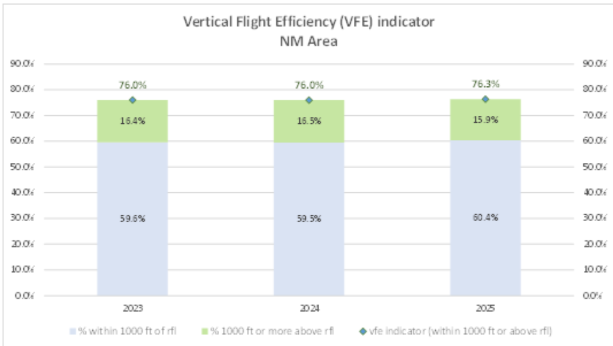


Figure 18 VFE (RFL non-adherence) indicator

3.6.3 Scenarios

In 2025, ANSPs implemented 5,500 scenarios. The ENAIRE (51%), DSNA (20%) and NATS (17%) applied 88% of these scenarios. These are daily airspace restrictions (zero rate regulations) that essentially encourage aircraft operators to avoid specific airspace or incur high ATFM delays. In 2024, there have been more than 5,900 scenarios, and 5,000 scenarios in 2023.

NM has identified 24,700 flights in 2025 that re-filed to avoid a scenario at a cost of 2,500 tonnes of extra fuel - around 101 kg of fuel per flight. Other flights may have anticipated scenarios and filed an initial FPL avoiding the restriction. But overall, NM considers the extra fuel burn as relatively low.

4 TRAFFIC IN DETAIL

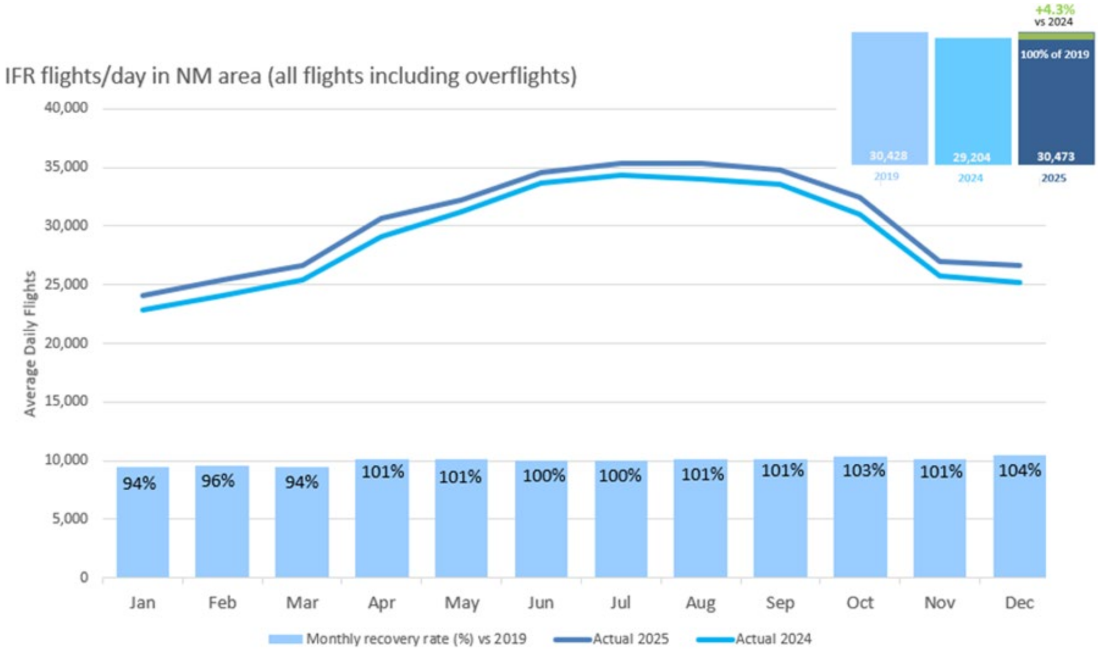


Figure 19 : IFR Flights average per day in NM Area (all flights including overflights)

In 2025, the overall traffic in the NM area increased by 4.1% compared to 2024 (accounting for the leap day in 2024, the adjusted growth was 4.3%). The largest contributor to this growth was flights within NM countries which added 857 flights per day (+3.6%). International departures and arrivals followed with an increase of 382 flights per day (+7.2%) while overflights contributed an additional 16 flights per day (+4.0%). The total number of flights was 11.1 million, with an average of 30,473 flights per day, peaking at 37,034 flights on Friday 18 July 2025. Compared to pre-pandemic levels, total flights in 2025 reached 100% of 2019 with noticeable variations throughout the year.

The first quarter of 2025 was low in terms of flight volumes, driven in part by reduced low-cost flights and adverse weather conditions (snow/storms). The average growth rate compared to the same period in 2024 was 5.2%, reaching 96.1% of 2019 levels on average.

The recovery started from the second quarter, coinciding with the start of the IATA Summer season when flights reached 100.7% of 2019 levels. Overall, the second quarter of 2025 recorded a 3.7% increase on the same period of 2024.

The summer months recorded the highest traffic volumes, with growth rates of +3.0% in July, 4.0% in August and 3.7% in September compared to 2024, reaching 100.9% of 2019 levels.

The strongest growth occurred in the fourth quarter, culminating in December 2025 with flight volumes reaching 104% of those recorded in 2019. Overall, the last quarter of 2025 achieved an average growth rate of 5.2% compared to the same period of 2024.

4.1 NETWORK CONTRIBUTORS

In 2025, eight countries each added at least 100 daily flights to the network's local traffic (excluding overflights) compared to 2024. In contrast, Sweden and Iceland were the only countries to record a decline in local traffic in 2024.

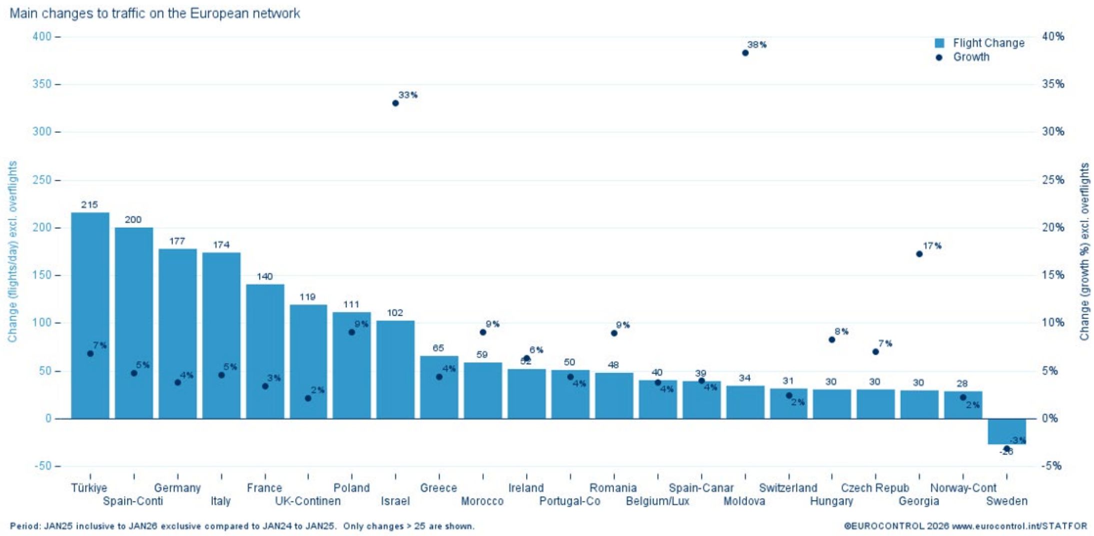


Figure 20 Main contributors to the flight growth (excluding overflights) in NM Area in 2025 (vs 2024)

The eight largest contributors to flight growth in 2025 (compared to 2024) were Türkiye, Spain Continental, Germany, Italy, France, UK, Poland and Israel.

Türkiye (+215 flights/day, +6.9%) was by far the top contributor owing primarily to a strong domestic flow (+45 flights/day, +5.3%), but also to its flows to/from Germany (+24 flights/day, +6.7%) and the Middle East (+20 flights/day, +6.0%).

Spain-Continental (+200 flights/day, +4.7%) was the second largest contributor owing to its flows to/from UK (+36 flights/day, +6.1%), Italy (+25 flights/day, +7.2%) and France (+17 flights/day, +5.0%).

Germany (+177 flights/day, +3.8%) ranked third owing to its domestic flow (+32 flights/day, +5.5% along with its flows to/from Türkiye (+24 flights/day, +6.7%) and Italy (+17 flights/day, +5.1%).

Italy (+174 flights/day, +4.6%) was the fourth contributor owing to its flows to/from Spain Continental (+25 flights/day, +7.2%), Poland (+23 flights/day, +26.1%) and UK (+19 flights/day, +6.1%).

France (+140 flights/day, +3.4%) was the fifth contributor owing to its domestic flow (+45 flights/day, +5.3%) and its flows to/from Spain Continental (+17 flights/day, +5.0%) and Morocco (+10 flights/day, +5.3%).

UK (+119 flights/day, +2.2%) was the sixth contributor owing to its flows to/from Spain Continental (+36 flights/day, +6.1%), Italy (+19 flights/day, +6.0%), Ireland (+13 flights/day, +4.5%), Spain Canaries (+13 flights/day, +6.6%) and the Middle-East (+10 flights/day, +7.0%).

Poland (+111 flights/day, +9.1%) was the seventh contributor owing to its flows to/from Italy (+23 flights/day, +26.1%), Egypt (+11 flights/day, +36.3%), Spain Continental (+8 flights/day, +12.3%), the Middle East (+7 flights/day, +31.3%).

Israel (+102 flights/day, +33.0%) was the eighth contributor owing to its flows to/from Greece (+14 flights/day, +37.6%), the Middle East (+14 flights/day, +67.2%), Cyprus (+9 flights/day, +28.1%) and Italy (+9 flights/day, +56.6%). Israel recovered from 2024 ongoing airspace restrictions due to the conflict in Israel and Gaza.

In 2025, two countries experienced a decline in flights (excluding overflights) compared to 2024; Sweden (-26 flights/day, -3.1%) owing mainly to a weak domestic flow (-26 flights/day, -3.1%) following the bankruptcy of Braathens Regional Airlines in September 2025. Although not shown on the graph, Iceland recorded a drop of 5 flights/day (-2.2%).

Flights within the NM area (excluding overflights) represented 80.0% of total flights in 2025, amounting to 8.9 million flights while intercontinental flows connected with the NM area accounted for 2.1 million flights (18.6%).

In 2025 (vs 2024) overflight patterns have shifted significantly due to ongoing airspace constraints and changes in air navigation unit rates, resulting in a redistribution of traffic across Europe and neighbouring regions. Transatlantic flows moved further west, reducing traffic over Scandinavia while increasing flights across Western Europe, particularly over the UK, Ireland, France, Portugal, and Spain. Higher unit rates contributed to reduced overflights in the Netherlands and Switzerland, while Portugal and Morocco experienced growth driven by stronger flows toward the Canary Islands, supported in part by increased traffic from South America. Malta also recorded higher overflight activity as traffic was redistributed from nearby airspaces.

In Northern and Eastern Europe, the Baltic states saw increased overflights from carriers not affected by geopolitical sanctions on flows to/from Asia. Further southeast, traffic between Southeast Asia and the Middle East significantly increased flows over Türkiye and the South Caucasus, with Armenia experiencing particularly strong growth. Meanwhile, Greece and Cyprus recorded higher than expected traffic levels due to the recovery of flights to Israel.

Although European flights have just recovered to pre-pandemic levels, there was a clear two-speed dynamic between northern and southern States. Southern European States have generally largely exceeded their 2019 traffic levels, often achieving double-digit growth driven by strong demand for leisure and tourism travel. In addition, the South-East European axis has remained particularly busy as airlines adjusted route choices in response to constrained airspaces and limited routing options.

In contrast, most Northern European States have yet to return to pre-pandemic traffic levels. Countries in North-Eastern Europe remained significantly below 2019 volumes due to ongoing airspace closures and flight bans, with Poland and Slovakia being notable exceptions. In addition, major North-Western European States except for Ireland continued to face a slower recovery, reflecting weaker arrival and departure flows between key markets, reduced domestic traffic and subdued volumes of long-haul flights at the main hubs on Asian/Pacific flows.

4.2 AIRPORT EVOLUTION

Nº	ICAO ID	AIRPORT NAME	TFC	%
1	LTFM	ISTANBUL AIRPORT	745	6,4%
2	EHAM	AMSTERDAM/SCHIPHOL	675	1,0%
3	EGLL	LONDON/HEATHROW	658	1,1%
4	LFPG	PARIS/CHARLES DE GAULLE	657	3,0%
5	EDDF	FRANKFURT/MAIN	631	4,8%
6	LEMD	MADRID/BARAJAS	590	2,8%
7	LEBL	BARCELONA/EL PRAT	494	4,0%
8	EDDM	MUNICH AIRPORT	459	3,6%
9	LIRF	ROME/FIUMICINO	442	2,6%
10	LGAV	ATHENS AIRPORT	381	5,5%
11	LSZH	ZURICH AIRPORT	367	4,0%
12	LTFJ	ISTANBUL/SABIHA GOKCEN	363	13,8%
13	EGKK	LONDON/GATWICK	360	-0,8%
14	EKCH	COPENHAGEN/KASTRUP	352	7,0%
15	EIDW	DUBLIN AIRPORT	350	5,1%
16	LOWW	VIENNA AIRPORT	347	2,4%
17	LEPA	PALMA DE MALLORCA	336	1,8%
18	LTAI	ANTALYA AIRPORT	319	2,2%
19	LPPT	LISBON AIRPORT	316	1,0%
20	LIMC	MILANO/MALPENSA	310	5,8%
21	ENGM	OSLO LUFTHAVN	306	2,0%
22	LFPO	PARIS/ORLY	300	6,0%
23	EGCC	MANCHESTER AIRPORT	278	3,7%
24	EGSS	LONDON/STANSTED	278	0,4%
25	ESSA	STOCKHOLM/ARLANDA	276	5,7%
26	EPWA	WARSAW AIRPORT	274	9,6%
27	EBBR	BRUSSELS AIRPORT	273	3,0%
28	EDDB	BERLIN/BRANDENBURG	264	1,9%
29	LEMG	MALAGA AIRPORT	249	6,9%
30	LSGG	GENEVA AIRPORT	235	-0,8%
31	EDDL	DUSSELDORF AIRPORT	219	3,3%
32	EFHK	HELSINKI/VANTAA	214	2,4%
33	LFMN	NICE-COTE D'AZUR	208	2,5%
34	GCLP	GRAN CANARIA AIRPORT	194	2,1%
35	LLBG	BEN GURION AIRPORT	193	30,4%
36	LKPR	PRAGUE AIRPORT	191	7,3%
37	LHBP	BUDAPEST AIRPORT	189	9,9%
38	EGGW	LONDON/LUTON	184	2,2%
39	LROP	BUCHAREST AIRPORT	174	8,1%
40	LEAL	ALICANTE AIRPORT	172	8,2%
41	EGPH	EDINBURGH AIRPORT	171	4,3%
42	EDDH	HAMBURG AIRPORT	167	0,6%
43	LIML	MILANO/LINATE	166	3,8%
44	EDDK	COLOGNE/BONN AIRPORT	159	0,6%
45	LPPR	PORTO AIRPORT	154	5,5%
46	LIME	MILANO/BERGAMO	143	-4,7%
47	EGBB	BIRMINGHAM AIRPORT	137	5,4%
48	LFML	MARSEILLE/PROVENCE	136	-0,7%
49	LTAC	ESENBOGA INTERNATIONAL AIRPORT	129	5,7%
50	LFLL	LYON SAINT-EXUPERY AIRPORT	128	2,4%

Figure 21 Top 50 airports per average daily departure traffic in 2025 (vs. 2024)

Istanbul airport was the busiest airport in 2025 with an average of 745 daily departure flights followed by Amsterdam Schiphol (675 deps/day), London Heathrow (658 deps/day), Paris Charles de Gaule (657 deps/day) and Frankfurt Main (631 deps/day).

Istanbul Sabiha Gökçen airport had double digit growth of 13.8% compared to 2024.

Athens airport has re-entered the Top 10 airports, marking its first appearance since 2021.

The 30.4% traffic increase at Tel Aviv Ben Gurion was due to a recovery from the disrupted situation in Middle East started in October 2023.

4.3 OUTSIDE EUROPE

Figure 22 Top six extra-NM partners: Average number of flights/day and flight growth vs. 2024

In 2025, the United States remained the leading destination for flights, averaging 1,189 flights per day (in both directions). This marked a 3.2% increase (+37 flights/day) compared to 2024 owing to flows with Ireland (+8 flights/day), Italy (+7 flights/day), Spain Continental (+6 flights/day), Israel (+4 flights/day), Greece (+3 flights/day) and Türkiye (+3 flights/day).

The United Arab Emirates ranked second with a daily average of 468 flights (in both directions), reflecting a 12.1% increase (+50 flights/day) on 2024. At country level, Israel added 13 flights/day, Poland +6 flights/day and Germany +5 flights/day. Growth in this market relied on the Low-cost (+13.6%, +17 flights/day) and the Mainline (+10.4%, +24 flights/day) segments.

Egypt secured the third position with 430 daily flights on average (in both directions), a 18.1% increase (+66 flights/day) compared to 2024. This growth was driven by Low-cost carriers (+27 flights/day, +27.6%) including Wizz Air Group (+11 flights/day, +23.3%), easyJet Group (+8 flights/day, +55.5%), Ajet (+5 flights/day, +375%), Pegasus (+3 flights/day, +34.5%). The Charter segment (+21 flights/day, +25.8%) also contributed to the growth with Poland adding 9 charter flights per day on average (+32.5%). At country level, Türkiye (+13 flights, +31.1%), Poland (+11 flights, +36.2%) and Italy (+10 flights, +23.4%) contributed the most to the flight growth.

The Russian Federation ranked fourth, averaging 323 flights per day (in both directions), recording an increase of 7.0% (+21 flights/day) compared to 2024. The growth was primarily due to flights from Türkiye (+9 flights/day, +4.5%) and Georgia (+8 flights/day, +31.8%). Despite the uptick, flights remained subdued due to ongoing airspace restrictions linked to the Russia-Ukraine conflict in place since February 2022.

Mainland China was the fifth NM partner, averaging 249 daily flights (in both directions), marking a 21.5% increase (+44 flights/day) compared to 2024. The All-Cargo segment was the driver of growth (+24 flights/day, +45.3%) owing to increases in flights from Georgia (+5 flights/day, +153.3%), UK (+3 flights/day, +67.5%) and Germany (+3 flights/day, +17.3%). The Mainline segment contributed to 18 additional daily flights owing to flows from Spain-Continental (+3 flights/day, +35.9%), Hungary (+3 flights/day, +54.0%) and Belgium/Luxembourg (+3 flights/day, +41.3%). Chinese passenger airlines operated 134 daily flights to and from mainland China, nearly five times the number operated by European passenger airlines which averaged 28 flights per day.

Apart from the Russian Federation (-66.0%) and Qatar (-3.3%), all main NM partners surpassed their pre-pandemic flight levels. Compared to 2019, the United States recorded a 11.1% increase, the United Arab Emirates (+43.0%), Egypt (+38.3%) and mainland China (+28.8%).

4.4 AIRLINE INDUSTRY

Evolution of the total flights by market segment compared to 2024.

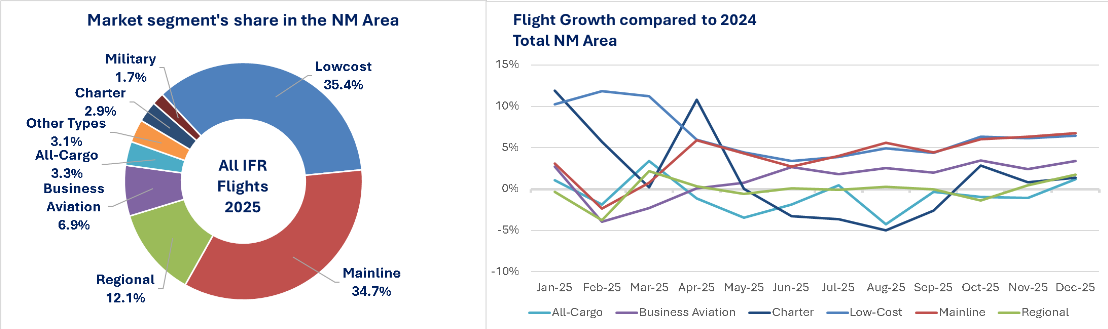


Figure 23 Left: Market segment's share in 2025 Right: Market segment's growth in 2025 (vs 2024)

In 2025, the Low-cost segment accounted for 35.4% of all flights, surpassing Mainline's 34.7% and marking a 1.6 percentage point increase from 2024. The low-cost segment was the main driver of flight growth in the NM area, adding 651 flights per day on average, an increase of 6.4% compared to 2024. The strongest growth in daily low-cost carrier flights (departures and arrivals) was recorded in Türkiye* (+292 flights/day, +17.8%), followed by Germany (+131 flights/day, +8.7%), Italy (+118 flights/day, +5.0%), the UK (+82 flights/day, +2.9%) and Spain Continental (+78 flights/day, +2.8%). Low-cost carriers accounted for 35.4% of all flights, a 0.7 percentage point increase compared to 2024, and exceeded pre-pandemic levels by 12.6%. Among the leading low-cost carriers, the Ryanair Group remained the clear market leader, increasing average daily flights by 257 (+4.4%). Ajet* (Turkish Airlines' low-cost subsidiary) added 211 flights per day (+43.2%) while the Wizz Air Group added 151 daily flights (+9.4%). Pegasus and the Eurowings Group each expanded by 112 daily flights, an increase of 12.2% and 14.2% respectively. The easyJet Group posted moderate growth, with average daily flights up 97 (+3.3%). *The market segment rules have been updated for several Low-cost and All-cargo operators and have been applied retroactively from January 2024.

The Mainline market segment added 440 average daily flights to the network, representing a 4.3% increase compared to 2024. The highest growth was observed in Israel (+68 flights/day, +39.8%), Germany (+59 flights/day, +3.1%), Spain Continental (+55 flights/day,+4.6%), Poland (+45 flights/day, +28.2%), Denmark (+41 flights/day, +13.6%), Greece (+39 flights/day, +5.9%) and the Netherlands (+37 flights/day, +5.9%). Mainline flights accounted for 34.7% of total traffic, unchanged from 2024, but remained 4.2% below 2019.

The Regional segment recorded a marginal average growth rate of 0.2%, adding seven daily flights to the network. Significant increases in Norway (+60 flights/day, +7.6%), Italy (+43 flights/day, +14.1%), Spain Continental (+21 flights/day, +4.8%) and Greece (+16 flights/day, +4.3%) were offset by sharp declines, primarily in domestic markets. Sweden (-64 flights/day, -25.9%), Germany (-33 flights/day, -5.4%), UK (-33 flights/day, -4.0%) saw significant reductions due to a combination of higher ticket prices, rail and road competition, government initiatives and environment campaigns. As a result, the Regional segment remained the most impacted, standing at 18.9% below 2019 levels.

The Charter (non-scheduled) segment recorded a similar number of flights to 2024 with its share of total flights edging down to 2.9% from 3.0%. Compared to pre-pandemic levels, Charter flights remained 17.7% below 2019, affected by the loss of flights to and from Russia and Ukraine.

The Business aviation segment grew by 1.7% compared to 2024, adding 35 flights per day. Notable increases were recorded in Italy (+27 flights/day, +7.1%), Spain-Continental (+13 flights/day, +4.4%), France (+7 flights/day, +1.1%), Ireland (+5 flights/day, +11.7%) and Morocco (+4 flights/day, +13.2%). These gains were partly offset by a decline in Germany (-23 flights/day, -5.1%). The segment's market share decreased slightly from 7.1% in 2024 to 6.9% in 2025, although business aviation remained strong overall, at 11.4% above 2019 levels.

All-cargo was the only segment to decline in 2025, with flights down -0.5% compared to 2024. There were notable decreases in Germany (-14 flights/day, -4.1%), UK (-12 flights/day, -7.4%), France (-9 flights/day, -5.6%), Spain Continental (-8 flights/day, -7.27%) and Italy (-7 flights/day, -5.6%). Its share of total flights remained at 3%. Compared to pre-pandemic levels, the All-cargo segment was at -1.0% below 2019 flight levels.

Jet Fuel Prices Evolution in Europe

In 2025, the average price of jet fuel stood at $2.17/gallon, 9.2% lower than in 2024 ($2.39/gallon). Based on a moving average trend, 2025 fuel prices in Europe started at around $2.27/gallon, were volatile during the second quarter, oscillating between $1.93 and $2.39/gallon, and ended the year slightly lower than they began at $2.13/gallon in December 2025. Starting in April 2025, the eight OPEC+ countries have gradually been unwinding 2.2 million barrels per day of voluntary cuts as agreed in December 2024, with the flexibility to adjust based on market conditions. After delayed increases, output rose by 548K barrels per day in August 2025 and smaller increases followed until December 2025. Fuel prices have generally declined since early 2024. Overall, OPEC+ decisions in 2025 moved from maintaining tight supply to gradually re adding barrels to the market, shaping the year's jet fuel price pattern. Prices rose early in the year under restrictive policy, fell sharply as spring production increases accelerated (+411K barrels per day), stabilised through the summer as supply returned in a controlled manner, and firmed again in autumn when additional increases (+137K barrels per day) were confirmed.

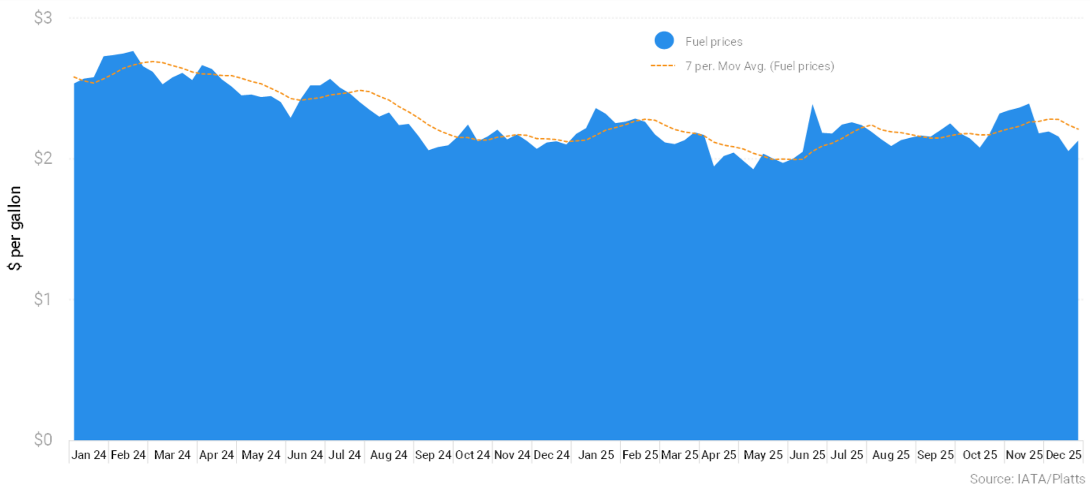


Figure 24 Jet fuel prices evolution

Inflation and air ticket prices evolution in Europe (EU27)

Values compared to the same month of the previous year, since 2024

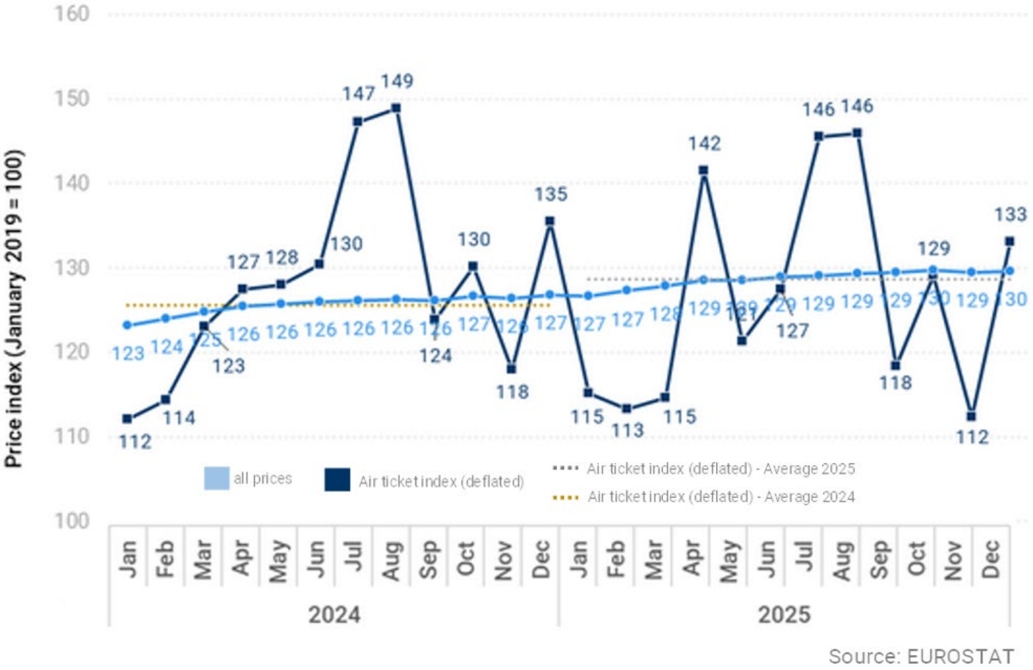


Figure 25 Evolution of air ticket prices in Europe

Overall, all-prices inflation in 2025 was 2.5% higher than in 2024. Air ticket prices were slightly lower (-1.4%) in real terms compared to 2024. Apart from January and April (an Easter hike), air fares were generally lower in 2025 than in 2024 despite a notable and typical seasonal increase in prices at the start of the summer period. Therefore, average summer air ticket prices in 2025 were 3% lower than in Summer 2024. Nevertheless, air ticket prices (excluding inflation) remained 9% higher than their pre-pandemic 2019 levels.

5 EN-ROUTE

5.1 ACC PERFORMANCE

5.1.1 Overview

There were 18.6 million minutes of en-route ATFM delay in 2025 – a daily average of 50,891 minutes. This is 18.0% lower than in 2024, but with 4.3% more traffic.

In 2025, 81.5% of en-route ATFM delays were concentrated on the south-east and south-west axes.

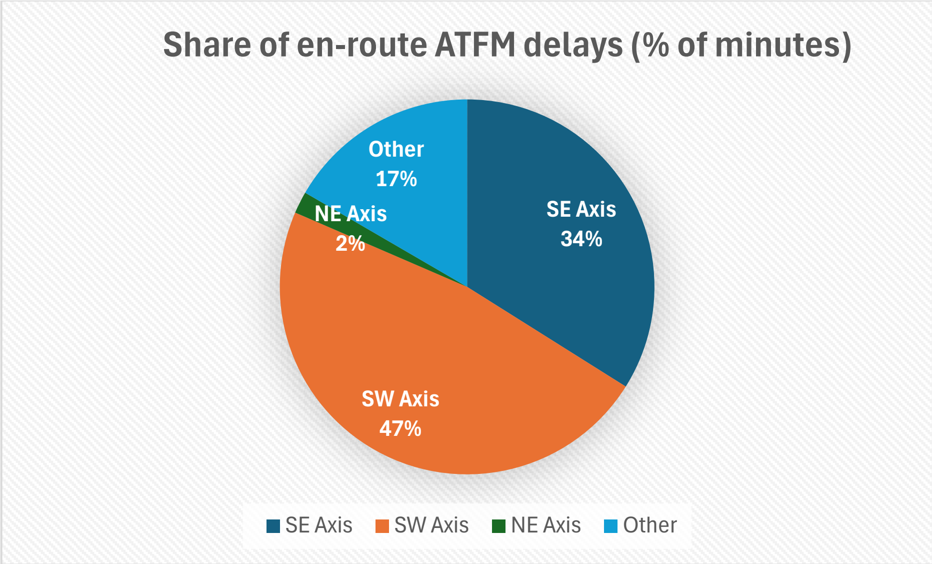


Figure 26 Share of en-route ATFM delays 2025

Marseille was poor performer of summer 2025, with over twice as many ATFM delays as the previous year. Marseille ACC generated significant en-route ATFM delays, particularly in the Eastern Sector Group, where limited sector availability prompted notable capacity and staffing delays. These, combined with convective weather events, affected aircraft operator activities throughout the summer.

Karlsruhe UAC achieved a 50.6% reduction in en-route ATFM delays, primarily attributable to a substantial decrease in ATC capacity delays, which declined from 2.25 minutes per flight in 2024 to 0.58 minutes per flight in 2025. En-route delay attributable to weather conditions was also reduced by 50%.

Zagreb ACC experienced a decrease in en-route ATFM delays of 75.7%, while Sevilla saw a reduction of 59.6%.

The south-east axis had 3.9% more flights (+370 flights/day) and 37.4% fewer ATFM delays mainly due to improvements in Budapest (-86.6%), Zagreb (-76.6%), Karlsruhe (-53.6%), Beograd (-28.7%) and Makedonia (-21.1%). BH ACC was the outlier in the southeast axis with an ATFM delay increase of 70.6%. The south-west axis averaged 1.4 million flights (+5.2%). ATFM delays increased by 3.7%. Marseille ACC generated 28% of ATFM delays on the SW axis.

Most en-route capacity problems over summer were evident on the south-west axis with the highest level of ATFM delays in Marseille and to a lesser extension in Barcelona and Reims – but aided by lower delays in Karlsruhe. Sevilla ACC, however, performed better with a 60% reduction of en-route ATFM delays.

Many of the pre-summer network actions bore fruit. The improved NOP process – schedule data availability, weekly measures / actions, network measures – worked well. The new weather management procedures also worked and could be expanded to capacity management in Summer 2026.

The NOP delivery is estimated as follows

- **25 ACCs** better than the NOP
- **35 ACCs** aligned to the NOP
- **5 ACCs** below the NOP

The five ACCs that did not fully meet the NOP commitments are Reims (due to staffing), Brest (due to staffing), Paris (due to staffing), BH (due to staffing and increased demand), and Skopje (due to a delayed system upgrade).

5.1.2 ACC evolution

Table 1 shows top 40 ACCs by ATFM delay 2025, with their ATFM delay 2025, Traffic 2025 vs 2024 and Capacity 2025 vs 2024, excluding any delay re-attribution, further details available in Annex II.

		En-route delay 2025				Traffic 2025 vs 2024		Capacity 2025 vs 2024	
Country	ACC	Reference value	Delay Forecast	Actual	Weather	Forecast	Actual	NOP Plan	Actual
Albania	Tirana ACC	0.15	0.20	0.03	0.01	4.3%	8.5%	3%	5%
Armenia	Yerevan ACC	0.01	0.01	0.00	0.00	10.0%	55.0%	0%	0%
Austria	Wien ACC	0.28	0.80	0.44	0.23	8.9%	13.2%	1%	6%
Belgium	Brussels ACC	0.22	0.12	0.08	0.03	6.8%	4.8%	3%	3%
Bosnia & Herzeg	BH ACC	0.17	0.18	0.85	0.17	9.7%	11.0%	9%	0%
Bulgaria	Sofia ACC	0.24	0.23	0.05	0.05	7.9%	7.8%	1%	3%
Croatia	Zagreb ACC	0.29	1.57	0.40	0.23	8.1%	8.8%	5%	10%
Cyprus	Nicosia ACC	0.17	0.10	0.03	0.00	12.5%	15.1%	10%	10%
Czech Republic	Praha ACC	0.19	0.17	0.09	0.05	6.8%	8.4%	5%	12%
Denmark	Kobenhavn ACC	0.17	0.12	0.13	0.02	3.2%	0.0%	2%	0%
Estonia	Tallinn ACC	0.06	0.01	0.01	0.00	2.7%	4.5%	3%	6%
Eurocontrol	Maastricht UAC	0.31	0.26	0.28	0.08	4.5%	2.2%	3%	0%
Finland	Helsinki ACC	0.05	0.01	0.00	0.00	6.9%	-0.9%	1%	0%
France	Bordeaux ACC	0.25	0.48	0.44	0.10	2.6%	1.6%	2%	0%
	Brest ACC	0.25	0.75	0.74	0.10	5.0%	5.6%	2%	3%
	Marseille ACC	0.30	2.84	2.58	0.47	4.8%	4.0%	-4%	-4%
	Paris ACC	0.18	0.33	0.42	0.19	3.6%	4.5%	6%	3%
	Reims ACC	0.31	0.76	1.28	0.23	2.7%	-1.1%	6%	2%
Georgia	Tbilisi ACC	0.02	0.09	0.11	0.02	11.3%	2.3%	10%	10%
Germany	Bremen ACC	0.23	0.60	0.26	0.04	1.2%	1.6%	-2%	8%
	Karlsruhe UAC	0.31	1.46	0.85	0.36	7.1%	4.2%	1%	9%
	Langen ACC	0.21	0.38	0.34	0.10	4.9%	4.1%	0%	5%
	München ACC	0.21	1.37	0.44	0.19	6.2%	4.9%	0%	7%
Greece	Athinai ACC	0.28	1.10	0.80	0.13	7.8%	6.7%	1%	5%
	Makedonia ACC	0.26	1.29	0.59	0.13	6.1%	5.8%	1%	3%
Hungary	Budapest ACC	0.29	1.75	0.57	0.20	9.1%	9.3%	10%	28%
Iceland	Reykjavik ACC	0.01	0.01	0.12	0.00	1.9%	0.1%	15%	0%
Ireland	Dublin ACC	0.08	0.03	0.00	0.00	5.8%	5.2%	5%	7%
	Shannon ACC	0.07	0.03	0.01	0.00	6.7%	5.0%	2%	8%
Israel	Tel Aviv ACC	0.03	0.01	0.01	0.00	37.9%	33.9%	10%	0%
Italy	Brindisi ACC	0.11	0.04	0.02	0.02	-3.8%	-4.1%	2%	0%
	Milano ACC	0.18	0.23	0.07	0.04	4.1%	6.1%	7%	13%
	Padova ACC	0.20	0.22	0.08	0.08	3.5%	6.4%	3%	6%
	Roma ACC	0.18	0.14	0.01	0.01	6.3%	7.8%	18%	21%
Latvia	Riga ACC	0.06	0.01	0.01	0.00	3.3%	6.3%	0%	2%
Lithuania	Vilnius ACC	0.07	0.01	0.00	0.00	6.4%	6.9%	2%	0%
Malta	Malta ACC	0.03	0.01	0.03	0.01	6.2%	12.6%	4%	5%
Moldova	Chisinau ACC	0.01	0.00	0.00	0.00	20.4%	36.6%	0%	0%
Morocco	Agadir ACC	0.05	0.04	0.06	0.00	7.9%	7.5%	2%	3%
	Casablanca ACC	0.05	0.01	0.17	0.00	7.3%	10.9%	10%	1%
Netherlands	Amsterdam ACC	0.16	0.11	0.14	0.04	3.2%	0.7%	1%	0%
North Macedoni	Skopje ACC	0.19	0.60	0.86	0.08	5.5%	8.8%	3%	0%
Norway	Bodo ACC	0.07	0.07	0.00	0.00	2.3%	5.9%	0%	0%
	Oslo ACC	0.13	0.07	0.06	0.00	3.1%	2.3%	5%	0%
	Stavanger ACC	0.13	0.07	0.01	0.00	5.4%	2.5%	5%	0%
Poland	Warszawa ACC	0.24	0.24	0.18	0.03	6.5%	5.9%	3%	6%
Portugal	Lisboa ACC	0.30	0.50	0.30	0.01	6.8%	5.8%	4%	8%
Romania	Bucuresti ACC	0.24	0.19	0.06	0.06	8.7%	9.9%	3%	9%
Serbia	Beograd ACC	0.29	0.60	0.74	0.27	7.6%	6.8%	3%	0%
Slovakia	Bratislava ACC	0.20	0.23	0.09	0.05	7.9%	-0.6%	3%	0%
Slovenia	Ljubljana ACC	0.17	0.12	0.10	0.07	7.0%	11.0%	1%	1%
Spain	Barcelona ACC	0.30	1.32	1.20	0.38	6.4%	5.8%	6%	3%
	Canarias ACC	0.24	0.24	0.18	0.02	10.6%	5.0%	4%	11%
	Madrid ACC	0.29	0.52	0.41	0.05	5.3%	5.0%	6%	3%
	Palma ACC	0.23	0.13	0.10	0.01	2.9%	2.7%	3%	3%
	Sevilla ACC	0.26	1.27	0.78	0.10	5.9%	6.6%	8%	13%
Sweden	Malmo ACC	0.17	0.05	0.02	0.01	3.6%	0.1%	5%	0%
	Stockholm ACC	0.07	0.01	0.01	0.01	2.9%	-4.5%	5%	0%
Switzerland	Geneva ACC	0.31	0.26	0.24	0.09	4.5%	2.1%	5%	3%
	Zurich ACC	0.31	0.33	0.29	0.20	4.5%	-1.9%	5%	0%
Turkiye	Ankara ACC	0.06	0.01	0.00	0.00	6.9%	8.4%	5%	7%
United Kingdom	London ACC	0.31	0.26	0.19	0.07	3.2%	2.5%	1%	1%
	London TC	0.18	0.12	0.04	0.02	1.8%	0.9%	0%	1%
	Prestwick ACC	0.15	0.10	0.13	0.06	3.2%	5.2%	1%	4%

Table 1 ACCs by ATFM delay, traffic and capacity in 2025 vs 2024[2]

[2] Actual capacity for most ACC sufficient to meet demand

5.2 PLANNED EVENTS AND DISRUPTIONS

5.2.1 EN-ROUTE PLANNED EVENTS

Out of twenty-four projects and events in 2025, several generated notable ATFM delays during implementation.

Table 2 shows the technical and the airspace related projects and events most of which have imposed capacity reductions resulting in delays generated during their respective implementation periods. Most of the listed projects, particularly those that generated delays, have been included in the NOP Transition Plan for the seasons 2024/2025 and 2025/2026.

Major Projects / Special Events 2025	Jan - March	April - June	July - Sept	Oct - Dec	ATFM Delay generated, min
France - Paris ACC					
4-flight ATM system trials and implementation					67311 Flight reduction Paris airports
France - Marseille ACC					
4-flight ATM system upgrade					2619
France - Bordeaux ACC					
Training and live trials 4-flight ATM system					19086
Occupancy trial (+ Wx)					128297
France - Brest ACC					
Training and live trials 4-flight ATM system					214542
France - Reims ACC					
Transfer of airspace below FL195 to Basel and Strasbourg APPs					42517
Occupancy trial					1652
Germany - Bremen ACC					
Airspace restructuring (ZEBRA) project					22608
ATM system update					1430
Germany - Munich ACC					
UEFA Championship					1490
North Macedonia-Skopje ACC					
New ATM system implementation					13100
Maastricht UAC					
Airspace restructuring project (PYXIS2A)					14904
UK - London ACC					
80th anniversary celebrations of Victory in Europe Day (D-day)					3089
Occupancy trial					17127
UK - Prestwick TMA					
Electronic Flight Progress Strips system Edinburgh airport/TMA					18064
Norway - Oslo ACC					
Occupancy trial					3765
Portugal - Lisbon ACC					
Occupancy trial					64269
Poland - Warsaw ACC					
Occupancy trial					14586
The Netherlands - Amsterdam ACC					
Skydiving events					4545
Spain - Madrid ACC					
Tactical Trajectory Modul project					32615
Switzerland - Zurich ACC					
Annual meeting of the World Economic Forum in Davos					849
Zurich TMA redesign project					5486 en-route 19853 airport
Target Time Management System (TTMS) trial					48113
Switzerland - Geneva ACC					
New ATC procedures implementation					5676

Table 2 System Upgrade / Upgrade / Airspace related /International Events/ Transition Projects

5.2.2 EN-ROUTE DISRUPTIONS

Table 3 shows an overview of the unplanned events or disruptions that imposed capacity reductions in certain ACCs in 2025.

5.2.2.1 Technical

Date	Location	Event	ATFM Delay Impact
01 January-10 February	*Barcelona ACC*	*Local radar issues in Valencia TMA*	*9,368 minutes*
30 January	*Brussels ACC*	*Technical problem with the Air Traffic Management System*	*7,254 minutes*
11-17 February	*Marseille TMA*	*Frequency issues*	*1,738 minutes*
13 March	*Brest ACC*	*Radar antenna issue*	*1,570 minutes*
02-10 April	*Maastricht UAC*	*Military exercise RAMSTEINFLAG25*	*2,724 minutes*
08-13 May	*Geneva ACC*	*Datalink outage*	*1,767 minutes*
06 May	*Madrid ACC*	*Military exercise DIODEME in France*	*4,360 minutes*
15 May	*Brussels ACC*	*ATM system failure*	*4,151 minutes*
01-30 June	*Zurich ACC*	*Target Time Management System (TTMS) trial*	*21,866 minutes*
01-30 June	*Brest TMA*	*IFR control room maintenance*	*5,599 minutes*
02 June	*Geneva ACC*	*Equipment failure*	*2,442 minutes*
10-29 June	*Marseille TMA*	*Frequency issues*	*1,689 minutes*
12 June	*Warsaw ACC*	*Flight data processing issue*	*1,854 minutes*
26 June	*Paris ACC*	*Radio antenna issue*	*1,794 minutes*
28 June	*Milano ACC*	*Radar failure*	*12,461 minutes*
01-30 June	*Madrid ACC*	*Military exercise METEOR, PACMAN and OCEANIS*	*5,302 minutes*
01-30 July	*Brest TMA*	*Unavailability of IFR room due to work in progress*	*4,244 minutes*
01 July	*Bordeaux TMA*	*Radar failure*	*1,257 minutes*
09 July	*Brest ACC*	*Datalink issue*	*3,049 minutes*
14 July	*London ACC*	*Communication system failure*	*1,957 minutes*
17 July	*Brest ACC*	*Communication system failure*	*2,926 minutes*
19 July	*Warsaw ACC*	*Air traffic management system outage*	*7,505 minutes*
23 & 25 July	*Reykjavik ACC*	*FDPS failure*	*2,154 minutes*
30 July	*Tirana ACC*	*FDPS failure*	*3,145 minutes*
30 July	*London ACC*	*Radar issue*	*26,304 minutes Neighbouring States: 9,936 minutes*
14 August	*Bordeaux ACC*	*Radio antenna issue*	*1,504 minutes*
23-25 August	*Athens ACC*	*Backup ATC radio frequency issues*	*22,608 minutes*
25 August	*Skopje ACC*	*FDPS limitations*	*1,603 minutes*
03 September	*Karlsruhe UAC*	*Issue during the implementation of AIRAC cycle*	*1,792 minutes*
27 September	*Skopje ACC*	*FDPS limitations*	*1,450 minutes*
27 September	*Sarajevo ACC*	*Radar system failure*	*7,618 minutes*
30 September	*Madrid ACC*	*Military Exercise 'Tactical Leadership Programme' (TLP)*	*3,393 minutes*
26 & 29 September	*London ACC Madrid ACC*	*Military exercise VOLFA 2025*	*2,161 minutes 3,643 minutes*
08,12,16,17,26 September	*Marseille ACC*	*Activation of area TSA72 for Military Exercises*	*3,903 minutes*
20 & 22 September	*Marseille ACC*	*Activation of area D54 for Military Exercises*	*2,946 minutes*
01-02 October	*Madrid ACC*	*Military Exercise 'Tactical Leadership Programme' (TLP)*	*3,664 minutes*
01-10 October	*London ACC Madrid ACC*	*Military exercise VOLFA 2025*	*1,893 minutes 6,782 minutes*
02 October	*Brest ACC*	*OLDI failure*	*2,689 minutes*

Date	Location	Event	ATFM Delay Impact
	Reims ACC		*2,363 minutes*
02 October	*Langen ACC*	*NAV equipment calibration*	*2,870 minutes*
02 October	*Brussels ACC*	*System downgrade as an aftereffect of the cyberattack in September*	*11,170 minutes*
20-22 October	*Brest ACC*	*Technical issue with antenna AsPontes*	*4,049 minutes*
21 October	*Reims ACC*	*Communication system failure*	*2,418 minutes*
13 November	*Madrid ACC*	*Military exercise DIOMEDE led by the French navy*	*12,645 minutes*
18-24 November	*Madrid ACC*	*Military Exercise 'Tactical Leadership Programme' (TLP)*	*1,958 minutes*
05-06 December	*Brest ACC*	*Technical issue with antenna AsPontes in Brest ACC*	*1,610 minutes*
05-19 December	*Brest ACC*	*Work in progress in Brest control tower*	*3,261 minutes*
13 December	*Bremen ACC*	*Technical issue affecting its primary radar system*	*1,206 minutes*
15 December	*Paris ACC*	*Radar failure*	*1,195 minutes*

Table 3 Unplanned Events/Disruptions 2025

5.2.2.2 Industrial action

February

- Baggage handlers strike at Italian airports on 05 February affecting Rome Fiumicino, Rome Ciampino, Milano Linate and Milano Malpensa. ITA Airways announced the cancellation of 26 movements.
- National strike in Belgium on 13 February: Brussels ACC was closed leading to cancellation of all passenger flights at Brussels, Charleroi, Liege and Ostend airports. Locally reported on-load of traffic in neighbouring states generated 1,179 minutes of ATFM delay.
- Ground handling industrial action at Hamburg and Munich airport on 27 and 28 February disrupted operations with approximately 63 fewer flights at Hamburg and 1,372 at Munich airport compared to the week before.
- ATC industrial action in Greece on 28 February as part of one day national strike generated 257 minutes of ATFM delay in Athens ACC. Only traffic to/from Greece was affected, approximately 705 fewer flights were recorded compared to the week before.

March

- On Saturday 08 March airport services were disrupted either directly due to non-ATC strike action or due to an interruption of local public transport services affecting staff availability. 88 fewer movements were recorded week-on-week at Italian Airports. Industrial action from ground handling company at Italian airports on Monday 24 March generated cancellations. Overall movements at Italian airport reduced by 162 flights week-on-week.
- Ground handling industrial action at nearly all major German airports on Monday 10 March impacted operations strongly. NM estimated that 2,424 flights did not operate on this date.
- A national strike in Belgium on 31 March led to airlines cancelling all passenger flights at Charleroi with disruption to passenger departures from Brussels airport. -584 fewer movements were recorded at Belgian Airports compared to the previous Monday.

April

- ATC industrial action in Marseille ACC Eastern sector group on 03 April limited some sector capacities and generated 3,859 minutes of en-route ATFM delay.
- ATC industrial action in Greece as part of national action called for by the public sector employee federation from 8 April at 21:00 until 9 April at 20:59 UTC generated 845 minutes of en-route ATFM delay. Approximately 790 fewer movements were recorded at Greek airports compared to the previous Wednesday.
- A national strike in Belgium on 29 April led to airlines cancelling all passenger flights at Charleroi and Brussels airports: 467 fewer movements were recorded at Belgian airports compared to the previous Tuesday.

May

- ATC industrial action in France on 13 May generated 4,366 minutes of en-route ATFM delay and 3,949 minutes of airport ATFM delay.

June

- ATC industrial action in Bordeaux and Marseille TMA on 05 June generated 1,262 minutes of en-route delay and 1,139 minutes of airport delay.
- Industrial action at Helsinki airport on 17 June disrupted Finnair flights, ground handling, and catering. Around 140 Finnair flights were cancelled, while other carriers experienced little to no impact.

July

- ATC industrial action in France on 03 and 04 July generated 326,083 minutes of en-route ATFM delay and 7,637 minutes of airport ATFM delay. Neighbouring states locally reported onload of traffic during the event and it generated an additional 44,019 minutes of ATFM delay. NM estimated that there was a minimum of 3,343 cancelled flights over the two days.

August

- ATC industrial action in Marseille ACC during August generated 3,079 minutes of en-route ATFM delay.
- ATC industrial action by SMATSA (Serbia and Montenegro Air Traffic Services) from 20 August generated a total of 89,240 minutes of en-route ATFM delays and 3,636 minutes of airport ATFM delays. The strike was localised in Beograd ACC, with minimum service rules in place to maintain basic operations. Despite the strike, no major disruptions were reported at Serbian airports, and the capacity reduction was capped at 10% at the ACC level.

September

- ATC industrial actions in France during September generated 60,607 minutes of en-route ATFM delay and 4,837 minutes of airport ATFM delay.
- Industrial action by SMATSA (Serbia and Montenegro Air Traffic Services) began 20 August and continued throughout September. The ATFM delays attributed to Industrial Action during September totalled 212,954 minutes for en-route and 8,690 minutes for airports. The strike was localised in Beograd ACC, with minimum service rules in place to maintain basic operations.

October

- ATC industrial actions in France on 02 October generated 8,246 minutes of en-route ATFM delay and 5,749 minutes of airport ATFM delay. Localised actions in Marseille ACC on 14, 15 and 25 October generated an additional 1,659 minutes of ATFM delay.

- On 14 October, industrial action in Belgium resulted in the cancellation of almost all departing flights from Brussels airport, with a few arrivals permitted. All flights at Charleroi airport were also cancelled.
- In Portugal, during October 2025, a series of airport strikes were staged by ground handling staff represented by the SIMA union (Sindicato das Indústrias Metalúrgicas e Afins). These actions did not involve air traffic controllers (NAV Portugal) or airport operators (ANA Aeroportos) directly, but they still caused notable disruptions across the country's major airports.

November

- Industrial action in Italy by ground handling services on 14 and 28 November caused some cancellations at Italian airports.
- As part of a three-day national strike in Belgium from 24 to 26 November a lack of ground handling services led to the cancellation on 26 November of all passenger movements at Charleroi airport and of commercial passenger departures from Brussels.
- In Portugal, Ground staff strikes continued through November. These actions did not involve air traffic controllers (NAV Portugal) or airport operators (ANA Aeroportos) directly, but they still caused notable disruptions across the country's major airports.

December

- ATC Industrial action in Italy on 17 December generated 3,901 minutes of en-route ATFM delays and 2,300 minutes of airport ATFM delays.

5.2.2.3 Other

- The additional complexity due to the Ukrainian crisis generated ATFM delay in several ACCs throughout the year:
    - Warsaw ACC: 32,098 minutes
    - Budapest ACC: 256,973 minutes
- On 10 March a fire generated structural damage to tunnels allowing passengers to access central airfield at London/Heathrow airport and generated 3,498 minutes of ATFM delay until shortly after midday.
- On 20 March evening, a fire in a high voltage substation near London/Heathrow airport led to a loss of electrical power and the closure of the airfield. The airfield remained closed until early evening 21 March. Approximately 114 inbound airborne flights diverted to alternate destinations, and approximately 1,200 expected flights did not operate.
- On 28 April, Spain and Portugal experienced a significant national power failure, which resulted in 60,954 minutes of ATFM delay. The power outage caused major disruptions, including the diversion of 36 aircraft to alternative airports. NM estimated approximately 647 fewer movements at Spanish/Portuguese airports than on a usual Monday.
- Due to events in the Middle East, from the 13 June the onload of traffic and additional complexity resulted in notable ATFM delays being attributed to the crisis in the following ANSPs:
    - 1,927 minutes in Milano ACC.
    - 2,731 minutes in Makedonia ACC.

  - 3,534 minutes in Malta ACC.
  - 6,038 minutes in Nicosia ACC.
  - 8,212 minutes in Beograd ACC.
  - 13,120 minutes in Zagreb ACC.
  - 65,662 minutes in Athens ACC.
  - 51,052 minutes at Tel Aviv Ben Gurion airport on 13 June due to a zero-rate applied all day.

- Extreme dry and hot conditions along the Mediterranean meant operations at multiple airports were subject to disturbance by fires in their vicinity. A total of 15,005 minutes of ATFM delay resulted from reduced capacity measures at the following airports: Izmir Adnan Airport on 03 July; Antalya airport, 05 July; Marseille Provence airport, 08+09, 17 and 28 July; Olbia airport, 08 + 10 July; Lisbon airport 16 July; Milan Malpensa airport, 18 July; Salerno airport, 19 July; Catania airport on 29 July; and Roma Fiumicino on 29 July.
- An incursion by Russian Drones into Warsaw FIR overnight Tue-Wed, 09-10 September necessitated airspace and airport closures. Zero-rates were implemented for airports: Rzeszów-Jasionka, Lublin, Modlin, Warsaw-Chopin, and Krakow-John Paul II; and for Warsaw TMA airspace. Approximately 20 inbound flights diverted to alternate destinations, and a further 20 flights were cancelled.
- On 20 September, Dublin airport's Terminal 2 was fully evacuated due to a security alert. This incident generated 1,132 minutes of ATFM delay.
- Drones were detected within the vicinity of Copenhagen and Oslo-Gardermoen airports overnight 22-23 September. In total approximately 60 inbound flights diverted to alternate destinations, and 110 flights were cancelled.
- Drones were detected within the vicinity of Munich and Berlin airports in October affecting over 100 flights. Palma de Mallorca and Alicante airports were also impacted after multiple drone sightings leading to short airport closures and flight diversions.
- The Approach service at Marseille-Provence Airport was relocated on Monday 17 November, and the resulting temporary limited capacities generated 25,367 minutes of ATFM delay until the end of the December.
- Multiple drone sightings at Belgian airports on 04 and 05 November lead to short airports closures and generated a total of 3,619 minutes of ATFM delays. Several flights were cancelled or diverted to neighbouring airports during the incidents.
- Civil operations at Vilnius Airport were disturbed by reports of unmanned aerial vehicles on multiple occasions during November and December 2025, necessitating zero-rate ATFM measures on six dates and resulting in flight diversions to alternate airports.
- Following a safety review, on Friday 28 November EASA published an Airworthiness Directive necessitating a global software update for the AIRBUS A320 family of aircraft. The update was implemented within Europe by Aircraft Operators with minimal disruption to operations, statistical analysis suggesting only 100 cancellations and some flight delays.

- On 07 December, an incident occurred at the car park of Terminal 3 at London Heathrow airport. The incident led to temporary suspension of some transport services and significant delays for passengers.

6 AIRPORTS

6.1 Influences on punctuality

As previously illustrated in section 3.2 the average delay per flight improved in comparison to 2025. The total (all-causes) average delay per flight on departure amounted to 14.7 mins/flight (vs 17.4 mins/flight in 2024). Reactionary (knock-on) delays remained the dominant delay reason. Airline delays (mostly turnaround/ground handling related delays) slightly improved.

6.1.1 Punctuality 2024-2025

Table 5 reports the annual departure and arrival punctualities in 2024 and 2025. Despite higher traffic in 2025, departure and arrival punctualities show respectively improvements of 4% and 3%. Figure 27. shows that all monthly averaged punctualities were higher in 2025 compared to 2024.

	2025	2024
Departure punctuality	70%	66%
Arrival punctuality	76%	73%

Table 4 Network - annual averages of departure and arrival punctualities

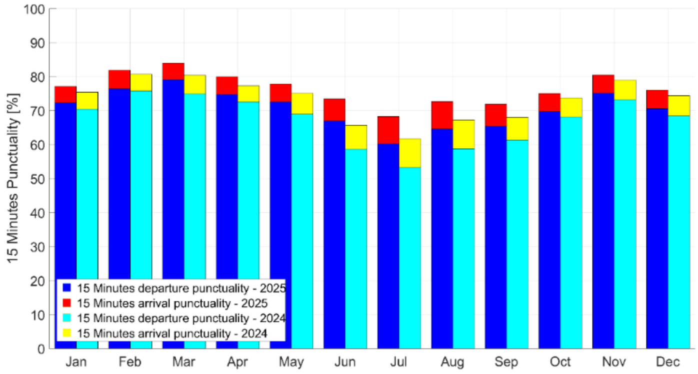


Figure 27 Network - monthly evolution of the arrival and departure punctualities in 2024 and 2025

Table 6 shows that the average departure and arrival delays in 2025 were lower compared to 2024. Figure 28 indicates that average delays were lower in 2025 compared to 2024 except for February.

	2025	2024
Average departure delay	14.7	17.1
Average arrival delay	11.7	14

Table 5 Network - annual averages of departure and arrival delays [min per flight]

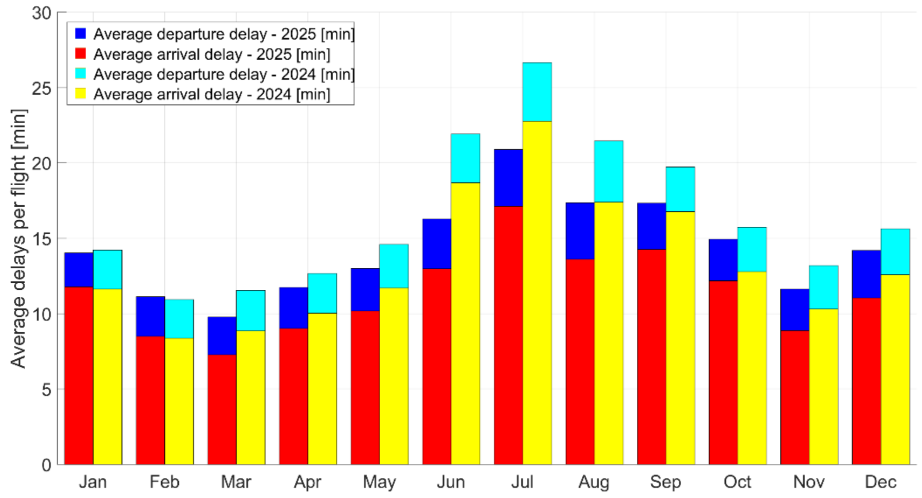


Figure 28 Network - monthly evolution of the average delays per flight in 2024 and 2025

6.1.2 Focus on peak-period

This section provides insight into the busy June-August period. Table 7 shows the summer average delays and indicates that lower delays were recorded during summer 2025 compared to summer 2024. The traffic increased by 3% for the same period. Figure 29 shows the evolution of the 4 causes of delay: ground delay, departure delays due to en-route and arrival (airports) regulation, and reactionary. Ground delay decreased by 6%, departure delay due to en-route regulation by 35% and reactionary delay by 24%, while departure delay due to arrival regulation remains at the same level as in 2024.

	Summer 2025	Summer 2024
Average departure delay	18.2	23.4
Average arrival delay	14.6	19.7

Table 6 Network - summer averages of departure and arrival delays [min per flight]

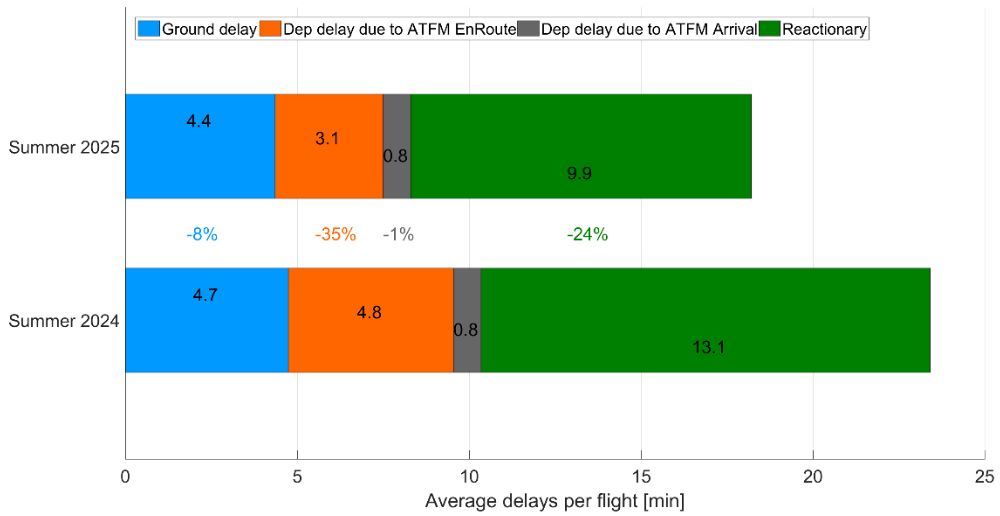


Figure 29 Network – summer average of the 4 causes of departure delay (ground delay, reactionary, departure delays due to ATFM En-route and Arrival)

6.1.3 Focus on the first rotation (first wave departures)[3]

First rotation delays have an operational knock-on effect that can propagate delays through the day. Figure 30 shows average ground delay and departure delay due to regulation (both en-route and arrival) for the first wave. Average ground delay for first rotations decreased by 18% from summer 2024 to 2025 and average departure delay due to ATFM decreased by 10%.

It is worth noting that the impact of the ground delay on the network (knock-on effect) was reduced by 13%. Indeed 1 minute of first rotation ground delay during Summer 2025 led to 2.2 minutes of cumulated arrival delay in the network while it was 2.5 minutes during Summer 2024.

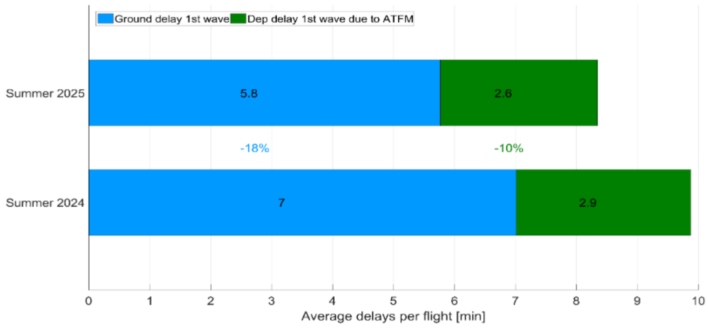


Figure 30 Share of delays during first rotation

6.1.4 TURNAROUND TIMES

Figure 31 shows the scheduled turnaround time for a flight (the black dashed line), the available turnaround time (the yellow line), the actual turnaround time (the top of the grey area) as well as the ATFM delay (the red area).

At network level, scheduled, available and actual turnaround times were relatively stable year on year. The delta between scheduled and available wideness in peak summer months as network effects (the increased volume of red from April to mid-September 2025) saw reactionary (knock-on) delays increase, although ATFM delays were lower than 2024. December for both years also saw slight dips in turnaround performance, however this was more ground handling related due to winter weather conditions.

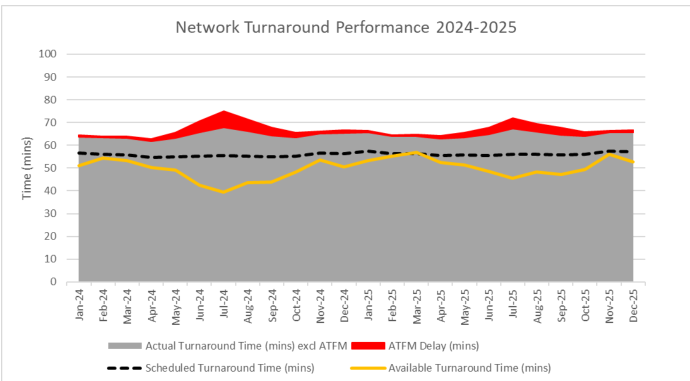


Figure 31 Network Turnaround Performance 2025 vs 2024

[3] NM's airport unit reports first wave flights as first departure rotations between 3.00 and 10.00 UTC.

6.1.5 AIRLINE SCHEDULE RESILIENCE

Scheduling correctly is a difficult art: if too long a time is blocked for a flight, the airline will not be able to make best use of their resources - staff, airframes, infrastructure. Too short a time can arguably be worse as late flights generate rotational delay with late incoming aircraft and passengers from previous flights having to be accommodated.

When flights leave on time but arrive after the scheduled time of arrival, they cause reactionary (knock-on) delays. Consequently, schedule padding is essential for air carriers to find schedules which work with the typical patterns of delay, so that they can deliver passengers on time whilst getting maximum use out of their aircraft. Consequently, when delays decrease it takes one or two (IATA) seasons for the airline to adapt its schedule accordingly.

Two CODA scheduling indicators help airline schedulers determine the optimal schedule based on historical flight data (see Figure 32*)*.

The Block Time Overshoot (BTO) is the percentage of flights with an actual block time that exceeds the scheduled block time.

The Delay Difference Indicator - Flight (DDI-F) or departure delay recovery is the difference between departure and arrival punctuality expressed in minutes. This can be indicated as a positive or negative figure, for example, a flight departing with 20 minutes delay and arriving with 30 minutes arrival delay will have a DDI-F of +10 minutes.

The European DDI-F in 2025 was -4.9 minutes, this a slight increase in comparison to 2024 where the DDI-F was -4.7 minutes. In essence translating, it was easier to recover schedule delay compared to 2024.

The Block Time Overshoot (BTO) is the percentage of flights with an actual block time that exceeds the scheduled block time. The European BTO in 2024 decreased to 25.2% compared to 25.8% in 2024. This 0.6 p.p. difference shows that it was taking less time than planned to complete flights.

In summary, given the increasing delays of recent years the changes in the BTO and DDI-F indicate that airlines have kept the additional buffer in their schedules to absorb potential operational disruptions and ATFM delays (with the aim of mitigating knock-on delays).

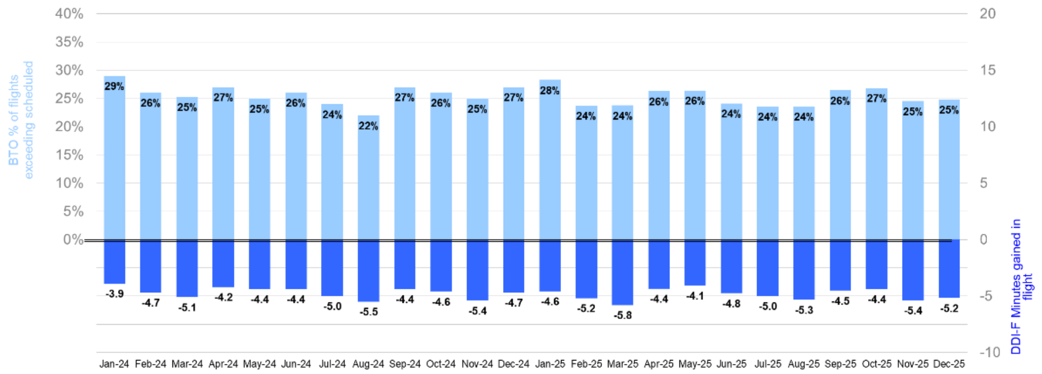


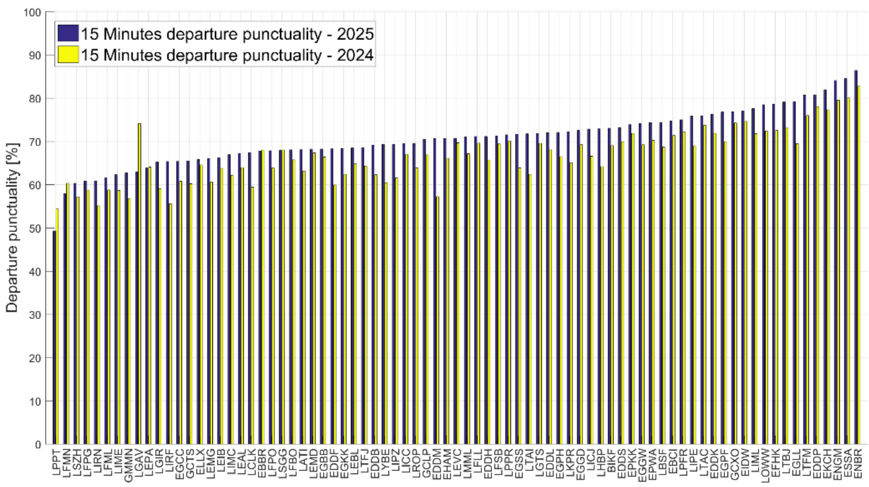
Figure 32 Block Time Overshoot (BTO) and Delay Difference Indicator - Flight (DDI-F) Network January 2024 – December 2025

6.2 AIRPORT PERFORMANCE

This section shows 2025 punctuality and schedule delays at the busiest 79 airports in the Network. Note that Tel Aviv airport was excluded from the analysis due to the current geopolitical context, which significantly affects its operational performance.

6.2.1 Global evolution

Figure 33 shows that departure punctuality was higher in 2025 compared to 2024 (the average related to the 79 airports increased by 4% compared to 2024). The three airports with highest departure punctuality in 2025 were Bergen, Stockholm, Oslo, while Lisbon, Nice, and Zurich observed the lowest punctualities. Munich, Rome Fiumicino, and Heathrow had the highest increase in departure punctuality compared to 2024 while Athens, Lisbon and Nice had the highest decrease. The highest arrival punctuality was in Norway (same top 3 than for departure punctuality), while the three airports with lowest arrival punctuality were Lisbon, Luxembourg and Athens. Those trends were also reflected in the average departure and arrival delays.



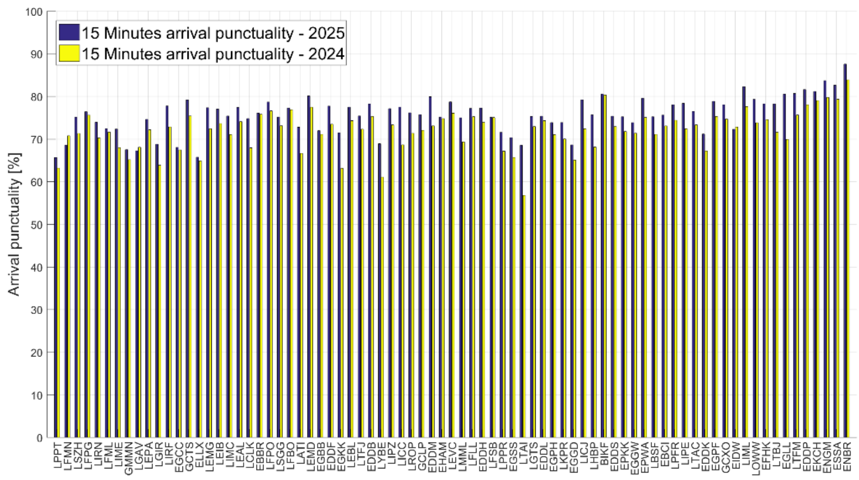
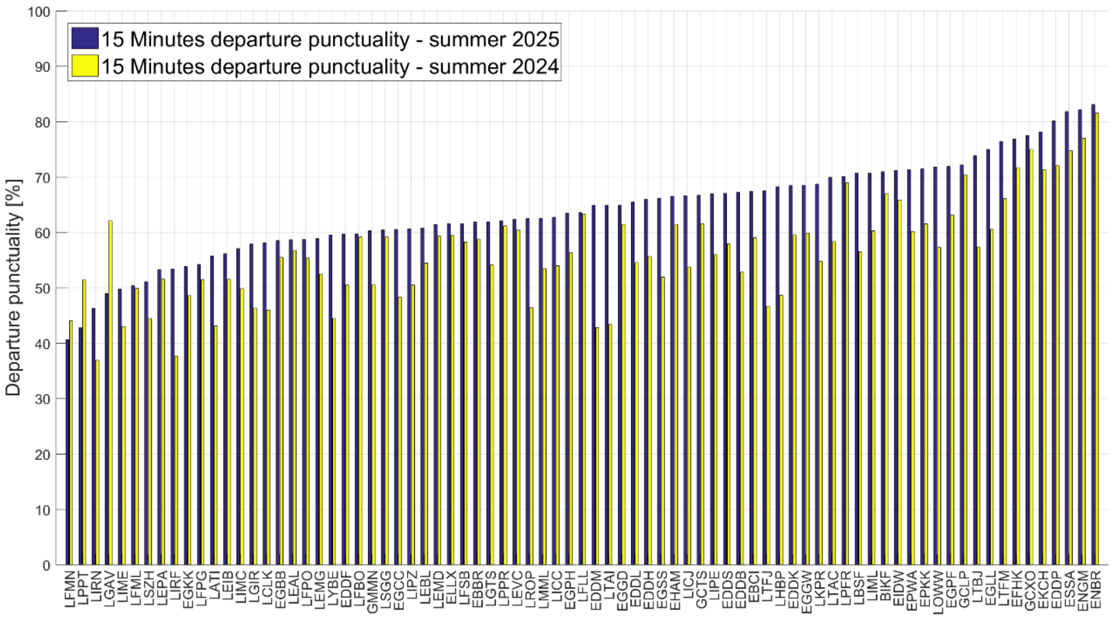


Figure 33. Departure(top) and arrival (bottom) punctuality in 2025 and 2024. Airports are sorted based on 2025 departure punctuality.

6.2.2 Focus on peak-period 2025

This section provides insight into the period between June and August. This period sees increased traffic, higher delays and increased pressure on airport operations.

Figure 34 shows that most airports had higher punctuality during summer 2025 compared to 2024. Only Athens, Lisbon and Nice saw their departure punctuality decrease.



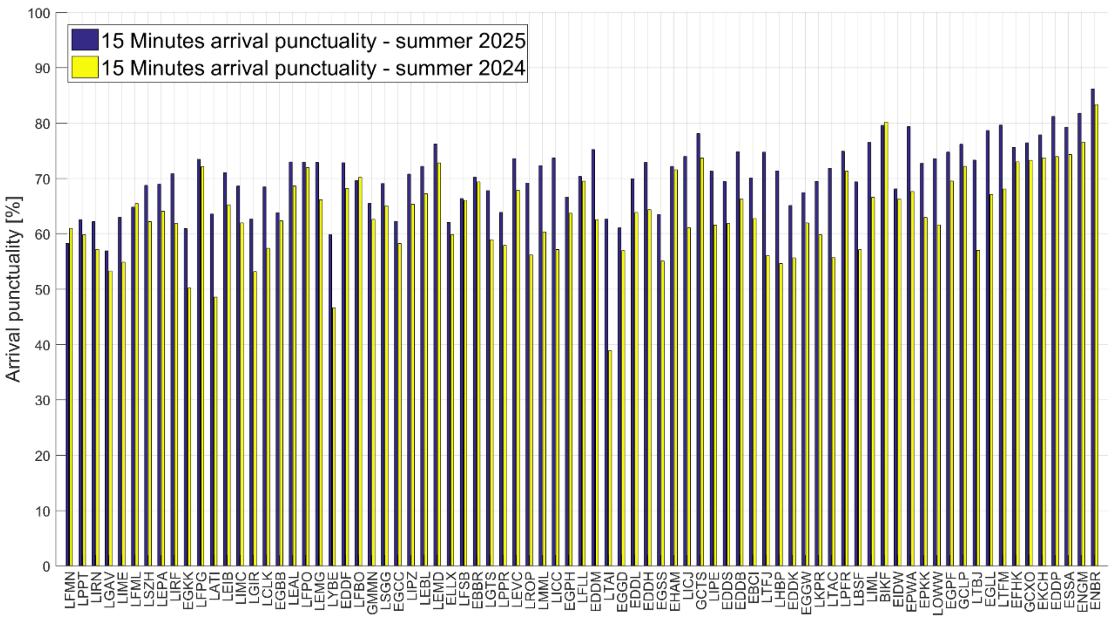


Figure 34 Departure(top) and arrival (bottom) punctuality during summers 2025 and 2024. Airports are sorted based on summer 2025 departure punctuality.

6.2.3 Delay cause at airport locations

Figure 35 and Figure 36 show the average ground delay and departure delay related to ATFM regulations at individual airports for summers 2025 and 2024. The three airports with highest ground delay in 2025 are Lisbon, Madrid and Zurich. The airports that show significant improvements are Munich, Rome Fiumicino and Manchester. Figure 37 clearly shows a significant decrease of departure delay due to en-route regulation between Summer 2025 and Summer 2024 (the average related to the 79 airports decreased by 34%). The airports with highest decrease are Antalya, Tenerife Norte and Ankara. Note that few airports showed an increase of departure delay due to en-route regulation, with Lisbon showing the highest increase (+32% compared to summer 2024). Departure delay due to Arrival regulation remained at same level between the two summers for most airports.

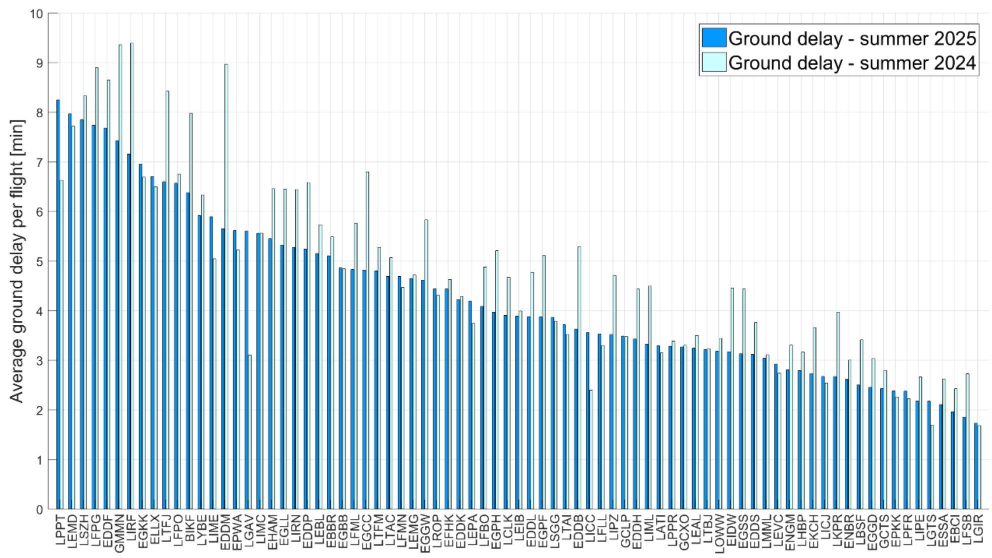


Figure 35. Average ground delay per flight during summers 2025 and 2024. Airports are sorted based on summer 2025 average ground delay

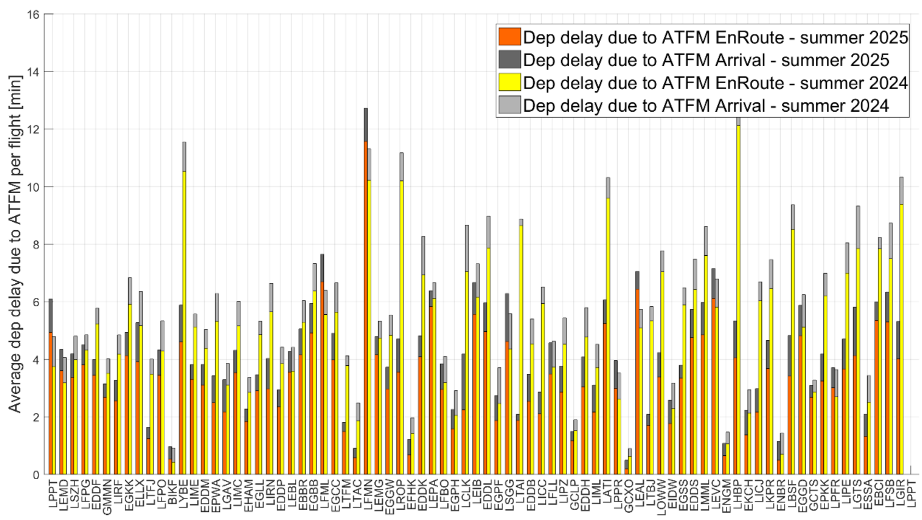


Figure 36. Average departure delay due to ATFM regulation (En-route and Arrival) during summers 2025 and 2024. Airports are sorted based on summer 2025 average ground delay.

6.3 AIRPORT DISRUPTIONS

Table 8 shows a number of unplanned disruptions imposed capacity reductions at certain airports

Date	Location	Event	Impact (ATFM delay, other)
02-15 January	*Frankfurt*	*Tower radio communication issues*	*10,219 minutes*
30 January	*Brussels*	*Technical problem with the ATMS*	*7,254 minutes*
February	*Paris - Beauvais*	*Local radar issues*	*1,751 minutes*
20 March	*Zurich*	*Zurich TMA redesign project started on 20 March lasting 4 weeks*	*11,076 minutes*
11-13 March	*Naples*	*Radar maintenance*	*3,938 minutes*
18 May	*Tel Aviv*	*Radar maintenance*	*2,314 minutes*
18-19 May	*Paris - Orly*	*Radar failure*	*8,863 minutes*
21-24 May	*Amsterdam*	*Skydiving event in Amsterdam ACC*	*4,545 minutes*
31 May	*Munich*	*UEFA Champions League Final*	*1,490 minutes*
02 June	*Geneva*	*Equipment failure*	*2,442 minutes*
06 June	*Porto*	*ILS failure*	*7,259 minutes*
09-10 June	*Naples*	*Radar issues*	*13,421 minutes*
03-29 June	*Geneva*	*Airport operation system replacement*	*2,457 minutes*
13, 17, 23 June	*Munich*	*ILS failure*	*1,837 minutes*
22-26 June	*Amsterdam*	*NATO summit in Den Hague*	*Schedule reduction*
21 July	*Amsterdam*	*CISS system failure*	*12,098 minutes*
22 July	*Athens*	*ILS calibration*	*1,044 minutes*
25 July	*Porto*	*Issue with the operational system in the tower*	*5,157 minutes*
29-30 July	*Catania*	*Communication system failure at Catania airport*	*1,118 minutes*
09-17 August	*Naples*	*Several malfunctions in the radar system*	*3,990 minutes*
10-14 August	*Cagliari*	*Radar failure*	*3,369 minutes*
20-21 August	*Athens*	*Radar failure*	*10,770 minutes*
September	*Geneva*	*Airport Operations System (AOS) replacement*	*2,498 minutes*
09 September	*Frankfurt*	*Disposal of World War II explosive*	*3,818 minutes*
16-18 September	*London Stansted*	*US Presidential Visit*	*2,575 minutes*
15 September	*Paris - Le Bourget*	*ILS calibration*	*1,219 minutes*
20 September	*Dublin*	*Dublin Terminal 2 was fully evacuated due to a security alert*	*1,132 minutes*
21-25 September	*Skopje*	*Radar failure*	*2,808 minutes*
22 September	*Paris - Le Bourget*	*ILS calibration*	*1,219 minutes*
25 September	*Naples*	*Radar maintenance*	*3,976 minutes*
03-05 October	*Cagliari*	*Radar maintenance*	*4,439 minutes*
04 October	*Athens*	*ILS issues*	*1,345 minutes*
13 October	*Paris - Orly*	*ILS calibration*	*1,128 minutes*
28-31 October	*Marseille*	*Ground radar issue*	*9,013 minutes*
November	*Edinburgh*	*Transition to a new Electronic Flight Progress Strips (EFPS) system as part of its ATM modernisation program*	*16,891 minutes*
November	*Marseille*	*Ground radar issues throughout the month*	*23,034 minutes*
01-15 December	*Marseille*	*Ground radar issues*	*6,825 minutes*
07-27 December	*Geneva*	*Airport operating system replacement*	*2,098 minutes*
05-06 December	*Edinburgh*	*IT failure in the ATC system*	*1,173 minutes*
05-19 December	*Brest*	*WIP in Brest control tower*	*3,261 minutes*

Table 7 Unplanned airport Events/Disruptions 2025

6.4 NM ACTIONS

6.4.1 PRE-TACTICAL SUPPORT (AIRPORT BRIEFINGS)

The NM Airport Unit and the Airport Function hold a weekly briefing targeted to airport operators, ANSPs and airlines, with the aim of sharing the results of post-operations analysis and the foreseen matters that might impact them and the network during the following weeks. These briefings cover the following topics: an outlook of the operations the week before and week ahead, the weekly pre-tactical DCB hotspots, traffic demand forecast, post-ops flight evolution, punctuality and ground delay, passenger demand, events, and weather information.

The NM Airport Unit and the Airport Function release a written pack containing extended information weekly published in the Airport Corner.

Once the summer season is over, the frequency of the live-presentations decreases to bi-weekly meetings with a view to organise extraordinary live briefings when circumstances require so. However, the written pack continues to be issued weekly via the Airport Corner.

During the ski season, the Airport Weekly Briefing addressed the airports known for being the gateways to the ski resorts and that might impact the network.

These Airport Weekly Briefings greatly contribute to the integration of airports into the network, in connection with the NDOP Coordination Cell every Monday. During Summer Season S25 only, there were more than 1,000 connections to the verbal briefings and more than 1,000 downloads of the weekly reports, mainly airports (62%) but also Airlines and CAAs.

6.4.1 TACTICAL SUPPORT (AIRPORT FUNCTION)

The Airport Function of the NM is a permanent position within the NMOC, providing services to capacity-challenged regional and hub airports, supporting resolution of demand-capacity balancing issues and facilitating operational exchange between an airport operations centre (APOC) and the NMOC. The Airport Function closely monitors Night Curfews (closures or night quotas) and endeavours to prevent the need for diversions wherever possible.

6.4.2 OTHER SUPPORT ACTIVITIES

During 2025, NM continued the close and effective collaboration with airports for their integration into the Network. Actions and elements are recorded in the 2026 Network Operation Plan but also resulting from situations identified in the Rolling Network Operation plan have been regularly taken in collaboration with the Airports. The range of support in this context varied from the information publication and event management to more long-term support and targeted solutions tailored to the local needs.

Additionally, NM continued to further develop the Passenger Demand Support Service with main focus to improve the reporting schema on the passenger demand during Airport Briefings and NDOP meetings. The idea was to effectively replace the price ratio indicator with a more concrete solution detecting potential overdemand of the passenger volumes in reference to terminal capacities. On top of that, NM B2B Service has been enhanced including the predictions, which are available for automated acquisition.

NM also continues providing support to the regional airports and respective ANSPs through concept development and validation of a cost-effective solution supporting safe ground operations in all weather conditions. As such the Surface Movement Awareness System (SMAS) concept has been developed while being consulted with EUROCAE, EASA and all the operational stakeholders. Further work is expected to standardise the solution.

The landing and take-off emission estimator tool has been further re-adapted to meet the operational needs of the concerned stakeholders such as airport operators, and air navigation service providers. The tool responds to a growing demand and supports our stakeholders in monitoring and management of the operations based on the environmental metrics covering ground but also extends to wider area around the airport with the aim to depict CO_2, NO_x, and the volumes of fuel burned.

NM remained active in training development and delivery while maintaining an agile form of communication on the most relevant developments and proceedings via the EUROCONTROL Aviation Learning Centre's portfolio of services.

7 FLIGHT EFFICIENCY

This chapter summarises progress on implementing the related flight efficiency actions and responds to the requirements of the SES performance scheme.

The NM flight efficiency targets and objectives for 2025 included in the Network Performance Plan (NPP) 2025-2029, in the Network Operations Plan (NOP) 2026/2027-2030 and in the ERNIP Part 2 – ARN Version 2025-2030 are listed below:

Route extension – airspace design (DES)

Target:

- RTE-DES achieved its RP3 objective, and it is close to the lower limit of what is possible (ideal connectivity). NM will continue to monitor RTE-DES in RP4, so that the changes in the route structure are keeping the indicator at the low level achieved at the end of RP3.

Route extension – last filed flight plan (KEP)

Target:

- achieve a KEP target of 4.59% for the NM area in 2025.

Route extension – actual trajectory (KEA)

Target:

- achieve a KEA target of 2.80% for both SES and NM areas in 2025.

Flight efficiency indicators are monitored for pure airspace design and for flight planning.

The continued implementation of Free Route Airspace and the expansion of cross-border Free Route Airspace had a positive effect on the airspace design route extension indicator. The same applies for the last filed flight plan and the actual trajectory indicators as the airspace design changes compensated to a large extent the impact of the Ukrainian crisis and the avoidance routes that had to be operated as a result of that. These positive effects have been also enabled by the Flight Efficiency Implementation Network Strategic Project that accelerated the close cooperation between NM, the airspace users and the computer flight plan service providers. This evolution continues to demonstrate the necessity to continue the cooperative approach towards airspace design and enhanced flight planning.

The NPP key performance indicator for the area of environmental flight efficiency is the en-route horizontal flight efficiency improvement generated by the European Route Network Design function related to the last filed flight plan trajectory. This is expressed as a percentage point of the year-on-year variation of the en-route flight efficiency of the last filed flight plan trajectory (KEP)[4].

The flight efficiency indicators in 2025 continued to be affected by the Russian war of aggression in Ukraine. The countries most affected by this were Moldova (+16.3 pp difference over pre-war 2021), Lithuania (+9.5 pp), Latvia (+5.3 pp), Estonia (+4.2 pp), Poland (+3 pp) and Finland (+2.8 pp).

There were few cases of ATC industrial action in 2025 with an impact on the flight efficiency, around 300,000 nautical miles added to the FPL route length of the flights affected.

A number of events in 2025 affected the network and had direct consequences on the flight efficiency evolution:

- KEP performance was initially affected by the COVID-19 pandemic and, from 2021 onwards, by the Russian war of aggression in Ukraine and related EU sanctions. Further network disruptions, together with crises in the Middle East and the Southern Mediterranean, generated additional inefficiencies, particularly in 2025.
- The closure and avoidance of Ukrainian, Belarusian and Russian airspace forced traffic to reroute through neighbouring countries (Türkiye, Bulgaria, Romania, Poland, Slovakia, Hungary, Lithuania, Latvia and Estonia, etc.). This shifted significant demand to adjacent ACCs/UACs, especially Far Eastern traffic, and led to increased route extensions.
- A strong economic recovery, most notably in Southern and Eastern Europe, boosted leisure and tourism demand. This has led to higher than expected flight numbers in those regions.
- A significant increase in military activity.

7.1 AIRSPACE DESIGN

As part of the Flight Efficiency Plan, States and ANSPs cooperated closely with NM to develop and implement enhanced airspace design solutions. More than 100 airspace improvement packages were co-ordinated at network level and implemented during 2025. As a result, the route extension due to airspace design (RTE-DES) continued its downward trend throughout the year, reaching its lowest ever average level in 2025, at 1.59%, further decreasing by 0.5 pp than in 2024, which is better than the targets in the Network Performance Plan (0.25 pp decrease per year in RP3, maintained in RP4).

[4] More information on how the KEP and KEA indicators are defined can be found at https://ansperformance.eu/methodology/horizontal-flight-efficiency-pi/

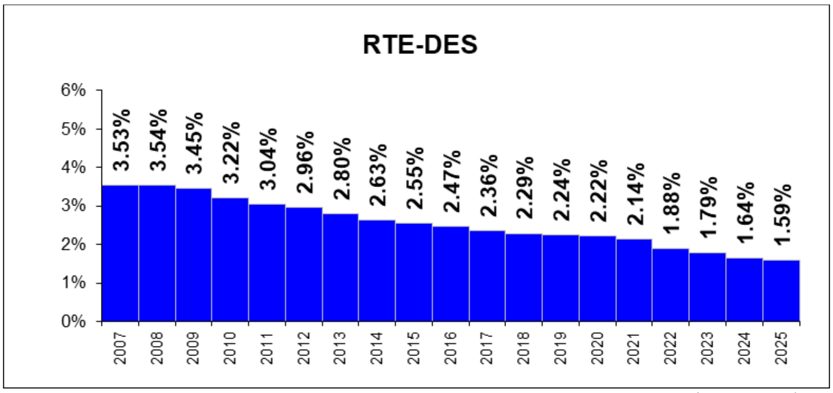


Figure 37 : yearly evolution of the airspace design indicator (RTE-DES)

In 2025 the average route extension due to airspace design decreased from 1.64% in 2024 to 1.59% in 2025 (Figure 37).

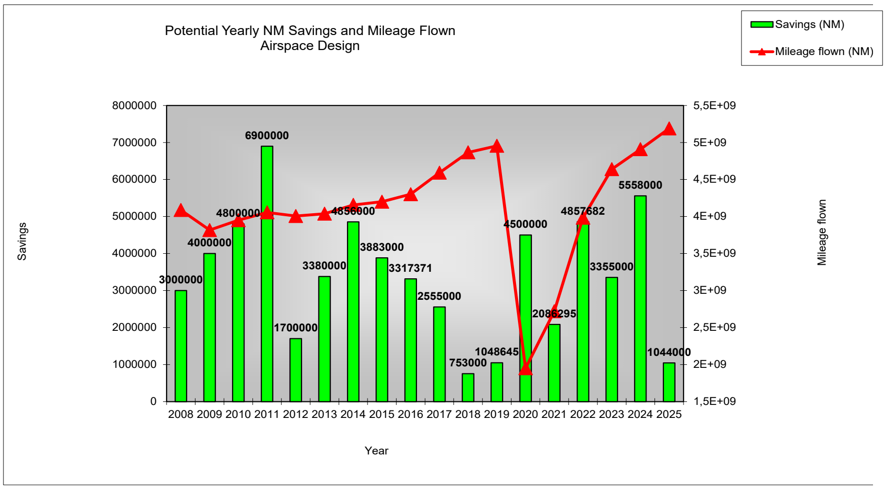


Figure 38: Potential yearly savings/ losses in nautical miles due to airspace design

This represents a potential saving in 2025 of 1,044,000 nautical miles (Figure 38), approximately 6,000 tonnes of fuel, reduced emissions of 20,000 tonnes of CO_2, or ~5 M€ fuel savings.

7.2 AIRSPACES CHANGES VS FLIGHT PLANNING

The flight planning indicator (KEP) measures the length of the flight planned trajectory compared to the great circle (route extension). It reflects inefficiencies in the use of the airspace (due to RAD restrictions, CDR availability, inefficient flight-planning, no fly areas etc.), but also user preferences for cheaper rather than shorter routes.

KEP for NM area was 4.63% in 2025, an increase of 0.04pp over 2024 (Figure 39). However, a 0.09pp increase of the KEP 2025 value is due to a change in the arrival procedures at an airport (the KEP algorithm captured part of the new arrival trajectory in the en-route segment considered for calculation). Without this change KEP would have registered a value of 4.54%, an improvement of 0.05pp over 2024.

The achieved 2025 KEP of 4.63% remains above the KEP 2025 target of 4.59% for the NM area.

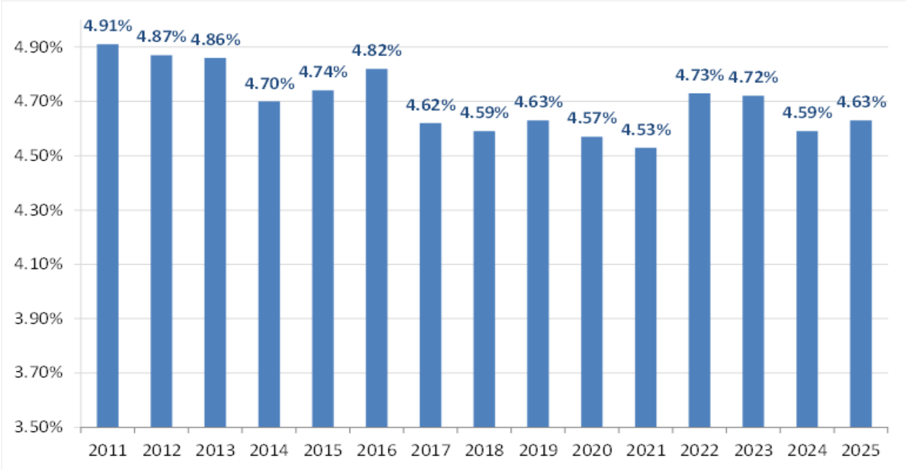


Figure 39: Yearly evolution of flight-planning indicator (KEP)

Figure 40 shows the annual miles flight planned in the period 2020-2025 and the marginal change between years.

The yearly route extension variation is due mainly to flight efficiency factors and to the change in the average ENR route length in NM area.

Figure 40 below captures the contribution of these two factors.

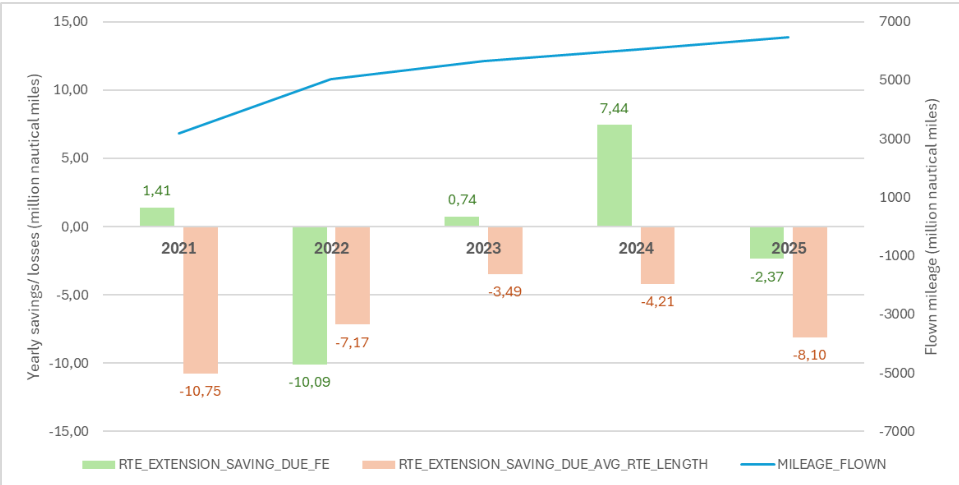
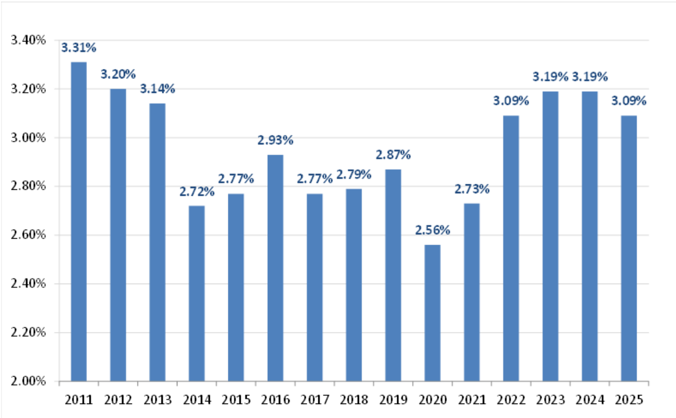


Figure 40 Yearly savings/ losses in nautical miles (NM) due to improved flight planning efficiency

The FE related route extension variation follows mainly the changes in KEP, due to the various network situations, in particular the impact of the Russian war of aggression in Ukraine, that could be seen prominently in 2022 figures. In 2025 we had an increase of 2.37 million NM in route extension over 2024. A significant contribution to the increase of 2025 is due to the change in the arrival procedures at an airport, as mentioned at the beginning of section 7.2. Without the arrivals at this airport the 2025 vs 2024 FE route extension would have seen a decrease of 3.5 million nautical miles.

The average ENR route length in NM area is steadily increasing over the years due to less short-haul/ more long and medium haul flights (by 18 nautical miles in 2025 compared to 2024), adding route extension mileage from one year to another (8.1million NMs in 2025 vs 2024).

7.3 ACTUAL TRAJECTORY



The actual trajectory indicator (KEA) in the NM area decreased to 3.09% in 2025 compared to 2024 *(Figure 41)*, still above the KEA 2025 target of 2.80% set for both the NM and SES areas. KEA increased by 0.10pp in 2023 mainly due to the war in Ukraine

Figure 41: Yearly evolution of the actual trajectory indicator (KEA)

Figure 42 shows the annual miles actually flown in the period 2020-2025 and the marginal change between years.

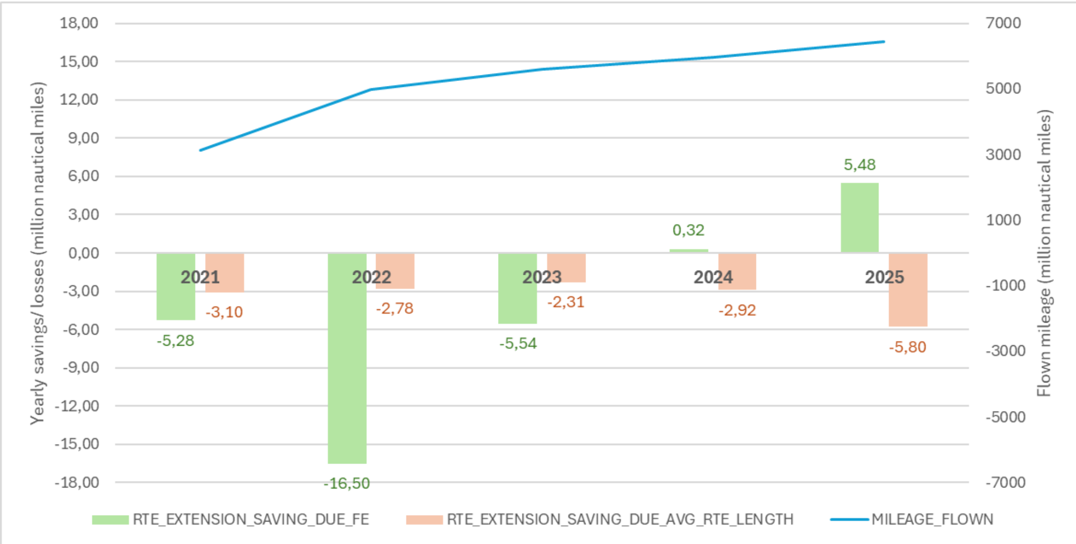


Figure 42 Yearly savings in nautical miles (NM) due to improved flight efficiency

The average distance flown in 2025 increased by 19 nautical miles compared to 2024. With the traffic recovery, the actual route extension increased in 2023 by 2.59 million more nautical miles over 2023. The extra distance is mainly due to the various network situations, in particular, the impact of the war in Ukraine that materialised in 2023 figures. At the same time, the average city pair distance increased in 2023 by 1.6% as more long and medium haul flights were operated. The cumulative effect of both could not be eliminated by the significant improvement made in airspace design. The extra 2.59 million nautical represents 15.5 kilotons more fuel burn (49 kilotons of CO2).

7.4 AIRSPACE STRUCTURES: CONDITIONAL ROUTES (CDR) AND RESTRICTED / SEGREGATED AIRSPACE (RSA)

CDR availability is an important element when considering ASM in the network operations context.

Figure 43 shows the ECAC map of published CDR1 for the last AIRAC of the year 2025 as they are stored in CACD.

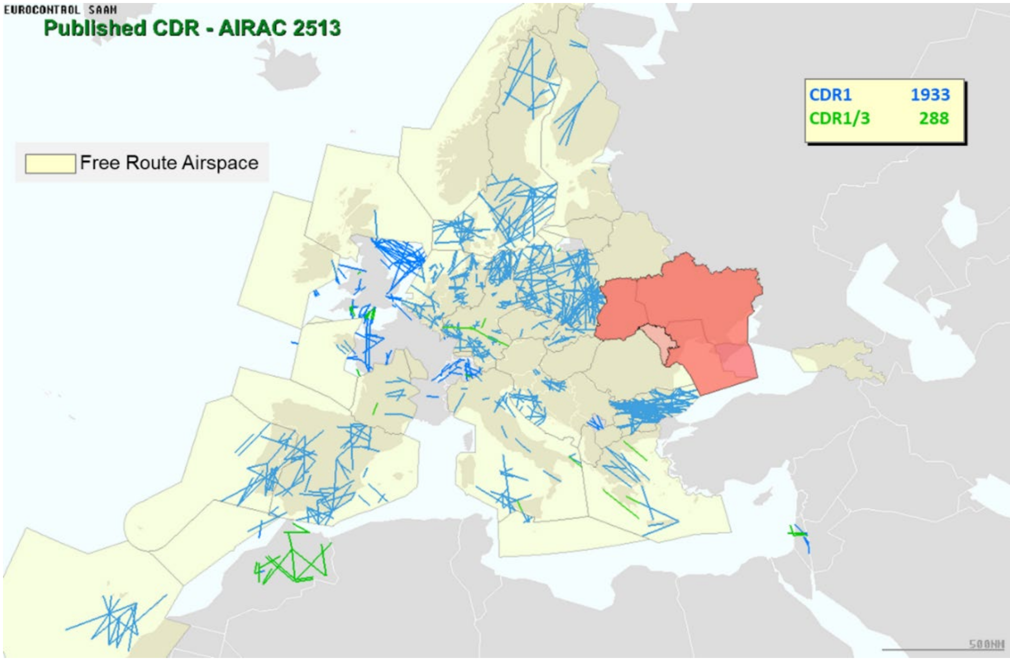


Figure 43 ECAC map of published CDR1 and CDR1/3 for AIRAC 2513 (24 December 2025)

Figure 44 shows little changes in absolute figures for CDR numbers of segments in 2025 compared to past five years. This is due mainly to transition to Single CDR as part of the continuous network improvement process (covered by ERNIP part 2). Implementation of the Single CDR Category happened in most of ECAC states. CDR2 and CDR1/2 became either CDR1 or ATS routes. The process has been finalised at the end of 2022.

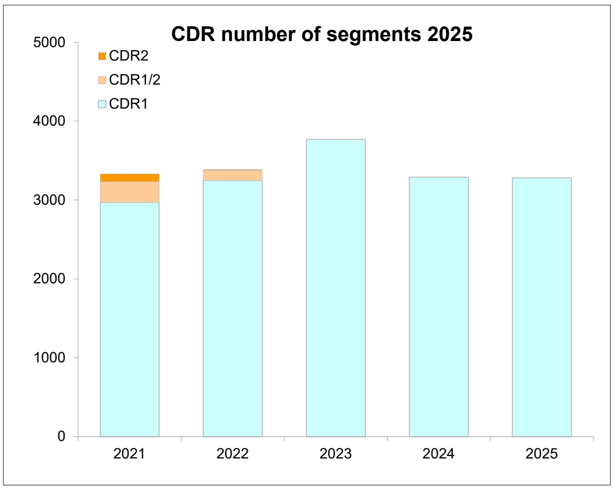


Figure 44 Evolution of CDR number 2021 - 2025

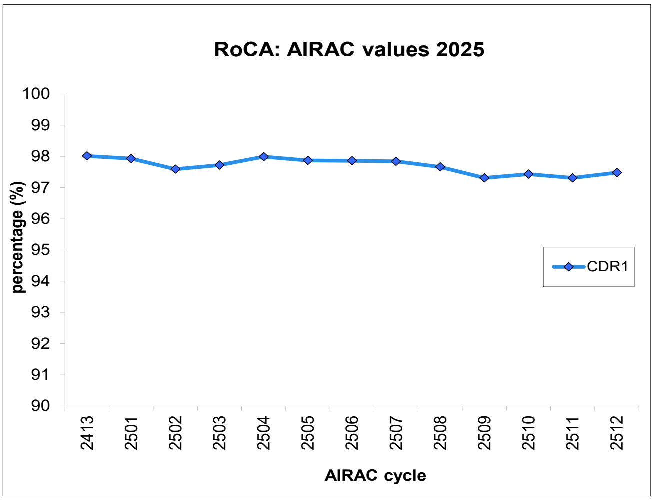


Figure 45 Rate of CDR availability (RoCA) in 2025

Figure 45 shows Rate of CDR availability (RoCA) for CDR1. This indicator has high values (97.3% to 98%) over the entire year.

The Rate of Aircraft Interested RAI (Figure 46) - flights planning the available CDRs - is relatively low (22.16% in 2024 and 27.11% yearly average for 2025) with variations between 21.5% (winter) to 28.9% during summer.
The Rate of Aircraft actually Using CDRs (RAU at Figure 47) has an average of 42.24% with values between 34.1% and 45.1%, improved versus 34.5% for 2024.

Both indicators RAI and RAU have low values as a result of reduced potential of CDRs to offer better routing solutions with the expansion of FRA airspace, most of them being contained in lower airspace below FRA.

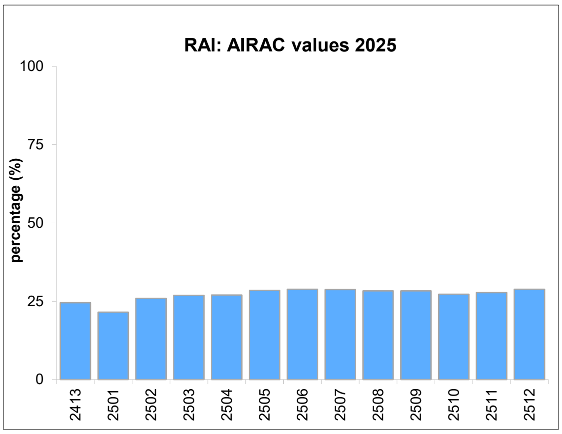


Figure 46 RAI (%) 2025 per AIRAC cycle.

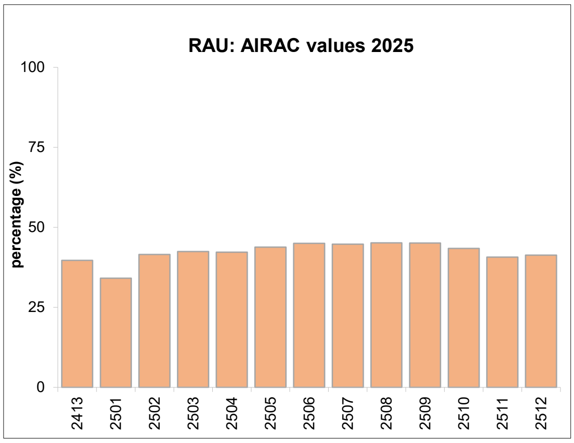


Figure 47 RAU (%) 2025 per AIRAC cycle

This fact is clearly illustrated in the charts of RAI (Figure 48) and RAU (Figure 49) evolution over the past five years. They show the trend to use less the CDRs even when planned since there are today more and better options either in FRA or the significant number of available DCTs. While in 2020 and 2021 due to the favorable environment for air operations with fewer RAD restrictions the actual CDR utilisation for actual traffic increased significantly, the situation of 2022 to 2024 when traffic growth is close to 2019 level reversed the trend. However, the values for 2025 show an improvement of almost 23% compared to 2024.

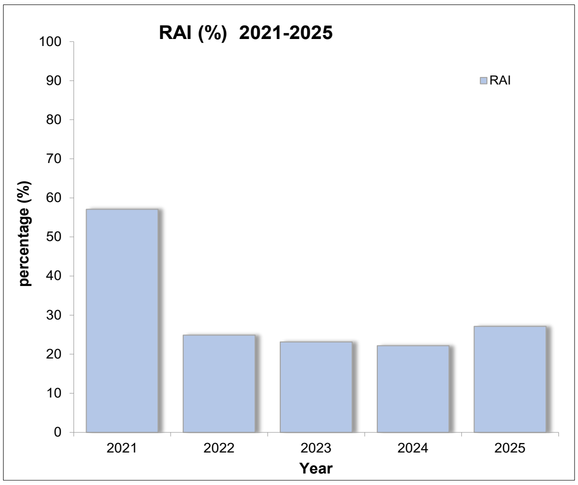


Figure 48 Five-year RAI evolution

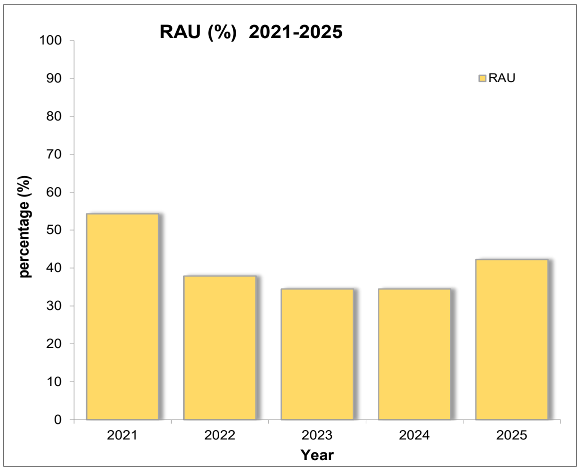


Figure 49 Five-year RAU evolution

RESTRICTED/SEGREGATED AIRSPACE (RSA)

The Free Route Airspace expansion means that flights can plan and fly far more trajectories than in a fixed route network adapted to changing environment. Therefore, managing the access to areas with restrictions cannot simply be done by opening and closing CDRs. The airspace management process should be based on timely notification of airspace status by RSA availability. To reflect and assess this aspect of ASM, specific RSA KPIs have been established similar to CDR FUA KPI. Consequently, a comprehensive process for monitoring and analysis is in place and the results are illustrated in this section.

Figure 51 shows the ECAC map of published RSAs for the last AIRAC of the year 2025 as they are stored in CACD.

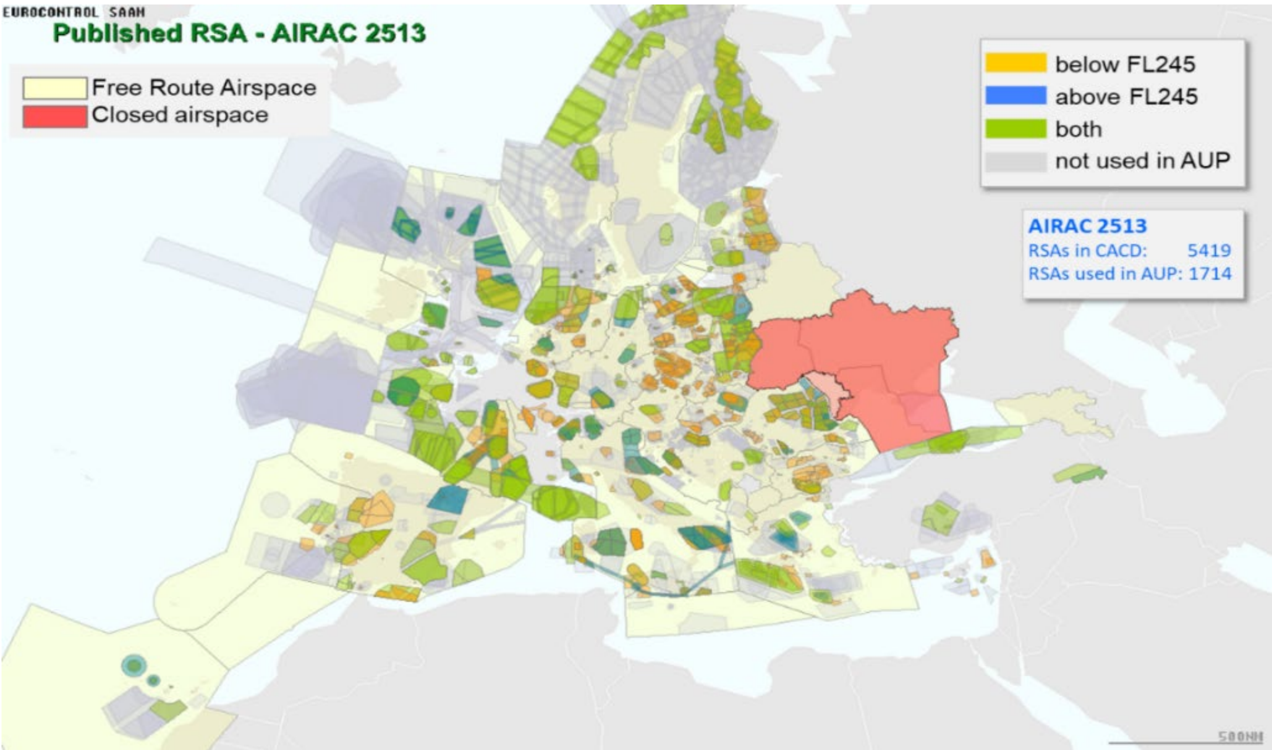


Figure 50: Map of the RSAs from NM database (CACD) for AIRAC 2513

The evolution of the published RSAs in 2025 is shown in Figure 52. 25% of the RSAs have established one or more Flight Buffer Zones (FBZ).

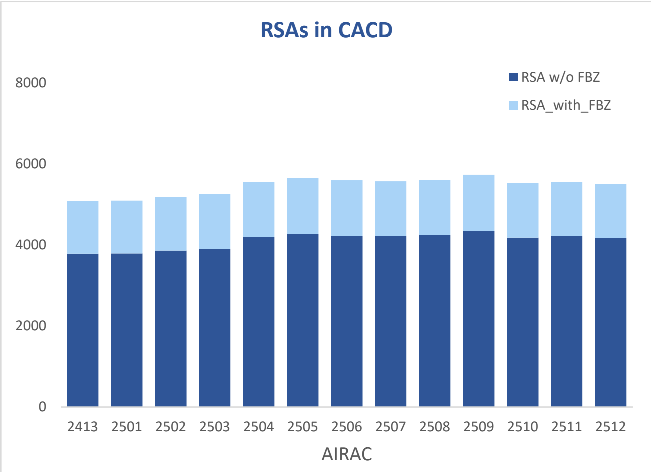


Figure 51 Number of RSAs in CACD by AIRAC cycle for year 2025

From the total number of RSAs existing in CACD 72% were used in 2025 for the daily airspace reservation by AUP/UUP process, see Figure 53.

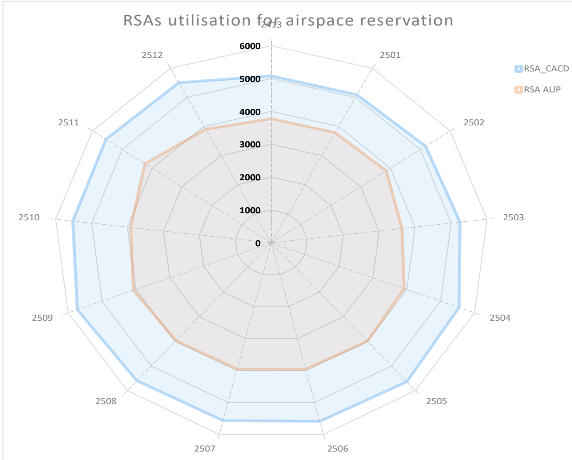


Figure 52 Number of RSAs used in airspace reservations vs. total RSAs in CACD

The evolution of the number of flights using the available RSAs over the year 2025 is represented in Figure 54, together with the traffic average values for each AIRAC cycle.

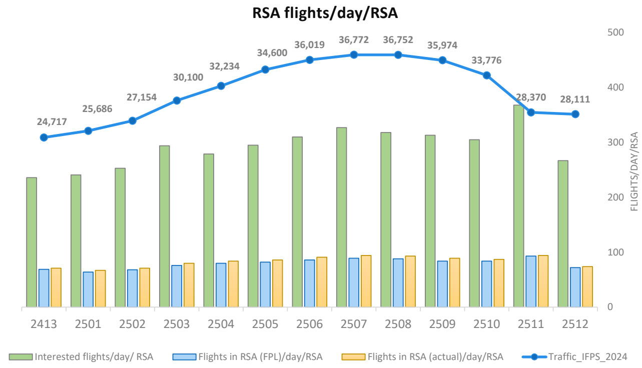


Figure 53 Number of interested flights, flights planning via RSA (ARFL) and actual flights (AU)

Availability of the airspace utilises a similar indicator to CDR RoCA, called Rate of Airspace Availability (RoAA). The Rate of aircraft interested (RAI) and Rate of Actual Use of RSA (RAU) have the same meaning as for CDRs only referring to RSAs instead. ASM indicators for RSAs are defined in ERNIP part 3, Section 7.

Figure 55 shows the evolution of these indicators by AIRAC cycle in 2025.

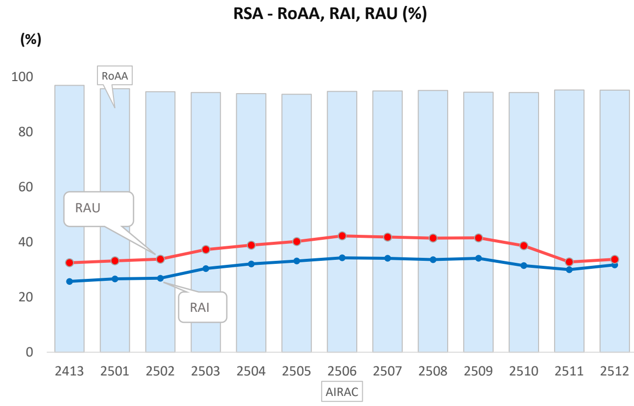


Figure 54 ASM KPI for RSAs – RoAA, RAI, RAU

RAU follows the RAI trend at 30-40% higher values, due to ATC civil-military coordination either by relaxed FUA restrictions or by tactical coordination allowing some flights to cross active areas under certain conditions and agreements.

ERSA indicator stands for Effective RSA booking. It was introduced for RP3 reporting by the Implementing Regulation (EU) 2019/317. The values calculated are the ratio between the actual booking time at the end of the day of operation and the initial booking at the beginning of the day (the last AUP/UUP from D-1). This indicator gives an indication of the effectiveness of rolling UUP process, ultimately the dynamics of ASM during the day.

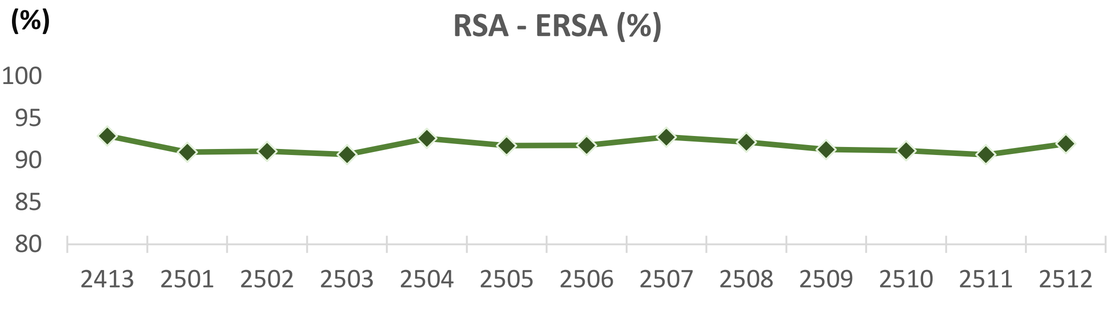


Figure 55: ASM KPI for RSAs – ERSA in 2025

ERSA values for 2025 are between 91% to 92.9% (Figure 56). Those values have been calculated for manageable RSA, since for NAM RSA the values were confirmed measured of 100%.

7.5 FREE ROUTE AIRSPACE

The Free Route Airspace is a specified airspace within which users may freely plan a route between a defined entry point and a defined exit point, with the possibility to route via intermediate (published or unpublished) significant points, without reference to the ATS route network, subject to airspace availability. Within this airspace, flights remain subject to air traffic control.

The Free Route Airspace gives airspace users the freedom to plan a route in European airspace.

Operating a FRA environment offers improved traffic predictability due to more stable trajectories. At the same time, it enhances the use of conflict detection tools. The FRA concept leads to a better spread of conflicts compared with the concentration of conflicts generated by the former fixed ATS route network.

Free Route Airspace implementation within the European network started on 07th May 2009 by Portugal within the airspace of Lisboa FIR and is continuing in accordance with ERNIP.

The ACCs listed below have implemented Free Route Airspace by the end of 2025.

H24 Free Route Airspace implementation	**FRA Portugal (Lisboa ACC)**
	BOREALIS FRA (Oslo, Stavanger, Bodo, Tampere, Tallinn, Riga, Kobenhavn, Malmo, Stockholm, Shannon, Prestwick ACCs and some sectors of Swanwick ACC)
	BALTIC FRA (Warszawa and Vilnius ACCs)
	SEE FRA (Budapest, Sofia, Bucuresti, Bratislava and Chisinau ACCs)
	SECSI FRA (Beograd, Zagreb, Wien, Ljubljana, Sarajevo, Tirana and Skopje ACCs)
	FRA-IT (Roma, Padova, Brindisi and Milano ACCs)
	FRA Malta (Malta ACC)
	FRASC (Tbilisi and Yerevan ACCs)
	DFS FRA (Karlsruhe UAC)
	UKRNESFRA (Kyiv, Lviv and Dnipro ACCs)
	FRAM (Maastricht UAC)
	HISPAFRA (Canarias, Madrid and Barcelona ACCs)
	FRACH (Geneva and Zurich ACCs)
	UKODSFRA (Odesa ACC)
	HELLAS FRA (Athinai and Makedonia ACCs)
	LFFRASE (Marseille ACC)
	LFFRANE (Reims ACC and North Paris ACC)
	NICFRA (Nicosia ACC)
Non-H24 Free Route Airspace implementation	DFS FRA (Bremen and Munchen ACCs)
	FRA Morocco (Agadir ACC and Casablanca ACC)
	FRATURK (Ankara and Istanbul ACC)

Table 8 Free Route Airspace Implementations

NM is closely associated to the FRA implementation through airspace design, airspace validations, definition of network airspace utilisation rules and availability, overall network interconnectivity and interoperability, simulations, and NM systems upgrades.

During 2025 the following implementations were completed:

- Improvement of airspace organisation in Helsinki FIR by extending the existing FRA departure and arrival connecting routes.
- Implementation of Free Route Airspace Cyprus (NICFRA) – Phase 2, extension of existing Night Free Route airspace FL205 – FL660 in Nicosia FIR to H24 FRA.
- Introduction of FRA arrival and departure points airports below the LSASFRA to simplify flight planning and reduce RAD complexity.
- Cross border FRA operations between NICFRA (FL205 - FL660) and Hellas FRA (FL305 - FL660).
- Implementation of South-East Cell (LFFRASE step 2), extension of LFFRASE1 H24 FRA above FL195 to all Marseille ACC sectors.
- Implementation of North-East Cell (LFFRANE step 1) - H24 FRA above FL195 in East Reims ACC and North Paris ACC area, including cross border FRA operations H24 between North-East FRA Cell (LFFRANE step 1) and MUAC FRA. Additionally, cross-border FRA operations H24 between North-East FRA Cell (LFFRANE step 1) and FRA Switzerland.
- Cross-border FRA operations between FRA Malta (FL195 - FL660) and Hellas FRA (FL305 - FL660).
- Cross-border FRA operations between FRA-IT (FL195 - FL660) and FRA Malta (FL195 - FL660).
- Implementation of FRATURK - Phase 1, Night FRA Operations above FL305 in Türkiye.

The map below shows the European Free Route Airspace deployment status at the end 2025.

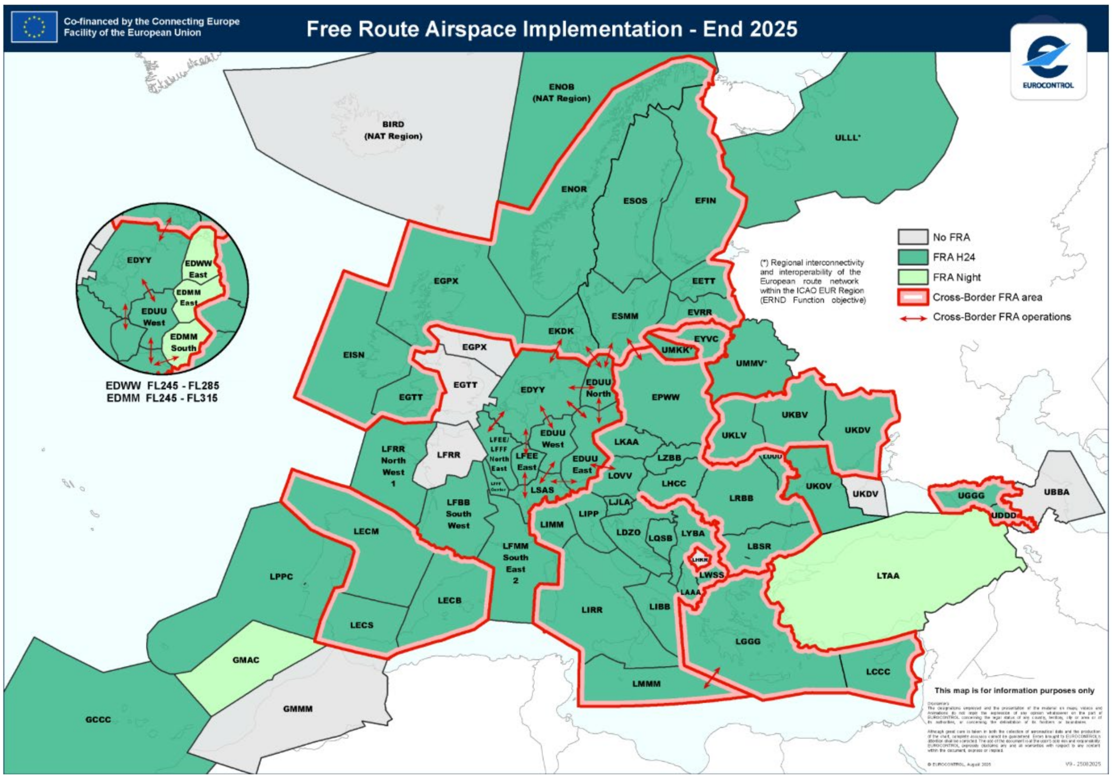


Figure 56 Free Route Airspace deployment status in 2025

7.6 ROUTE AVAILABILITY DOCUMENT (RAD)

The Route Availability Document (RAD) is a tool that addresses how the European network airspace may be used. According to the Commission Regulation (EU) No

255/2010 the RAD is a common reference document containing the policies, procedures and description for route and traffic orientation.

The Network Manager Implementing Rule (Commission Implementing Regulation (EU) 2019/123) makes a clear reference that the European Route Network Improvement Plan shall include route network and free route airspace utilisation rules and availability.

The airspace design and airspace utilisation aspects were brought closer by the established multi-disciplinary EUROCONTROL NM RAD Team guided by the Operational Stakeholders part of the RAD Management Group.

The actions performed by the NM RAD Team have facilitated a pragmatic refinement of the RAD during 2025, with full cooperation of Operational Stakeholders, aiming to overcome weaknesses in airspace design and ATM system functionality and to ensure application of the remaining airspace utilisation rules and availability only where and when required.

RMG/RNDSG/NETOPS/NDOP/NMB supported the proposals for amendment to ERNIP Part 1 and Part 4 related to further improvements in RAD content, which are:

- Fine tuning the RAD Grammar.
- Creation of Appendix A – RAD Grammar guidelines in ERNIP Part 4.

The major RAD evolutions and developments in 2025 focusing particularly on network level and covering the entire NM area of responsibility were as follows:

- NM RAD Team supported the National RAD Coordinators in the work of converting the Traffic Flow Rules (TFRs) and Flight Planning Facilitation Option to the new RAD Grammar, ensuring a smooth transition.
- NM RAD organised several workshops/trainings with the Operational Stakeholders to reinforce the best practices when maintaining the RAD.
- Proposals for structural airspace changes to eliminate the need for RAD TFRs.
- Definition of requirements towards of an enhanced RAD assessment process supported by automation to allow better validation of TFRs before implementation.
- Gradual improvement in RAD utilisation definition, adaptation of the expressions in the RAD and harmonisation.
- Continuation of harmonisation of terminology and definitions of TFRs and flight planning facilitation options.
- Continuation of rationalisation of TFRs expression.
- Continuation of improvements in coordination of RAD airspace data reference versus airspace changes.
- Adaptation of RAD Documentation.
- Modernisation of the RAD website.

In 2024 dynamic RAD operations started as follow up of the concept validation conclusions. Being not yet possible at local level to use the technical improvements implemented by NM with Release 27.0 (2023), the solutions adopted for the validation continue being used by the volunteered ANSP interested in the operational utilisation of dynamic RADs. In 2025, PANSA started operation using the technical solutions implemented in their local system. Other ANSPs continued using the validation solutions, waiting the local deployment of LARA version 5. MUAC started in 2025 dynamic RAD operations using NM interface (CIAM).

7.7 FLIGHT EFFICIENCY PLAN

As part of Flight Efficiency Plan, intensive work has been undertaken by States and ANSPs in close cooperation with NM to develop and implement enhanced airspace design solutions and airspace improvement.

These improvement measures reduced significantly the reroutings recorded as a result of number of events which had direct consequences on the flight efficiency evolution. The list below provides an overview of the major enhancements implemented in 2025:

- **Austria**

(1) ACC Wien project.

- **Belgium**

(1) PBN Transition Plan - Belgium

- **Bosnia and Herzegovina**

(1) PBN Transition Plan – Bosnia

- **Bulgaria**

(1) Delete publication LBP1 and LBR1 - LBR7 Annex 2C.

(2) FRA based re-sectorisation Sofia ACC.

(3) Expansion of Varna TMA.

(4) Burgas TMA - re-organisation.

- **Croatia**

(1) LDZO optimisation changes.

- **Denmark**

(1) Areas over the High Seas.

(2) New TRAs.

- **Egypt**

(1) Cairo FIR airspace developments - Phase 1.

- **Estonia**

(1) Tallinn TMA modernisation.

- **France**

(1) French/Belgium OPS border.

(2) Cognac Fighter School Airspace Improvement - Phase 1.

(3) CBA 1.

(4) Free Route Airspace France SE step 2 – Marseille ACC.

(5) ZENA military areas - Phase 3.

(6) Free Route Airspace France NE step1 – Reims ACC and Paris ACC.

- **Finland**

(1) EFIN - FRA Connecting Routes.

(2) PBN Transition Plan – Finland.

- **Germany**

(1) Shorter routings EDDB.

(2) Sector re-design EDMM BBG sector.

(3) Karlsruhe UAC re-design «ALFA».

(4) Extension EDR31 and EDR32.

(5) Saarbrücken Airport (EDDR) PBN.

(6) Route alignment TRA305 NW.

(7) Zweibrücken Airport (EDRZ) PBN.

(8) Eggenfelden Airport (EDME) PBN.

(9) Augsburg Airport (EDMA) PBN.

(10) De-commissioning FFM and MTR.

(11) NAV aid closure.

(12) Münster/Osnabrück Airport (EDDG) PBN.

(13) Berlin Brandenburg Airport (EDDB) PBN.

(14) Hannover Airport (EDDV) PBN.

(15) Braunschweig-Wolfsburg Airport (EDVE) PBN.

(16) Karlsruhe UAC Airspace improvement project ERLkönig Step 1.

- **Germany/MUAC**

(1) PYXIS2A - Airspace and route structure re-design.

- **Germany/Poland/France**

(1) H24 OAT DCT LUPEN to SUBIX.

- **Greece**

(1) PBN Transition Plan AWYs - Greece - Phase 2.

(2) PBN Transition Plan AWYs - Greece - Phase 3.

(3) PBN Transition Plan AWYs - Greece - Phase 4.

(4) PBN Transition Plan – Greece.

- **Greece/Cyprus**

(1) CB FRA operations - Phase A.

- **Greece/Malta**

(1) CB FRA operations - Phase A.

- **Hungary**

(1) EUROAT procedure.

(2) ATM system patch.

(3) LHCC sectorization adjustments - Phase 1.

(4) LHCC sectorization adjustments - Phase 2.

- **Iceland**

(1) Conventional routes – removal.

(2) PBN Transition Plan – Iceland.

- **Ireland**

(1) PBN Transition Plan – Ireland.

- **Israel**

(1) ATS route improvement Tel Aviv FIR.

(2) ATS route improvement Israel FIR.

- **Italy**

(1) Optimisation of traffic flows.

(2) Reorganization inside Rome ACC.

(3) PBN Transition Plan – Italy.

- **Italy/Malta**

(1) CB FRA operations.

- **Lithuania**

(1) Lithuania Airspace reconfiguration project - Step 2.

- **Morocco**

(1) New sectorisation project in GMMMCTA, phase 1.

(2) Radar approach Fes (GMFF) airport.

(3) New sectorisation project in GMMMCTA, phase 2.

- **MUAC**

(1) DRAMA - Dynamic RAD at Maastricht UAC - Phase 1.

- **Netherlands**

(1) PBN Transition Plan – Netherlands.

- **Norway**

(1) AMC-areas Norway.

(2) Helicopter ATS Route Improvement Bodø Oceanic FIR and Polaris FIR.

(3) Bodø TMA FL175.

(4) ATS-route removal / adjustment Norway (Phase 1).

(5) PBN Transition Plan – Norway.

- **Poland**

(1) Reorganisation ACC Warszawa sector configuration - three layers division.

- **Portugal**

(1) West sector split.

- **Portugal/Morocco**

(1) Harmonisation FRA significant points AIP.

- **Romania**

(1) Redesign of TRAs.

(2) PBN Transition Plan – Romania.

- **Slovak Republic**

(1) Adapt AIP publication for NPZ.

- **Spain**

(1) Interface between Canarias UIR and Sal Oceanic FIR.

(2) PBN Transition Plan – Spain.

- **Spain/Portugal**

(1) 5LNC replacement by Spain and Portugal.

(2) Deletion existing significant point.

- **Sweden**

(1) PBN Transition Plan – Sweden.

- **Switzerland**

(1) New NPZ for LSGS.

(2) FRA A and D points.

(3) New Routing for DEP LSZH towards REIMS ACC.

(4) New Routing for DEP LSZH towards PAD.

- **Türkiye**

(1) Istanbul (LTFM) airport TRO.

(2) RNAV/RNP Procedures.

(3) ATS route network improvement.

(4) ATS route network improvement - M/UM19 extension.

(5) FRATURK - Phase 1.

- **United Kingdom**

(1) Operational Service Enhancements Project (OSEP)- OD11 Swanwick ACC.

(2) East Midlands Airport SID Truncation.

(3) RNAV Substitution of East Midlands Airport conventional SIDs affected by DVOR Rationalisation.

(4) Temporary Danger Areas for North Sea BVLOS Operations – Central.

(5) Extension to EGD701 (Temporary) for Ex FORMIDABLE SHIELD 2025.

(6) Temporary Danger Areas for North Sea BVLOS Operations – Northern.

(7) Boundary Re-design London & Shannon.

(8) Special Use Airspace for RPAS Diversion (Permanent).

(9) Alignment of Strangford CTA3.

(10) BOTA - SOTA boundary coherence.

(11) National Police Air Service BVLOS Trial.

(12) Temporary Danger Area for BVLOS Operations in the Central North Sea.

(13) EGGP STAR BOFUM1L.

(14) Temporary Danger Areas for North Sea BVLOS Operations – Southern.

(15) GAM DVOR Removal - Leeds Bradford Airport SID RNAV Substitution.

(16) Heathrow RNAV Substitution - Part 2.

(17) Removal of London Stansted Lambourne SIDs.

(18) PBN Transition Plan – UK.

References

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