

PRIOR ROLE REVIEW

September 2018

EXECUTIVE SUMMARY

Purpose of the Prior Role Review

As outlined in the terms of reference, the purpose of the review was to develop a full understanding of ORR's involvement in, and formal regulatory oversight of, the development and implementation of projects and timetable processes leading to the May timetable changes. The review was asked, if necessary, to make recommendations to the ORR board on how ORR can continuously improve its regulatory activities on the basis of the analysis of the evidence.

The scope of the review considered how ORR exercised (or did not exercise) its economic regulatory powers in relation to activities that could have directly or indirectly influenced the events that led up to the May 2018 timetable events.

In terms of process, we considered a number of ORR activities including regular monitoring and enforcement activities going back to 2010. These included ORR's 2013 Periodic Review of Network Rail (PR13) and the ongoing monitoring of NR's timetable planning and System Operation activities including project delivery capability. The resources to complete the review were myself and an expert independent investigator with administrative support.

Our approach was to read hundreds of documents including minutes and papers of various standing meetings (ORR Board meetings, Industry Delivery Review Group (IDRG) meetings, etc), as well as the main parts of ORR's final determination for PR13. We interviewed six key ORR staff members and prepared questions for others to answer. We then prepared findings for five key areas which have been summarised in tabular form. Drafts were then circulated to ORR staff and the advisory panel for factual comment, allowing me to finalise the attached findings.

Overview of Findings

The review found that ORR had a role in the following areas linked to the May timetable failure.

- PR13: ORR's Control Period 5 (CP5) determination contained efficiency assumptions for areas of Network Rail's (NR) activities, that included resources allocated to timetable planning. These were greater than NR had proposed itself, and NR disagreed with the assumptions. ORR did not undertake any impact assessments of its proposals. Although ORR did not explicitly demand a reduction of resource in this area, NR did reduce these resources during the first part of the control period as it had planned to do. Timetable planning has now been subject to a significant increase in resource. Also, ORR and its consultants did not accurately judge in PR13 NR's capability in some key areas on which the May timetable were dependent, such as project and programme management and its ability to deliver the projects in the North of England.
- Network Rail's Timetable Planning and System Operation: ORR's role is to monitor and enforce Network Rail's licence obligations in relation to timetable planning and system operation functions. ORR was aware of performance issues in this area of Network Rail's work for some time, even before 2010. ORR found NR in breach of its licence obligations in relation to timetable generation in July 2018 during the time of this review. The ORR investigation which preceded this finding, carried out between February and July 2018, did not identify the impending operational timetable problems in advance of 20 May.

This table provides an overview of the findings of the Prior Role Review in five sections:

- 1. PR13
- 2. Network Rail's Timetable Planning and System Operation
- 3. ORR's ongoing monitoring of Network Rail
- 4. Project Authorisations
- 5. ORR general monitoring of Enhancement Improvement Programme

- Ongoing monitoring of Network Rail: ORR's regulatory role meant it had oversight of Network Rail including the progress of enhancements (not costs) which were dependencies for the timetable implementation. There are concerns about the effectiveness with which ORR followed up actions it identified through this work. ORR clearly identified risks to the delivery of the May timetable, although there is a lack of clarity over whether these risks were communicated effectively and to whom.
- Industry Process Role: ORR had an important role in the governance of access to the railway and project authorisations, both of which were part of the process to deliver the May timetable change. ORR carried out these roles well within the published and agreed timescales and they did not result in any impact on the implementation of the May 20 timetable.
- The ORR board never held a substantive discussion on Thameslink and the largest timetable change in many years. This may have been because of the DfT/ Network Rail protocol for Thameslink which set out a specific client role for DfT. However, that protocol made it clear that NR remained accountable to ORR regarding its licence obligations, including in relation to network performance.

Conclusion

In conclusion, I did not identify any single point of failure on the part of ORR that would have been a root cause of the failure to introduce the 20 May timetable in an effective way. However, ORR's performance, in terms of both setting the overall framework in PR13 and the effectiveness of its ongoing monitoring and enforcement of NR's licence obligations, could have been more effective and so could be seen as a contributory factor to the events that unfolded on 20 May.

ORR was aware at an early stage of risks to projects on which the May timetable changes were dependent, as well as problems with System Operator capability and risks to the Thameslink timetable. There are several instances in the records where it is clear that the ORR's attention is primarily on Network Rail rather than the wider industry, despite being aware of some of the issues. ORR did not identify the system wide risks to the implementation of the May 2018 timetable that these individual problems created, by taking a step back and systematically identifying the interdependencies.

In addition, the ORR Board never held a substantive discussion on the new timetable's potential risk to network performance. Such a discussion could have provided the opportunity to step back and identify the system-wide risks posed by the problems which had been recognised by ORR.

A. Tossak.

Ian Prosser CBE HM Chief Inspector of Railways

1. PR13

What was ORR's role? Who else had a role?	How did ORR carry out its role?	What role did this play in the May 2018 timetable failure?
Fi	unding: Efficiency assumptions on non-signaller expenditure for operation	ns
ORR's role in PR13 was to determine the outputs that Network Rail (NR) should deliver for the funding available in the Statement of Funds Available (SoFA). The Department for Transport set (in the SoFA) the funding available to achieve the objectives for Network Rail in the control period set out in the High Level Output Specification (HLOS). As part of PR13, ORR made assumptions on efficiency savings affecting the timetable planning function. In relation to non-signaller operations related expenditure, it was for NR to identify where efficiency savings should be made within the business, ORR having set an efficiency challenge for this area of NR's activities.	In the Final Determination, ORR assumed that Network Rail could make efficiencies of 17% across its expenditure on operating the network. ORR broke down operational costs into signaller costs (approximately two thirds of this cost) and non-signaller costs (the remaining third). In its strategic business plan, Network Rail proposed that it could make 17% efficiencies in its signaller costs, but only 3% efficiency within its non-signaller costs. In the Final Determination, ORR identified savings in non-signaller operations related expenditure of £55m more than NR was proposing over five years. ORR reduced NR's Strategic Business Plan expenditure figure for non-signaller costs from £661m to £606m in the Final Determination. Timetable and planning resources formed a small part (approximately 18%) of the overall category of non-signaller costs. ORR did not make any explicit directions as to where these savings should be made with the decision being left to NR. However, ORR was aware that NR had been reducing its resource levels in this area in CP4 and had already indicated in its PR13 submission that it was proposing to make further efficiencies, of about 13%, in timetabling costs specifically. ORR did not carry out an impact assessment that specifically looked at what operating teams could realistically achieve in terms of efficiencies when demands on them were set to increase, as a result of the large-scale enhancements that were to be delivered during the control period and significant increases to services.	In making efficiency assumptions for non-signaller operating costs, which included timetabling resource, ORR used a top-down econometric analysis based on different regulated sectors (such as the water industry). NR, throughout CP4, had been reducing timetabling resource to meet its efficiency challenge and in its own SBP proposals for CP5 proposed to continue to do so. In fact, NR's Strategic Business Plan submission for Control Period 6 (CP6) shows that in the early part of CP5 they continued to do so, something they have now started to reverse. Network Rail made it clear that it disagreed with both the methodology and the eventual efficiency assumptions made by ORR, but ORR did not change anything in this area of expenditure in the Final Determination. A different approach to generating efficiency assumptions by ORR may havidentified the likely increase in demand or lack of resources in this area.

Outputs: ORR assessment of NR programme management capability

ORR's role in PR13 was to determine the outputs that NR should deliver for the funding available in the SoFA.

ORR included improvements in project management capability as an enabler of delivery of outputs for Network Rail's Programme Management capability.

The Department for Transport set (in the SoFA) the funding available to deliver the outputs set out in their High Level Output Statement.

Network Rail was responsible for the delivery of the outputs.

ORR's Final Determination made clear statements about Network Rail's Programme Management Capability. ORR commissioned an independent reporter to provide constructive challenge to Network Rail in the assessment of how best to drive continuous improvement in its programme and project management.

The consultant's report summarised in the Final Determination found that Network Rail's project management capability was advanced, but it could improve its programme and portfolio management and identified priority areas within its business where this would add most value.

The reporter recommended that Network Rail use the Cabinet Office's Portfolio Programme and Project Management Maturity model (P3M3) to baseline and monitor its programme management capability. Network Rail adopted this model and scored well using it. However, P3M3 is not an outcome-focused tool and issues with project outcomes, which were one of the causes of the timetable failure, were not addressed.

Issues arose during the early period of CP5 in relation to the effectiveness of Network Rail's Project Management capability (see Enhancement Improvement Programme (EIP) section later) which question the accuracy of the ORR's analysis and assessment of Network Rail's capability made at this time. If ORR had identified weaknesses in Network Rail's capability at this time, it may have been able to cause NR to address issues which contributed to the delay of projects associated with the timetable failure.

Deliverability assessment: ORR oversight of deliverability of engineering work

ORR's role in PR13 was to determine the outputs that NR should deliver for the funding available in the SoFA.

ORR assessed deliverability of engineering work as part of the review.

The Department for Transport set (in the SoFA) the funding available to deliver the outputs set out in their High Level Output Specification.

Network Rail was responsible for the delivery of the outputs.

ORR considered deliverability of engineering work in CP5 and commissioned work to review areas of particular complexity and uncertainty. This included:

- Work by the consultant to review Network Rail's readiness to implement the ECTS schemes in CP5.
- Work by the consultant to review programme management arrangements of the emerging portfolio of projects in the North of England.
- ORR's own review of Network Rail's resourcing strategy and specific projects.
- These reviews were generally supportive of the ability of Network Rail to deliver the work, although particular areas of challenge, actions and areas for monitoring were identified, in some cases with an explicit reference in the Final Determination to ORR following up these actions. ORR did not monitor Network Rail's progress in all these areas.

The ORR undertook a range of work as part of PR13 to review the deliverability of engineering works, which would have a significant impact on the deliverability of the May 2018 timetable. This resulted in a number of recommendations and areas for further monitoring. Not all these actions were followed up by ORR during CP5 as part of regular monitoring, probably because it was not very long before the enhancements programme ran into problems.

ORR did not fully understand Network Rail's actual capability to successfully deliver work such as its portfolio of projects in the North of England. The lack of Network Rail capability to deliver its portfolio is evidenced by the need for the Hendy review to re-baseline projects early in CP5 and the fact that the EIP was put in place by NR.

ORR did not fully understand NR's real capability to deliver required outputs and did not follow up all the actions it had identified during CP5 in this area. This was a missed opportunity to put Network Rail in a better position to address later problems.

Funding: enhancements

The Department for Transport set (in the SoFA) the funding available to deliver the enhancements set out in the HLOS.

It was for Network Rail to deliver the enhancements.

As set out in the next column, the respective roles of the DfT and ORR in relation to oversight of the delivery of enhancements changed during the control period.

ORR had to determine what funding should be allowed for, and outputs required by, enhancement programmes. However, some projects e.g. Thameslink, Crossrail, some EGIP elements and Borders were treated differently in the periodic review (see below). In addition, many projects were at an early stage of development which made it difficult to determine costs and outputs reliably.

In recognition of this difficulty, the Enhancements Costs Adjustment Mechanism (ECAM) was created to enable more precise cost and output requirements to be fixed as projects were developed through CP5. This allowed efficient cost increases to be made as the project became more developed.

The total cost of enhancements in CP5 was estimated at £12.4bn, which included the Thameslink and Northern Hub projects. Projects such as Thameslink and Crossrail were dealt with separately outside the periodic review, with costs and outputs set by individual project protocols with the DfT. The remainder of the portfolio of £7.8bn of spend was reduced by ORR to £7bn in the Draft Determination, both through seeking further efficiencies and reducing risk allowances.

In its response to the Draft Determination, Network Rail disagreed with ORR's funding assessment and also updated the latest cost forecasts for three of the larger projects to a figure £700m higher that assumed in the Draft Determination. ORR concluded that its original assessment was reasonable, given that ECAM, applied when a project was sufficiently well defined, would include any efficient cost increase.

The ECAM process was discontinued in England and Wales during the control period as DfT took on direct oversight of enhancements. This followed the recommendations of the Bowe and Hendy reviews.

The respective roles of the ORR and DfT in the regulation of projects and programmes for the remainder of the control period were set out in an exchange of letters between the DfT and ORR of December 2016. ORR continued to monitor and report on milestones of projects in Network Rail's delivery programme.

The determination made by ORR on funding of enhancements did not include all projects which were at the heart of problems with the implementation of the May 2018 timetable (Thameslink was excluded). However, the review on funding did include projects within the North West Electrification Programme. ORR's funding assessments were out of step with Network Rail's assessment for the portfolio which increased the funding pressure on Network Rail, albeit the ECAM mechanism could have addressed this.

Although the role of ORR changed significantly in relation to oversight of projects following the Bowe and Hendy reviews, ORR continued to have a role ensuring Network Rail met its licence obligations in relation to performance. ORR also had a role of monitoring and reporting on delivery of projects. Therefore it was within the role and understanding of ORR to identify the consequences for performance of any problems with the delivery of projects.

This included the Thameslink Project where a specific protocol was put in place to set out the roles of DfT, ORR and Network Rail. How ORR carried out its role in terms of ongoing monitoring is set out below.

2. Network Rail's Timetable Planning and System Operation

What was ORR's role? Who else had a role?	How did ORR carry out its role?	What role did this play in the May 2018 timetable failure?
	ORR oversight of System Operator capability	
ORR's role is to monitor and enforce Network Rail's licence obligations in relation to timetable planning and system operation functions. Conditions 1.23 and 2.7 of the network licence specifically require Network Rail to: Run an efficient and effective process reflecting best practice for establishing a timetable and any changes to it, so as to enable persons providing railway services and other relevant persons to plan their businesses with a reasonable degree of assurance and to meet their obligations to railway users. Establish and maintain efficient and effective processes reflecting best practice and apply those processes so as to provide appropriate, accurate and timely information to train operators to the greatest extent reasonably possible. ORR's oversight includes Network Rail's obligation, focused on the informed traveller, to produce	 ORR undertook a number of formal licence investigations during the period covered by this Review, including: Into the implementation of the ITPS computer system in 2010. NR's delivery to Southern and in Scotland in 2014-15 which highlighted timetabling weaknesses. NR's failure to comply with its T-12 timetabling obligations. ORR also carried out work with the System Operator over the time period with the purpose of monitoring capability and performance of the System Operator, including its timetable function. In February 2018, in the interests of passengers ORR launched a licence breach investigation into NR's failure to comply with T-12 requirements. ORR made a decision not to get involved directly with the ongoing problems but to focus on an investigation 	Over the 10-year period this Review is considering, ORR identified a number of weaknesses in the performance and capability of the NR System Operator timetabling function, both formally through licence investigations, and informally through other work with the System Operator, for example on open access applications. ORR described NR's failings in this regard as "systemic" and in breach of its licence in its 2018 conclusions to the T-12 licence investigation. However, ORR should consider whether it could have acted faster or earlier to ensure Network Rail addressed the issues ORR had identified a number of years earlier. Further action may have helped improve capability and reduced the likelihood of the May timetable failure. The decision ORR took at the beginning of its T-12 licence investigation in February 2018 to focus on the process of engagement between NR and TOCs rather than considering the different timetable
focused on the informed traveller, to produce finalised timetables 12 weeks in advance (known as T-12) ¹ .	into why the situation had occurred and whether NR had breached its licence in respect of the informed traveller requirement. It was felt that by getting directly involved in the ongoing problem ORR would not add value in the circumstance and might distract	rather than considering the different timetable options may have been a missed opportunity thave identified the problems that were unfoldirelation to the May 2018 timetable changes.

ORR oversees Train Operating Companies' compliance with their licence conditions regarding obligations to passengers and in general consumer law. In particular these require TOCs:

- to have complaints handling procedures
- to have policies in place to assist passengers with disabilities
- to manage and provide timetable and service information, particularly during disruption.

These are separate to obligations to oversee NR's licence obligations, but is set out here because of the link to ORR's T-12 investigation.

Alongside ORR's licence breach investigation into NR's failure to comply with T-12 obligations (see above), ORR considered as a separate workstream TOC compliance with their licence obligations in relation to the issues. This included provision of information from train companies and ticket retailers so that passengers could plan journeys, buy tickets, be updated and receive information on options when things change.

ORR wrote to all TOCs asking how they were ensuring passengers understood the implications of the delay in the publication of timetables and followed up a number of issues on TOC websites and other sources of provision of information.

This area of work was not directly linked to the timetable failure as it focused on how TOCs were dealing with the complications caused by the failure to publish timetables within the usual deadlines. This area of work focused on how passengers could plan and buy tickets for journeys, rather than received information during the disruption caused by the May timetable problems.

System operator capability enabler

ORR's role in PR13 was to determine the outputs that Network Rail should deliver for the funding available in the SoFA.

ORR proposed an enabler to measure the performance of system operations functions including timetable planning functions in its Draft Determination. This was to include a dashboard agreed with NR.

Responses to the Draft Determination were supportive of the proposed enabler approach. However, the enabler (or dashboard) was never agreed. ORR said in its Final Determination that it would "work with Network Rail and the wider industry to develop the measures for the dashboard. The dashboard must be agreed and put in place before the start of the CP5".

A system operator dashboard was discussed in the run-up to, and during, CP5. A draft of the dashboard was consulted on in August 2015, with a revised dashboard published in August 2016. However, by 2017, NR said that it intended to instead develop a System Operator Scorecard. The enabler proposed in the Draft Determination received support in responses to the consultation and ORR identified it as an important action to be implemented before CP5. However, this proposal was then not taken forward for some time by Network Rail.

A dashboard was proposed in the final determination so it could provide a snapshot of the work of the System Operator and its capability in an easily understood format, which may have helped identify issues with System Operator capability. ORR did not take action to require NR to put in place this dashboard contrary to the intention set out in the Final Determination, which placed importance on it being agreed ahead of CP5.

ORR approval of access agreements

ORR makes sure the passenger and freight train operating companies have fair access to the rail network and that best use is made of capacity.

ORR approves or determines the access agreements required for a train operator to make use of Network Rail's track. The agreement sets out the access rights granted to the train operator in order for it to use a particular part of the track (for example, six trains per day to operate between point A and point B).

In determining a contract, ORR will seek the view of Network Rail as to the achievability of the access requested and consequent impacts on performance.

If the access requirement for a train operator to the network changes, a change to the contract must be submitted and agreed by the ORR.

The expanded Thameslink services which were intended to be introduced as part of the May 2018 timetable change required an increased capacity allocation for the operator, GTR.

GTR sent draft Rights Tables to ORR on 10 January 2018, rather than the first week of January as expected. They contained numerous minor errors.

Two Supplemental Agreements between NR and GTR were then sent to ORR for approval:

- 14th Supplemental for the May 2018 timetable
- 18th Supplemental for temporary advance use of the Canal Tunnels

The ORR determined these applications either on the same day they were received or the next day:

- The 14th Supplemental Agreement was sent to ORR on 20 April. The final submission was received on 15 May and approved on 16 May.
- The 18th Supplemental Agreement was signed and submitted on 22 February and approved the same day.

Applications for changes to access rights within the GTR contracts were not submitted within ORR's anticipated timescale. Despite this, applications were processed quickly and efficiently. This shows that the ORR was ahead in its processing of the timetable applications through early engagement with, and cooperation with, NR and GTR.

	ORR determination of access appeals	
Train operators can appeal Network Rail's timetabling decisions to the Access Disputes Committee. Under Part M of the Network Code, a train operator can appeal to ORR against determinations made by the Access Disputes Committee which it considers to be wrong or unjust because of a serious procedural or other irregularity. ORR also has an appeal role under the Railways (Access, Management and Licensing) Regulations 2016, in respect of train operators who believe they have been discriminated against in respect of a number of matters, including capacity allocation by the infrastructure manager.	ORR did not have an appeal role in the case of Thameslink or any other TOC affected by the May 2018 timetable change. Although at one point GTR was going to appeal, it decided not to do so, so ORR did not have the more extensive involvement that dealing with an appeal would have required.	As there was no appeal, ORR did not play a role in this process.

3. ORR's ongoing monitoring of Network Rail

What was ORR's role? Who else had a role?	How did ORR carry out its role?	What role did this play in the May 2018 timetable failure?	
ORR's ongoing monitoring of NR project delivery: North West Electrification Programme (NWEP)			
ORR monitors and publicly reports on Network Rail's delivery of enhancement projects to its customers and funders. NR is responsible for managing and completing projects on time. Supervising the delivery of enhancement projects has, since the Hendy Report and the Bowe Review of 2015, been the direct responsibility of the DfT. ORR has retained a role monitoring and reporting on delivery of milestones, so it is able to raise awareness of project risk. ORR enforces NR's licence in relation to project delivery and impact on performance. ORR flags concerns with NR delivery of projects through its regulatory escalator process and the published monitor.	A key factor in the May 2018 timetable problems were the delays to the NWEP phase 4 electrification project. ORR had escalated earlier phases of the NWEP project to its highest level of concern on the regulatory escalator from January 2014 to June 2015. The project was removed from the escalator in May 2016 when NR confirmed that it would produce Quantified Schedule Risk Assessments (QSRAs). ORR attended (although not all meetings) the NWEP Project Delivery Group (PDG). The PDG flagged delivery of NWEP Phase 4 as a red risk. There are some limited examples of the late delivery of the project being flagged as a risk to delivery of the timetable at these groups. On 26 October 2011, ORR served an improvement notice on Phase 1 of the NWEP, as NR had not recorded significant findings to show that it had carried out a suitable and sufficient risk assessment in relation to the planned introduction of overhead electrical traction equipment onto the existing infrastructure. NR complied with the notice on the due date of 13 December 2011. On 21 January 2015 ORR served an improvement notice on NR Infrastructure for failure to comply with a condition of authorisation dated 6 December 2013. "All bridges over the new electrical sub system for NWEP Phase 1, as authorised by ORR on 6 December 2015, will have remedial work for safe integration of the sub system into the existing infrastructure completed by 5 December 2014." Subsequently, NR did comply with the notice for NWEP Phase.	In respect of enhancements, ORR's role changed in late 2016, when the DfT took over the role regarding the determination of efficient project costs, leaving ORR to continue monitoring and reporting on milestones in NR's delivery². ORR also continued to ensure NR met its licence obligations. However, ORR's regulatory processes did not consistently identify or flag the delay to the NWEP project as a risk to the delivery of the May 2018 timetable. There are question marks over the effectiveness of this process - many items remain on the watch list for a considerable time while others are removed and reinstated sometimes without a clear rationale for the decision. Therefore, in some cases, there is no record of how long-standing issues in Network Rail are addressed.	

^{2.} The ORR and DfT set out respective roles on monitoring enhancements in CP5 through an exchange of letters between ORR CEO Joanna Whittington and DfT DG Rail Bernadette Kelly.

ORR's ongoing monitoring of Thameslink timetable delivery

ORR monitors and publicly reports on Network Rail's delivery to its customers and funders. This includes the delivery of major timetable changes including the Thameslink timetable.

ORR enforces NR's licence in relation to timetable delivery.

ORR first flagged the Thameslink timetable delivery as a risk in February 2016 at the lowest level on the regulatory escalator. The item was discussed regularly within ORR and with NR in July 2016. A detailed paper was taken at an ORR executive regulation committee in February 2017, which outlined actions to address the risks. An action was agreed at this meeting to follow up these concerns at a future date with a detailed discussion, but no further paper was taken by this committee.

The ORR continued to monitor the Thameslink timetable through the IDRG and the Escalator. The records show the ORR remained well aware of the nature of the risks.

In Sept 17 it was agreed at IDRG that there was a major risk to the industry from the May 2018 timetable, but there were differing opinions about ORR's role. After the meeting, a decision was taken to remove it from the escalator, and the IDRG had no further role in monitoring risks. The decision was taken on the basis that the Industry Readiness Board (set up by the Secretary of State) was the appropriate body to handle the issue.

As Thameslink delivery was removed from the regulatory escalator on the basis that the IRB was the appropriate body to handle the issue, there is a question of whether the ORR should have done more to ensure the IRB was carrying out this role effectively (see below).

It is clear that ORR was aware of the timetable delivery risk at an early stage and it was discussed at ORR's executive level regulatory meetings and raised with the DfT, which was the client for this project. However, ORR did not discuss the risk to timetable delivery in detail and ORR's executive regulation committee never followed up its action to do so.

There are several instances in the records where it is clear that the ORR's attention is primarily on Network Rail (understandable, given ORR's regulatory role) rather than the wider industry, despite being aware of some of the issues.

ORR were aware of risks to the December timetable, but at no stage was a detailed discussion held and the system-wide implications considered.

In addition, the ORR Board never held a substantive discussion on Thameslink and the new timetable's potential risk to network performance. Such a discussion could have provided the opportunity to step back and identify the system-wide risks posed by the problems which had been recognised by ORR.

ORR's role on the IRB

In Jan 2017, the Industry Readiness Board (IRB) was set up under Chris Gibb. The focus of the IRB was Thameslink-specific programme risk; this was covered at a fairly detailed level, issue by issue, a great deal of it technical and operational in nature.

The ORR was represented on the IRB (but not on the Industry Assurance Panel which reported to the IRB) and were present for between 10 and 14 of the 17 meetings (records are not complete).

ORR's role, it has been stated, was to ensure Network Rail was playing its full part meeting its licence obligations and to respond on any regulatory issues that arose.

From the records, input from the ORR at the IRB was limited, although the ORR did make contributions to clarify the ORR role on certain issues.

ORR discussed risks associated with the Thameslink timetable delivery in November and December 2016 at its internal IDRG meeting. The IRB was set up in January 2017 in response to recommendations in the Gibb Report, in order to provide DfT with assurance, provide an integrated system approach to the introduction of the Thameslink Programme and highlight risks regarding operational readiness.

The effectiveness of the Industry Readiness Board itself is not a matter for this Review.

Concerns were discussed at the ORR and raised with the DfT before they were raised by the Gibb Report and before the IRB was set up.

Without a clear statement of the ORR's role on the IRB it is difficult to assess how effectively ORR carried this out.

ORR's role on the IRB did facilitate the very timely authorisation of the canal tunnels.

ORR should also clearly define its ongoing role in key industry meetings, such as those associated with timetable change. In particular, it should clarify whether or not these meetings form part of ORR's monitoring function/intelligence gathering operations.

4. Project Authorisations

What was ORR's role? Who else had a role?	How did ORR carry out its role?	What role did this play in the May 2018 timetable failure?
ORR is required to authorise new infrastructure or rolling stock before it enters into service.	A timetable for receipt and approval of authorisations related to the May 2018 timetable has been compiled. This shows that ORR processed and delivered the authorisations of the projects linked to the May timetable change - Thameslink and NWEP phase 3 and 5 - in good time and faster	Timescales for all the authorisations were met well within ORR's published requirements so, in practice, would have aided the situation. There was no
The dutyholder, in this case Network Rail, must submit to ORR a completed technical file, which will demonstrate	than the deadline allowed in law. Turnaround times varied from just one day to less than 4 weeks.	impact from these processes on the May 2018 timetable.
that any issues raised by the third party assessment body, for example, have been mitigated or closed out. The	This was in part due to the early involvement of ORR staff to help Network Rail through the authorisation process, as they were aware that Network Rail's project delivery was running behind schedule.	
legislation allows ORR two months from receipt of the technical file to determine an application for authorisation to place		
into service (an additional one month for further checks or tests can be sought if there is a safety concern).		

5. ORR general monitoring of the Enhancement Improvement Programme (EIP)

What was ORR's role? Who else had a role?	How did ORR carry out its role?	What role did this play in the May 2018 timetable failure?
ORR monitored Network Rail's Enhancement Programme.	ORR initiated an investigation in March 2015 into Network Rail's capability to plan and deliver enhancements after escalation of concerns about missed milestones. This focused on four areas of concern: enhancements project development; project delivery; Network Rail's approach to complex programmes; and its ability to manage the investment portfolio. Network Rail proposed the Enhancements Improvement Programme (EIP) in response. The evidence report published in October 2015 stated the following: "Our concerns are not new and the formal investigation has been triggered by Network Rail's failure to address them earlier. We first raised concerns about slipping or missed milestones with Network Rail in July 2014 using routine channels, but following an unsatisfactory response we escalated issues through formal letters, the first in November 2014". The investigation found Network Rail in breach of Condition 1 of its network licence with regard to its failure to adequately plan and deliver its enhancements programme to the greatest extent reasonably practicable having regard to all the relevant circumstances, including the ability of NR to finance its licensed activities. While the investigation found that Network Rail's improvement plan had made significant progress it was not sufficiently finalised. However the report noted that the EIP required significant changes to Network Rail's processes, systems, culture, capability and behaviours that would take time to deliver across a large company.	The fact that Network Rail cannot demonstrate benefits from the EIP and the serious failures of projects such as the North West Electrification Project, phase 4 (announcing significant delays late in the process) give rise to questions around how effective the regulatory action and its impact were. If ORR had required these improvements to be implemented, it is possible that their benefits would have been felt and the problems with projects associated with the May 2018 timetable failure avoided. The question remains as to whether ORR will open a further investigation into Network Rail's potential breach of its licence following non-compliance with the full requirements of the Notice.

The report concluded that: "On the basis of our findings, we cannot be satisfied that Network Rail is doing everything reasonably practicable until:

- The EIP is sufficiently finalised, and
- There is evidence of improvement following effective implementation of the finalised EIP."

ORR issued a notice in October 2015 setting out its decision not to make a final order, on the basis that there was sufficient evidence that NR had agreed to take, and was taking, all such steps as appeared appropriate to ORR for the purpose of securing or facilitating compliance with its licence. In particular, NR committed to finalising, publishing and delivering its EIP.