

TfEM: EMR Performance Targets Statement

28/07/2026

SYSTRA



EMR Performance

Using Network Rail performance data, a high-level assessment has been undertaken to understand the nature of delays affecting East Midlands Railway (EMR) services. This covers all delays experienced by an EMR Train Service Code (TSC), irrespective of the location or responsibility of the causal event, and is therefore not limited only to incidents arising within the East Midlands nor to those directly caused by EMR. This reflects that due to the nature of the network, delays that originate outside the East Midlands or outside of EMR's control are likely to impact upon services and passengers within their area.

Although attribution has been examined across the previous 11 years of data, the more detailed assessment focuses on the post-COVID period from 2022/23 onwards. The analysis captures delays and cancellations (excluding scheduled cancellations) using PfPI minutes, a metric that encompasses the impact upon in-service franchised passenger trains on the Network Rail network. The cancellations are expressed as deemed minutes, a fixed delay allowance used to represent the disruption caused by a cancelled train.

The purpose of this analysis is not to assign responsibility to individual organisations or teams, but rather to identify the underlying themes emerging from the data and to highlight areas where further investigation or intervention may deliver measurable performance benefits.

On the following slides we provide insight into the principal causes of performance loss, the extent to which disruption propagates through the network, and potential opportunities for performance improvement.

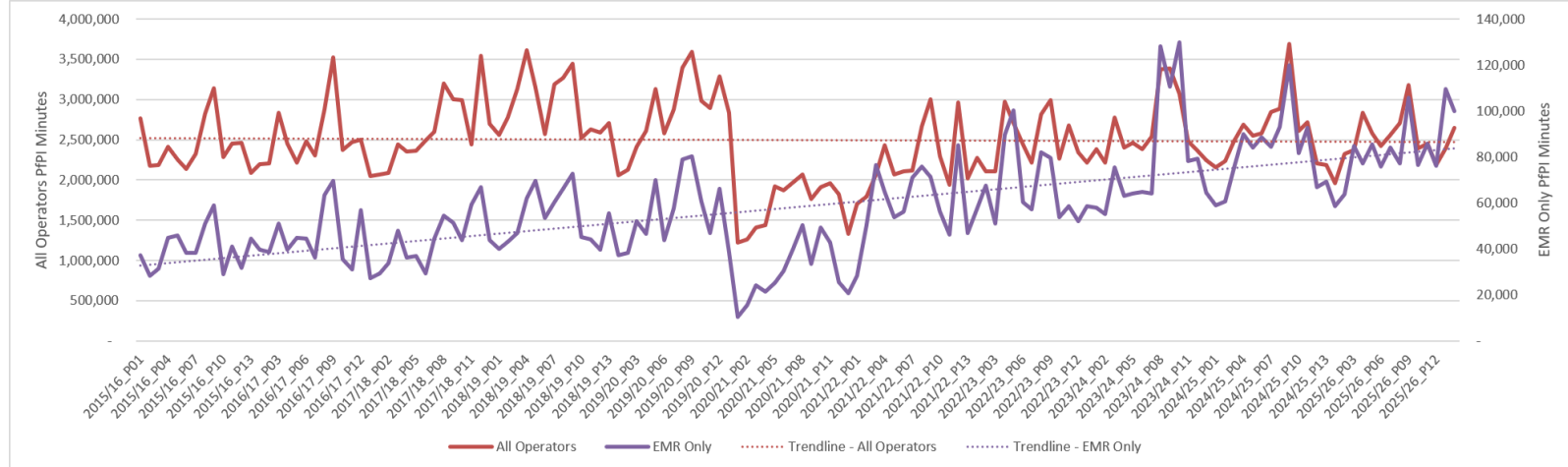
An important caveat is that without equivalent mileage data, the performance data cannot be presented in a delay per mile format from which direct comparisons between characteristics can be made.

Overall Performance Characteristics

Over the past decade the volume of delay minutes affecting EMR on a periodic basis has shown an upward trend, while delay at a network level (including all operators) has remained relatively stable.

This increase has been particularly pronounced in recent years, with EMR experiencing a rise in average periodic delay from approximately 47,000 minutes pre-COVID to approximately 78,000 minutes post-COVID.

Even when normalising for periods affected by exceptional events such as extreme weather or industrial action, average periodic delay remains above pre-COVID levels and continues to struggle to return to the lower levels observed before the pandemic.

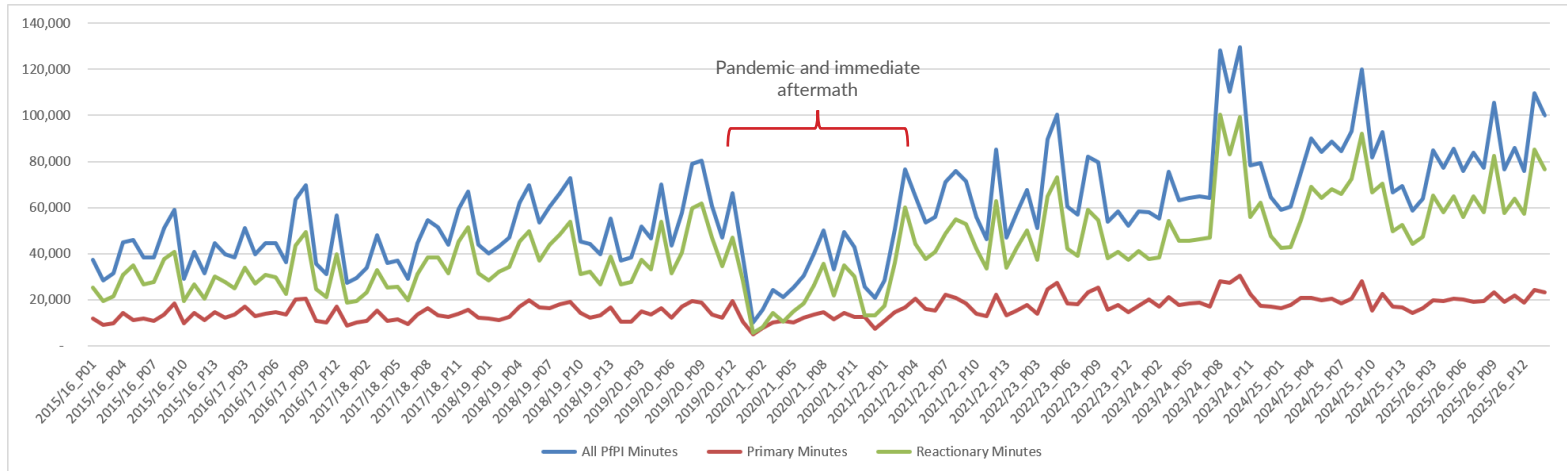


Overall Performance Characteristics

A feature of the dataset is the extent to which delay propagates through the railway following an initial incident. Across the past decade, approximately 72% of attributed minutes are reactionary rather than primary, indicating that most performance loss occurs after the original event.

In practice, this means relatively localised incidents are creating wider disruption across train services, rolling stock diagrams, traincrew diagrams, and network operations.

For performance management, this distinction is important. Performance improvement initiatives often focus on reducing the number of incidents that occur. Whilst this remains necessary, the data suggests that equivalent attention should be given to improving the railway's ability to absorb disruption and recover from incidents when they do occur.

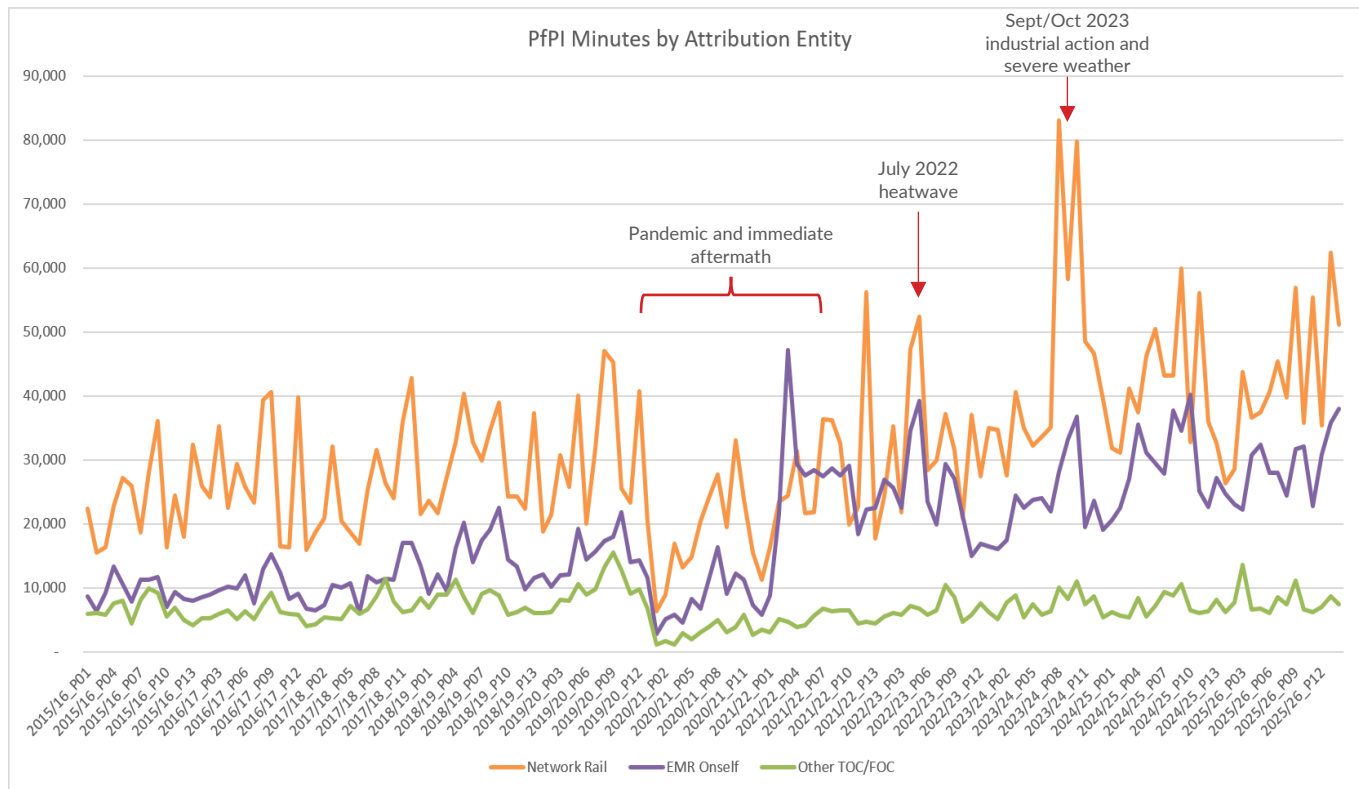


Delay Attribution

Since 2015, over half of the delays experienced by EMR are the responsibility of Network Rail, with approximately a third of their own responsibility and then 12% that of another Train Operating Company (TOC) or Freight Operating Company (FOC)

Of the delays caused by another TOC or FOC, the top five are as follows:

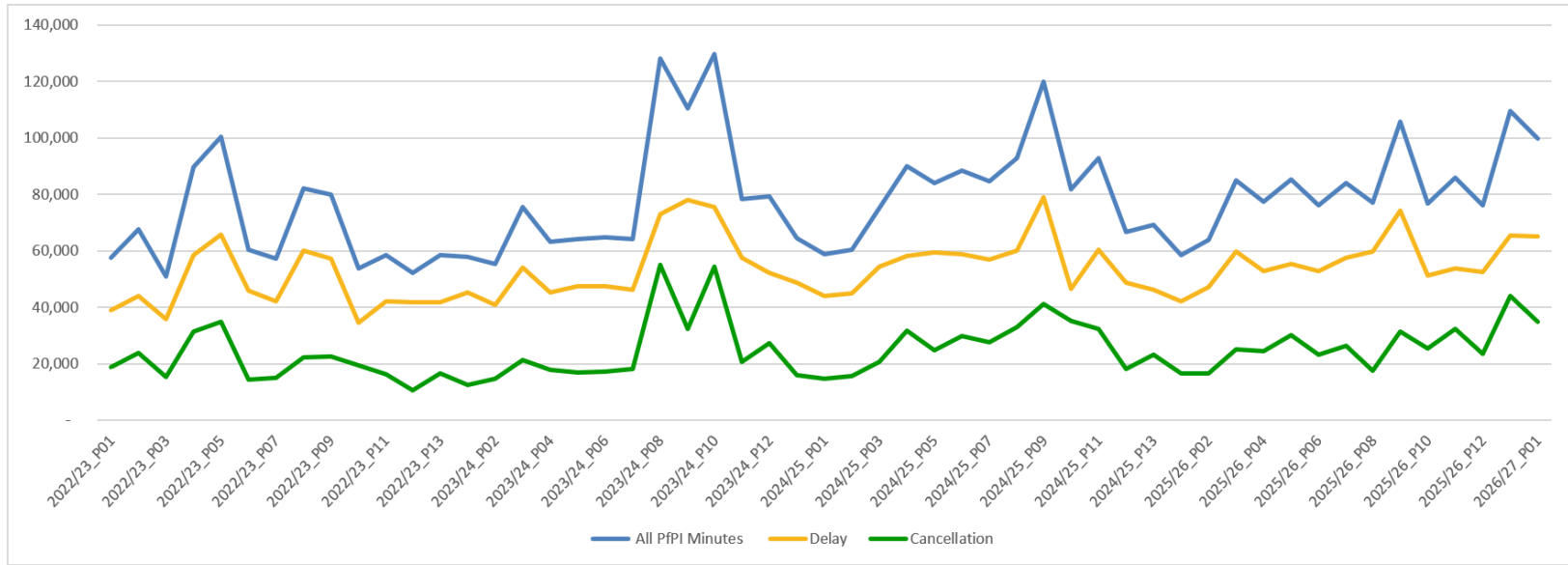
1. Northern Trains – 21%
2. GTR – 13%
3. DB Cargo – 11%
4. GB Railfreight – 8%
5. CrossCountry – 8%



Post-COVID Analysis

The following slides will focus on analysis of performance data in the post-COVID period of 2022/23 Period 01 to 2026/27 Period 01, as this timeframe is felt to be most reflective of EMR's current fleet and service structures.

As with the previous analysis this covers all EMR PfPI minutes, both delays and cancellations (excluding scheduled).

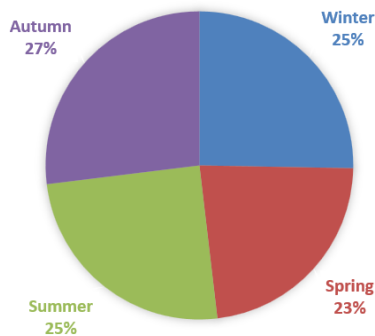


Seasonal Trends

Overall, the data shows only minor seasonal variation, with each season accounting for approximately a quarter of total delay minutes. The proportions of delay vs cancellation minutes and primary vs reactionary minutes also remain broadly consistent across the seasons.

Similarly, the leading causes of delay show little seasonal variation, with fleet consistently the largest contributor, accounting for approximately a quarter of all minutes each season, followed by either non-track assets (including failures/faults of signalling, points, cables and level crossings), network management, or external (including fatalities and trespass incidents).

The table demonstrates the seasonal variation that exists per cause. Whilst many are consistent, delays associated with weather spike in autumn and winter, consistent with the wider operational challenges typically associated with these seasons.



% per Cause per Season	Winter	Spring	Summer	Autumn
Fleet	24.3%	23.8%	26.9%	24.9%
Traincrew	24.1%	24.6%	24.6%	26.8%
External	22.1%	26.4%	27.2%	24.3%
Track	17.5%	27.1%	26.9%	28.5%
Severe Weather, Autumn & Structures	38.8%	6.4%	13.5%	41.3%
TOC Other	22.5%	22.2%	25.8%	29.5%
Network Management / Other	25.5%	23.4%	24.7%	26.4%
Non-Track Assets	28.5%	22.6%	23.8%	25.1%
Stations	22.4%	24.5%	25.9%	27.1%
Operations	25.8%	20.2%	28.5%	25.6%

*Where Winter = Dec/Jan/Feb, Spring = March/Apr/May, Summer = Jun/Jul/Aug and Autumn = Sep/Oct/Nov

Temporal Trends

Performance by day of the week mimics the patterns seen by season, with minor variation across each day (excluding Sunday) and similar distributions by cause of delay.

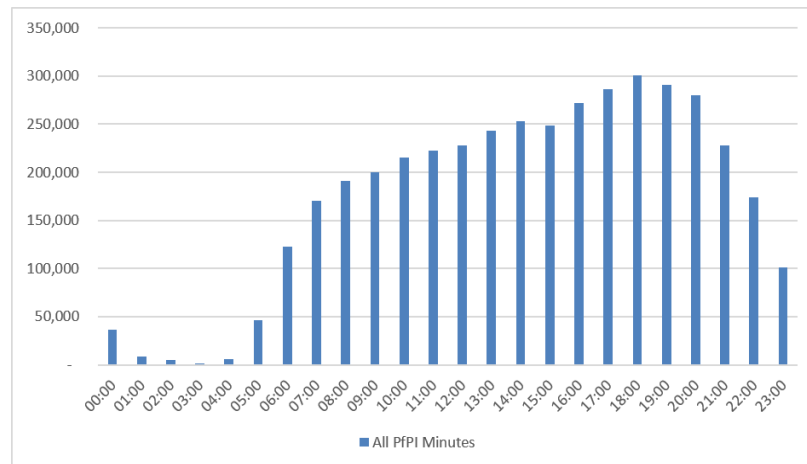
Monday and Friday record the highest delay volumes and the highest proportions of reactionary delay.

Mondays can frequently be disrupted by overrunning weekend engineering works or displaced trains and crew, with the volumes for Friday suggesting that the railway perhaps becomes less resilient towards the end of the working week, potentially reflecting higher service intensity, reduced operational flexibility or the cumulative effects of disruption throughout the week.

Time-of-day analysis indicates that delay reaches its highest levels during the evening peak. This pattern is consistent with the operational reality that disruption occurring during periods of intensive service operation is more difficult to recover from and more likely to affect multiple services.

These findings reinforce the importance of considering network resilience alongside incident prevention.

	Total Minutes	Leading Causes of Delay		
		1	2	3
Monday	16.8%	Fleet	External	Non-Track Assets
Tuesday	14.9%	Fleet	Non-Track Assets	External
Wednesday	14.2%	Fleet	Non-Track Assets	Network Management
Thursday	15.1%	Fleet	External	Network Management
Friday	16.3%	Fleet	Non-Track Assets	Network Management
Saturday	15.0%	Fleet	Non-Track Assets	Traincrew
Sunday	7.7%	Fleet	Traincrew	Network Management



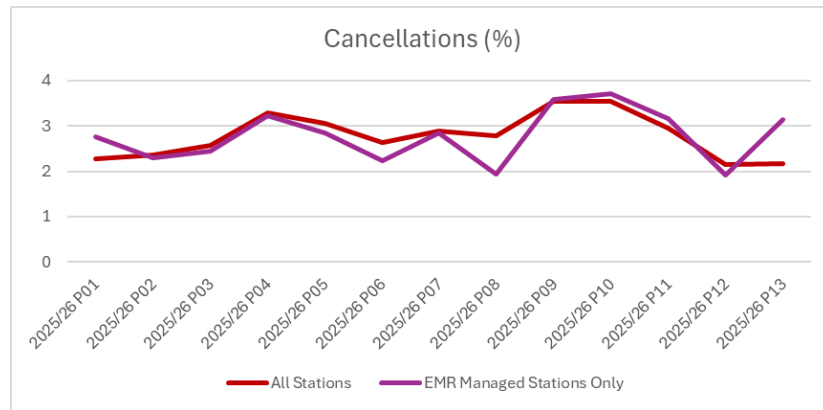
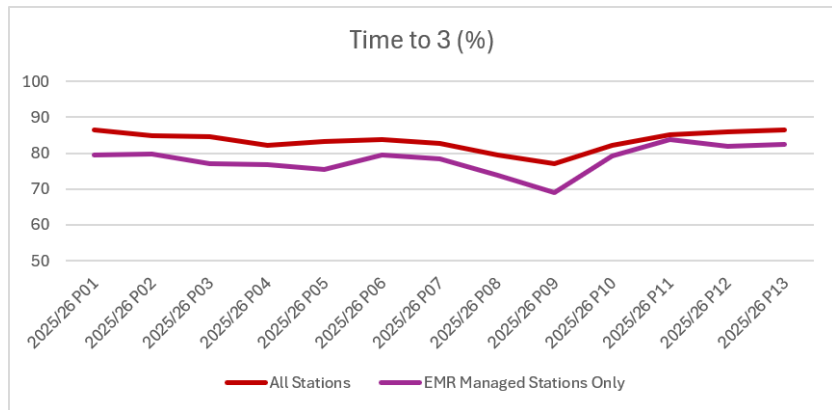
Performance by Station

ORR data has been used to undertake a high-level assessment of station performance in 2025/26, covering:

- The percentage of trains arriving at the station within three minutes of their scheduled arrival
- The percentage of trains that were scheduled but did not call at the station

For the 102 stations managed by EMR (including data for all TOC's that call at each station) on average 78.2% of trains arrived within three minutes of their scheduled arrival time and 2.8% of scheduled station calls were cancelled.

Both performance metrics exhibited relative stability across the year and mirrored the trends seen across all stations, however whilst the 2025/26 average percentage of cancellations equals that of all stations, the time to 3% for EMR managed stations only is over 5% below the national average.



Performance by Station

Across the EMR managed stations there is a significant range within the data, with the tables below presenting the five stations ranked highest and lowest for each metric.

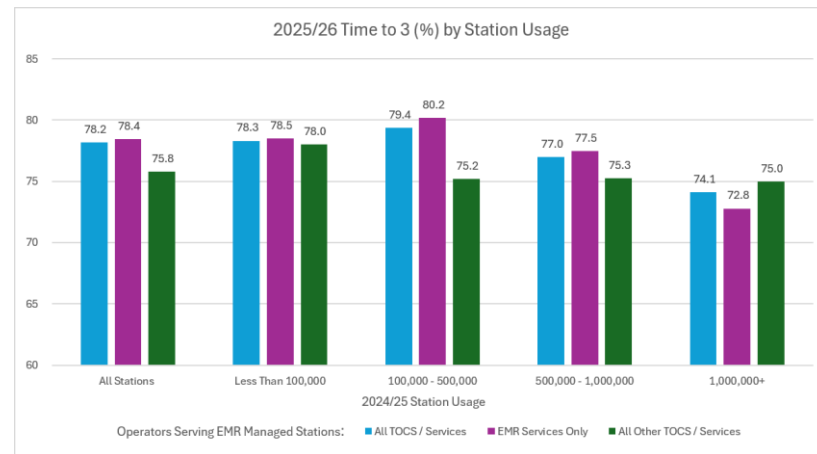
Rank	Time to 3 %		Cancellations %	
1	Newstead	90.1%	Metheringham	1.39%
2	Mansfield Woodhouse	89.3%	Ruskington	1.41%
3	Bulwell	89.2%	Uttoxeter	1.54%
4	Lincoln	89.2%	Tutbury and Hatton	1.57%
5	Spalding	88.6%	Duffield	1.60%

Rank	Time to 3 %		Cancellations %	
98	Goxhill	68.2%	Grimsby Docks	5.0%
99	Longport	67.5%	New Clee	5.0%
100	Stamford	67.4%	Burton-on-Trent	5.4%
101	Oakham	67.1%	Willington	5.7%
102	Market Harborough	65.7%	Corby	6.6%

When averaging the performance data by 2024/25 annual station usage data and the services by TOC, relative stability is maintained across all categories.

Of the 102 stations managed by EMR, 28 are served by train operators in addition to, or instead of, EMR and it is these non-EMR services that tend to exhibit the lowest average level of on time station calls.

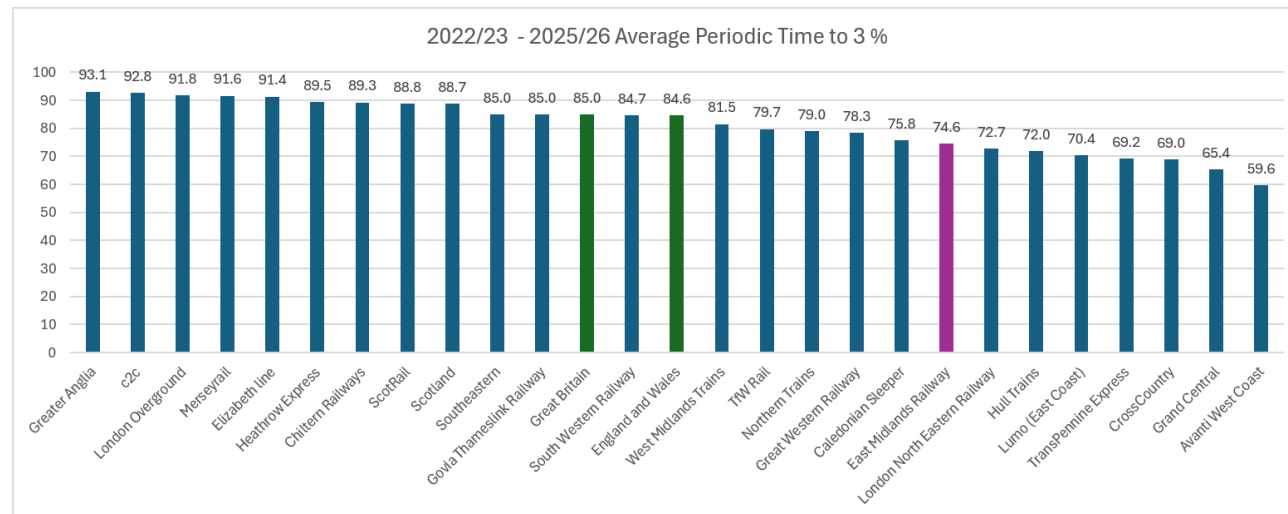
When considering station usage, the percentage of services arriving on time is the lowest in the highest usage stations.



Performance Relative to Other Operators

When further exploring EMR's punctuality and cancellations performance across the post-COVID period and relative to other operators, it can be seen that EMR's periodic time to 3 % has consistently trended below the national average, ranging between 5% and 16% below. This is a trend echoed across other temporal metrics, both those of a greater and lesser degree of punctuality.

Relative to other operators, EMR performs towards the lower end of the scale, almost 20% lower than the best performing operators and 10% lower than the national average.

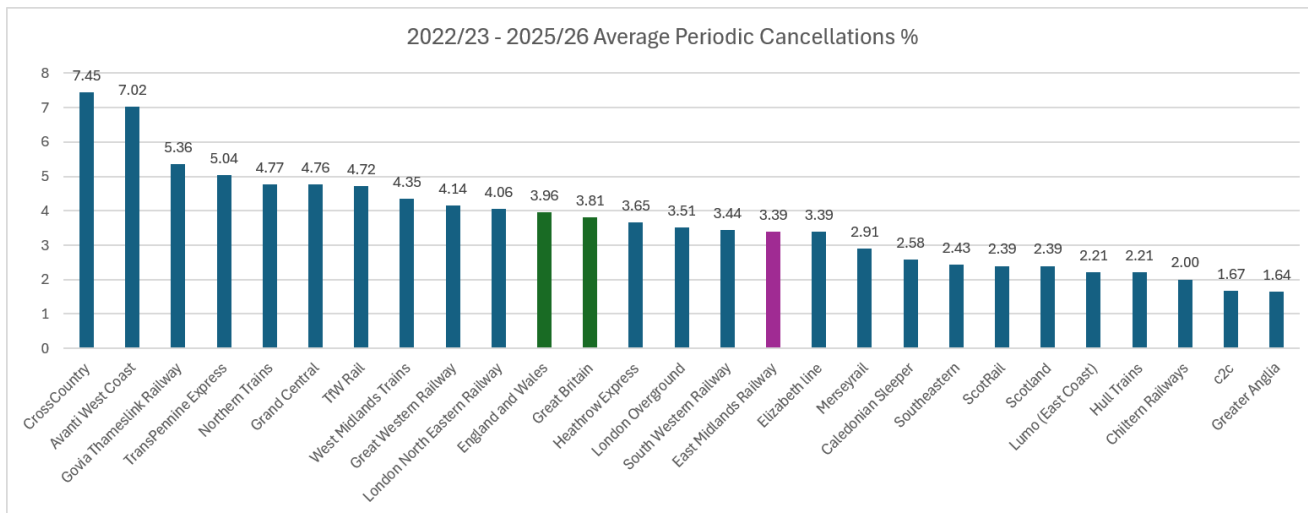


2022/23-2025/26	EMR	GB Avg.
On Time within 59 seconds	54.0%	67.2%
Time to 3	74.6%	85.0%
Time to 5	84.1%	91.3%
Time to 15	96.3%	98.3%

Performance Relative to Other Operators

For cancellations, the periodic trend since 2022/23 echoes that of the last year alone, where EMR typically has a lower percentage of cancellations compared to the national average. However, the most recent data (2025/26 P10 onwards) is showing a reversal of that trend, though it remains to be seen if this represents short term performance fluctuation or the beginning of a longer-term shift.

EMR sits roughly mid-range relative to other operators, slightly outperforming the national average and significantly better than the highest cancellation rates.



Performance by Location

A high-level assessment of delay by location has been conducted using post-COVID data for all incidents (defined as the underlying events) occurring within the East Midlands geographic area irrespective of responsibility.

Ranking by incident volume indicates that expectedly the key node stations experience significant numbers of incidents. However, amongst them only Derby also records a high average delay per incident and consequently appears among the top-ranked locations by this measure. When considering average delay per incident, the highest values are frequently associated with singular events.

Wellingborough and Kettering, together with the intervening route section, also stand out in terms of incident frequency. Performance on this section could potentially be improved through additional capacity, either by providing more train paths or introducing faster rolling stock on the stopping services from London St. Pancras. Under the current timetable, this section appears to operate as a pinch point, where services are prone to catching up with one another and performance loss can accumulate.

Rank by Number of Incidents

Location	Number of Incidents	Avg. Delay per Incident (Mins)	Avg. Delay per Record (Mins)
Nottingham	10,274	46	9
Derby	8,007	476	18
Leicester	3,340	39	8
Wellingborough <> Kettering	3,266	37	8
Syston East Jn <> Manton Jn	2,914	76	13
Derby <> Sheet Stores Jn	2,776	73	10
Mansfield Jn <> Trent East Jn	2,567	66	13
Derby RTC (Network Rail)	2,291	6	2
Kettering	2,115	40	7
Lincoln	2,056	51	13
Wellingborough	1,572	27	5
Lincoln <> Newark Crossing East Jn	1,480	27	5
Nottingham <> Lowdham	1,298	29	4
Trent East Jn <> Loughborough	1,197	20	5
Chesterfield <> Ironville Jn	1,160	19	5
Etches Park Sidings	1,148	22	5
Ambergate Jn <> Derby	1,053	25	4
Toton T.M.D.	1,030	6	3
Stenson Jn <> Derby	1,008	10	3
Syston South Jn - Leicester	989	16	5

**Where an incident is the underlying event / root cause of a delay and a record is an instance of a train experiencing a delay due to that incident*

Performance by Service Group

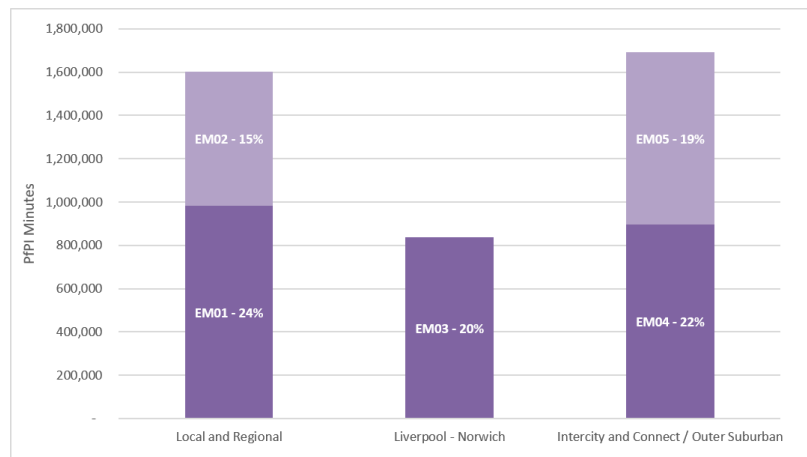
Whilst delay per mile operated would provide a useful comparative metric that normalises for the total volume of services or miles operated, in its absence considering performance by service group still provides some useful insights.

The service groups have been collated as follows:

- EM01 & 2 – East Midlands Local and East Midlands Regional
- EM03 – Liverpool – Norwich
- EM04 & 5 – East Midlands Intercity and EMR Connect / Outer Suburban Services

At the service group level, although EM03 has the lowest overall proportion across the analysis period, it still accounts for a significant volume of delay minutes impacting EMR – approximately half that of the other service groups. This is perhaps unsurprising given the nature of the service which combines a long-distance route with frequent station stops, increasing its likelihood of being impacted by delay, both that caused by EMR and by either Network Rail or other TOCs/FOCs.

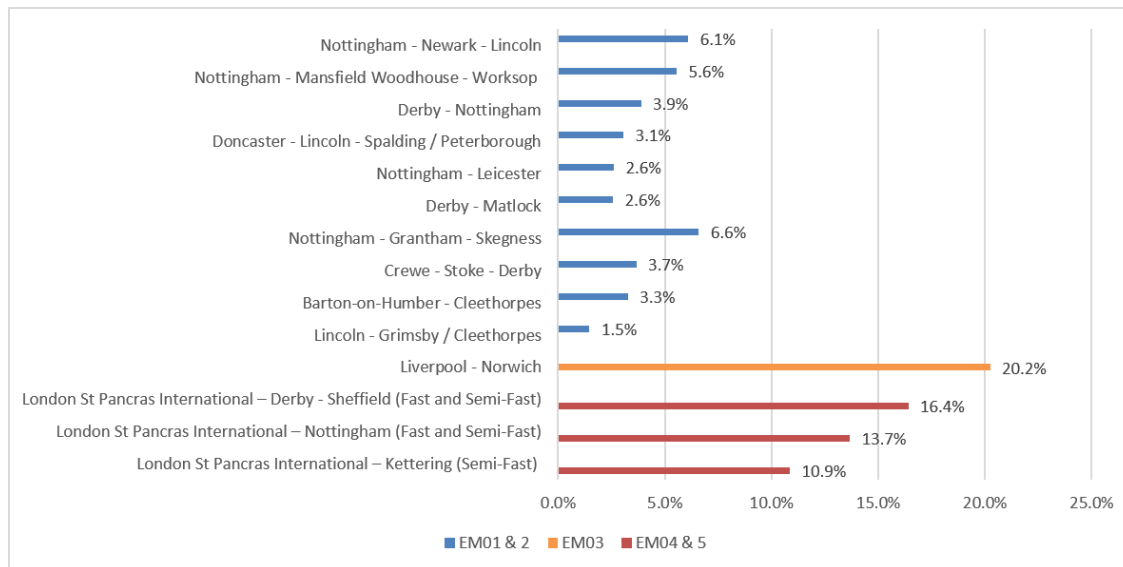
Service Group(s)	Total Minutes	Avg. Delay per Record (Mins)	Avg. Delay per Incident (Mins)
EM01 & 2	39%	8.0	21.4
EM03	20%	5.7	17.3
EM04 & 5	41%	5.9	20.2



Performance by Train Service Code

At an individual Train Service Code (TSC) level, the Liverpool – Norwich service is that impacted by the greatest proportion of delay, at 20%, followed by the Intercity services to/from London ranging between 16% and 11%. As previously mentioned, this is unsurprising given the long-distance routes will interact with many other services and operators from which they could accrue delay.

When considering the component TSC codes of the service groups, 40% of all EM04 & 5 delays fall upon services between London and Sheffield.

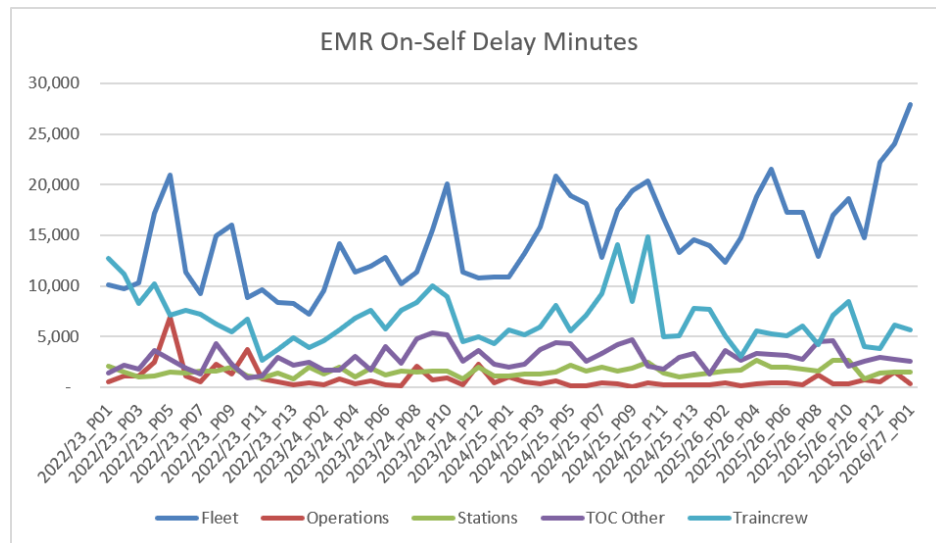


Performance by Broad Causes of Delay

The following slides examine performance by broad causes of delay, both for all delay incurred by EMR (as per the preceding analysis) and for delay that EMR generate for themselves.

As the table indicates, the leading cause of both delay metrics affecting EMR services during the post-COVID analysis period are fleet and traincrew. The volume of fleet related incidents and delay minutes demonstrate an upward trend and account for a growing proportion of overall EMR on-self delays.

Cause	% of All Delays Incurred by EMR	% of All EMR On-self Delays
Fleet	22.8%	55.0%
Non-Track Assets	15.7%	-
External	14.0%	-
Network Management / Other	13.9%	-
Traincrew	10.7%	25.2%
Severe Weather, Autumn & Structures	6.9%	-
TOC Other	5.8%	10.8%
Track	5.8%	-
Stations	2.5%	5.9%
Operations	2.0%	3.1%

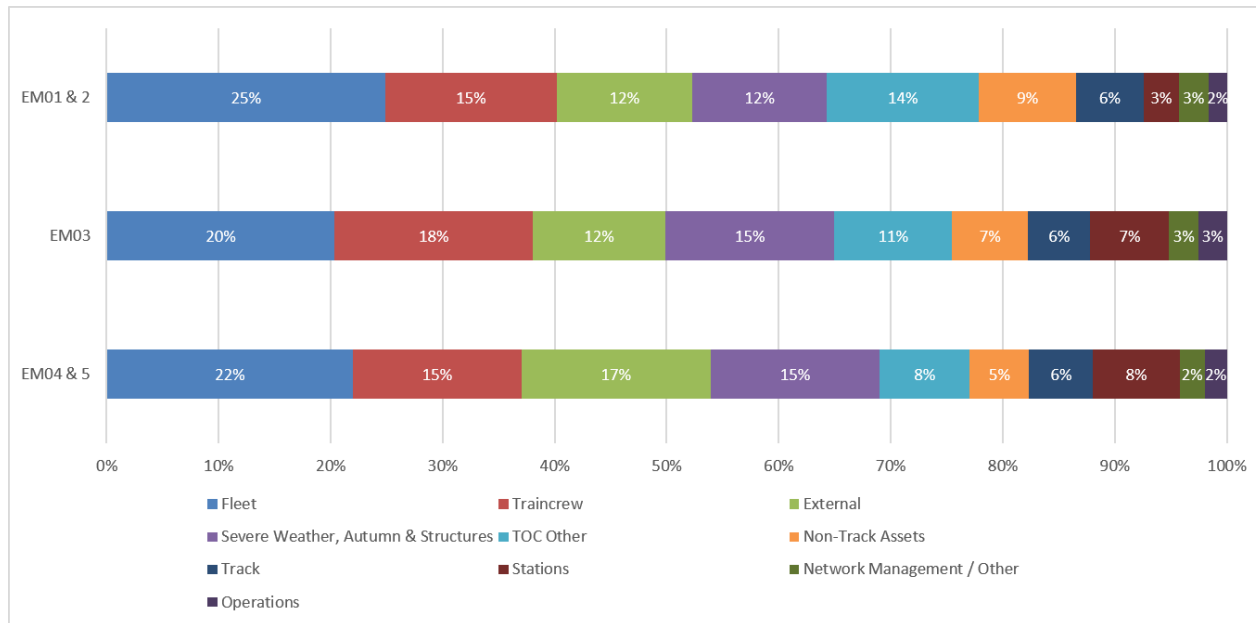


Performance by Broad Causes of Delay

The causes of delay incurred by EMR demonstrate relative consistency across the service groups.

When grouping the causes by attribution, each service group is afflicted by delays of which 40%-50% are of (any) TOC responsibility, with the remaining 50-60% the responsibility of Network Rail.

- EM01 & 2 - 49% TOC // 51% NR
- EM03 - 42% TOC // 58% NR
- EM04 & 5 - 40% TOC // 60% NR



Fleet Reliability

Fleet related causes emerge as the largest identifiable source of EMR performance loss during the post-COVID period, accounting for more than 770,000 on-self generated delay minutes. However, over four-fifths of these minutes are reactionary, indicating that fleet failures frequently generate substantial knock-on effects elsewhere on the network.

Accounting for almost 80% of these minutes are three main failures - technical failures above and below the solebar, brake system faults, and door system faults.

When normalising for fleet size, the EM01 and EM02 service groups operated by Class 170's exhibit the greatest level of fleet related performance loss. However, when the data is also averaged on a per-period basis, the number of incidents per train appears broadly similar across service groups.

Service Group(s)	% of All EMR On-self Fleet Delays	Avg. Delay per Incident (Mins)	Avg. Delay per Record (Mins)	Fleet Size	Average for Full Post-COVID Period		Average per Individual Period	
					Delay per Train (Mins)	Incidents per Train	Delay per Train (Mins)	Incidents per Train
EM01 & 2 - East Midlands Local and East Midlands Regional	44.7%	39	15	Class 170 (x43)	8,093	210	153	4
EM03 - Liverpool - Norwich	14.3%	28	10	Class 158 (x26)	4,289	154	81	3
EM04 & 5 - East Midlands Intercity and EMR Connect / Outer Suburban Services	40.9%	37	9	Class 222 (x27) Class 360 (x21)	6,634	178	125	3

**The Class 810's have been excluded from the EM04 & 5 analysis as they have only recently begun a staggered entry into service*

Traincrew Related Performance

Traincrew related causes represent the second largest contributor to delays EMR generate upon themselves, approximately 355,000 delay minutes. Like fleet related issues, they exhibit a high proportion of reactionary delay – more than 80%.

By service group, EM01 & 2 incurs the most significant proportion of traincrew delay at 56%, followed by EM04 & 5 at 28% and EM03 at 17%.

Whilst driver related causes account for 80% of all traincrew related incidents and over half of all delay minutes, it is rostering problems that generate the highest average delay minutes per incident.

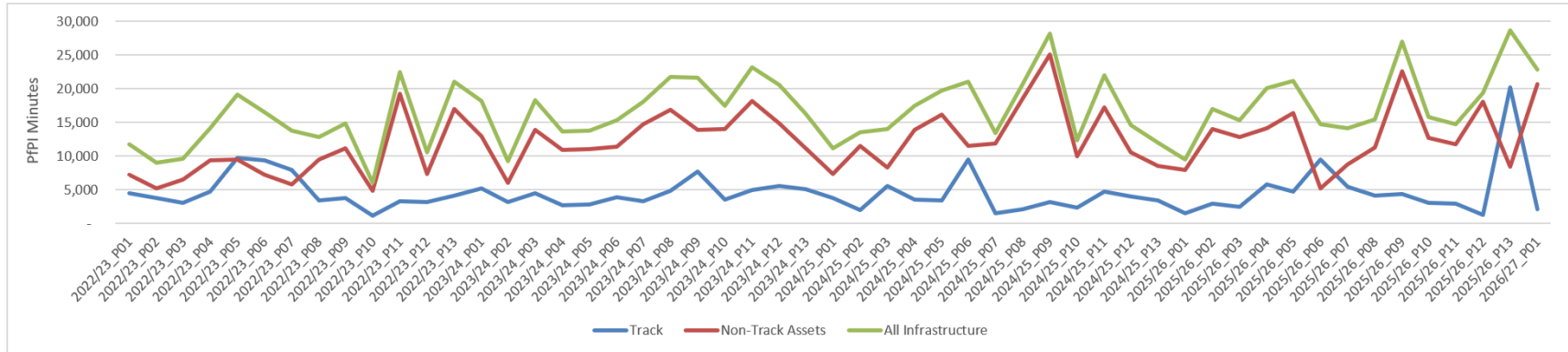
Traincrew Sub-Causes	% of All EMR On-self Traincrew			Average Delay per	
	Minutes	Incidents	Records	Incident	Record
Driver	54%	80%	74%	10	6
(Senior) Conductor/Train Manager	31%	14%	17%	32	15
Traincrew rostering problem	13%	4%	6%	47	17
Waiting connections from other transport modes	2%	1%	2%	24	8
Driver adhering to company professional driving standards or policy	0%	1%	1%	6	4
Train catering staff (including Contractors)	0%	0%	0%	25	8

Infrastructure Performance

When considering all delay incurred by EMR irrespective of attribution, infrastructure related failures remain a significant source of disruption. Among these, non-track asset causes are the second largest contributor to total delay accounting for approximately 645,000 delay minutes. In addition, track faults, points failures and signalling-related incidents collectively contribute several hundred thousand delay minutes and exhibit comparatively high average delay impacts when they occur.

At the service group level, EM04 & 5 experience the greatest volume of infrastructure related delay minutes however it is EM03 for which infrastructure represents the greatest proportion of delay for the service group, at 23%.

The analysis suggests that infrastructure failures tend to generate substantial primary delay, although their propagation characteristics are generally less severe than those associated with fleet and traincrew causes. This distinction is important because it indicates that infrastructure failures often create significant disruption at the point of occurrence, whereas fleet and traincrew incidents may be more likely to generate broader network impacts.



External Events

External events continue to represent a significant challenge, responsible for approximately 815,000 delay minutes for incidents occurring within the geographic East Midlands.

Collectively, fatalities and trespass incidents account for almost two thirds of these minutes, approximately 515,000. However, the characteristics of these two categories differ substantially, as demonstrated in the tables below which note the top five locations for both incident volumes. Trespass incidents occur relatively frequently and generate a significant cumulative performance impact. Fatalities occur much less frequently but exhibit substantially higher average delay per incident.

Unlike fleet, traincrew or infrastructure failures, these incidents are often outside the direct control of railway operators and infrastructure managers. Nevertheless, targeted intervention remains possible through partnership working, hotspot management and preventative measures at known high-risk locations.

Location	Number of Trespass Incidents	Associated Delay Minutes	Avg. Delay per Incident
Mansfield Jn <> Trent East Jn	99	6,966	70
Sheet Stores Jn <> Derby	98	8,127	83
Leicester	96	11,075	115
Kirkby South Jn <> Mansfield Woodhouse	91	3,753	41
Nottingham	90	7,926	88

Location	Number of Fatalities Incidents	Associated Delay Minutes	Avg. Delay per Incident
Market Harborough	10	26,928	2,293
Leicester	10	2,160	216
Kettering	8	4,326	541
Mansfield Jn <> Trent East Jn	8	15,799	1,975
Derby <> Ambergate Jn	6	3,846	481

On-Self Delays by TSC

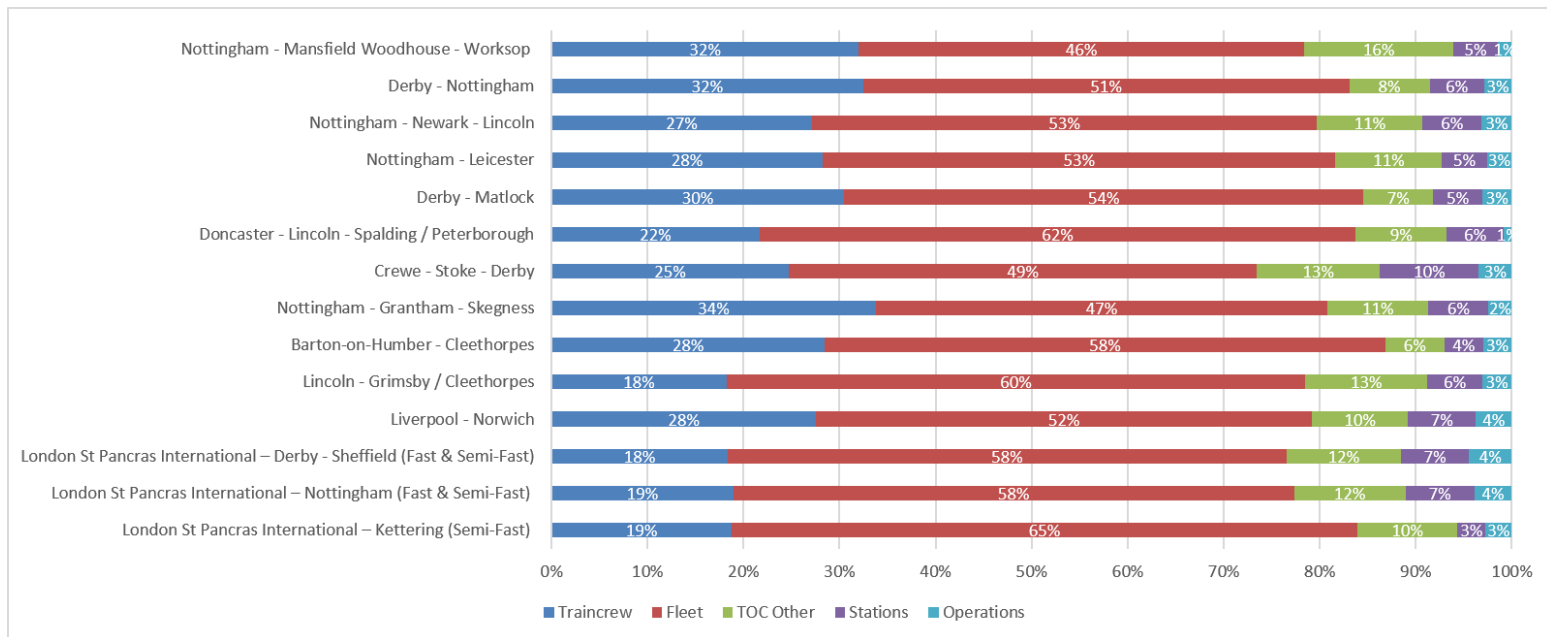
To support with prioritising areas for intervention, the EMR on-self delays have been analysed in greater detail by route and underlying cause.

Consistent with the patterns seen across all delay incurred by EMR, the routes within EM03, EM04 and EM05 are the highest proportions of on-self delay minutes and incidents, which is unsurprising given the long-distance nature of these services. However, when assessed in terms of average delay per incident and record, these routes rank lower, while local and regional routes record the highest averages.

Service Group(s)	Route / TSC	Total Minutes (EMR On-Self)	On-Self Minutes as % of All Delay	Total Incidents	Avg. Delay per Incident (Mins)	Avg. Delay per Record (Mins)
EM01	Nottingham - Mansfield Woodhouse - Worksop	8%	49%	6%	24.1	11.4
EM01	Derby - Nottingham	5%	41%	6%	12.5	9.3
EM01	Nottingham - Newark - Lincoln	7%	40%	9%	13.2	8.3
EM01	Nottingham - Leicester	3%	41%	4%	13.6	9.4
EM01	Derby - Matlock	3%	45%	4%	15.3	10.8
EM01	Doncaster - Lincoln - Spalding / Peterborough	3%	34%	3%	19.0	13.3
EM02	Crewe - Stoke - Derby	3%	30%	4%	14.6	9.6
EM02	Nottingham - Grantham - Skegness	9%	48%	8%	20.5	11.3
EM02	Barton-on-Humber - Cleethorpes	5%	50%	2%	52.0	21.1
EM02	Lincoln - Grimsby / Cleethorpes	1%	29%	1%	16.1	12.5
EM03	Liverpool - Norwich	15%	26%	15%	17.0	8.6
EM04 & 5	London St Pancras International – Derby - Sheffield (Fast & Semi-Fast)	12%	25%	15%	13.8	6.7
EM04 & 5	London St Pancras International – Nottingham (Fast & Semi-Fast)	12%	29%	14%	13.8	6.5
EM05	London St Pancras International – Kettering (Semi-Fast)	13%	42%	9%	25.5	10.7

On-Self Delays by TSC and Cause

As identified previously, fleet related causes remain the largest contributor to EMR on-self performance loss, although their share of delay minutes varies by TSC, ranging from 46% to 65%. Nevertheless, the distribution of delay minutes by cause remains relatively stable across all TSC codes.



*Where TOC Other includes incidents such as those caused by passengers (e.g. illness, disorder/drunks or trespass, ticket irregularities or refusal to pay), bird strikes, police searching the train or station security alerts

On-Self Delays by TSC and Cause

By analysing the average delay minutes per incident, it is possible to identify the cause and TSC pairs associated with the highest delays. Across all categories, the Barton-on-Humber to Cleethorpes route records the highest average delay, with the exception of TOC Other, where it ranks third. This is likely due to the nature of the line in that a single unit operates back and forth along the route so delay experienced by one service can easily propagate to others.

Service Group(s)	Route / TSC	Avg. Delay per Incident (Mins)				
		Traincrew	Fleet	TOC Other	Stations	Operations
EM01	Nottingham - Mansfield Woodhouse - Worksop	23.2	41.6	19.0	6.2	16.5
EM01	Derby - Nottingham	12.5	15.1	10.2	5.5	12.8
EM01	Nottingham - Newark - Lincoln	8.9	24.2	10.0	5.8	16.2
EM01	Nottingham - Leicester	13.2	17.9	10.7	4.8	11.0
EM01	Derby - Matlock	12.0	25.0	11.8	4.9	18.3
EM01	Doncaster - Lincoln - Spalding / Peterborough	14.9	37.7	12.6	4.6	8.3
EM02	Crewe - Stoke - Derby	10.2	31.9	13.1	5.9	18.4
EM02	Nottingham - Grantham - Skegness	21.1	33.3	13.7	6.3	23.5
EM02	Barton-on-Humber - Cleethorpes	36.8	149.6	18.3	11.0	54.6
EM02	Lincoln - Grimsby / Cleethorpes	9.9	27.4	11.4	6.6	16.3
EM03	Liverpool - Norwich	13.6	27.8	15.9	5.9	23.0
EM04 & 5	London St Pancras International – Derby - Sheffield (Fast & Semi-Fast)	8.1	22.4	13.2	5.8	17.3
EM04 & 5	London St Pancras International – Nottingham (Fast & Semi-Fast)	8.5	22.4	12.1	5.8	17.0
EM05	London St Pancras International – Kettering (Semi-Fast)	14.9	42.9	20.0	5.8	24.8

SYSTRA

