



OFFICE OF RAIL REGULATION



Office of Rail Regulation investigation report:

**Disruption caused by
engineering overruns on 27
and 28 December 2014 at
King's Cross and Paddington
stations**

12 February 2015

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Executive Summary

On 27 and 28 of December 2014, passengers travelling into or out of King's Cross and Paddington stations were severely disrupted as a result of overrunning engineering works. Passengers who travel between Christmas and new year include families with young children, the elderly and vulnerable often travelling with lots of luggage in an unfamiliar environment. Over the two days we estimate that more than 115,000 passengers were affected in some way by this disruption. There were impressive examples of good service from individual members of staff but the overall service passengers received was not acceptable. It led to widespread confusion, frustration, disruption, discomfort and anxiety. It was on the basis of this overall impact on passengers that we took the decision to investigate.

In carrying out our investigation, we set out to establish quickly the underlying causes which resulted in the poor passenger experience so that the industry can address any shortcomings in planning and delivering future engineering work. This is critically important because engineering work of this nature is essential to provide a safe and reliable railway and must continue to be undertaken. Network Rail (NR) is expecting to invest £25 billion¹ over the next 5 years and has a significant programme of work scheduled for the foreseeable future including this Easter and Christmas 2015.

In early January, NR published a review² openly identifying the issues which it considered caused the passenger disruption. It has responded quickly to our further requests for information. We have also met with Passenger Focus, London TravelWatch and all of the affected train operators. We have received a number of letters from passengers directly as well as detailed reports and information from the industry.

Over this Christmas period³, NR carried out engineering work on 300 separate projects across 2,000 worksites. It generally has a good record for handing back access to its network following work on time. This Christmas under 2 per cent of the planned possessions⁴ overran⁵. Nonetheless in the possessions taken on the lines into King's Cross and Paddington we have identified weaknesses in NR's planning, oversight and the incident response which followed, which failed to put the impact on passengers at the centre of decision making. This included:

- the planning of the King's Cross possession which did not take proper account of the impact of failing to handing back a working line on the 27 December, in advance

¹ Figure represents the renewals and enhancements totals (capital expenditure) sum from ORR periodic review 2013 final determination document (Table 3)

² See link to NR review report in Annex D

³ Christmas period classed as 19 December 2014 to 5 January 2015

⁴ A possession is when Network Rail restricts access to its network while it carries out engineering work.

⁵ Figures based on Network Rail T-4 review

of the lines being fully reopened on the 29 December, given work being undertaken elsewhere on the rail network;

- communication of the contingency plan developed for the King's Cross possession on the evening of the 26 December which was ineffective so that the plan for Finsbury Park station on the 27 December to segregate inbound and outbound passengers was not properly implemented. As a result the station became overcrowded and had to be closed for some time; and
- reporting the progress of the engineering works at Paddington which was inaccurate so that the operational contingency plan, which included diverting passengers to Waterloo to connect to services out of Reading, was not enacted until many passengers had already been severely delayed.

Had these issues been handled appropriately, much of the disruption which passengers experienced could have been avoided. We have identified the following recommendations so that in future passengers do not suffer the same experience.

Improved planning

Planning of possessions needs to be undertaken by NR with a complete understanding of the impact this could have on train passengers and (although not affected by the overruns at Paddington and King's Cross this Christmas) freight customers and the scale of work being undertaken across the railway network as a whole.

Specifically:

1. NR should ensure that for each possession there is an operational contingency plan which is fit for purpose and developed in conjunction with train operators and others (for example, Transport for London). The detail of the plan should be based on an explicit understanding of the impact on passengers (or freight customers if relevant) of any overrun, including within a possession. Even where there is a very low probability of an overrun if the impact on passengers is high, contingency arrangements will have been developed and tested where possible. The plan should consider provision for passenger welfare and management.
2. Within the planning process which NR follows, it should ensure that it identifies risks to delaying train services as well as handing the possession back on time. This is particularly relevant where it is intended that train services are planned to operate during staged works as at Paddington and before the possession is handed back in its entirety as was intended at King's Cross.
3. In planning a possession NR should ensure that the risk assessment process reflects the work being carried out elsewhere on the network. It should also ensure that the implications this has for it being able to respond to developments during the possession are taken account in determining the probability of a successful completion.

Oversight of possessions and communications

The risk of a possession being completed successfully changes throughout the course of the possession. In minimising the impact on passengers NR needs to understand in real time how the risk of a possession overrun has changed and effectively communicate this upwardly within NR and externally to train operators.

Specifically:

4. NR should review the processes it has in place for site reporting including consideration of the arrangements in place for management of contractors.
5. As part of its planning NR should make sure that there are clear go/no go decision points for the works and go/no go decision points for the implementation of the operational contingency plan and the interaction between the two is understood by all parties.
6. NR should ensure that the processes it puts in place for communicating up the chain of command and to affected parties will cover the go/no go decision points including with respect to the implementation of an operational contingency plan.

Incident response

Once it becomes clear that nothing further can be done to prevent the overrunning of engineering works and this will impact on the services available to passengers and freight customers, it is important that NR and train operating companies work effectively together to mitigate the impact. In the light of the experience this Christmas, NR should lead further work with the industry to improve their response to an overrun incident.

Specifically:

7. NR and train operators should review arrangements for cascading information during an overrun incident to take account of the likely working arrangements of staff at the time, including for example, that they are on call and that the prolonged nature of some possessions require a number of handovers between staff.
8. NR and train operators should consider testing elements, if not all, of an operational contingency plan at critical locations across the network to ensure a robust response in the event that it is required.
9. NR and train operators should review arrangements for managing the control of the overrun incident with a command structure covering all elements of the incident including communication, train planning and station management.

These recommendations address the breaches which we found through this investigation in NR's compliance with its Network Licence. NR accepts this and is content that the recommendations form part of the reasonable requirements which it is required to secure under the terms of Condition 1 of its Network Licence. As a result of its acceptance of our recommendations and the work it is already doing to remedy the failings it has identified, we do not consider it appropriate to take further enforcement action.

NR has confirmed that work is already being undertaken across all of these recommendations and that it is currently reviewing its contingency plans for possessions to be undertaken this Easter. We are in discussion with NR over its preparation for Easter. We expect NR to have implemented all of the recommendations, which will also require

work by the train operators, in advance of the Christmas 2015 engineering work. We will audit NR in the autumn to satisfy ourselves this is the case.

We will also work closely with the Department for Transport and the train operators as appropriate to ensure this work is properly joined up. In relation to train operator contingency planning, we would expect train operators to consider, for all affected stations, the arrangements for crowd control and passenger welfare in times of unexpected disruption including when access to the station facilities may not be available.

The six train operators - East Coast, Govia Thameslink Railway / Great Northern, Grand Central, First Hull Trains, First Great Western and Heathrow Express - whose services were affected by the overrunning engineering works acted in accordance with established processes for managing disruption. The train operators, who are dependent upon information from NR in order to plan and communicate with passengers, did not breach their licences.

Nonetheless passengers were rightly concerned by the quality and consistency of information which they received because the impact of an overrun can to some extent be mitigated by accurate and timely information. Better planning and prompter communication by NR would have improved the quality of information which was then passed on to passengers. We note that the industry also has plans in place to make improvements. The train operator plans including dates for delivery need to be published so that passengers can be confident that change will be delivered and we can monitor against them.

Throughout this investigation we have worked alongside our safety inspectors recognising that planning for engineering work and overrunning engineering work both have the potential to increase safety risk. Although fortunately no one was injured on these occasions, there are lessons for the industry to learn and take action on which are consistent with our recommendations. For example:

- In planning complex possessions it is critical to understand the human factor aspects of ensuring the workforce on the ground can carry out the work safely. If necessary, following a risk assessment, then the possession should be simplified if it poses unacceptable risks to the workforce or to the safe hand back of part or all of the work.
- When developing or changing a contingency plan it is critically important to carry out a suitable and sufficient risk assessment. It should be written down so that it can be communicated from shift to shift and that everyone involved is clear “why” the decisions have been made.

In carrying out this work we have also made a number of other observations which are set out in chapter 6; which in relation to the timing of engineering work and the availability of resources, we will feed into the Rail Delivery Group (RDG) led review⁶.

⁶ <http://www.raildeliverygroup.com/what-we-do/> Rail Delivery Group (RDG) planning and timing of engineering works review was commissioned by the Secretary of State of Transport. The review was commenced on 13 January 2015 and is to be completed by the end of March 2015.

1. Introduction

Summary

This chapter explains the background and remit for this investigation.

Background

- 1.1 As the independent economic and safety regulator for Britain's railways, ORR plays a critical role in improving services for rail users. Our vision is that Britain's railways should deliver safety, performance and efficiency equivalent to the best comparable railways in the world. We are also the consumer authority for the rail industry as a whole. Our consumer function enables us to focus on basic rights for rail passengers such as access, information and redress.
- 1.2 The Christmas period can often be a difficult time of year to travel with revised timetables and passengers who may be less familiar with the routes that they are using. While there may be fewer commuters, rail services remain essential to many people who, among other things, want to visit friends and family, make shopping trips or travel to sporting events. Travel disruption, whether for reasons of weather, planned or unplanned engineering work can cause significant problems and when managed badly, make for stressful and uncomfortable journeys.
- 1.3 The rail industry has traditionally carried out essential engineering work over the Christmas period because of the reduction in commuting and business travel, with weekday ridership around 2 million passengers, compared with 5 million during the rest of the year⁷ on a normal working day. There are no train services on Christmas Day (25 December) and the majority of operators do not run services on Boxing Day (26 December). This provides a 48 hour window when Network Rail (NR) can carry out essential work to improve the rail network and maintain reliable services for passengers.
- 1.4 Planning for engineering work over the Christmas period commences 18 months to 2 years⁸ before the work is due to start and involves close liaison with train operators to ensure that disruption to passengers is minimised.
- 1.5 This Christmas period NR commenced a very large investment programme on Britain's rail network. This involved over 300 separate projects across 2,000 worksites⁹ on the network to create improvements such as new platforms, flyovers, junctions and station facilities that will make the network more reliable for passengers for years to come.
- 1.6 It included work on the approaches to both King's Cross and Paddington stations. In both cases this work did not go according to plan and passengers were significantly disrupted. Over the 27 and 28 December we estimate that more than 115,000 people were affected in some way by this disruption. There have been a number of impressive

⁷ Rail Business Intelligence No 478 29 January 2015

⁸ See link to Operational Rules in Annex D

⁹ See link to NR review report in Annex D

examples of individual members of staff going above and beyond what was expected of them to the benefit of passengers. Nonetheless the service passengers received was not acceptable and led to wide spread confusion, frustration, disruption, discomfort and anxiety and it was on this basis that we took the decision to investigate.

Remit

- 1.7 Taking account of the public interest, we produced and consulted on the terms of reference for the investigation (set out in Annex B) in the context of our duties as defined in law and in relation to the licences held by NR and by train operators.
- 1.8 NR and train operators are licence holders and are legally obliged to comply with the conditions of their licences. We are responsible for investigating potential licence breaches and taking appropriate enforcement action when a licence breach is identified. Further details of our legal framework and policy are set out in Annex E.
- 1.9 Our investigation has focused on the following key licence provisions in the context of the overruns which affected services at King's Cross and Paddington stations in December 2014.

Conditions 1 and 2 of Network Rail's licence

- 1.10 Condition 1 of the network licence sets out NR's core obligations to secure the operation, maintenance, renewal and enhancement of the network in accordance with best practice in order to satisfy the reasonable requirements of its customers and funders. This covers the renewal and replacement of the network as well as the improvement, enhancement and development of the network.
- 1.11 NR is under a duty, in accordance with condition 1 of the licence, to achieve its core obligations to the greatest extent reasonably practicable, having regard to all relevant circumstances including its ability to finance its licensed activities.
- 1.12 Under condition 2 of the network licence, NR is obliged to secure the provision of appropriate, accurate and timely information relating to planned and actual movements of trains on the network to enable train operators to meet their information obligations to passengers and prospective passengers, including when there is disruption. Again, NR is under a duty to perform this obligation to the greatest extent reasonably practicable having regard to all relevant circumstances, including its ability to finance its licensed activities.

Condition 4 of the train operators' licence

- 1.13 Condition 4 of the Passenger Train Licence and the Statement of National Regulatory Provision (SNRP), obliges train operators to secure the provision of appropriate, accurate and timely information to enable railway passengers and prospective passengers to plan and make their journeys with a reasonable degree of assurance, including when there is disruption.
- 1.14 Train operators are also obliged by condition 4 to cooperate as necessary with NR and each other to enable NR to undertake appropriate planning, including when there is disruption.
- 1.15 Train operators are under a duty to achieve the obligations in condition 4 to the greatest extent reasonably practicable having regard to all relevant circumstances, including the funding available.

- 1.16 Separately we have been investigating the management of safety using our powers under health and safety law.
- 1.17 In carrying out our investigation we have also made a number of other wider observations, for example, in relation to the timing of engineering works. We intend to feed these observations into the other industry reviews which NR and the Rail Delivery Group (RDG) have initiated in response to the Christmas overruns.

Conduct of investigation

- 1.18 In carrying out our investigation, we recognised the importance of producing and publishing our findings quickly in order that the industry would be able to take account of them in preparing for the engineering works which are planned for Easter and next Christmas.
- 1.19 Within these timescales, we have met with Passenger Focus, London TravelWatch, all of the affected train operators and NR. We have received a number of letters from passengers directly as well as detailed reports and information from the industry. We are grateful for the speed and quality of the information which we have received and the open way in which the industry has responded to this investigation.
- 1.20 The document follows the following structure:
- in Chapter 2 we have described what impact the overruns had on passengers, which led to us in the public interest carrying out this investigation;
 - in Chapter 3 we have set out a timeline of events in relation to the planning of the possessions, the oversight of the possession and the operational response to the overruns at King's Cross and Paddington;
 - in Chapter 4 we have analysed the causes behind the disruption to passengers to enable us to conclude whether or not NR or any train operator breached its licence and if so what needs to be learned to prevent any recurrence;
 - in Chapter 5 we set out our decision in relation to licence breach and recommendations for addressing any failings; and
 - in Chapter 6 we set out our wider observations, including on passenger information during disruption.

East Coast Main Line

- 2.1 King's Cross station is the southern terminus of the East Coast Main Line (ECML) one of Britain's major railway corridors providing high speed long distance services to destinations in Yorkshire, the North East and northern and eastern Scotland. East Coast (EC) is the main long distance operator and its destinations include Leeds, Newcastle and Edinburgh. Other long distance operators serving the station include First Hull Trains (FHT) and Grand Central (GC). King's Cross Station is owned and managed by NR.
- 2.2 Between 25 and 29 December 2014, NR had planned to carry out engineering work at Holloway Junction, north of King's Cross station. To accommodate passenger demand during this period it had been decided that services would operate to a reduced timetable over the weekend of 27-28 December. It was also agreed that a limited number of long distance services would be able to reach King's Cross on 27 December through special working arrangements designed to take account of the ongoing engineering work. The reduced timetable caused FHT to divert 2 of its services into St Pancras rather than running into King's Cross or having to terminate at Peterborough.
- 2.3 During this period, local Great Northern (GN) services were able to access Moorgate station which, normally closed at weekends, was being opened specially to accommodate the changes in working arrangements. This provided an alternative London destination for inner suburban services. In addition, some of the main line GN services were planned to terminate at Finsbury Park rather than King's Cross.
- 2.4 The first public indication of potential travel disruption at King's Cross was placed on the EC trains website at 15:30 on 26 December. This was then reported by national and regional broadcasters, web outlets and print journalists. Limited information was available at this time with the main advice to passengers being to consider deferring travel and to await further information. However, to accommodate the engineering problems that NR experienced at Holloway Junction, a decision was taken on the evening of 26 December that passengers needing to use King's Cross the next day would start and finish their journeys at Finsbury Park.

Passenger experience – King's Cross Station

- 2.5 King's Cross had been closed on 25 and 26 December and re-opened on 27 December. Under the arrangements put in place because of the overrunning engineering works no train services departed the station all day¹¹. The train operating companies (TOCs) provided additional staff to the NR managed station in order to provide customer assistance and to direct passengers to Finsbury Park and Moorgate. However, it is notable that this continued even when Finsbury Park station was temporarily closed. EC staff dealt with all the passenger assistance bookings from King's Cross, irrespective of operator.

¹¹ The 23:55 service to Hertford North departed at 23:56 and ran as far as Finsbury Park on 27 December

Passenger experience - Finsbury Park

- 2.6 Finsbury Park is a busy transport interchange in North London, two tube stops north of King's Cross on the Victoria line and is also on the Piccadilly line. The interchange consists of an interconnected national rail station consisting of 8 platforms, a London Underground station and two bus stations.
- 2.7 The station is managed by Govia Thameslink Railway (GTR) which operates the local GN services and regularly deals with large crowds of around 60,000 people due to its proximity to Arsenal's Emirates Stadium¹². In such instances the station can operate well because of the predictable and tidal movement of passengers to and from the station. The addition of stewards, additional policing and the extensive use of crowd control barriers to manage the volume of passengers also assist at such times. However, other than for platform 1 and platform 2, the station does not provide step free access and the layout of the platforms can make segregation of passenger flows difficult when such additional measures are not in place.
- 2.8 Recognising the limitations of Finsbury Park the incident response plan developed by NR and the affected TOCs on the evening 26 December was to construct a train plan that would limit the number of trains in operation. In particular the number of long distance trains serving the station each hour was half that in the original timetable, with the remaining services terminating at Peterborough. It specifically required mainline train arrivals at platform 4 and departures from platform 5, as without that, inwards workings could not arrive at the scheduled time. It was also intended as a means of segregating passenger flow. For reasons outlined in Chapter 4 of this report, this arrangement, while agreed in principle, was not enacted and on 27 December platform 4 was initially used for both arriving and departing services.
- 2.9 Despite the plan to run two long distance services each hour, in fact it proved possible only to run one service and as a result the station became crowded. Because of the level of disruption, the restricted service and the need to maximise the number of passengers able to travel on each train, affected TOCs agreed to suspend all seat reservations and restrictions. This information was communicated to passengers through a variety of channels and may have resulted in some passengers trying to travel earlier than originally planned.
- 2.10 By 10:30 the station was becoming crowded and by 10:55 increasingly congested with passengers trying to leave EC trains at the same platform as others who were trying to board. There were people attempting to move in each direction on restricted width platforms and this caused queues to back up; in particular around staircases and subways where there were conflicting passenger flows. The situation was exacerbated by the number of people travelling with large volumes of luggage and children in pushchairs and prams. GTR station management decided, on passenger safety grounds, to clear the platforms, enact the station emergency plan and close the station.
- 2.11 The planned departures at 09:55 (EC to Aberdeen), 10:10 (FHT to Peterborough) and 10:16 (EC to Edinburgh) did not run as passenger services from Finsbury Park. The first northbound long distance service to depart was the 11:00 EC service to Edinburgh

¹² See link to Arsenal football club in Annex D

which left at 11:19 and was very busy as it had picked up passengers from the cancelled trains.

- 2.12 Many of the media reports documenting the closure of the station describe the initial period as chaos and staff were initially overwhelmed as they struggled to manage the developing situation. Photographs show gridlocked platforms and stairs as well station forecourt areas. The overcrowding created additional problems for staff and police attempting to move around the station in order to better manage the situation.
- 2.13 However, closure of the station allowed a platform management system to be implemented. This resulted in passengers being counted onto platforms until safe capacities were reached. After some time the use of temporary one-way systems and crowd barriers obtained by London Underground assisted with controlling passenger flow. The station remained closed until platform, stairs and narrow subway areas could be cleared, resulting in the station partially opening again at 12:20 and fully opening at 13:17.
- 2.14 Closure of the station resulted in a large concentration of people queuing in access passageways and the station forecourt area. While TOC staff and British Transport Police (BTP) worked to bring the situation under control it is clear that for several hours after the station reopened crowds remained on the forecourt areas and long queues extended a considerable distance along what was by then very congested pavements under the rail bridges on Seven Sisters Road. The queue was unsupervised. It is estimated that around 400-500 people were still queuing at 16:00 as it started to get dark.

Communication

- 2.15 Communication within and around Finsbury Park station proved very difficult with staff using megaphones to communicate with passengers who were queuing to gain access. Reports from media sources, twitter, passenger contacts to us and discussions with people who were at the station for some part of the day suggests that passengers were given limited information which resulted in a significant degree of confusion and frustration.
- 2.16 The late changes to the timetable caused incorrect information to be displayed on some information systems on the morning of 27 December. Reports also suggest that the information screens on stations were not keeping up with the changes to the service caused by further cancellations during the day. In some cases, a difference was noted in the information displayed on station screens and live information provided by train crew or station staff.
- 2.17 It is clear that significant concerns relate to lack of consistent and accurate information particularly when passengers are able to check remotely website information, use smartphone applications and send and receive messages via Twitter.

Passenger Welfare

- 2.18 The layout of Finsbury Park means that seating, shelters, toilets and refreshment facilities are limited. There is a small coffee shop on Platform 7 but given the overcrowded conditions this is unlikely to have been accessible to many passengers who were confined on platforms, stairs and in subways within the station.
- 2.19 It has been estimated that at its peak the closure of the station resulted in between 1,500 and 2,000 passengers queuing outside the station, some for over 3 hours. Facilities in the area surrounding Finsbury Park are limited, especially on the Saturday (27

December) after Christmas when many were closed. With low temperatures, damp conditions and little seating, passengers were forced to queue in cold and uncomfortable conditions. For the very young, elderly and more vulnerable passengers these conditions can be particularly distressing.

Arrangements for passengers requiring special assistance

- 2.20 Passengers can pre-book assistance if they need help when travelling by rail. Such assistance is generally required by passengers who have mobility or other disabilities that means that they find getting on and off trains difficult. For example, wheelchair users would require use of a boarding ramp and to reserve a wheelchair space on the train.
- 2.21 Around 70 passengers had pre-booked assistance for travel on 27 December and it is notable that EC put in place extensive arrangements for taxis to be used for all booked passengers, irrespective of operator. It is estimated that across the route 300 taxis were used for the elderly, those with mobility impairments and wheelchair users¹³. Conditions for such passengers on crowded platforms, station subways and on the station forecourt would have been extremely difficult even for a short period of time.

Passenger experience on waiting trains

- 2.22 Train services scheduled to terminate at Finsbury Park were significantly delayed by the congestion. This also meant that they were unable to then form return northbound services on time. At 14:56 the GN Control reported five EC trains and seven GN trains all waiting outside Finsbury Park for platforms to become available. By 15:18 some trains were running northbound and the queue of trains was reducing. This resulted in additional cancellations and by 15:00 there was only a very limited GN service in operation. This had a knock-on effect for passengers on long distance trains that were terminating at Peterborough as they found that there were limited onward connections. As a result they had to change trains for the next service to Finsbury Park.
- 2.23 Media reports indicate that trains were severely overcrowded with a report that passengers were forced to climb over seats to reach toilets. There was some frustration from passengers who were held on trains in stations north of Finsbury Park but not allowed to leave the train. Given the evolving situation at Finsbury Park, the media interest in the station closure and number of passengers either confined to the station or queuing outside, social media played a significant role in providing passenger information for those waiting on trains.
- 2.24 While there are no formal reported incidents of injuries or ill health it is undoubtedly the case that conditions on waiting trains were extremely difficult to tolerate and in such situations the physical discomfort would have been exacerbated by the uncertainty and lack of firm information on how long trains would be delayed because of the disruption.

Rail replacement road transport

- 2.25 In times of disruption it is general practice that replacement road transport is provided. However, given the time of year and short notice it proved difficult for the train operators to procure such vehicles. While FHT had coaches on standby as part of its Christmas

¹³ EC Holloway SC renewal report

preparations, the other operators were unable to source all of the vehicles that they required.

- 2.26 GN initially used 10 buses and provided a link between the ECML at Letchworth Garden City and the Thameslink route, also operated by GTR, at Luton Airport Parkway¹⁴. It also arranged for train tickets to be accepted on the normal service buses on that route. However, while train movements can be tracked through apps and websites using live departure information, there is no such system for rail replacement transport and so it was left to station staff to provide passengers with departure and journey time information.
- 2.27 Later in the day when the GN service was suspended, additional bus services were introduced. By 17:30 there were four buses on each leg of a shuttle service from Hitchin to London, Cambridge and Peterborough.

Great Western Main Line

- 2.28 Paddington is the London terminus for First Great Western (FGW) which provides the majority of commuter and regional services to west London, the Thames Valley region and long-distance intercity services to South West England and South Wales. Paddington is also the London terminus for the Heathrow Express (HEX), which provides fast train services to Heathrow Airport and Heathrow Connect (HC) which operates stopping services to Heathrow. Paddington is owned and operated by NR.
- 2.29 Unlike the situation at King's Cross, the overrunning engineering work outside Paddington was not known in advance, meaning that the affected TOCs were unable to implement their contingency plans before the start of train services. This meant that initially passengers arriving at Paddington were told that the train service was expected to start shortly. However, it later became clear that the main line would remain closed until the early afternoon.
- 2.30 A reduced service was planned to operate on 27 December with the first departure planned for 07:30 and the first long distance arrival scheduled to arrive in Paddington shortly after 11:00. Of the 156 planned long distance services, 60 were cancelled and delays to some trains of up to 2 hours were experienced on those trains that reached Paddington. FGW has told us that around 25,000 seats had been reserved for travel on its long distance services¹⁵. Ticket restrictions were removed when the extent of the disruption was known. It is clear that most passengers found it frustrating and difficult to understand the constantly changing times for the recovery of train services. This made it very difficult for passengers to plan onward journeys with any confidence.
- 2.31 The disruption at Paddington was also impacted by separate engineering work at Reading, the normal termination point for intercity services when there is disruption approaching London. The reduction in available through platforms at Reading resulted in some services being terminated further west at Didcot Parkway and Swindon. Following confirmation of the level of disruption, automatic ticket acceptance was arranged for passengers on alternative routes including South West Trains (SWT) and Chiltern Railways. A large number of passengers were routed to Waterloo and FGW dispatched

¹⁴ GTR evidence provided to Transport Select Committee Jan 2015

¹⁵ FGW – submission to ORR in respect of 27 December 2014

an Assistant Station Manager and Customer Ambassadors there to assist with the passenger flows through that station.

- 2.32 Passengers who were expecting to catch HEx or HC services to the airport found they were cancelled until late afternoon. HEx staff at Paddington and Heathrow were able to direct their customers to alternative routes to get to and from the airport.
- 2.33 Vulnerable passengers were accommodated in the First Class lounge at Paddington and then escorted to trains when services started running. Free refreshments were served from trolleys at Paddington to others on the concourse and refreshment vouchers issued to passengers stranded elsewhere.

Passenger compensation

- 2.34 It is important that passengers are aware of, and are able to exercise their rights, particularly when things go wrong – such as at times of disruption.
- 2.35 We have seen some examples of good practice by TOCs in making passengers aware of their compensation rights as part of the Christmas disruption. In particular, websites carried banner headlines alerting passengers to the problem and containing details of how to claim compensation for delays or obtain refunds. Tweets also mentioned entitlement to compensation and the fact that passengers could defer travel. FGW took out press advertisements to apologise to its passengers for the disruption and to provide further information on compensation.

Safety

- 2.36 Inspectors from our Railway Safety Directorate have considered safety risks and the actions of dutyholders in the wake of the Christmas engineering overruns at both Finsbury Park and Paddington stations. A lack of capacity, in terms of both infrastructure and rolling stock, combined with difficulties with passenger information, can potentially lead to increased safety risk. The most serious potential risks might include, for instance, people falling off crowded platforms. In short, overruns will have consequences.
- 2.37 Under the Health & Safety at Work etc Act 1974¹⁶, railway operators have a duty to ensure, so far as reasonably practicable, the safety of passengers. It is clear that good planning and communication are key to making the best of abnormal arrangements. Our inspectors will be following-up with dutyholders the lessons learned from this episode.
- 2.38 We are continuing investigations into certain aspects of the incidents, particularly why the originally devised plan for Finsbury Park was not initially implemented. The conclusions of the safety investigation will be delivered through our normal processes.

¹⁶ ORR and HSWA Act – see link in Annex D

3. Timeline of Events

Summary

This chapter set out the timeline of events relating to the engineering possessions taken affecting King's Cross and Paddington stations.

Introduction

- 3.1 It is important to understand the course of events which lead to the disruption experienced to passengers and described in chapter 2. We have compiled the following timelines on the basis of a wide range of information and evidence gathered as part of our review.

King's Cross station

- 3.2 NR took possession of the ECML on 24 December 2014 between 22:00 and 23:00. The commencement of works was delayed by approximately one hour while the 25,000 volt overhead lines were isolated and the required permits to work were issued.
- 3.3 During the 'scrapping out' process, where the 500m of old track and sleepers were flame cut, dismantled and loaded onto engineering trains, approximately three further hours were lost due to compatibility issues between the Road Rail Vehicles (RRV) and the new log grabs (supplied specifically for the works), and to some extent lack of specific experience on the part of the machine operators.
- 3.4 These delays were compounded by the failure of one of the seven RRVs for about three and a half hours. The on-site fitter was unable to repair the RRV and an off-site specialist was called to site.
- 3.5 'Scrapping out' was completed at approximately 09:00 on 25 December, with the project 3 hours 15 minutes behind schedule (4hrs delay minus the 45 min contingency allowed for that part of the process).
- 3.6 At this point the project had reached the "point of no return", which was when a key decision had to be taken on how deep to excavate the ballast. The contingency plan allowed for the project to be up to 4 hours behind at this point and to still deliver the full 300mm deep ballast excavation (around 6,000 tonnes of stone) rather than take out less ballast and save time.
- 3.7 As the project was less than 4 hours behind the plan, the decision was made to progress with the full dig. The site team considered that time could be recovered and so an overrun was not declared at this stage.
- 3.8 Shortly after this, two engineering trains, which were loaded with scrap rails and sleepers, were due to leave site. Some of the scrap was not adequately secured for safe transport and had to be adjusted, adding further delays. By the time this was completed, the drivers had worked the full length of a shift and were not permitted by their working practices, which are derived from safety requirements, to drive the trains to New Barnet, approximately 7 miles away.
- 3.9 The drivers of two of the spoil wagon trains (used to transport the old ballast) were then sent to drive the scrap trains away. While moving drivers from one train to another is

common practice; the engineering trains were spread out over the 9 mile worksite so further time was lost with each driver move.

- 3.10 With the site now two train drivers down and with the continuing gradual loss of time, the project was considered to be about six hours behind schedule at 14:00 on 25 December. It was at this stage that senior NR and contracting staff were alerted to the programme delay, but it was still considered possible to recover the delays and hand back on 27 December, due to contingencies built into the schedule for 26 December.
- 3.11 Overnight the availability of new train drivers ran out, but during the teleconference call at 00:05 between NR and the TOCs it was still considered possible for time to be made up and for the possession to be handed back on time. At this point the project had only one remaining driver, but five engineering trains still on-site and the project started to rapidly lose time. On the morning of 26 December, senior NR and contracting staff sought to identify a solution but by 11:00, the project was approximately 15 hours behind the original schedule.
- 3.12 NR Infrastructure Project Tactical Control and London North Eastern Route Control were made aware that an overrun would occur on 27 December and this information was forwarded to NR's Chief Executive and Managing Director Infrastructure Projects.
- 3.13 By 13:00 on 26 December, a revised plan had been put together which showed that the railway could not be safely handed back until the night of 27 December, thereby triggering the declaration of a 24 hour overrun.
- 3.14 By early afternoon TOCs had been advised of the overrun and a teleconference call was arranged for 18:30 to finalise the operating schedule for the 27 December.
- 3.15 During the afternoon of 26 December, Route Control decided to adapt and implement an amended version of the operational King's Cross Alpha One contingency plan, the standard plan for when all lines are blocked into King's Cross or the station is closed. The plan was amended so that London-bound trains would arrive at Finsbury Park platform 4 to allow passengers to disembark, before shunting across to platform 5 for departures to destinations north of London.
- 3.16 At this point the TOCs started to issue travel advice to customers planning to travel on 27 December through broadcast media, social media and their company websites, alerting them to the disruption to the expected operating schedule and advising them to consider delaying their travel plans if they did not have to travel on that day.
- 3.17 At the 18:30 teleconference call, NR confirmed that King's Cross would not be available for operations the following day, and that a revised train service would need to be implemented. The revised service plan initially proposed that 4 long distance trains per hour would terminate and depart from Finsbury Park. However, after the Finsbury Park station manager stated that the station would not be able to cope with that many trains per hour (due to restricted access and egress at the station) it was agreed that 2 EC trains per hour would terminate and start from Finsbury Park. Other trains would run to and from Peterborough, along with GC and FHT services. The agreed plan included EC services arriving and disembarking at platform 4, before shunting to platform 5 to embark customers travelling northbound. This was to allow the segregation of arriving and departing passengers on to separate platforms.
- 3.18 Over the course of the evening the TOCs established their Service Delivery (Control) Centres earlier than planned to prepare for the amended service agreed earlier.
- 3.19 Overnight while NR was undertaking to continue works and allow the recovery of lines to Finsbury Park, TOCs were inputting the revised operating schedule in to the Very Short

Term Planning system (VTSP). This was all that was possible due to time and staff constraints, and had the downside of not populating all usual timetable information channels.

- 3.20 At 04:00 the lines north of Finsbury Park were reopened and handed back to Route Control allowing the revised schedule to be implemented later that morning.
- 3.21 At 04:10 the duty Station Manager arrived to open the station, having earlier been briefed by the Station Supervisor (On-call Station Manager) on the plan for 27 December.
- 3.22 At 06:30 GTR trains started using Finsbury Park in accordance with the revised timetable, with delays of up to an hour experienced. There were however no reported issues with the control of passengers at this stage.
- 3.23 At 08:45, the Finsbury Park Station Manager called the NR shift Signalling Manager (SSM) to discuss whether or not EC trains were going to shunt from platform 4 to platform 5. The SSM did not initially know, but after conferring with a colleague, told the Station Manager that no shunt moves would happen and the trains would remain on platform 4. Neither of them appears to have been aware that a definitive decision had been taken the night before to shunt the trains from platform 4 to platform 5.
- 3.24 At 09:30, the first EC passengers started arriving early for the 11:00 departure to Edinburgh, having been advised that there may be issues and delays to their journey.
- 3.25 At 09:58 a FHT train arrived at Finsbury Park platform 3. This train wasn't expected by the station manager, who understood all FHT trains were expected to terminate at Peterborough. This train departed to reverse at Highbury Vale Junction and return to Finsbury Park to depart to Peterborough. However a late running ballast train was stationary at platform 8 awaiting a relief driver. As this was the only platform that the FHT service could use following its reversal, the decision was taken to run it empty to Peterborough. This was the first express train to leave Finsbury Park and could have relieved passenger numbers if a platform had been available.
- 3.26 EC staff arrived at 10:30 to find the station full with passengers overflowing from the platforms on to the stairs and in to the station underpass. Consequently they were initially unable to obtain access to the station. They also did not have any radios with them to assist communications between them and GTR staff.
- 3.27 The first EC train arrived at 10:34 and disembarked its passengers on to an already crowded platform. The Station Manager decided, on safety grounds, to clear the platforms and enact the station emergency plan, closing the station until it was safe for passengers to return in managed groups. This led to up to 2,000 people standing outside the station for up to 2 hours waiting for their train.
- 3.28 However, this EC train was not shunted to Platform 5 as per the revised operating schedule, but departed platform 4, 19 minutes late at 11:19, delaying the arrival of following EC service.
- 3.29 The next EC train followed the same pattern with passengers held outside the station until Platform 4 was clear of arriving passengers and it was safe for departing passengers to board the train. As the crowd situation improved, the station was partially reopened at 12:20, with passengers continuing to wait outside.
- 3.30 At 13:15 the plan agreed at the previous night's conference call was implemented with EC trains being shunted from platform 4 to platform 5, and the station was fully reopened at 13:17.

3.31 By 14:00 it was clear that operations were now running more smoothly and by 17:00 the majority of the crowds had dissipated.

Paddington station

3.32 The possession safety and planning documentation was completed in the run up to the works.

3.33 The possession was taken on time at 23:00 on 24 December. On 25 December at 12:00, the FGW Control Support Manager (CSM) went into the Integrated Control Centre Western (ICCW) to get a progress update on the possessions. The NR Route Control Manager (RCM) on duty advised that all works were on schedule, with NR contacts in the possession control room at Stockley also advising of no known issues.

3.34 The FGW CSM visited the ICCW again on 26 December and was advised by the NR RCM that there had been some signalling issues, but these were being worked around for an expected hand back of 07:00 on 27 December as per the work schedule.

3.35 Then prior to 18:00, NR contacted FGW informing them that trains may have to be talked past 2 signals when exiting the depot at Old Oak Common (OOC) into Paddington due to some delays in signalling works at OOC.

3.36 At 22:00 a project conference was held to allow FGW project representatives to feed back concerns with signalling at OOC to NR. NR was unable to give any firm details of the issues, impact and time scales. This would not be known until early hours of the morning so FGW decided to update their website with a message advising customers that there was a risk of disruption on 27 December, and to check before starting their journey in the morning.

3.37 The signal testing was reported as complete at 03:30 on 27 December by the signalling contractor. At this point, the project appeared to be on time with the railway lines expected to open at 07:00 to allow passenger services to commence as planned.

3.38 NR expected its contractor would use the time between 03:30 and 06:00 to complete the final paperwork checks and testing verifications. This activity is said to normally last one to two hours, when the testing paperwork is maintained and updated constantly throughout the works.

3.39 A visit to the ICCW by the FGW CSM at 05:00 confirmed that it was still expected to hand the main lines back at 07:00 with the relief lines delayed until 11:30.

3.40 However, it soon emerged that the amount of work required at this stage was greater than NR and its contractor expected, due to physical testing work that had been done earlier needing to be redone or rechecked. There were also inconsistencies in the paperwork that needed resolving prior to the safety certification being issued.

3.41 FGW held a conference at 06:00 and planned its movements around these timings. However no further information was forthcoming from NR at this point and FGW were relying on their contacts in the Stockley possession control offices for updates. It was these contacts that at 06:44 advised FGW that it was unlikely to get possession back at 07:00.

3.42 At 06:30 the safety certificate for the main lines was still outstanding and so the NR Project Team alerted Route Control and the TOCs that there was a risk of overrun. The OOC carriage lines and main lines became the priority to hand back to allow trains in OOC depot to get to Paddington to start the days outbound services.

- 3.43 Dialogue between NR and its contractor continued on a regular basis (every 15 to 20 minutes) at both OOC and the Control Room in Stockley. Despite this the contractor was unable to confirm when the safety certification for the main lines would be issued.
- 3.44 Between 07:00 and 09:15 TOCs were updated from the Stockley possession control office, both FGW and HEx had managers on duty at the location. Additionally NR project directors regularly briefed their TOC opposite numbers. There was however intermittent information from NR sources at the Stockley possession control office and what information was provided was unreliable.
- 3.45 At approximately 08:30, the NR project team stopped the signal contractor's Tester In Charge (TIC) and asked for confirmation of the expected time for completion of the testing. The TIC stated that the document for OOC would be issued at 11:15. Route Control and the operations teams therefore planned on this basis.
- 3.46 Subsequently, the TIC found that the amount of work that still needed to be done was greater than initially expected. This came to light as safety validation checks on the paperwork were completed. A combination of physical testing work needed to be redone or rechecked and inconsistencies in the paperwork needed resolving. At 09:00, the TIC identified that additional site checks/tests on the main lines were required prior to the safety certification being issued and these commenced at 09:50.
- 3.47 At 09:15 NR confirmed to the TOCs that there were considerable issues with the signal testing and that there was no estimated time for the return of the lines. By this time FGW has started advising customers to head to Waterloo and take the South west Trains (SWT) service to Reading. At the same time FGW dispatched a customer service team to Waterloo to assist with customers' travel requirements.
- 3.48 At 11:15 it became apparent to FGW that the lines would not be handed back within the timeframe stated by NR. The first eastbound train (1A11) that had been let through Reading was now being held at Slough, with other services continued to be held back at Reading. Road transport was investigated to transfer those passengers at Slough to London, but this was difficult to arrange, in part due to the overruns at King's Cross.
- 3.49 By 11:45 NR had re-forecast the hand back time as 12:00, but FGW continued to turn trains around at Reading, with the exception of 1A11 which remained at Slough.
- 3.50 By 12:15 the separate possession east of Slough had been lifted and as the latest estimate for the signals surrounding the Stockley worksite were cleared for use and the latest estimate of the return of OOC was now 12:30, FGW decided to run 1A11 and a small number of other trains to Ealing Broadway to allow passengers to connect with London Underground services.
- 3.51 The latest timing for the OOC slippage had implications for those passengers now travelling on SWT services via Waterloo, as a rugby match at Twickenham that afternoon was going to start causing passenger number concerns for SWT.
- 3.52 At 12:30 the OOC hand back slipped further to 13:00, 1A11 train that was now standing at Ealing Broadway having disembarked its passengers, who intended to change for the Underground. However, a broken down tube train prevented passengers using this option and FGW was now the passengers' only option to get to London.
- 3.53 The work at the OOC worksite was finally finished and the safety certificate issued at 13:15 with OOC and main lines being handed back to Route Control. 1A11 re-embarked the passengers at Ealing Broadway and continued its journey to Paddington, arriving 133 minutes late.
- 3.54 The relief lines were not handed back until the 28 December at 07:30.

- 3.55 HEx services recommenced at the same time as FGW. However HC services didn't recommence until 29 December.
- 3.56 On 28 December a HEx train struck an engineering trolley which had been placed on an operational line at Stockley Junction. The recovery of this train took 2 hours and caused all HEx services to be suspended until it was clear. This incident is subject to a separate investigation being undertaken by the Rail Accident Investigation Branch.

4. Analysis of factors

Summary

This chapter explains our analysis of the factors relevant to this investigation.

Introduction

- 4.1 We have considered a range of information, evidence, and direct communication with the industry to identify the causes behind the disruption to passengers on 27 and 28 December 2014. We have analysed these causes for the purpose of concluding whether there is evidence that NR or any train operator may have breached their licences and whether we have other observations.
- 4.2 The chapter is structured around the scope set out in the terms of reference and examines the issues from planning and oversight of the works through to incident response and the provision of information to passengers. To complete the analysis we have considered the impacts on train service punctuality and reliability.

NR's planning and oversight of works

Background

- 4.3 In 2008, following the Christmas and New Year bank holidays, there were three significant engineering overruns on the network that caused significant disruption to passengers¹⁷. ORR investigated these incidents and found systemic weaknesses in NR's planning processes, particularly around risk management, site management, supplier management and communications. As a result, we found NR to be in breach of its network licence and imposed an order, which required NR to implement an improvement plan to address the weaknesses identified.
- 4.4 We accepted this plan and audited its implementation. The improvements were brought together in a new mandatory standard called 'Delivering Work Within Possessions' (DWWP). At Easter 2009 we concluded that NR had complied with the enforcement order, but noted that it would take time to embed the improvements fully¹⁸. A second audit was therefore done in April 2010 to check this, and it concluded that NR had fully embedded the new process and that in general it was being used competently. We wrote to NR in July 2010¹⁹ setting out how we would monitor this activity to ensure that the DWWP remained an effective management tool.
- 4.5 The DWWP is central to NR's approach to minimising the risk of overruns and their impact on the operational railway. It provides project managers with an operational

¹⁷ See link to ORR's report of ORR's investigation into engineering overruns February 2008 in annex D

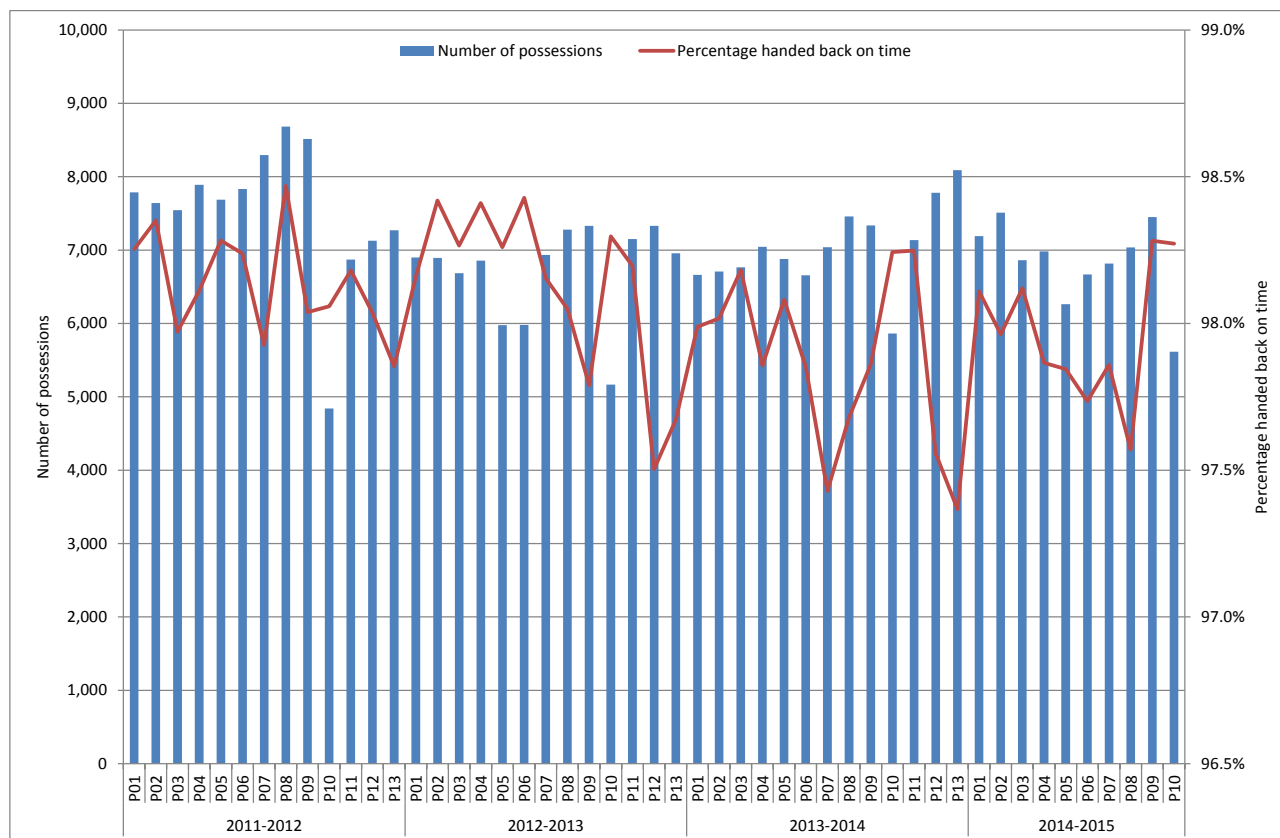
¹⁸ Link to ORR's letter – see annex D

¹⁹ Link to letter – see annex D

readiness framework to reduce and mitigate the risk of possession. It also provides assurance to both internal and external stakeholders.

4.6 Since its launch the we have monitored NR's delivery of the process in three ways:

- through key indicators, principally a check on whether the overall proportion of possessions that overrun is stable. Data since 2011-12 shows that 98% of NR possessions are handed back on time;



- through face to face meetings with the NR programme management office to review trends and ensure the DWWP process is refined to incorporate any lessons learnt or better practices;
- ahead of major engineering works at bank holidays NR provides ORR with evidence to demonstrate that it has applied the DWWP, usually in the form of its internal readiness review reports produced at one, four and eight weeks in advance of the work. ORR usually attends one of the readiness review meetings to see for itself that NR is appropriately managing the process.

4.7 It remains NR's responsibility to plan effectively in the months ahead of major engineering works and make the decisions it needs to, balancing the requirements of its business. It is important to consider NR's overall performance over the Christmas

period²⁰. Out of 2,445 possessions planned 40 over-ran (i.e. 98% were handed back on time)²¹.

4.8 In investigating the events at King's Cross and Paddington, we have therefore focused on whether the DWWP process was followed for the relevant worksites. The remainder of this section sets out our analysis and conclusions.

General preparation for Christmas 2014

4.9 As part of the DWWP, NR has a number of commitments to properly prepare for its engineering work. These include:

- making sure that there is sufficient resource available, including critical resource such as signal testers and overhead line engineers;
- fully assessing the complexity of worksites to enable the understanding of the readiness to start on site on the planned date.

4.10 NR undertook regular review sessions to assess its preparedness for the Christmas 2014 engineering work. These were chaired by a member of NR's senior team and supported by a detailed pack of information which demonstrated that NR had ensured that there was sufficient resources available before the programme of works began. NR also categorised worksites as either 'red' or 'green' status, depending on complexity (e.g. number of interfaces involved), profile (e.g. bank holidays/ timing) and impact (e.g. line of route).

4.11 For the relevant worksites at King's Cross and Paddington the affected passenger service operators all confirmed that they were fully involved in these meetings and had the ability to input into NR's preparations as well as receiving the right information to inform their own plans.

4.12 The **Old Oak Common** (OOC) (Paddington) and the **Holloway Junction** (King's Cross) worksites were categorised as 'red', meaning that the general process picked up the importance of these locations and the need for greater management attention at an early stage.

Specific preparation for Old Oak Common (Paddington) and Holloway Junction (King's Cross)

4.13 Under the DWWP NR must take certain specific actions to manage the possession, including:

- the creation and dissemination to all stakeholders of the work and operational contingency plan which will be used if an overrun occurs;
- for worksites with a 'red' classification, the completion of perform a worksite and possession Quantified Schedule Risk Assessment (QSRA).

²⁰ Christmas period classed as 19 December 2014 – 5 January 2015

²¹ Figures based on Network Rail T-4 review

Contingency planning

- 4.14 At Old Oak Common there was a good quality contingency plan produced and signed off on 21 November 2014 by the right individuals. There was also an Industry Contingency Plan, which had cross industry endorsement.
- 4.15 Holloway Junction had a contingency plan in place on the 15 December for the overall possession. However, this did not contain any arrangements if the worksite was more than one hour late being handed back on 27 December. This was based on the decision that it was imperative to open lines into King's Cross on the 27 December (with works on the West Coast happening and St Pancras coping with those displaced passengers). There was also a judgement that the amount of time allowed for this routine work was much longer than normal.
- 4.16 The high impact of over-running on the 27 December was foreseeable even if the probability was considered unlikely. For worksites with such a high potential impact on passengers an operational contingency plan should be in place before the works start. In this case the absence of any planned operational contingency arrangements for the 27 December was a failing in the planning stage. The result was that the standard 'Alpha One' Operational Contingency Plan was drawn upon as the incident unfolded. The Alpha One plan was not fit for purpose in these circumstances as it relied upon Euston and St Pancras stations being able to cope with any displaced passengers.

Risk Assessment

- 4.17 NR's approach to QSRA ensures that the assumptions on which the programmes are based are recorded and analysed in terms of stability and sensitivity. Additional risk identification is then undertaken to recognise the discrete events that could affect the programme. These discrete risks along with the duration estimating uncertainty are applied to the programme to represent the total uncertainty associated with the programme. Risk assessment in the planning phase is critical as it drives many key decisions, not least whether to go ahead with the works in the first place.
- 4.18 The QSRA should be undertaken as soon as a robust outline programme of works is available and no later than 14 weeks before works start in order that the results are available for decisions that need to be taken 12 weeks out.
- 4.19 The current DWWP standard requires the project to have a confidence of 90% of completing within the scheduled possession to obtain a "Go" decision, however the current operating practice is that 95% confidence is required. Guidance in the form of a Work Instruction has been developed by NR to support the consistent application of QSRA to meet the DWWP requirements.
- 4.20 At **Old Oak Common** a QSRA was produced, with widespread input from relevant stakeholders from NR and the contractors. It was signed off by the Project Director on 9 December 2014.
- 4.21 For **Holloway Junction**, a QSRA was produced. However it contained a number of significant weaknesses:
- the meeting was poorly attended and the report itself acknowledged: "It should be noted that the turnout for a QSRA of this magnitude was very poor and does not meet the requirements set by DWWP. This may invalidate the results which are contained within this report";

- the assessment focused on risks to the hand back date of 29 December, rather than risks to the partial handback on the 27 December. This meant that the risks to disrupting passengers on the 27 December were not fully considered in the planning phase.

4.22 Similar to our conclusions on contingency planning, the high passenger impact of not completing the required works on the 27 December was foreseeable. This was not factored into the decisions informed by the QSRA results and amounts to a failing in the planning phase.

Oversight, management of the work and incident response

4.23 According to DWWP, at 'red' worksites, NR must use a site progress reporting tool to assess how work is progressing. It must communicate regular reports to their Asset Management Control Centre (AMCC) on the progress of work, to enable timely decisions to be taken. Onward communication should then be given to Route Control, which in turn reports to train operators. Work Instructions give further detail behind both of these processes. At both locations, NR implemented the site progress tool.

4.24 For works at **Old Oak Common**, while there were good arrangements in place for reporting and communicating progress, the reports did not accurately reflect progress. There is no evidence to suggest the reports were accompanied by an assessment of risks to on time handback, despite a general feeling of unease. Once the overrun had occurred subsequent estimates of completion were inaccurate and changed frequently. This failing had a knock on effect on the information provided to passengers.

4.25 Also while there were good operational contingency plans in place, they were not implemented straight away due to late reporting and communication of overrunning works and the subsequent frequent changes to NR's updates for imminent handback. FGW and HEx could have operated a degraded service had they been able to get rolling stock from OOC depot. A plan was developed to 'talk past' two non-operational signals on the Carriage Line egress from OOC but this plan was not implemented as it would have required the signals to be handed back from NR possession to NR operations staff— and this did not occur.

4.26 At **Holloway Junction** the reports from site on 25 December consistently showed that NR was aware of how far behind plan it was and consideration was given to the likelihood of recovery and on time hand back. Better identification of a critical path may have provided earlier warning to those on site that the slippage in work would affect driver availability on 26 December.

4.27 A Tactical Control Room was set up in Peterborough to monitor progress for the ECML South worksites/possessions; there were also on-call managers assigned to support the managers on site. Progress was measured against a bar chart and regular updates were directed through the Tactical Control Room. However, in its report NR concluded that: "The rapid loss of time should have been escalated during the night but the on-site staff became focussed on dealing with the problems and their communications to the IP Tactical Control in Peterborough and the LNE Route Control in York became less clear and timely." Specifically, there is no entry in the Tactical Control Room log concerning Holloway switches and crossings between 02:12 and 11:00 on 26 December.

4.28 When it became clear that the worksite would overrun by more than an hour, plans were made to modify the 'Alpha One' contingency plan because there was no other plan available. Conference calls were led by NR at 18:30 and 21:00 on 26 December at which details of the revised timetable were discussed and confirmed.

4.29 A number of operational issues and communication breakdowns following the telephone conferences meant that the plan that was executed did not follow what was agreed:

- the shunt move from platform 4 to platform 5 was not adequately communicated to both station staff and the NR signaller on shift during the morning of the 27 December. This meant that the first 2 EC services to arrive at Finsbury Park terminated on and departed from platform 4. The impacted passenger flows at the station and placed additional pressures on station staff.
- the FHT service, which was the first long distance service to terminate at Finsbury Park returned empty to Peterborough via the Down Goods Line. This was because the shunt move that it performed at Highbury Vale Junction meant that the only platform it could run in to (platform 8) was occupied by an engineering train. While the move shows good route knowledge by FHT drivers, lack of clear communication meant that there was confusion about the planned move, with both the signaller and NR controller believing that it should have been loaded to Peterborough, but with the crew believing they had to depart empty. Had it been able to run loaded to Peterborough it could have conveyed passengers from Finsbury Park to Peterborough for connecting services thereby reducing the amount of waiting passengers at Finsbury Park.
- the first GTR longer distance services planned to be terminated at Finsbury Park were affected by a possession overrun between Digswell and Biggleswade. This resulted in the first train from Peterborough arriving at Finsbury Park 59 minutes late, with the return working to Cambridge running 68 minutes later than planned. This caused significant reactionary delays. From the start of service the revised train plan was delayed. This placed additional pressures on GTR and NR controls as they sought to recover services while simultaneously trying to ensure the altered train plan was enacted.
- there were multiple cancellations and short terminations of GTR services as a result of the station closure at approximately 11:00 and this caused reactionary delay;
- the impact of the earlier delays meant that by the early afternoon EC services were running approximately 2 hours late resulting in more revised workings. For example the 12:58 King's Cross – Leeds service started from Peterborough and only ran to Doncaster. The situation was exacerbated by EC rolling stock and crews being in the wrong place to run to the planned emergency timetable – e.g. 6 EC trains trapped at King's Cross by the overrunning possession. However, EC did manage to get stock to Finsbury Park to run an additional service (13:00) which helped disperse the crowds;
- the ability of GTR to adhere to the agreed emergency timetable was also hindered by earlier delays;
- there was no prepared crowd management control at Finsbury Park. Crowding on the station blocked exits and delayed the planned turnaround of services.

4.30 There were a number of other issues identified in NR's report relating to why time was lost during the works at Holloway Junction. These included: fittings between the Road Rail vehicles and log grabs; positioning of scrap on the engineering trains; and

contracted hours of work for the engineering train drivers. This demonstrates further the need to improve management of contractors during the oversight of possessions.

Train operating companies' response – passenger information and support

4.31 We considered the actions taken by train operators during these incidents.

Current arrangements for providing passengers with information during disruption

- 4.32 The Statement of National Regulatory Provisions (SNRP) and passenger licence requires operators to secure the provision of appropriate, accurate and timely information to enable railway passengers and prospective passengers to plan and make their journeys with a reasonable degree of assurance, including when there is disruption. Operators are required to achieve this purpose to the greatest extent reasonably practicable having regard to all relevant circumstances, including the funding available. Compliance with the licence condition is, in part, fulfilled by the Association of Train Operating Companies (ATOC) approved Code of Practice on Passenger Information During Disruption²² (“the Code”)
- 4.33 The Code allows an operator to define a service disruption threshold above which enhanced Customer Service Level (CSL2) arrangements will apply. Often the details of the initial incident will come from NR and its controllers may issue a prioritised plan which includes an estimate of the duration of the incident. The operator will issue core messages to its staff, updating them every 20 minutes until a steady state is reached²³. The update frequency (which is measured) aims to ensure that frontline staff have up to date information that can be passed on to customers. The message is designed to outline the problem, and its impact on passengers and then give advice which may include alternative routes and ticket acceptance arrangements.
- 4.34 The Code recognises that station staff “have a key role in the provision of timely information and station-based teams should understand their role in the provision of information to passengers during disruption and the additional requirements of CSL2 are”. In particular, priority should be given to keeping the customer information screens updated and relevant. This may include the introduction of “disruption mode” where cancelled trains are removed and the screens only show those services that are running. In addition, manual announcements to passengers should be made in preference to automated announcements so that information can be tailored and as accurate as possible.
- 4.35 The same CSL2 messages are sent to train crew to ensure that information is available to passengers on trains. The Code notes the extra reassurance that can be given by staff walking through the train to talk to passengers individually. Trains that are driver only operated make the receipt and transmission of information more difficult but it is recognised that passengers’ need for information remains the same whether on a driver only operated train or otherwise. The arrangements for this are set out in the local plans of each TOC.

²² <http://www.atoc.org/latest-publications/>

²³ Section 8.3 of PIDD Code of Practice

- 4.36 The Code also specifies the specific use of the internet and social media as means by which passengers now increasingly seek information. It requires that photographs of the incident should be provided where this is appropriate as this can help passengers understand the severity of the situation. It is recognised that any communication through the internet or social media should be supported with further in-depth information that allows passengers to make informed judgements about their travel plans, including where it is sensible not to travel or take an alternative route. Given increasing use is now made of social media, messages through those channels should be consistent with the core message.
- 4.37 In September 2014 Passenger Focus published research²⁴ into the provision of information during disruption. Despite the work done by the industry since the licence condition was introduced in 2012, this research identified that passengers are still not getting reliable and timely information during disruption. Passenger Focus included a number of key recommendations in their research and since then we have asked the industry to develop, publish and deliver a plan, which sets out the improvements it intends to make and the dates by which such improvements will be made.

Passenger information - analysis

- 4.38 It is essential that passenger information is helpful in assisting people to plan and make their journey. There are no train services on 25 December and the majority of operators do not run services on 26 December. On this occasion this affected whether TOCs were able to mobilise staff and a number of issues arose that directly affected how passengers experienced the situation.
- 4.39 For passengers travelling via **King's Cross**, an information gap developed in the following areas:
- **Website information** - individual TOCs did manage to display website banners advising of disruption but there were delays in getting this information consistently shown across websites and smartphone applications. In some cases the design of website banners also remains inadequate to alert passengers effectively to disruption information;
 - **Twitter** - some TOCs were able to provide a small number of broadcast messages but lack of available staff on the evening of 26 December meant that individual tweets could not be responded to in a way that would have occurred on a normal operating day. On 27 December the demand for information via Twitter also far outweighed the staff available to respond;
 - **Emergency timetable** – initially control room staff were not available to develop emergency train plans. Despite the fact that some staff independently chose to start work up to 4 hours earlier than planned this still lead to a significant delay between the first indication of a problem and the ability for passengers to view the revised timetable;
 - **Calls and emails** – customer relations staff were not available on 26 December and calls and email contacts remained unanswered until service centres opened

²⁴ <http://www.passengerfocus.org.uk/research/publications/passenger-information-when-trains-are-disrupted>

on 27 December.

- **Information provision by frontline staff** – evidence suggests that on some occasions, the lack of consistency between railway systems meant that staff in stations and on trains unknowingly provided inaccurate or inconsistent information to passengers, and at times also had less detailed information than passengers using the internet or Twitter.

4.40 The situation that arose on the evening of 26 December at King's Cross led to an information gap. Many passengers, while alerted to the impending disruption on 27 December, were left feeling frustrated and confused when the scale and extent of the problem was unclear and further information was not immediately available.

4.41 At **Paddington** the situation around information provision was different. The late notice provided to the affected TOCs of the disruption and importantly the continual and frequent extensions to the time that normal services could resume, created a shifting picture. We have considered the same points as for King's Cross:

- **Website information** – the FGW website displayed a website banner advising of disruption but the HEx and HC²⁵ websites do not have this functionality. FGW acknowledged that there were issues with the automatic update on mobile text devices but it was able to revert to using the website 'pink' disruption banner.
- **Twitter** – both TOCs make extensive use of Twitter and FGW amended its site so that passengers could view the messages and also tweet direct from its front page. HEx Twitter feed is routinely included on the front page of its website. Lack of available staff on the evening of 26 December meant that individual tweets could not be responded to in way that would have occurred on a normal operating day. On 27 December the demand for information via Twitter also far outweighed the staff available to respond despite additional staff drafted in during the afternoon;
- **Emergency timetable** – a special timetable was already planned to operate on the Great Western Main Line on 27 December. This was in the published timetable. However, it was subject to changes as the delay in opening the lines meant that services were unable to run or were turned back before reaching London. These short notice changes were not always reflected in the information that was available to passengers although 76 per cent of FGW alterations were advertised before the train had been due to leave its station of origin²⁶;
- **Calls and emails** – customer relations staff were not available on 26 December and calls and email contacts were not picked up until service centres opened on 27 December at 08:00 – 18:00 (when they would be answered in line with agreed service agreements).
- **Information provision by frontline staff** – evidence suggests that on some occasions the continual changes to train plans lead to a lack of consistency

²⁵ Heathrow Connect (HC) is a joint brand of FGW and HEx and its website is administered by HEx

²⁶ FGW review of customer information from Control

between railway systems. This resulted in complaints from passengers about a lack of information from staff.

- 4.42 While passengers were provided with the latest available information, the continual changes to this and the lack of information as to the cause of the delay proved extremely challenging. If TOCs had been able to respond to an earlier notification of an overrun from NR the situation for passengers would have been substantially better. While Paddington was congested at the time of the disruption it did not suffer from the issues of crowd control or concerns over platform safety that arose at Finsbury Park.

Passenger welfare – analysis

- 4.43 In relation to Finsbury Park it is clear this station cannot operate as a viable alternative to King's Cross without significant thought being given to passenger welfare and management. In particular, even without the confusion caused by the arrival and departure of trains at platform 4, the station has limited platform capacity, few facilities and difficult access arrangements. If the segregation of arriving and departing passengers had been achieved at an earlier stage it is likely that the situation would have remained challenging but it may have been possible to avoid the need to shut the station completely. To achieve this sufficient crowd control barriers are required to be available at the station at short notice.
- 4.44 At Paddington, FGW was able to provide refreshments to stranded travellers from catering trolleys on the concourse. There was also the normal range of refreshment outlets available. Similarly at Reading a number of refreshment outlets are available for passengers. At other stations, the FGW staff were able to issue refreshment vouchers. Vulnerable passengers waiting at Paddington were taken to the First Class lounge from where they were escorted to their trains when they were available.
- 4.45 We would expect all stations to consider arrangements for passenger welfare in times of unexpected disruption including when access to the station facilities themselves may not be available. Such arrangements should address the availability of shelter, potentially supplies of blankets, food and drinks and emergency first aid. Importantly these arrangements should be developed to operate at all times of year when different circumstances may arise e.g. varying weather conditions, local holiday periods, changes to passenger demographics. While already unpleasant, had the weather been more severe the situation at Finsbury Park may have been substantially worse particularly for the elderly and more vulnerable.

Impacts on punctuality targets

- 4.46 Our final consideration was the impact these incidents had on train service reliability and punctuality. We have assessed the impact of the delays caused on NR's ability to deliver its performance targets for 2014-15. The full analysis is set out in a separate report published alongside this.
- 4.47 For Public Performance Measure (PPM), we estimate that, for EC, the possession overruns have had a 2.2 percentage point (pp) impact on the period 10 result and a 0.1pp impact on the period 10 Moving Annual Average (MAA). For FGW we estimate that it had a 0.5pp impact on the period 10 PPM and a minimal impact on the period 10 PPM MAA. We estimate for GTR that it had a 1.2pp impact on the period PPM and a 0.1pp impact on the period 10 MAA.
- 4.48 For Cancellations and Significant Lateness (CaSL) we estimate that, for EC the impact was 1.8 pp in period 10 and 0.1pp on the MAA. For FGW we estimate it was 0.5pp for

period 10 with a minimal impact on the MAA. We estimate for GTR that it had a 1.2pp impact on the period CaSL and 0.1pp impact on the period 10 MAA.

- 4.49 The possession overrun at King's Cross caused 8,659 delay minutes to the operators affected. Based on current data, this was the joint 2nd biggest incident in the previous year affecting LNE route, the largest being 9,112 minutes on 17 December 2013.
- 4.50 The Paddington overrun caused 5,215 delay minutes to FGW and HEx. This incident is currently the 11th biggest incident in the last year on the Western Route.²⁷
- 4.51 Overall, therefore it is apparent that the delays caused by the possession overruns on 27 and 28 December experienced by passengers had a marginal impact on the moving annual average of both the PPM and CaSL levels achieved by FGW, EC and GTR. At the end of 2014-15 we will be separately reviewing NR's performance delivery to all its operators and will take these factors into account in our analysis.
- 4.52 However, it is also important to understand the impacts on passengers travelling on that day and our detailed assessment is also set out in the separate report published alongside this. We have compared the number of passengers delayed and the associated passenger delay minutes on the 27 and 28 December and compared it to performance on an 'average' weekend. The level of passenger delay caused on 27 and 28 December was about twice as much as an 'average' weekend.

²⁷ Delay minutes and ranking based on periodic snapshots of data. Figures correct at time of publication.

5. Recommendations

Summary

This chapter sets out our recommendations based on our analysis as set out in Chapter 4 and in accordance with our licence enforcement policy and process.

Introduction

5.1 In deciding to investigate the disruption to passengers at King's Cross and Paddington, we sought to establish whether NR and the affected train operators acted in accordance with their licences and to the extent that we identified that they had breached their licences what action should be taken.

Network Rail

Licence compliance

- 5.2 NR is required under Condition 1 of its licence to secure the operation and maintenance of its network in accordance with best practice to the greatest extent reasonably practicable having regard to all relevant circumstances including its ability to fund its activities. Under condition 2 it is required to provide appropriate, accurate and timely information relating to train movements so that train operators can meet their obligations to provide information to passengers.
- 5.3 Having considered our duties under section 4 of the Railways Act 1993, we consider that there is evidence that NR did not do everything reasonably practicable having regard to all relevant circumstances, in respect of licence conditions 1 (network management) and 2 (information) including:
- in connection with the engineering overrun at King's Cross on 27 December 2014, NR did not secure best practice in the operation and maintenance of the network. This was manifested by a failure, when planning the engineering work, to consider the high impact on passengers of an overrun. The result was that contingency planning was not fit for purpose, there was ineffective oversight of the engineering work and when an overrun occurred, internal communication was inadequate to ensure that the agreed contingency plan was implemented, and
 - in connection with the engineering overrun at Paddington on 27 and 28 December, NR did not secure the provision of appropriate, accurate and timely information during disruption. This was manifested by a failure to cascade appropriate, accurate and timely information to train operators about the existence and duration of the overrun, to enable them to minimise the impact on passengers
- 5.4 More generally a number of the weaknesses in planning, oversight and the incident response which are referenced in chapter 4 are also reflected in the conclusions

highlighted by NR in its review report of the overruns²⁸ which it published quickly and openly following the event.

- 5.5 We are satisfied that unless the weaknesses identified are remedied, passengers are likely to be exposed to further incidents and disruption in the future. Nevertheless, we will not at present make an order to take enforcement action because:
- NR has agreed to take, and is taking, all such steps as appear appropriate to us for the purpose of securing or facilitating compliance with condition 1 and condition 2 of its network licence. In particular, NR has agreed to implement the recommendations set out later in this chapter; and
 - we do not consider it appropriate to make an order, because we are satisfied that an enforcement order would not, at this stage, deliver a better result than would be achieved by delivery of the recommendations and would not provide greater impetus on NR's delivery to secure more effective or timely compliance with condition 1 and condition 2 of its licence.

Recommendations

- 5.6 We have identified the following recommendations to ensure that in future passengers do not suffer the same experience:

Improved planning

- 5.7 Planning of possessions needs to be undertaken by NR with a complete understanding of the impact this could have on train passengers and (although not affected by the overruns at Paddington and King's Cross this Christmas) freight customers and the scale of work being undertaken across the railway network as a whole.

Specifically:

1. NR should ensure that for each possession there is an operational contingency plan which is fit for purpose and developed in conjunction with train operators and others (for example, Transport for London). The detail of the plan should be based on an explicit understanding of the impact on passengers (or freight customers if relevant) of any overrun, including within a possession. Even where there is a very low probability of an overrun if the impact on passengers is high, contingency arrangements will have been developed and tested where possible. The plan should consider provision for passenger welfare and management.
2. Within the planning process which NR follows, it should ensure that it identifies risks to delaying train services as well as handing the possession back on time. This is particularly relevant where it is intended that train services are planned to operate during staged works as at Paddington and before the possession is handed back in its entirety as was intended at King's Cross.

²⁸ NR report: <http://www.networkrailmediacentre.co.uk/News-Releases/Network-Rail-publishes-Christmas-passenger-disruption-investigation-report-2231.aspx#downloads>

3. In planning a possession NR should ensure that the risk assessment process reflects the work being carried out elsewhere on the network. It should also ensure that the implications this has for it being able to respond to developments during the possession are taken account in determining the probability of a successful completion.

Oversight of possessions and communications

- 5.8 The risk of a possession being completed successfully changes throughout the course of the possession. In minimising the impact on passengers NR needs to understand in real time how the risk of a possession overrun has changed and effectively communicate this upwardly within NR and externally to train operators.

Specifically:

4. NR should review the processes it has in place for site reporting including consideration of the arrangements in place for management of contractors.
5. As part of its planning NR should make sure that there are clear go/no go decision points for the works and go/no go decision points for implementation of the operational contingency plan and the interaction between the two is understood by all parties.
6. NR should ensure that the processes it puts in place for communicating up the chain of command and to affected parties will cover the go/no go decision points including with respect to the implementation of an operational contingency plan.

Incident response

- 5.9 Once it becomes clear that nothing further can be done to prevent the overrunning of engineering works and this will impact on the services available to passengers and freight customers, it is important that NR and operating companies work effectively together to mitigate the impact. During the overruns at King's Cross and Paddington, there have been a number of impressive examples of individual members of staff going above and beyond what was expected of them. Nonetheless there were weaknesses in the arrangements which better preparation could address. A fit for purpose overrun contingency plan as described above (recommendation 1) is an important first step. In the light of the experience this Christmas, NR should lead further work with the industry to improve their response to an overrun incident.

Specifically:

7. NR and train operators should review arrangements for cascading information during an overrun incident to take account of the likely working arrangements of staff at the time, including for example, that they are on call and that the prolonged nature of some possessions which require a number of handovers between staff.
8. NR and train operators should consider testing elements, if not all, of an operational contingency plan at critical locations across the network to ensure a robust response in the event that it is required.

9. NR and train operators should review arrangements for managing the control of the overrun incident with a command structure covering all elements of the incident including communication, train planning and station management.

Next steps

- 5.10 We regard these recommendations as reasonable requirements under condition 1 of the network licence. We will monitor and enforce these commitments accordingly.
- 5.11 NR has confirmed that work is already being undertaken across all of these recommendations and that it is currently reviewing its contingency plans to ensure that they are fit for purpose for all possessions to be undertaken this Easter. We expect NR to have implemented the rest of the recommendations, which will also require work by the train operators, in advance of the Christmas 2015 engineering work. We will audit NR in the autumn to satisfy ourselves this is the case. We will also wish to discuss with Department for Transport, Transport Scotland and train operators as appropriate the nature of our work to ensure that contingency planning is properly joined up.

Train operators - EC, HEx, FGW, FHT, GC and GTR

Licence compliance

- 5.12 Train operators are required under condition 4 of their licences to provide appropriate accurate and timely information to passengers including when there is disruption to the greatest extent reasonably practicable. Having considered our section 4 duties under the Railways Act 1993, we consider there is evidence to suggest that the relevant TOCs did everything reasonably practicable in the circumstances under condition 4 of their licences (or SNRP) (Passenger information).
- 5.13 Our view that the affected TOCs did not breach their licence for the provision of information is guided, to a large extent, by our analysis of their compliance with the ATOC code of practice for passenger information during disruption²⁹.
- 5.14 Section 8.1 of the code of practice requires an enhanced customer service response to be declared during disruption. We are content that all of the TOCs declared CSL2 as soon as the extent of the disruption was known.
- 5.15 In section 8.2 the emphasis is on work done by the control room. We have seen evidence that CSL2 core messages were issued and updated although this was sometimes outside the normal 20 minute update frequency. It is important that alterations to train services are entered into industry systems. The volume of changes at short notice meant that this was a difficult task and not all alterations were advertised before the trains would have departed from their station of origin.
- 5.16 Section 8.3 deals with customer service issues. We have seen that ticket acceptance was agreed quickly across all of the TOCs. In some cases a “do not travel” message was issued which is in line with the code of practice. It is at stations where staff received short notice changes to the train service that information screens did not always show the correct information. Although in the general context of good adherence to the code of practice, we consider that information screens could have been managed better – including turning off the screens rather than ignoring them if they were known to be

²⁹ ATOC code of practice: <http://www.atoc.org/latest-publications/>

showing incorrect information - this weakness is not material enough to be considered a breach.

- 5.17 Information on trains was dependent on the information being circulated through industry systems such as Tyrell. There were some issues here but we recognise the good work done by the TOC controllers in trying to get messages circulated in time. Finally, all of the operators worked hard to ensure that their Twitter information was up to date. In some cases they were unable to respond to individual messages because of the volume of tweets being received.

Next steps

- 5.18 We do not consider that the affected train operators breached their licence condition requirements to provide information. Nonetheless passengers were rightly concerned by the quality and consistency of information which they received because the impact of an overrun can to some extent be mitigated by accurate and timely information. We consider this further in Chapter 6 as part of our wider observations.

6. Wider Observations

Summary

This chapter sets out our ORR's observations and recommendations from these events for wider industry lessons going forward

Introduction

6.1 Our investigation has been focused and timely so that the industry can ensure there is no repetition of avoidable problems, and that passengers are properly informed and protected when things do not go to plan. This is particularly important given the long term infrastructure programmes across the network throughout Control Period 5 (CP5).

Observations

- 6.2 Over the course of this investigation, we have found specific areas that require improvement and these form the basis for the recommendations made in Chapter 5.
- 6.3 Our investigation has also exposed underlying factors that may have contributed to the overruns on the 27 December 2014, which point to broader questions about how industry engineering work on this scale should be carried out.
- 6.4 We welcome the industry taking seriously the need for lessons to be learnt from the Christmas period disruptions and the Rail Delivery Group (RDG) commitment to carry out a review to look at the industry's approach to the timing of engineering work at or close to major stations.
- 6.5 It is within the context of this industry review that we set out our wider observations. We may undertake further work in relation to some of these observations, in line with our statutory duties.
- 6.6 These observations fall into 4 areas:
- Passenger information during disruption (PIDD), including replacement buses
 - Industry contingency planning
 - Availability and experience of specialist contractors
 - Possession length and timing

Passenger Information (PIDD) and industry plans for improving PIDD

6.7 The current industry high level action plan³⁰ on passenger information was developed before these incidents; and most actions are not yet due to be implemented. It will see websites and apps updated so that it is much clearer when disruption is taking place. It should no longer be possible to purchase a ticket to travel on a service that has been cancelled and if you have bought your ticket in advance you will be contacted if your

³⁰ Industry plan as referred to in chapter 4

train is cancelled. For trains that are delayed the operator will make it clearer when compensation is available and make it easier to claim, e.g. by making claim forms available on trains and at stations. Changes will be made to information systems to reduce the amount of re-keying³¹ required when services are changed. This should result in more consistent information across station screens, websites and mobile apps. Better estimates of incident duration will be provided through improvements in NR's prioritised plan process. In answer to an action from the Transport Select Committee, an estimate will be provided for incidents which can no longer be described as "until further notice".

- 6.8 Of the 40 actions in the industry plan, it is the opinion of NRE that, if implemented 16 would have had a positive effect on the passenger experience during the 27 December incidents. However, it is important to note that these actions were never scheduled to have been delivered by Christmas 2014.
- 6.9 The review of the Paddington and King's Cross incidents has shown that there are some gaps in the industry action plan and new requirements have been identified. Some of these have also been suggested by Passenger Focus (PF) in its review of the incidents. We would expect the industry to take these observations on board in its plans.

These include:

- Improvements to day A for day B planning arrangements so that changes to timetables can be robustly provided to all information systems and that these systems would be available on 26 December.
- Better tracking of replacement bus services so that they appear in live departures information. Live departure information for trains is a standard part of the information provided to passengers. However, when buses replace trains there is little accurate information available, especially at intermediate stations. There are initiatives underway to put planned buses (such as for weekend engineering work) into the journey planners and some TOCs have this as a franchise requirement.
- Enhanced customer information provision on 26 December – even without disruption, there is almost certainly now a latent demand for information services on Boxing Day for future travel which the industry should be responding to, but with the high probability of some disruption, the TOCs should be capable of providing a service on Boxing Day, even if that is provided by 'home working' staff sited away from the office, and remotely connected to Control, on call staff, NRE, social media etc.
- Addressing information issues at stations where the Customer Information System display may be unable to show additional information about changes to the train service in addition to the individual departure information. This can result in passengers having to find staff members to get an overview of the situation.

³¹ Currently services have to be cancelled or amended on multiple systems. The new system should enable changes to be entered once for updates across a range of systems.

Progress of the Industry action plan

- 6.10 It is positive that the industry has agreed a high level action plan and has recognised that implementing the measures identified would help to reduce the impact of events such as those experienced by passengers over the Christmas period. We note that this action plan has not yet been published or converted into specific measures that can be clearly assessed and monitored.
- 6.11 There needs to be a clear understanding of what the industry as a whole will deliver through ATOC and what is required by individual TOCs and by when. We note the industry has plans in place to make improvements. The train operator plans, including dates for delivery, need to be published so that passengers can be confident that change will be delivered and we can monitor against them. We would expect to see the additional actions identified and set out above (in paragraph 6.9) included in such plans.
- 6.12 Finally, it is important to recognise that over 2015 there are a number of major improvement works planned to take place across the rail network, including in and around London and again over the Christmas period. We will be working with TOCs to prioritise those actions which, if accelerated could deliver the greatest potential benefit to passengers.

Industry contingency planning

- 6.13 When developing contingency arrangements in real time it is important to assess and document risks so that they can be communicated from shift to shift and that everyone involved is clear why decisions have been made.
- 6.14 Contingency plans should consider passenger information, welfare and management, whether passengers are within station and forecourt areas, on trains or in queues awaiting access to the station. In testing plans, as part of our recommendations in chapter 5, the industry will want to consider arrangements for contacting staff, accessing Twitter, updating website information or recorded messaging used at customer service centres.
- 6.15 We would also expect stations identified as part of a contingency plan to consider arrangements for crowd control and passenger welfare in times of unexpected disruption including when access to the station facilities themselves may not be available. Such arrangements should address the availability of shelter, potentially supplies of blankets, food and drinks and emergency first aid. Similarly these arrangements should be developed to operate at all times of year when different circumstances may arise e.g. varying weather conditions, local holiday periods and changes to passenger demographics.

Availability of specialist contractors

- 6.16 NR relies on specialist contractors to provide certain services such as signal installation and testing. The choice of contractors available is limited as only a few companies are capable of undertaking such complex work.
- 6.17 This combined with the large volume of work that was being done over the Christmas period raises questions about the level of resources that are available for projects around the country and therefore adds additional risk to programmes.
- 6.18 In determining the scale of the work being carried out across the network at any point in time, NR must consider impacts on passengers and so how best to deploy scarce resources particularly when key projects require additional short notice resource. If

redeployment is not possible, it must consider whether the impacts can be managed through operational contingency planning.

Possession length and timing

- 6.19 Over the course of the investigation questions have been raised as to whether the time allocated for these possessions may have been over-ambitious given the work that was required to be completed. Beneath the overarching imperative of workforce and passenger safety there are many trade-offs to consider. The most obvious is the overall length of time for a complete blockade (when more work can be done) and the length of time that the railway is closed to passengers and freight. However, even within the time allocated there is a trade-off between the volume of work to be done and the guarantee of handing back on time. Furthermore the volume of work done within a single possession will affect how many future possessions will be required to complete the necessary work.
- 6.20 In planning complex possessions it is also critical to understand the human factor aspects of ensuring the workforce on the ground can carry out the work safely. If necessary, following a risk assessment, then the possession should be simplified if it poses unacceptable risks to the workforce or to the safe hand back of part or all of the work.

The industry has established processes and incentives in place to reach a balance between the length of time for a possession and volume of work. We would expect the industry now to consider this balance taking account of recent experience when it plans future possessions.

ANNEXES

Annexes:

Annex A: Glossary

Annex B: Terms of reference of investigation

Annex C: List of meetings held as part of investigation

Annex D: List of references/Bibliography

Annex E: Legal framework and policy - Railways Act 1993 legislation

Annex A – Glossary

AMCC = Asset Management Control Centre

ATOC = Association of Train Operating Companies

BTP = British Transport Police

CaSL = Cancelled and Significantly Late

CIS = Customer Information System

CP5 = Control Period 5 (2014-15 to 2019-20)

CR = Crossrail

CSL2 = Customer Service Level

CSM = Customer Service Manager

CSM = Control Support Manager

CMA = Competition and Markets Authority

DfT = Department of Transport

DWWP = Delivering Work Within Possessions

EC = East Coast

ECML = East Coast main line

FBK = Finsbury Park

FGW = First Great Western

FHT = First Hull Trains

GC = Grand Central

GN = Great Northern

GTR = Govia Thameslink Railway

HC = Heathrow Connect

HEx = Heathrow Express

HSS = First Great Western High Speed Services

ICCW = Integrated Control Centre Western

KGX = King's Cross

LNE = London North Eastern

LTV = First Great Western London & Thames Valley services

LUL = London Underground Limited

MAA = Moving Annual Average

NR = Network Rail

NRE = National Rail Enquires

NRCC = Network Rail Control Centre

OOC = Old Oak Common

OOU = Out of Use

ORR = Office of Rail Regulation

PBO = Peterborough

PF = Passenger Focus

PPM = Public Performance Measure

PIDD = Passenger Information During Disruption

PR13 = Periodic Review 2013

QSRA = Quantified Schedule Risk Assessment

RAIB = Rail Accident Investigation Branch

RCM = Route Control Manager

RDG = Rail Delivery Group

RRV = Road Rail Vehicles

RU = Railway Undertaking

SI = Statutory Instrument

SNRP = Statement of National Regulatory Provisions

SSM = Shift Signalling Manager

SWT = South West Trains

TIC = Tester In Charge

TOC = Train Operating Company

VSTP = Very Short Term Plan

Annex B: Terms of Reference for the Investigation

Final terms of reference for ORR's investigation of disruption caused by overrunning engineering works on 27 and 28 December 2014

Following the disruption caused to passengers over the weekend of 27 and 28 December 2014 on the routes from King's Cross and Paddington, ORR is investigating these incidences to establish:

1. Whether there is evidence to indicate that either Network Rail (NR) or any train operator may have breached their licences, and
2. Any lessons that need to be learned by the industry in order to try to prevent any recurrence.

In the event that the investigation does identify evidence of a breach of a condition (or conditions) in a licence granted to NR or a train operator it will be for the ORR board to determine what enforcement action to take.

Scope of investigation

For part 1 ORR will examine:

a. NR's planning and oversight of engineering works:

- identifying the process NR adopted in preparation for the works
- establishing whether the causes of each significant over-run were preventable and a one-off, or represented a systemic failure
- concluding whether NR prepared itself adequately - both to carry out the works and in the event that the works (or elements of the works) could not be completed within the planned possession - consistent with Part A (1) of NR's Network Licence which relates to the company's requirement to renew and replace the network in accordance with best practice and in a timely, efficient and economical manner

b. Provision of information by NR and the relevant train operators:

- identifying what information was provided by NR to train operators and when and whether it acted in accordance with Part A (2) of its Network Licence which relates to the provision of appropriate, timely and accurate information to train operators to enable them to fulfil their information obligations to passengers
- identifying what action was taken by train operators in the light of that information assessing whether the industry did inform passengers consistent with their obligations in Condition 4 of the train operators' Passenger Train Licence or Statement of National Regulatory Provisions to provide appropriate, accurate and timely information and comply with the Code of Practice established under that condition

c. Impacts on train service punctuality and reliability:

- establishing if the emergency timetable for operators using King's Cross was implemented effectively and if the operational decisions taken on the day were effective in mitigating disruption..

- concluding whether the overruns affecting Paddington and King's Cross had a material impact on the deliverability of the agreed performance targets and the recovery of the network.

For part 2 ORR will examine:

a. the impacts on passengers and how they were dealt with by NR and train operators to ascertain:

- whether NR and the operators made contingency plans and took decisions which were in the best interest of passengers given the information available, the availability of the network as a whole and the planned level of services

- given the events that took place whether planning was adequate and whether there was action which could have been taken which would have helped to mitigate the impact on passengers

- whether the actions contained in the draft industry plan in relation to improvements in the provision of passenger information, if finalised and fully implemented, are likely to be sufficient to cover all the issues that affected passengers

- what information passengers were given in relation to compensation

b. whether there are any observations which should be highlighted for lessons to be learnt for the planning of future renewal and enhancement work including, for example, anticipating passenger flows when contingency arrangements are developed, planning to address the needs (including safety and health) of passengers, the timing of the works, handling of disruption, arrangements for compensation. (N.B. Consideration of whether any breach of health and safety law by duty holders occurred is outside the scope of this investigation and will be undertaken in the normal way by Inspectors in ORR's Railway Safety Directorate.)

Investigation team

This investigation is led by Joanna Whittington, ORR executive director, Railway, Markets and Economics, supported by ORR experts. The project team will include representatives from teams within Railway Safety, Railway Planning and Performance, Railway Markets and Economics and Legal.

Two non-executive directors, Justin McCracken and Bob Holland, will also provide support and relevant expertise to the investigation.

How the investigation will be conducted

In carrying out its investigation ORR expects to draw upon information and reviews carried out by NR, train operators, Passenger Focus and London Travel Watch. In addition it will consider information it receives directly from passengers. Where appropriate, it will also draw upon any information generated by the investigation being carried out by ORR health and safety inspectors into these incidents. To the extent that ORR has carried out previous reviews in this area or is aware of previous relevant reviews, it will consider whether the lessons identified previously had been acted on appropriately.

Timescales

ORR aims to have prepared its initial findings by the end of January 2015, to then report to ORR's board both on what caused the problems, whether any further regulatory action is recommended and what lessons can be learnt going forwards.

The final report will be published on ORR's website in due course.

Office of Rail Regulation

12 January 2015

Annex C: List of meetings held as part of the investigation

Date	Company
5 January 2015	PF/ORR
7 January 2015	PF/ORR
9 January 2015	PF/ORR
13 January 2015	GTR/ORR
14 January 2015	LTW/ORR
21 January 2015	Grand Central/ORR
21 January 2015	FGW/ORR
21 January 2015	East Coast/ORR
22 January 2015	Hull Trains/ORR
22 January 2015	GTR/ORR
22 January 2015	NR/ORR
23 January 2015	HEX/ORR
26 January 2015	PF/ORR (Telecon)
26 January 2015	NRE/ORR
29 January 2015	PF/ORR

Annex D: List of references and source documents

- Alpha One Contingency Plan
- ATOC Approved Code of Practice: Passenger information during disruption:
<http://www.atoc.org/latest-publications/>
- Christmas 2014 Industry Operational Contingency Plan Western – joint multi-TOC and Network Rail document
- Christmas Engineering Works Peterborough Station Area – Briefing Pack for Network Operation’s Staff (week 39 and 40)
- Christmas Engineering Works Kings Cross South Area – Briefing Pack for Network Operation’s Staff (week 39 and 40)
- Christmas Engineering Works Kings Cross North Area – Briefing Pack for Network Operation’s Staff (week 39 and 40)
- Department for Transport
- Delivering Work Within Possessions (DWWP) v4
- Delivering Work Within Possessions Contingency Agreement - Christmas and NY 2014-15 – Holloway SC
- East Coast Main Line Christmas Engineering Haulage Briefing Pack for Network Operation’s Staff (week 39 and 40)
- East Coast – Holloway S & C Renewal Possession Overrun Review 27th December 2014 - Key Findings and Recommendations
- Emirates Stadium capacity - <http://www.arsenal.com/155/unhoused-import-pages/latest-stadium-news/the-real-capacity-of-emirates-stadium>
- First Great Western – Engineering Possession Overrun Old Oak Common – Paddington – 27th December 2014 - Response to ORR request for information
- First Great Western – Engineering Possession Overrun Old Oak Common – Paddington – 27th December 2014 – Response to ORR request for information - Annexes .pdf
- First Great Western – Customer Correspondence request for data from ORR - 16th January 2015.
- First Great Western - Review of customer information from Control – arising from engineering overrun - 27th December 2014
- Final order issued by ORR
http://orr.gov.uk/data/assets/pdf_file/0010/1702/280208_section_56_notice.pdf
- Finsbury Park Station Disruption Plan
- Finsbury Park disruption – Richard Price Report of visit to Finsbury Park- 27th December 2014

- Grand Central Report
- Great Northern - Kings Cross social media summary 26th – 29th December 2014
- GTR - Communications Review – Possession Overrun – 27th December 2014
- GTR - Evidence to Transport Select Committee - January 2015
- GTR - Information regarding 27th December
- GTR - Major Events Plan – Finsbury Park - Canal Tunnels Engineering Work – December 2014
- Holloway Junction - Quantified Schedule Risk Assessment
- Holloway Road ops – Project Contingency Agreement
- Holloway Road - Project Contingency Plan
- First Hull Trains – East Coast Main Line Service Disruption on 27th December 2014 – Supplementary Paper
- Independent reporter report – Improving project delivery – 2010 audits
http://orr.gov.uk/_data/assets/pdf_file/0003/5556/halcrow-engineering-work-audit-260510.pdf
- Industry Contingency Plan
- London North Eastern Weekly Amended Trains Notice-week 40
- Notes of discussion - ORR with NR Head of LNE Route H,S and E
- Notes from NR and TOC meeting 29th December 2014
- Network Rail Christmas Report
<http://www.networkrailmediacentre.co.uk/News-Releases/Network-Rail-publishes-Christmas-passenger-disruption-investigation-report-2231.aspx>
- Network Rail's Improvement Plan
- Network Rail T-4 review
- Old Oak Common Quantified Schedule Risk Assessment
- Operational Contingency Plan – Reading- Paddington
- Operator submissions and meetings
- Operational Rules: <http://www.networkrail.co.uk/asp/3741.aspx?cd=1>
- ORR 2008 Investigation
http://orr.gov.uk/_data/assets/pdf_file/0016/2068/352.pdf.

- Letter to Network Rail 21 May 2009 – final order for continuing breach of licence condition 7 - http://orr.gov.uk/_data/assets/pdf_file/0003/4836/enf-nr_planeng_BE-IC_let_210509.pdf
- Letter to Network Rail – 31 July 2008 - - Network Rail's plan for reviewing project delivery http://orr.gov.uk/_data/assets/pdf_file/0014/3164/nrail-engineering_work_orrlet_310708.pdf
- ORR Letter to Network Rail – 15 July 2010 – Improving Project delivery 2010 audits http://orr.gov.uk/_data/assets/pdf_file/0006/5658/improving-project-delivery-2010-audits-150710.pdf
- ORR Health and Safety <http://orr.gov.uk/what-and-how-we-regulate/health-and-safety>
- TOC passenger licences: ORR Licensing <http://orr.gov.uk/what-and-how-we-regulate/licensing>
- Network Licence: ORR Network Regulation <http://orr.gov.uk/what-and-how-we-regulate/regulation-of-network-rail>
- Passenger Focus – Key issues from the rail disruption - Christmas 2014 <http://www.passengerfocus.org.uk/research/publications/key-issues-from-the-rail-disruption-christmas-2014>
- Passenger Focus Research into provision of information during disruption – September 2014 <http://www.passengerfocus.org.uk/research/publications/passenger-information-when-trains-are-disrupted>
- Plan 1 Reading - Paddington all line closure 011214 – standard Route Control contingency plan
- Report into passenger impact of 27th December 2014 – Passengers' experiences on 27th December 2014
- Rail Business Intelligence No 478 29 January 2015
- Transport Select Committee submissions
- Unplanned Disruption to Rail Users - GTR Evidence to Select Committee)
- Week 39 / 40 Weekly Operating Notice London North Eastern and Western
- Winder Phillips report – 5 February 2015 – Support for investigation into Christmas 2014 possession overruns

Other sources

- <http://app.brandwatch.net/> (for Twitter analysis) – includes links to relevant websites eg BBC News
- www.twitter.com

Annex E: ORR's Approach to Economic Enforcement

The statutory framework

ORR enforcement powers and the processes for using these powers are contained in the Railways Act 1993 ("the Act").

ORR must exercise its functions (including its enforcement function) in the manner which it considers best calculated to achieve a series of duties set out at section 4 of the Act. Those duties include protecting the interests of users, the promotion of competition, efficiency and economy in the provision of services and enabling operators to plan their businesses with a reasonable degree of assurance.

Final orders

There is an obligation on ORR to make an enforcement order if we are "satisfied" that a licence condition is being contravened or is likely to be contravened, unless one of the statutory exceptions applies:

- *We consider it requisite that we should make a provisional order³² (see below); or*
- *One of the relevant statutory exceptions applies, namely:*
 - *Ours section 4 duties preclude us from making the order³³;*
 - *we are is satisfied that the most appropriate way of proceeding is under the Competition Act 1998³⁴; or*
- *The section 55 (5B) exceptions applies. This applies if we are satisfied that:*
 - *the licence holder has agreed to take, and is taking, all such steps as it appears to ORR for the time being appropriate to take for the purpose of securing or facilitating compliance with a condition; or*
 - *the contravention or apprehended contravention will not adversely affect the interests of users of railway services or lead to any increase in public expenditure,*

in which case, we will only make the final order if we consider it appropriate to do so.³⁵

Whenever the statutory exceptions (except section 55(5B)) apply, we are precluded from making a final order. Under section 55(5B), we may still impose a final order even where

32 Section 55(2).

33 Section 55(5)(a).

34 Section 55(5A).

35 Section 55(5B).

the substantive elements of the exception are satisfied, “if [ORR] considers it appropriate to do so”.

We cannot make an order if the breach happened in the past but is not on-going. We can however impose a penalty for a past breach.

If we decide not to make a final order, or not to make or confirm a provisional order in respect of a licence breach, because we consider that one of the statutory exceptions applies, we must, under section 55(6) of the Act, serve notice of that fact on the licence holder and publish the notice. Although the Act does not specifically require us to set out in the notice our reasons for making such a decision, we would, as a matter of policy, expect to do so.

Provisional orders

A provisional order is, in effect, an interim measure and may last for no more than three months unless it is confirmed. We must make a provisional order, without going through the procedural steps required for a final order, where it appears to us that it is requisite that a provisional order be made. In considering what is requisite, we must have regard, in particular, to the extent to which any person is likely to sustain loss or damage from the breach before a final order may be made.

The requirements for confirming a provisional order are substantially the same as for making a final order (see above).³⁶

Penalties

ORR has the discretion to impose a penalty if it is “satisfied” that a licence condition was contravened or is being contravened. This penalty cannot exceed 10% of a licensee’s turnover.

The Act states that ORR must publish a statement of policy in respect of the imposition of penalties. This statement can include provisions to be considered when deciding whether or not to impose a penalty. ORR must have regard to this statement of policy when deciding whether or not to impose a penalty.

Alternative Remedies

Other Statutory Remedies

We have considered our powers under the Competition Act 1998 and are satisfied that these do not offer the most appropriate means of proceeding.

ORR has also carried out a separate health and safety investigation³⁷ into the overruns and this will report separately.

³⁶ Section 55(4).

³⁷ Using our powers under the Health and Safety at Work etc. Act 1974

What our economic enforcement policy says

The purpose of enforcement is to ensure delivery and secure compliance with public interest obligations. The possibility of enforcement provides an assurance and acts as an incentive for the industry to deliver in accordance with the public interest. ORR will have regard to this policy when determining whether to pursue formal enforcement action or use alternative remedies.

The Principles of Enforcement

ORR's approach in deciding whether or not to use our formal enforcement powers in the Act is informed by best regulatory practice and the following principles:-

Proportionality

We apply the principle of proportionality to all types of licence obligations. When considering whether or not to use our formal enforcement powers we assess the circumstances of each individual case. In general we take account of the following factors:-

- a) The significance of the failure, including whether it was a one-off incident or part of a systemic or sustained failure. We generally pursue enforcement action in instances where there is evidence of a sustained failure to meet licence obligations, rather than a one-off incident. For one-off incidents, we will generally only take action where it is in the public interest to do so, and where it is symptomatic of a systemic breach. We will also take into account the progress the licence holder has made to rectify the situation.
- b) The extent to which the licence holder has a robust, adequately resourced plan to achieve compliance within a reasonable period of time
- c) Whether enforcement action would encourage greater effort on the part of the licence holder to remedy the breach
- d) Any persistent non-compliance
- e) The effect on third parties and their potential right to compensation

Targeting

ORR generally uses its enforcement powers to resolve systemic issues that are not dealt with effectively in contractual relationships. These relationships include access contracts, the Network Code, the Station Code and Depot Code, as well as industry wide arrangements on ticketing. ORR will also focus upon enforcing licence obligations where there is a detrimental effect on passengers, freight customers, funders and other stakeholders.

Consistency

ORR aims to take a similar approach in similar circumstances to achieve similar ends. We apply the same principles in coming to a decision and ensure consistency in our approach to regulation of the industry.

Transparency

We ensure that the industry understands what is expected of it and what is expected of ORR. This report, setting out the evidence and our decision, will therefore be published.

Accountability

ORR is accountable to the public and our decision in respect of the overruns will be subject to scrutiny. ORR will consider any representations made to us about our approach to enforcement and use of our powers.



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