

14:00-16:30 on Wednesday 22 June 2022
(Virtual meeting via MS Teams only)

AGENDA

Time	Item	Purpose	Presenter
14:00	Welcome, introductions and apologies for absence	To introduce and set the context for the meeting	Justin McCracken ORR
14:05	Review of actions and agreeing the minutes from the 121st RIHSAC meeting	-	Tim Gill ORR
14:10	Health and Safety Regulation Committee (HSRC) update	To share key issues discussed at HSRC with RIHSAC members	Justin McCracken ORR
14:15	Chief Inspector (CI) update and the Annual Health and Safety Report	To update members on topical health & safety issues for ORR and the industry, from the Chief Inspector's perspective. Also, a presentation on the themes within the forthcoming Annual Health and Safety Report	Ian Prosser ORR
14:40	Item on climate change and the railway	Presentation on the themes and focus of ORR's work in relation to climate change. Followed by discussion	Chris Davies ORR
15:25	<i>break</i>	-	-
15.35	Item on Rail Accident Investigation Branch Annual Report	Presentation on the RAIB annual report. Followed by discussion.	Andrew Hall RAIB
16:20	Forward planning	To share the items already on the forward plan and request additional items from the committee	Tim Gill ORR
16:25	Meeting review and next meeting		Justin McCracken ORR
16:30	Meeting closes		



Railway Industry Health and Safety Advisory Committee (RIHSAC)

DRAFT

Minutes of the 121st RIHSAC Meeting

Thursday 24 February 2022

25 Cabot Square/Microsoft Teams

Present:

Justin McCracken	ORR
Ian Prosser	ORR
Tim Gill	ORR
Max Buffey	ORR
Jen Ablitt	ORR
Anna O'Connor	ORR
John Cartledge	Independent passenger interest
Ali Chegini	RSSB
Allan Spence	Network Rail
David Porter	IOSH
David Davies	PACTS
Jason Connelly	Transport Scotland
Mark Ashmore	UKTram/LRSSB
Mark Norton	DfT
David Clarke	Railway Industry Association
Vincent Borg	ASLEF
Geoff Spencer	Chair of National Freight Safety Group Steering Group
Alastair Young	Transport Scotland
Karl King	RIAGB
Joe Finlay	RAIB
Daniel Mann	RDG
Arthur Leathley	London Travel Watch
Pam Warren	
Richard James	TFL
Vaibhav Puri	RSSB
Chris Knowles	RSSB
Graham Richards	GBRTT
Charles Roberts	GBRTT

Welcome, introductions, apologies for absence, and actions from 9 June 2021 meeting.

1. Recording of the meeting commenced (and would be deleted once minutes were written). Justin McCracken (JM) welcomed everyone to the meeting laying out rules for asking questions in the virtual settings.

Health and Safety Regulation Committee (HSRC) update (Justin McCracken)

2. Discussions were had regarding the LRSSB and safety regulations in the context of rail reform, both of which we have items on later in the meeting.
3. HSRC concluded that there were three 'buckets' of issues, the first being keeping an eye on known health and safety issues in the industry. The second, looking out for new and emerging issues from the rail reform agenda. Finally, the third related to the opportunities which might arise from rail reform.

Chief Inspector (CI) update (Ian Prosser)

4. ORR welcomed DFT's imminent publication of consultation documents on new private crossings signs and barriers regulations, as this has been a long-awaited publication.
5. ORR will be conducting the post implementation review (PIR) of the Train Driving Licences and Certificates Regulations 2010 on behalf of the Secretary of State, which will include working with DFT to arrange the public consultation phase. ORR will return to RIHSAC in the future with a substantive item on the review.
6. ORR has an open consultation on 'Goal Setting Principles for Railway Health and Safety: Draft Appendix for operation of passenger trains in Unattended Train Operation configuration'. We are seeking views on the proposal, with the closing date for comment on 31st March 2022. Details can be found on ORR's consultation page of the website (<https://www.orr.gov.uk/search-consultations>)
7. Ian provided an update on operational matters, weather resilience, earthworks and drainage. In respect of Carmont, ORR expects a RAIB report to be published by the end of March 2022, with ORR making their report by May. Investigations in relation to the Salisbury incident is ongoing. A paper on weather resilience, earthworks and drainage management led by Anna O'Connor was taken to the ORR Board and this will be a useful element for a RIHSAC agenda item at a future meeting.
8. ORR published findings into a review of administration fees for processing ticket refunds. A main finding that whilst there is a £10 cap on fees, the average costs were found to be below £5. There is ongoing work with ORR, DFT and RDG to make sure these findings are considered for any future cap setting.
9. In relation to an upcoming item on GBRTT, ORR will be seconding a senior inspector, Ian Skinner, to GBRTT to help and bring health and safety expertise into that team.

- Allan Spence commented that we have seen good progress and development in public road crossings. In the last few weeks DFT have agreed that for public road crossings, Network Rail will become the traffic authority between the stop lights. This enables Network Rail to use signage they would not have previously been able to deploy.
- Arthur Leathley asked what the next stages are regarding the £10 cap on administration fees for ticket refunds. Ian Prosser responded that it is with DFT and RDG to see where we go from this point (decision on the cap is not for ORR).

Items on rail reform preparations (Charles Robarts, Graham Richards, Ali Chegini, Chris Knowles, Vaibhav Puri)

10. The first presentation was Chris Robarts and Graham Richards on whole industry arrangements for managing the transition to Great British Railways (GBR).

- David Porter asked a question on how the health and safety aspects are being included into the larger structure to avoid building in conflicts that require those higher up to resolve, which could later become very difficult to deal with. And also whether social sustainability is included. Chris and Graham both responded that these are important aspects, with no answers as of yet, but they are being worked on.
- David Davies asked who the single point of responsibility is. Graham Richards responded that health and safety is a responsibility shared across the whole organisation as it affects everything, but Andrew Haines as CEO has ultimate responsibility.
- Arthur Leathley asks how in transition aspects of complexity will be balanced against the goal of simplifying the railway. Charles Robarts replied that they are in early stages of that thinking but will expect that goal to continue after the first day of GBR. It is a balance of achievable steps with suitable speed and getting that right. He agreed that there will be complexity. Currently, work is in the design phase of the transition.
- Jen Ablitt asked to clarify, if a stage gate isn't met, is Andrew Haines the one with the full responsibility in his role to determine that the transition is not yet ready. Charles Robarts clarified that Andrew Haines would be one of the people to make that decision. However DFT own the process and the HM Treasury also have an input. So, there are several checks and balances. Allan Spence asked for clarification as there had been different approaches suggested – i.e either Andrew Haines making the decisions or it being a decision by committee? Charles Robarts commented that on a broader aspect it would be more of a committee decision.
- Justin made the point of the importance of people in management and other positions of safety have a really clear understanding of their responsibilities, and the correct training and preparation going into the future.

11. The second presentation was given by Ali Chegini, Chris Knowles and Vaibhav Puri focussing on railway industry preparation.

- Justin asked if RSSB has a clear idea on what the KPIs will be for this process. Ali Chegini responded that RSSB has the tools available, such as the mental wellbeing survey, which are known to work and provide good information. The idea is to provide a baseline to monitor inflections, which is what they are currently working on.
- Allan Spence commented that can we learn from history, and our history shows that we are good as an industry at being reactive. However, we are not good at listening for weak signals. A second point is that whilst the overall health and safety data may be positive, it can obscure pockets of concern that may be missed. Vaibhav agreed with this assessment. Ian Prosser commented that inspection work is going to be done in this area, to make sure frontline assurance in Network Rail is strengthened.
- David Porter asked what system of arrangements capture the conflict in executive incentives and priorities that result in irreconcilable conflicts with safety further down the chain? Vaibhav responded that we would have to look at relationships between entities that are making safety decisions.
- Justin agreed with Allan's point on weak signals, and they shouldn't be missed, and also that we need to learn from history.

Item on ORR's risks ranking exercise (Garry Stimpson)

12. Garry Stimpson gave a presentation on the outcome of its recent risk ranking exercise. Followed by discussion.

- Allan Spence commented that he was surprised to see some of the risks on the mainline in there, such as crowding on trains which was listed as deteriorating. Garry responded that although it wasn't high risk, ORR wasn't convinced that the industry was getting better at dealing with the issue. Very reliant on the RSSB analysis.
- Allan was also surprised at drainage not being present at all. Anna O'Connor responded that it is very heavily based on the RSSB precursor model, and as such drainage would not come in that list, these would come out in the workplan. This is the beginning of ORR starting targeted inspection work.

Item on Light Rail Safety and Standards Board (Sukhninder Mahi, Tracy Phillips)

13. Sukhninder presented key findings from ORR's review of the LRSSB. Followed by discussion.
- Vincent Borg commented that ASLEF have replied to the review but would like to bring up the point that they have tried to engage with LRSSB on several occasions as a stakeholder. There were initial communications in 2019, and they pursued the matter again in 2020, but have heard nothing since. Mark Ashmore, as the LRSSB representative volunteered to bring Vincent's point to LRSSB and open a dialogue. Tracy Phillips also commented that in the report, recommendation 4 is about LRSSBs collaboration with wider industry stakeholders.

Forward planning (Tim Gill)

14. Tim presented the future agenda items list and asked for any further suggestions.
- Allan made one request for an item on track workers, as it is very topical
 - David Porter noted that the item on principles of effective regulation needed to be on the list. Tim confirmed that it will be added.
15. Tim noted that the list would be circulated with the minutes and members are welcome to suggest future items in the coming weeks.

Meeting review (Justin McCracken)

16. Justin apologised for the technical issues experienced during the meeting, and that hybrid meetings based in this room usually go more smoothly. ORR will endeavour to fix the issues with the sound by the next meeting in June. The next meeting will again be a hybrid meeting - but Justin hoped that more people will feel able to come in person.

Next meeting: June 22nd, 2022.

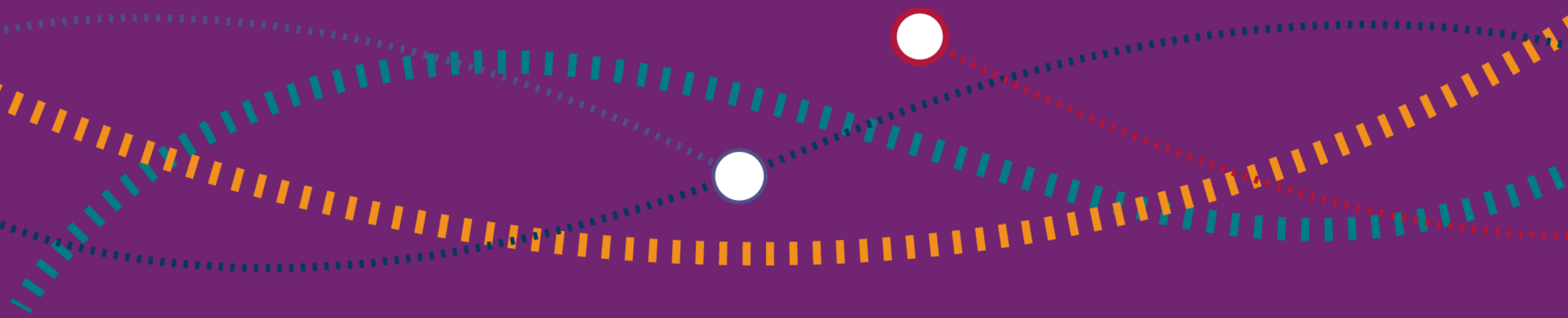
Glossary of abbreviations

ASLEF	Associated Society of Locomotive Engineers and Firemen
COSHH	Control of Substances Hazardous to Health Regulations
CP	Control Period
DfT	Department for Transport
DI, NI	Department for Infrastructure, Northern Ireland
FOC	Freight Operating Company
GDPR	General Data Protection Regulation
HMRI	Her Majesty's Railway Inspectorate
HS2	High speed 2
HSRC	Health and Safety Regulation Committee
IGC	Intergovernmental Commission (on the Channel Tunnel)
IOSH	Institution of Occupational Safety & Health
ISO	International Standards Organisation
LHSBR	Leading Health & Safety on Britain's Railways
LUL	London Underground Ltd
NR	Network Rail
ORR	Office of Rail and Road
OH	Occupational health
PACTS	Parliamentary Advisory Committee on Transport Safety
PPE	Personal protective equipment
PTI	Platform train interface
RAIB	Rail Accident Investigation Branch
RDG	Rail Delivery Group
RIHSAC	Rail Industry Health and Safety Advisory Committee
RM3	Risk management maturity model
RMT	Rail Maritime & Transport Union
ROI	Republic of Ireland
RSD	Rail Safety Directorate (of ORR)
RSSB	Rail Safety and Standards Board
SRC	Strategic Risk Chapter
TOC	Train Operating Company
TSSA	Transport Salaried Staffs Association
TUC	Trades Union Congress

Annual Report of Health and Safety on Britain's Railways 2021–2022 – emerging themes in Chief Inspector's review

Ian Prosser, CBE – HM Chief Inspector of Railways/Director, Railway Safety, ORR

22/06/2022



Context

- **Some big issues to manage** over the next two to three years.
- **Major workforce reform** on the agenda from financial issues.
- **Recovery from the effects of the virus and restrictions** has been hard work; it may be years before we get back to where we were. Large drop in passengers, with a shift from commuter to leisure travel, the industry faces serious financial issues.
- **The potential for risk arising from the major change programmes** that are emerging across the industry and within individual transport systems should not be underestimated.

The challenges ahead

1. Managing the legacy impacts of the pandemic

2. Managing change: safety by design and successful, safe transition

3. Supporting people

4. Implementing technologies effectively

Managing the legacy impacts of the pandemic

- Recover where activity has been at reduced levels during the pandemic e.g training, assessment and management assurance. We need to recover these situations as quickly as possible.
- It is essential to improve connections between the top and bottom of dutyholders' organisations.
- Understanding and managing the industry's financial situation due to the impacts of the pandemic.
- Positive outcomes need to continue – e.g. less overcrowding, cleaner trains/stations.

Managing change: safety by design and successful, safe transition

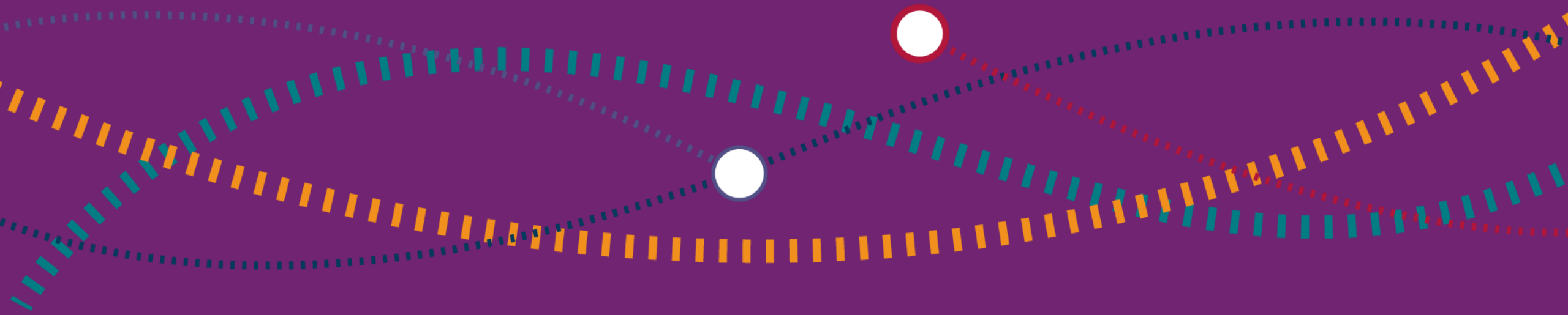
- We must not lose focus on the day job and management at all levels, particularly in frontline assurance.
- Manage the organisational changes effectively, not always having been achieved in the past.
- Change needs to involve those most affected by the change, a challenge in a climate of difficult industrial relations.
- Changes must be taken through appropriate safety validation including the creation of Great British Railways (GBR).

Supporting people

- Some good progress has been made on health and wellbeing. However it will be a challenge to keep up the momentum and accelerate advancement as we continue to need to look after each other and our mental health and wellbeing.
- We will continue to support and encourage the mainline industry to develop shared collection and analysis of data on health – a foundation of better health management.
- Improving occupational health provision – e.g. we will be monitoring Network Rail’s delivery of state of the art clinics, which will enable to offer significantly improved occupational health management for the whole mainline sector.
- Build on the success of the *wellbeing alliance conference*, ORR is supporting and contributing to the next conference in November 2022, as well as other initiatives such as the *Million Hour Challenge*.

Implementing technology effectively

- The *Network Rail Weather Risk Task Force* on earthworks and weather management is a good example of how technology could lead to a step change, not just in risk reduction but passenger experience and efficiency.
- Technology can improve efficiency in many forms of inspection and in train operations, such as driver controlled operation. Adopting value for money signalling solutions that can also be deployed to protect engineering possessions, enforce speed restrictions and warn level crossing users of approaching trains.
- Making the best use of technological development in weather prediction. For example, we will be maintaining close scrutiny of Network Rail's plans to embrace technology that can bring more targeted, effective management of the effects of extreme weather.
- Making use of technology to improve passenger safety at platform–train interface.
- Developing alternative traction technologies – for example, battery and hydrogen operated trains.



Climate Change and the Railway

Chris Davies
Civils Specialist Team, RSD

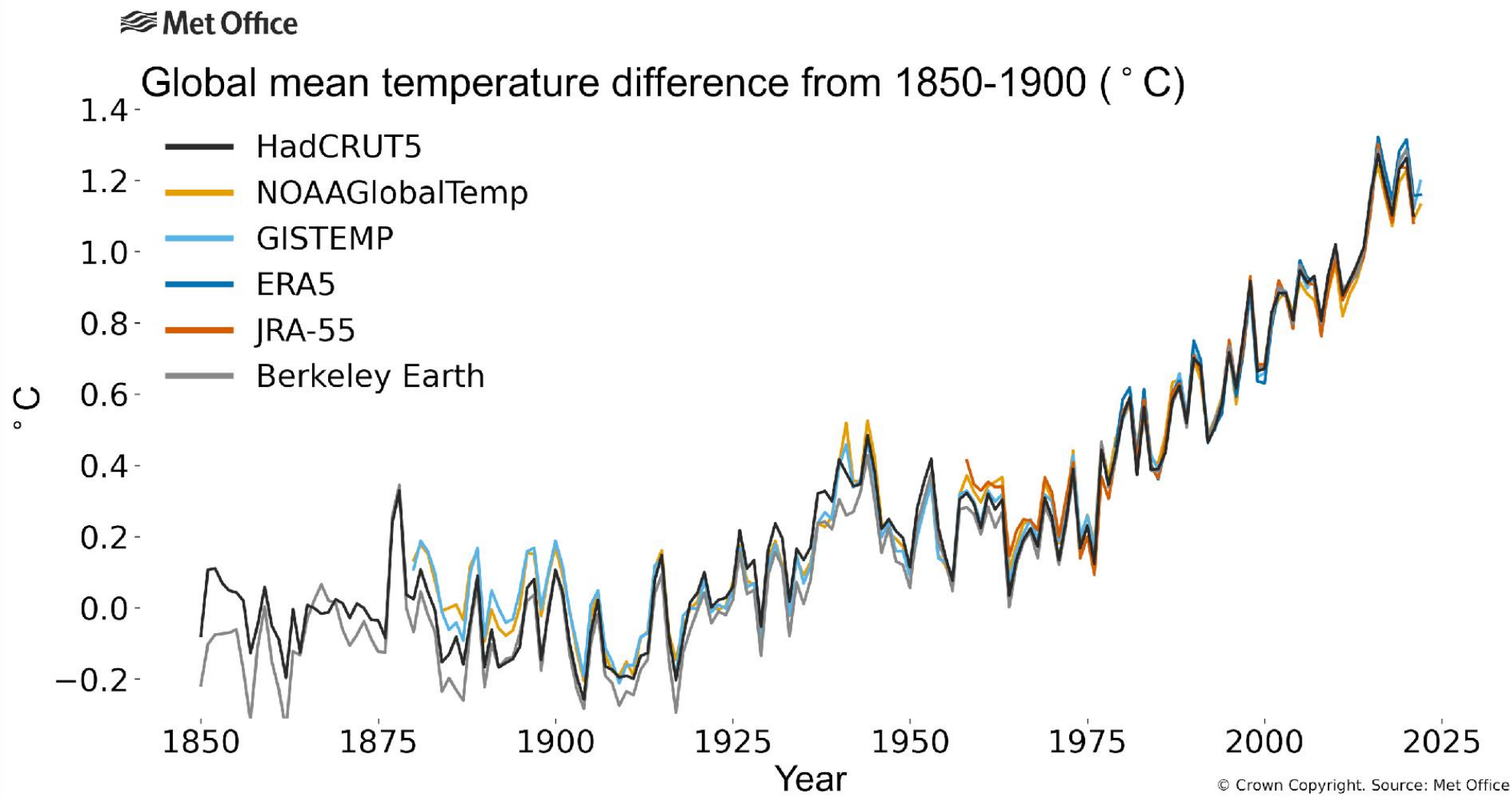
RIHSAC, 22nd June 2022



Climate Change and the Railway

- The changing climate
- The impact of climate change on the railway
 - Likelihood and consequence management
- What is Network Rail doing to respond to the challenge of climate change?
 - Third adaptation report
 - Risks and controls
- Weather Resilience and Climate Change Adaptation Plans
- RSD inspection activity

The changing climate



The changing climate



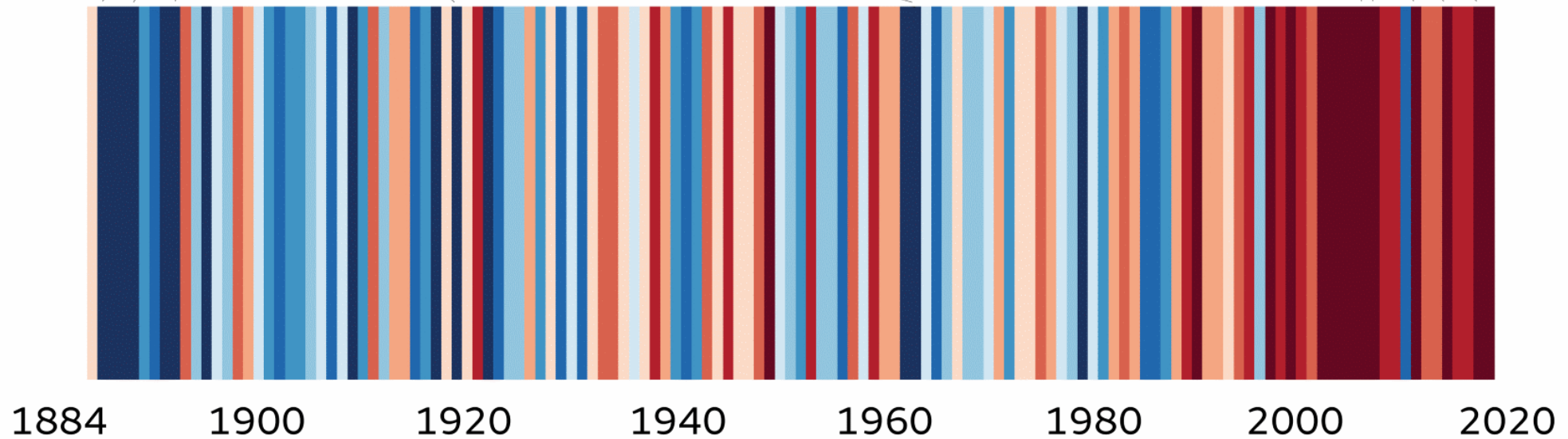
UK annual temperature

5 coolest years

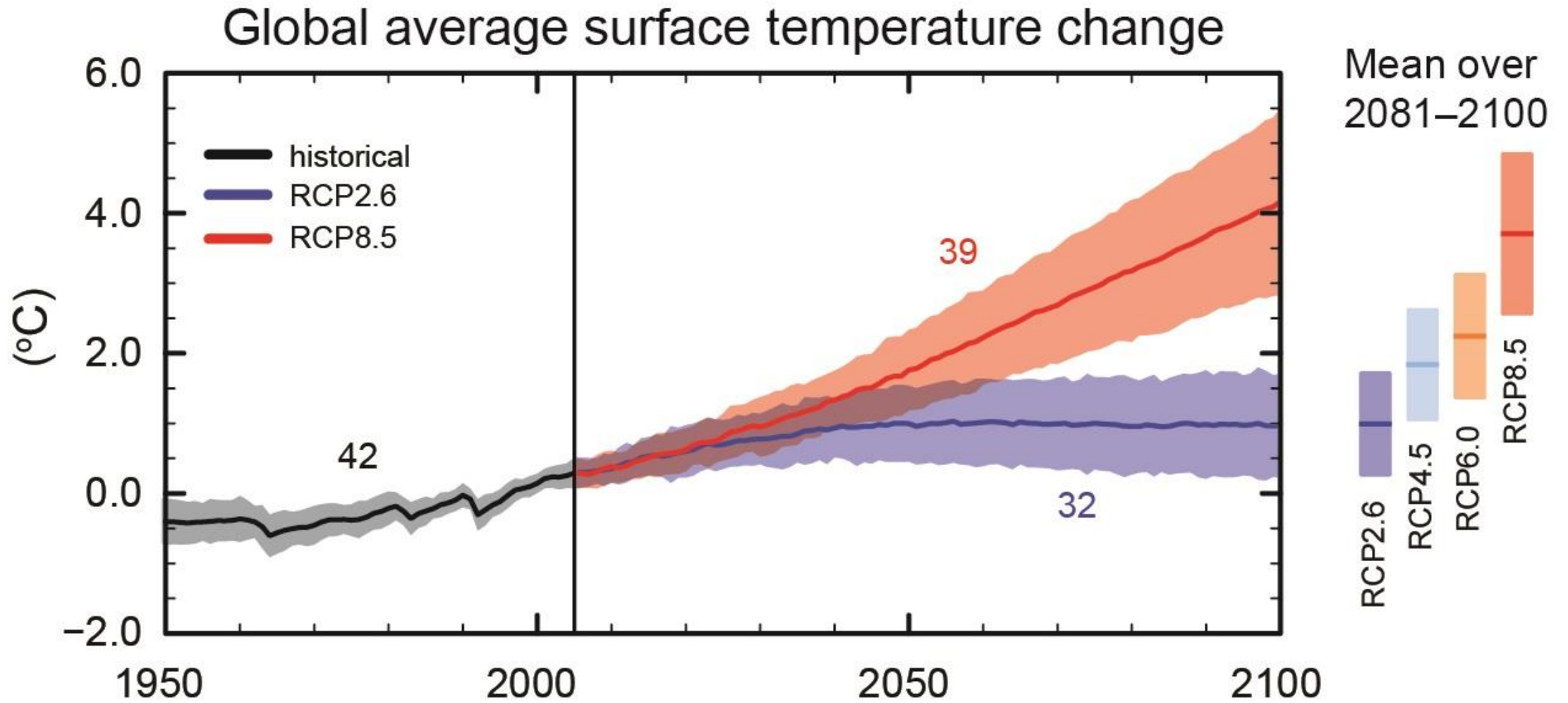
1892, 1888, 1885, 1963, 1919

5 warmest years

2014, 2006, 2011, 2007, 2017

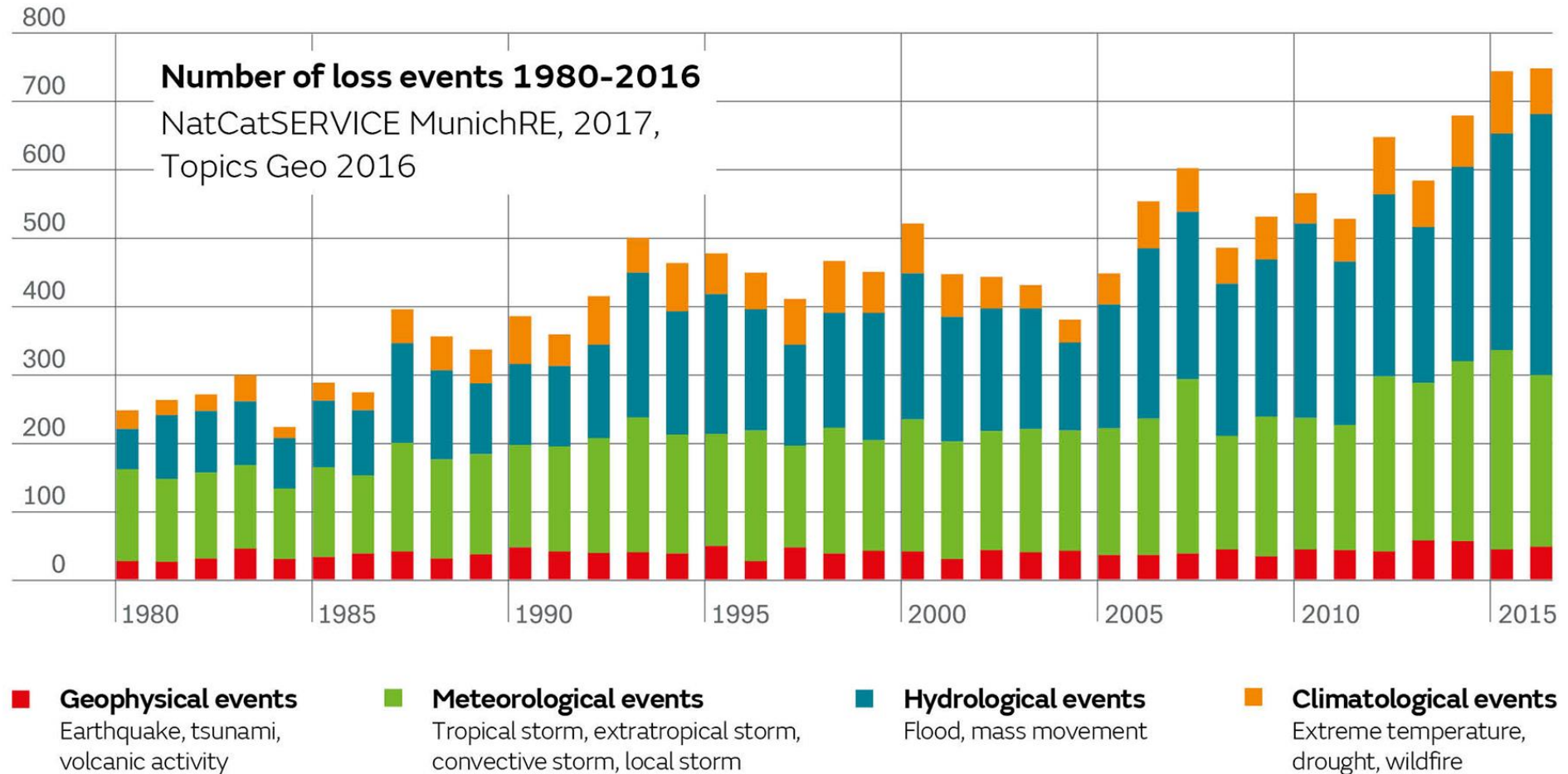


The changing climate

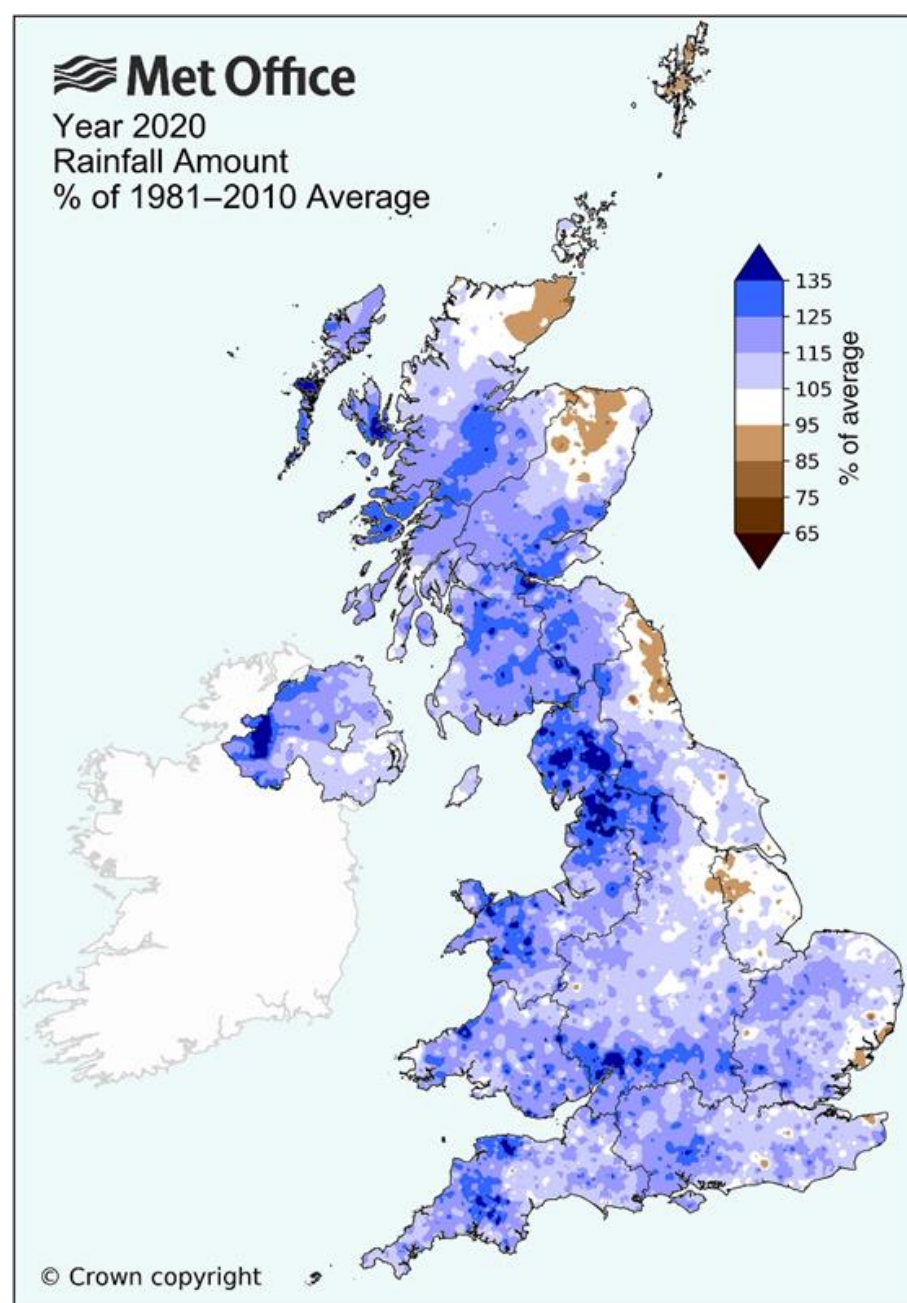


The changing climate

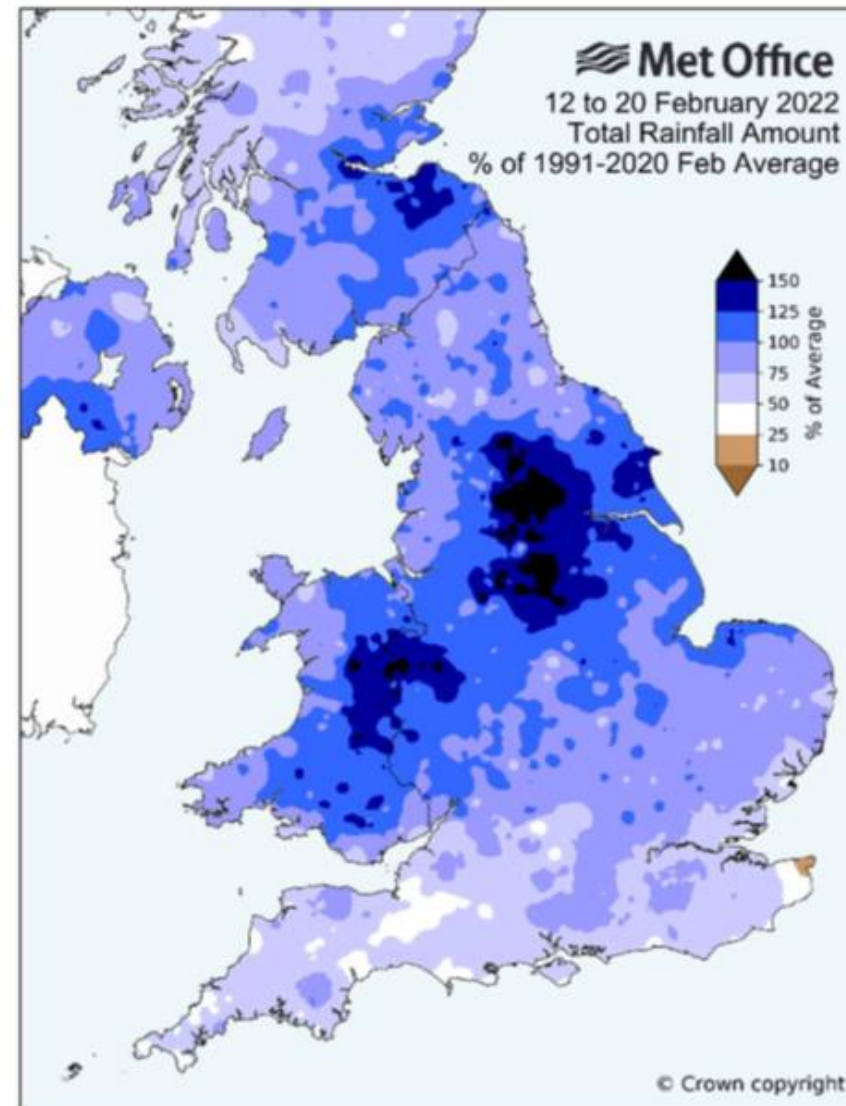
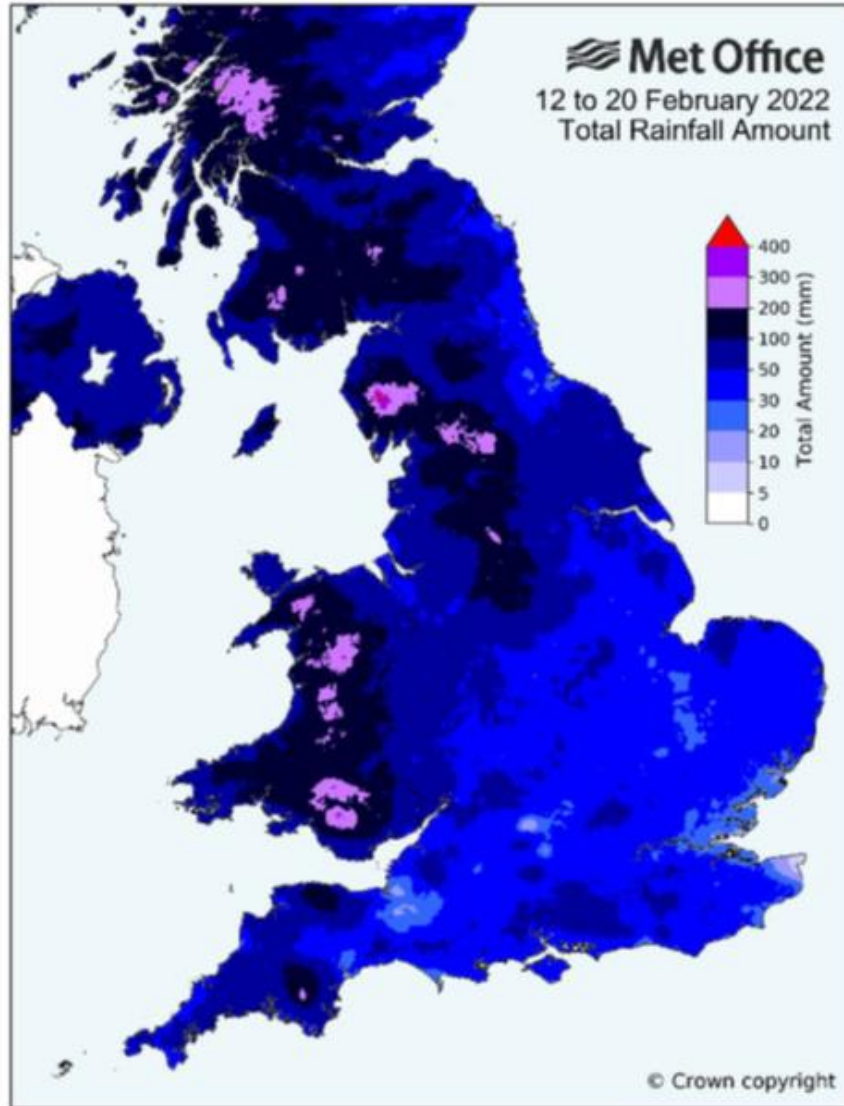
Are extremes becoming more frequent?



The changing climate



The changing climate



The impact of climate change on the railway



Waves can damage coastal infrastructure



Heavy rain can cause embankment failure and landslides



Rivers and heavy rain can flood the track



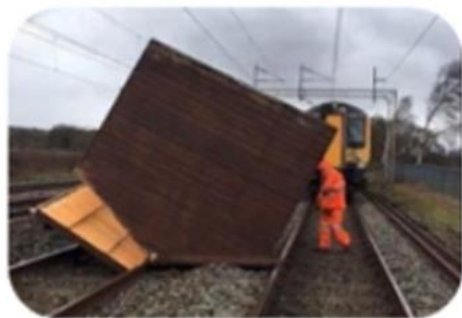
Flooding can cause erosion, destabilising bridges



Heatwaves can cause track to buckle



Snow can block tracks and affect electrical connectivity



Wind can blow objects onto the track



Wind can blow trees onto overhead lines and the track



Leaves on the line make tracks slippery and affect connectivity



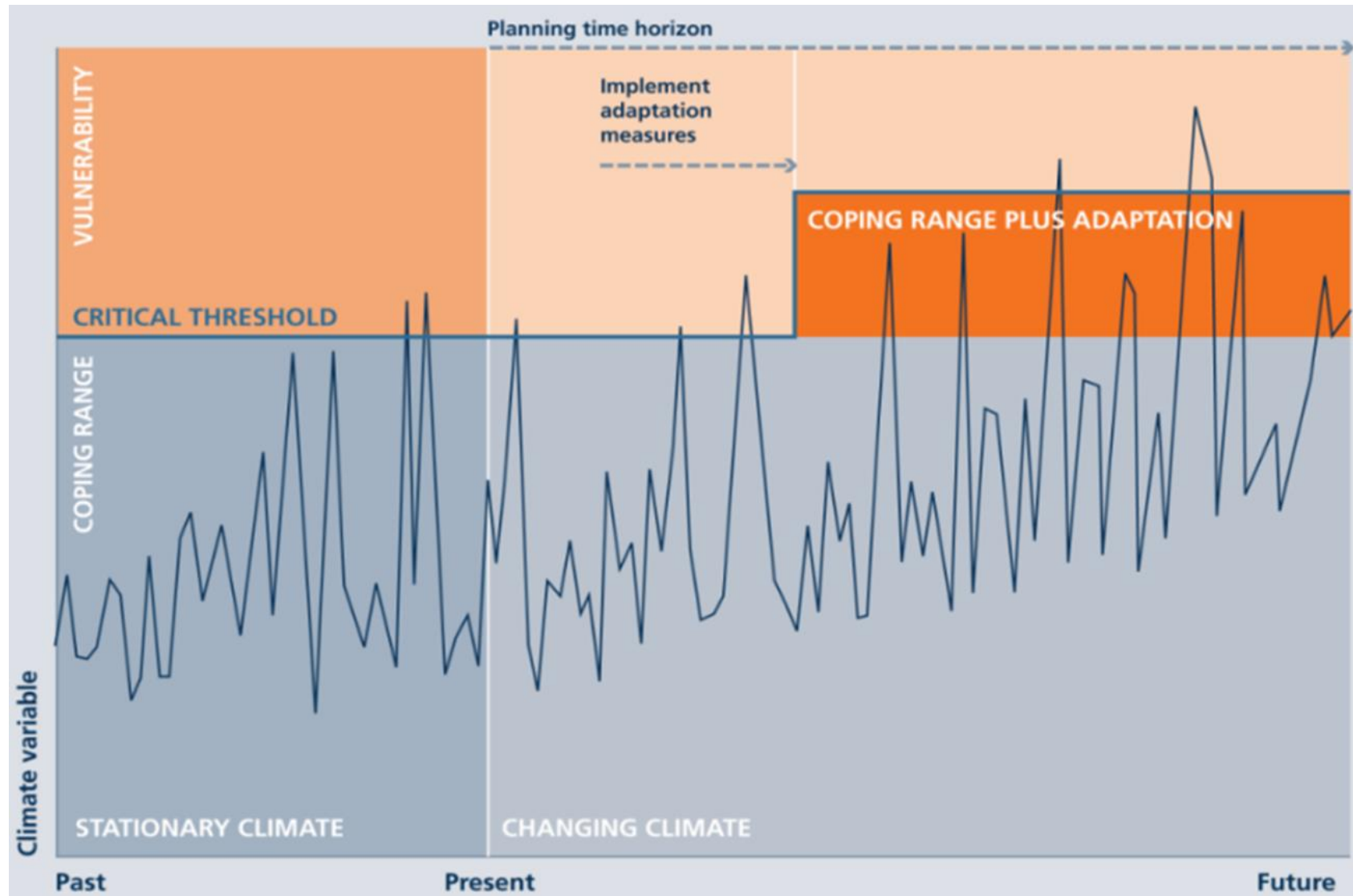
Lightning can damage signalling and electrical equipment

Leaf fall contamination and low adhesion

- Can lead to serious wrong side failures.
- Can render train protection (whether TPWS, ATP, tripcock & train stop) ineffective.
- Even if the train protection system intervenes, the train wheels will keep sliding.
- Can defeat train detection (failing to occupy a track circuit), so a vehicle becomes invisible to the signalling system.

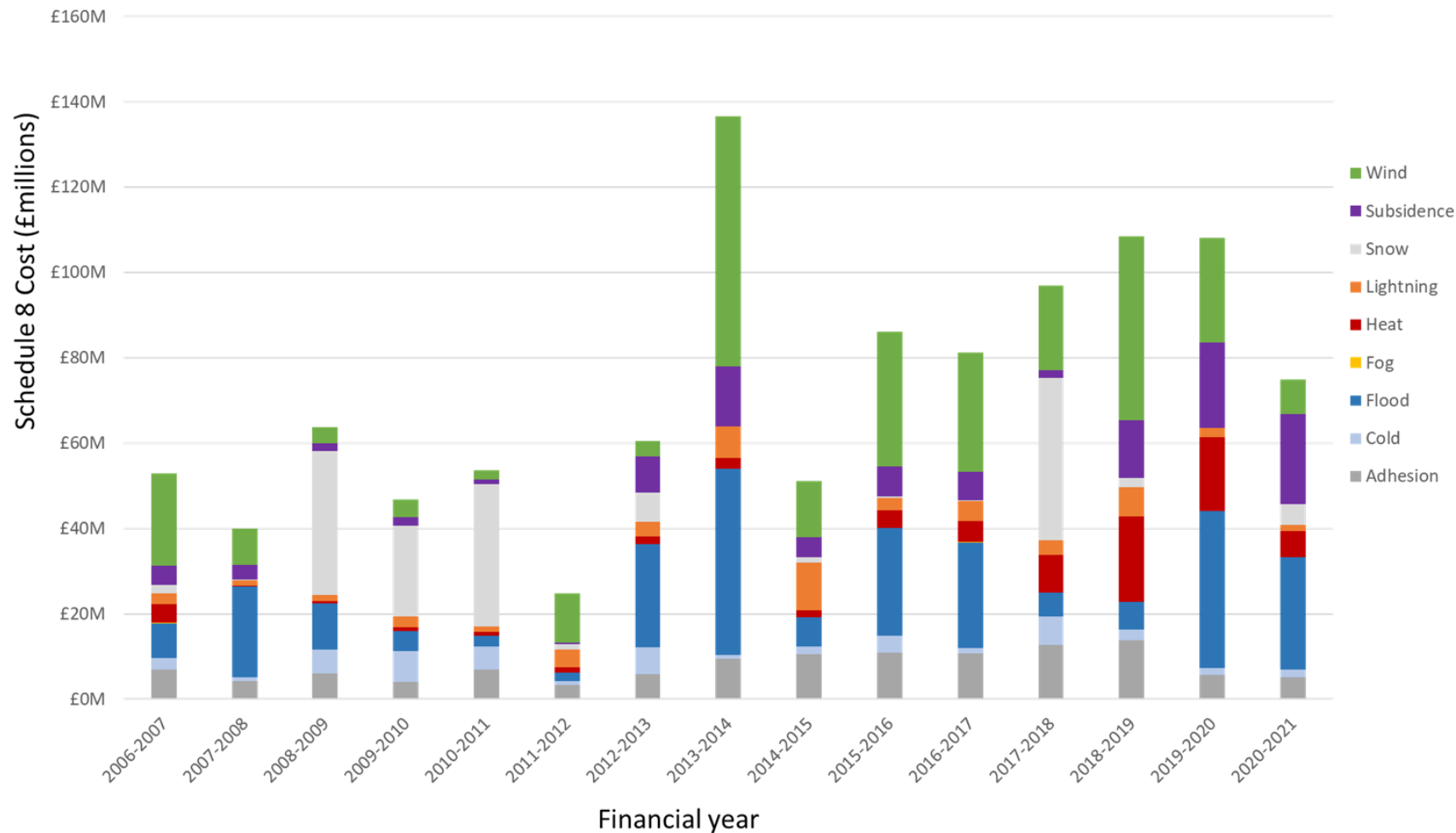


The impact of climate change on the railway



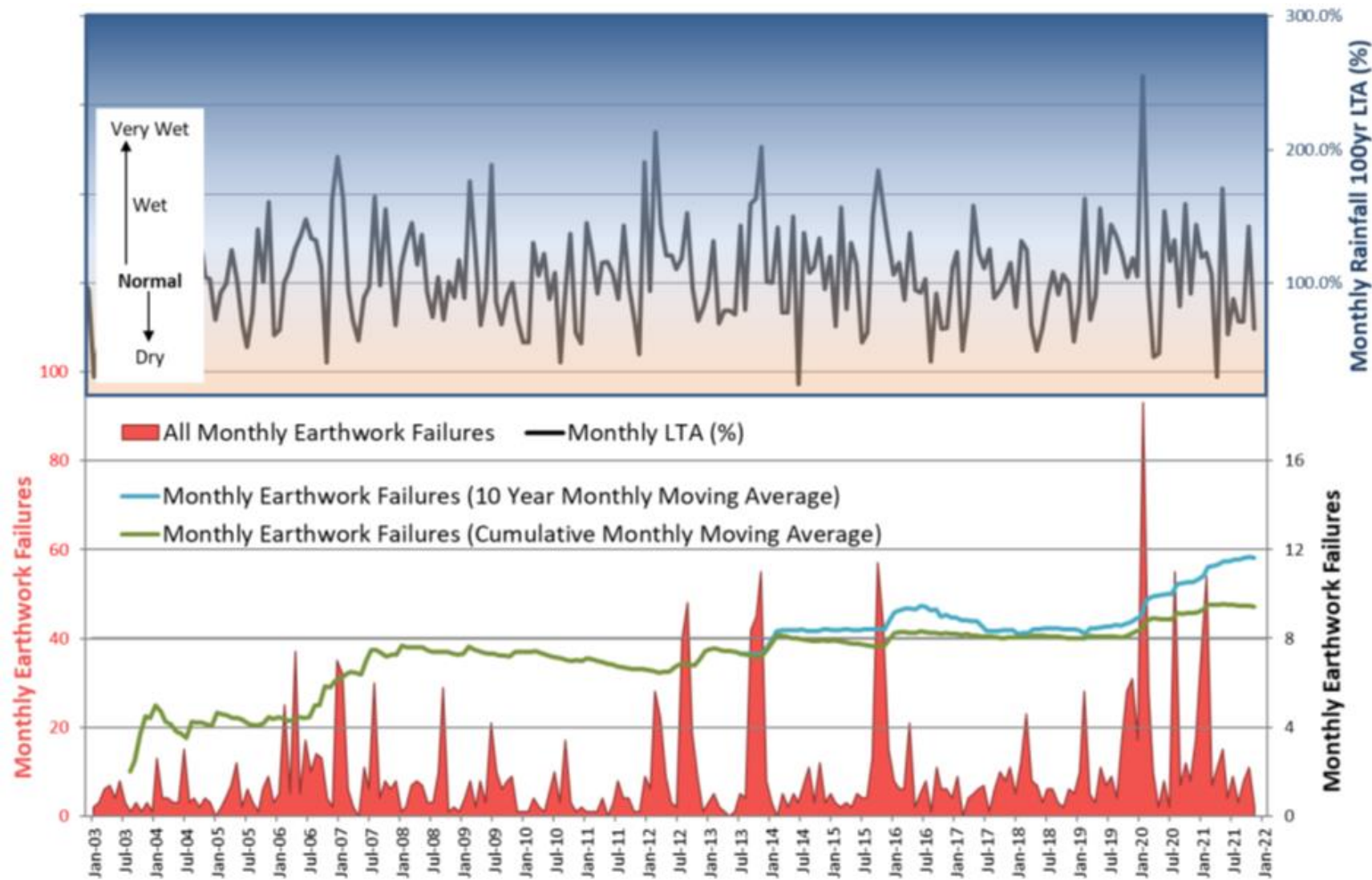
The impact of climate change on the railway

Weather related delay (Schedule 8 costs)

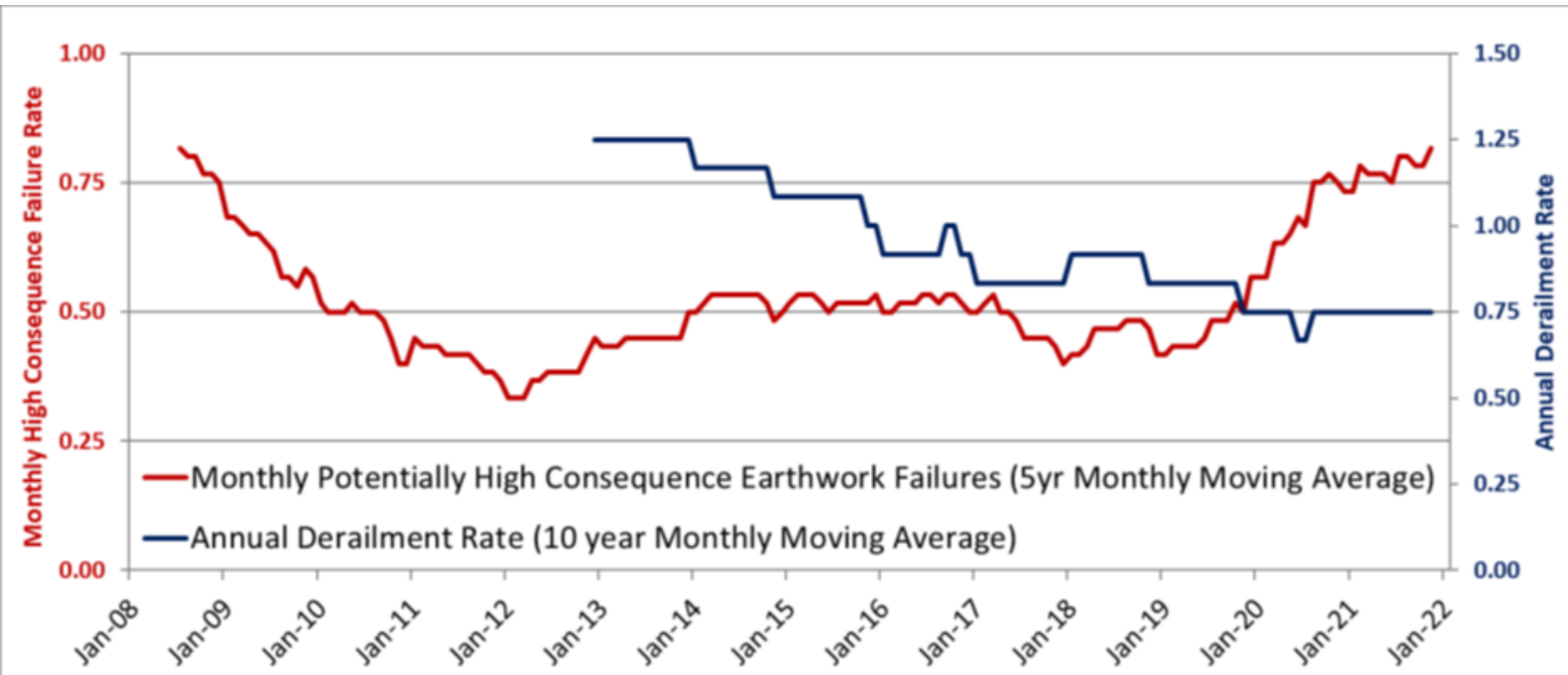


The impact of climate change on the railway

Monthly rainfall changes, mapped against earthworks failures



The impact of climate change on the railway



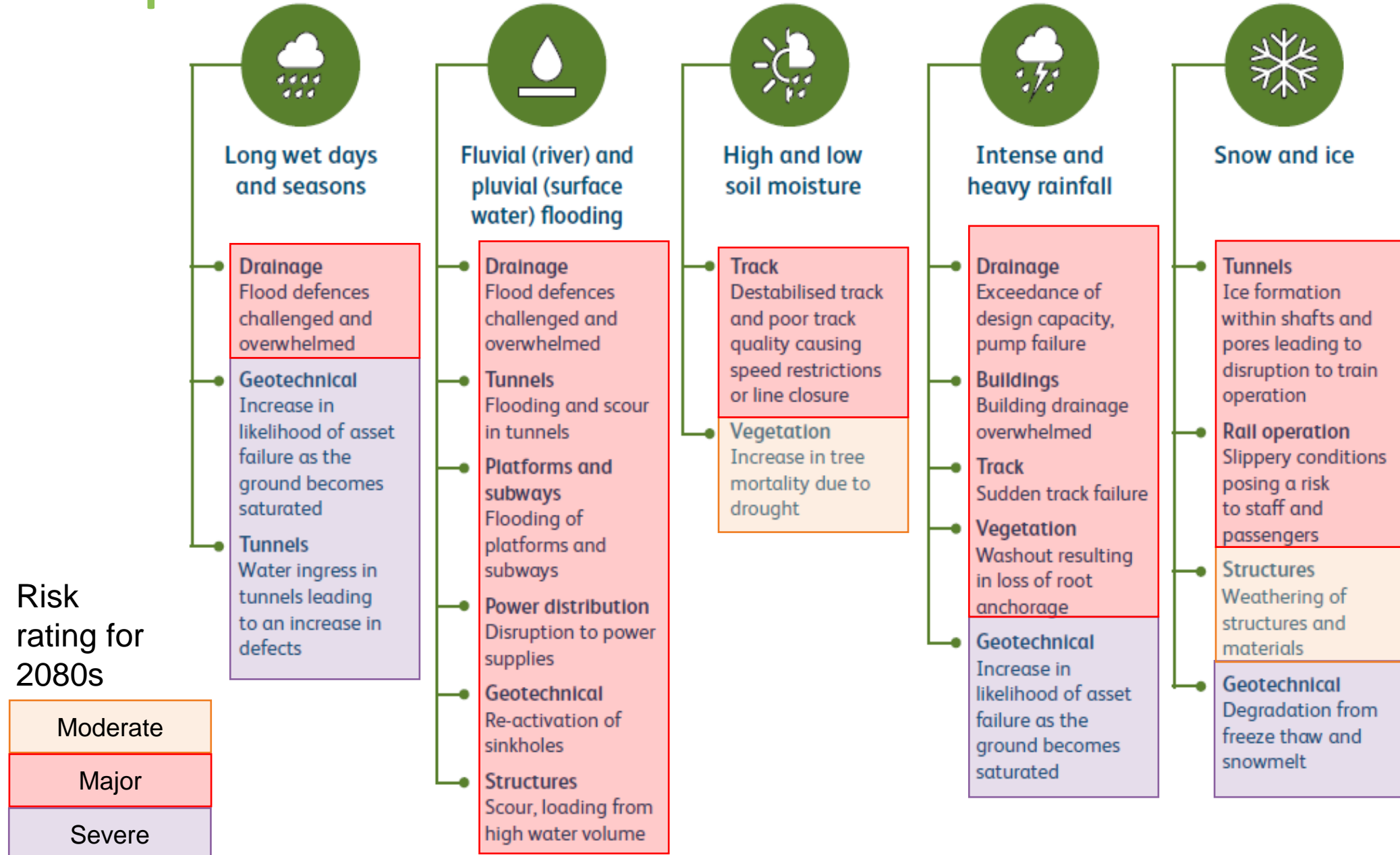
What is Network Rail doing in response?



Contents

1. Introduction
2. Adatation Reporting Power
3. Climate governance at network rail
4. Strategies and Plans
5. Our approach to assessing climate change risk
6. Interdependencies
7. Our climate change risks
8. Adaptation actions and progress
9. Conclusions

Precipitation risks



Sea level rise, coastal erosion and flooding risks

Sea level rise



Drainage and coastal protection
Overwhelming of drainage and defence overtopping

Coastal erosion



- Structures
Scour and undermining of structure
- Traction and rolling stock
Derailment due to landslip
- Track
Destabilised and poor quality track causing speed restrictions or line closure

Coastal flooding (storm surge)

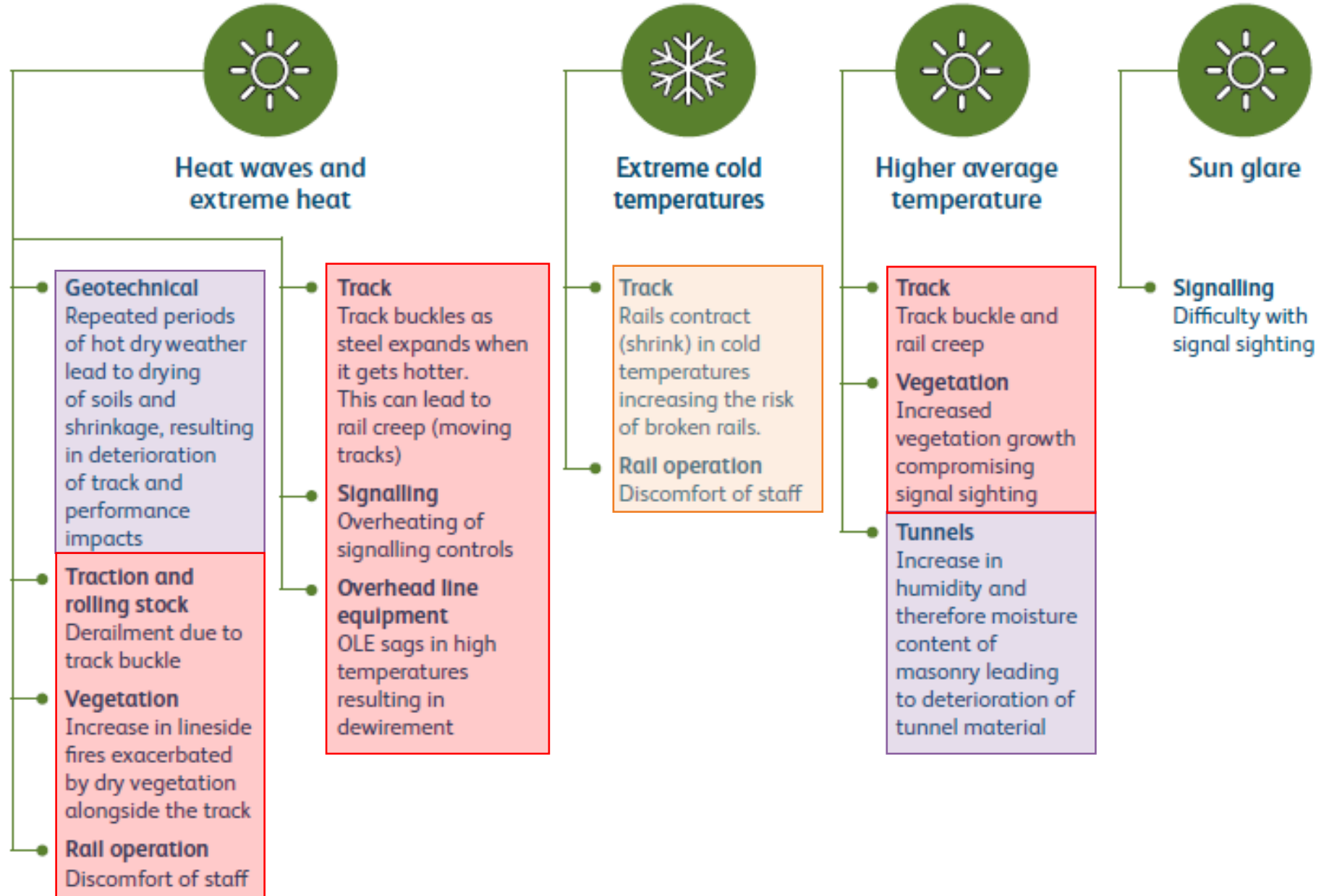


Coastal protection
Coastal erosion and defence overtopping

Moderate
Major
Severe



Temperature Risks



Risk rating for 2080s

Moderate
Major
Severe



Storms and wind risks

Lightning



- Power distribution**
A direct lightning strike will damage electrical equipment
- Vegetation**
Trees struck by lightning may fall onto the track or onto vulnerable lineside plant and equipment

High winds and storms



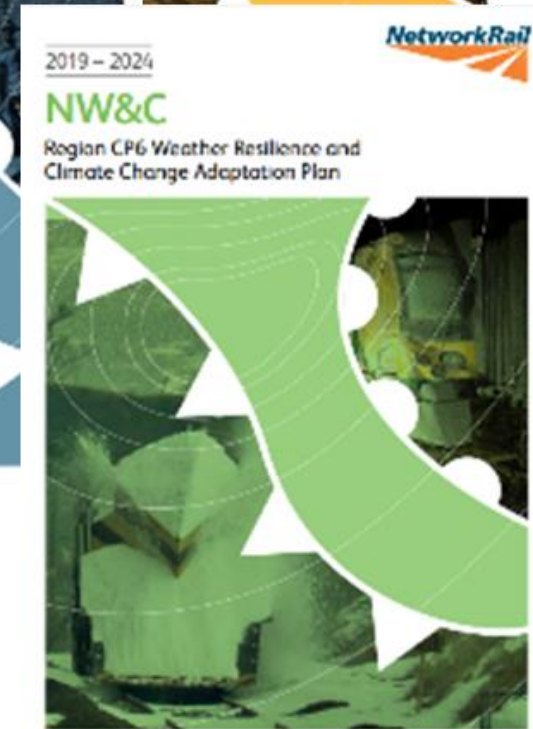
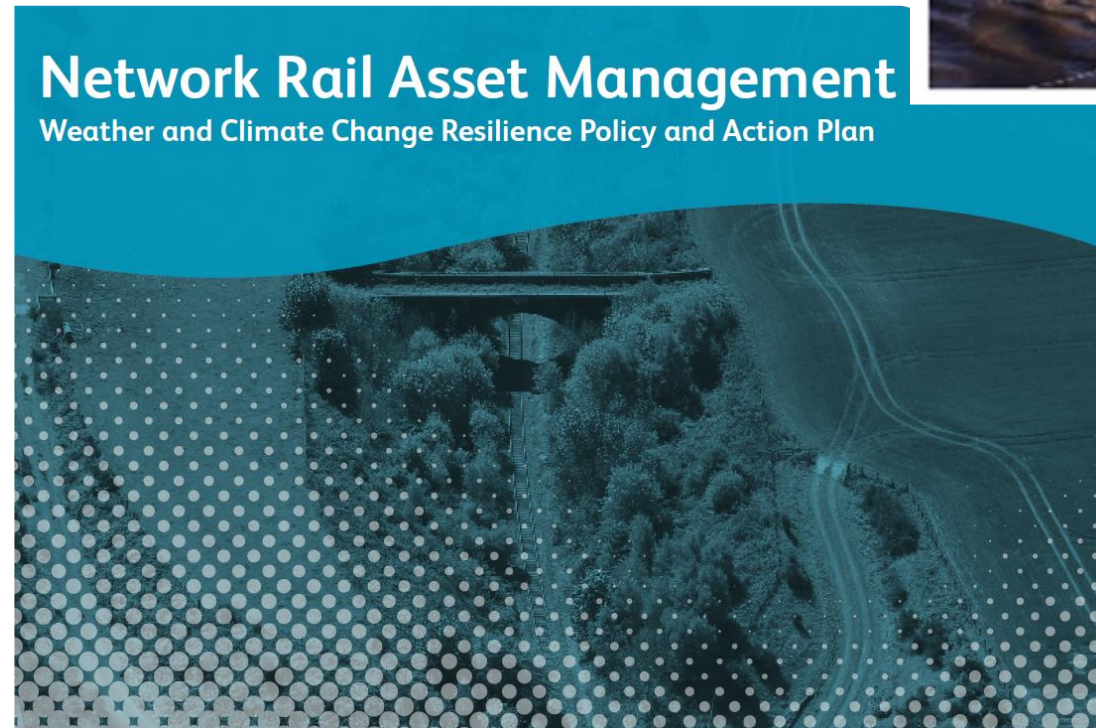
- Drainage**
Coastal erosion and sea defence overtopping
- Traction and rolling stock**
Damage of rolling stock and containers being blown off freight trains
- Track**
Destabilised track and poor track quality causing speed restrictions or line closure
- Vegetation**
Vegetation obstruction on the line from trees blown over. The risk will increase further due to longer growing seasons
- Structures**
Inundation, erosion, scour, loss of stability and structural damage from overtopping
- Signalling**
Disruption to signalling from leaf fall
- Level crossing**
Failure of barriers

Risk rating for 2080s

Moderate
Major
Severe



Weather Resilience and Climate Change Adaptation Plans (WRCCAs)



BCRRE



Report for ORR

“Review of Network Rail’s Weather Resilience and Climate Change Adaptation Plans”

CPV Code: 73210000

By:
Climate Sense Ltd
Birmingham Centre for Railway Research & Education (BCRRE), University of Birmingham



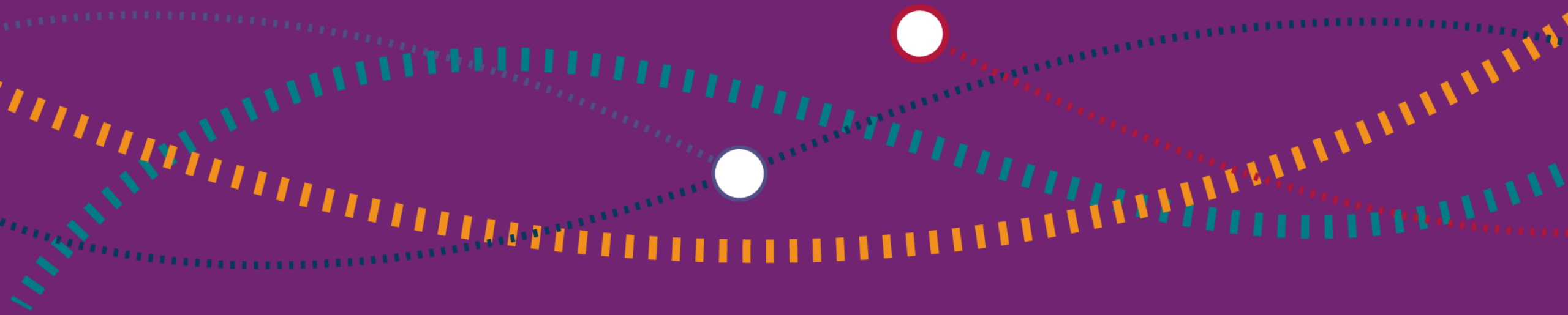
Future WRCCA plans must be broader in scope, considering cross-cutting risks and interdependencies, and the extremes of weather and longer-term climate change, including so-called “worst case” scenarios.

A new enabling environment is required to support the continuing maturity of the WRCCA plans and broader WRCCA strategy. This includes reviewing: (i) the metrics used for weather and climate resilience; (ii) the current processes for monitoring resilience improvements; and (iii) the governance of WRCCA across the organisation.

RSD Inspection Activity

- Post Carmont recommendation tracking
 - Mair and Slingo reports
 - RAIB recommendations
- Drainage asset knowledge and inspection
- Consequence management
- WRCCA plans review
- Civils asset management in the non-mainline sector

Questions?





Rail Accident Investigation Branch

RAIB's 2021 Annual Report

RIHSAC briefing - 22 June 2022

Andy Hall

Chief Inspector of Rail Accidents

Reflections

- The COVID emergency
- Investigation of first fatal train accident since 2007 - Carmont
- The Sandilands inquest
- First RAIB investigation into a collision between two moving passenger trains – Salisbury
- Time of transition in RAIB's senior management team

Fatal accidents in 2021 that are currently under investigation by RAIB

- **24 November 2021**, tram collision with pedestrian, Blackpool
{plus West Worthing and Lady Howard FPC in 2022}

Outcome of 47 preliminary examinations undertaken by RAIB in 2021

Outcome of the 47 preliminary examinations undertaken by RAIB in 2021 Lorem ipsum



16

Investigations commenced

9

Industry investigation reviews commenced



7

Letters to coroners



HM CORONER

9

Safety Digests commenced



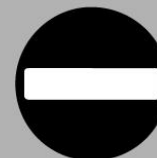
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Letter to industry



5

No further action



RAIB publications during 2021

RAIB outputs during 2021

9



Full investigations published

(average time to publish: 12.2 months)

8



Safety Digests published

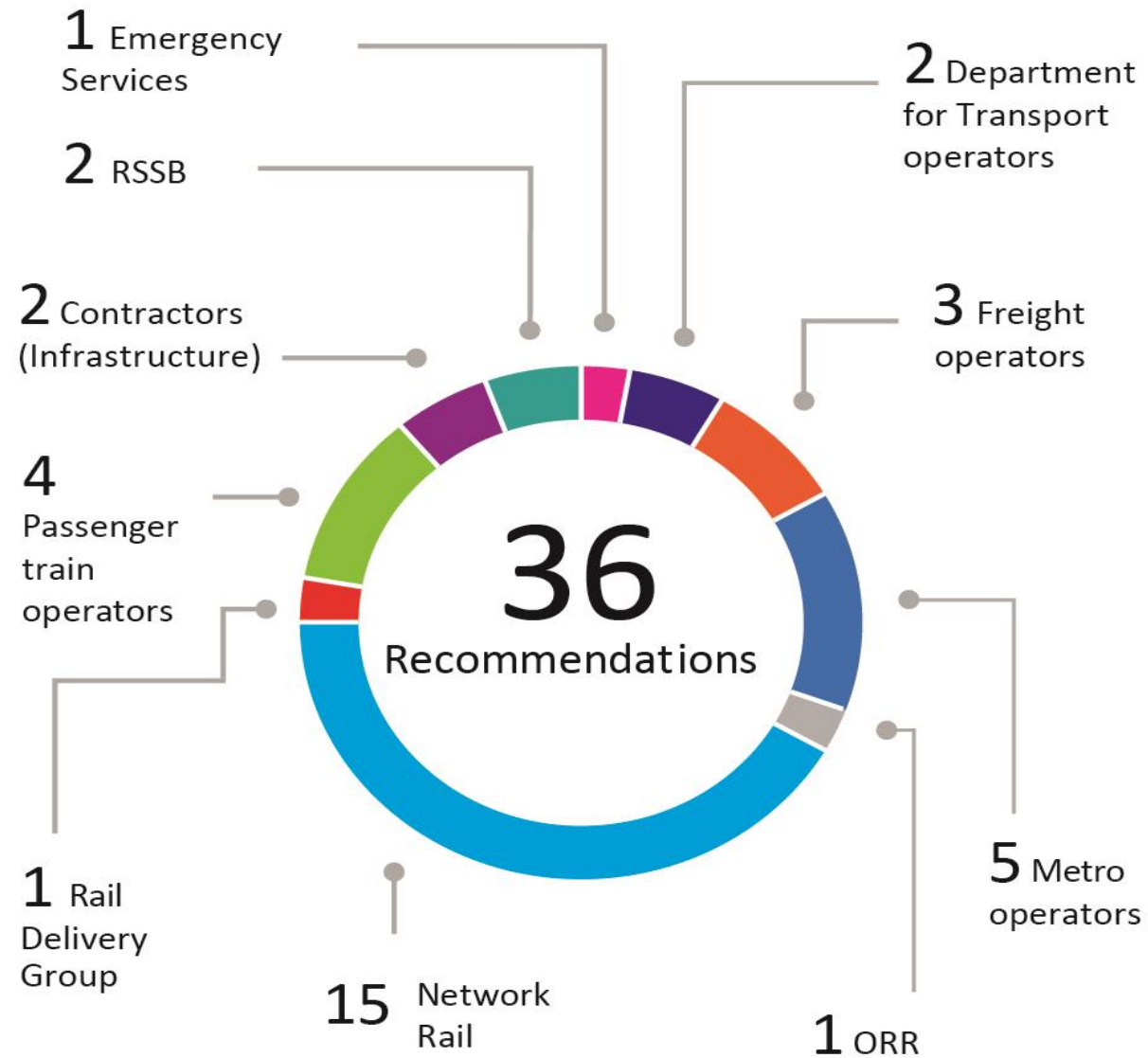
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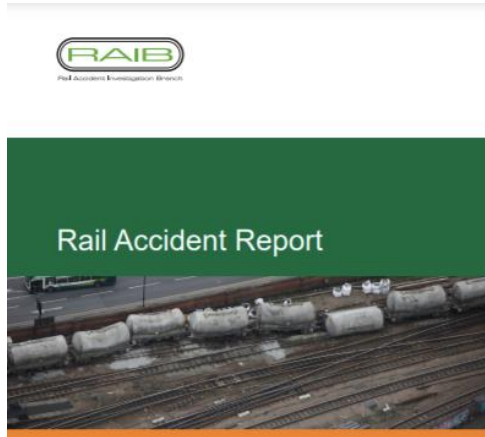
HM CORONER

Letters to coroners

RAIB recommendations during 2021



2021 Themes



Report 01/2021
February 2021

Report 02/2021
March 2021

Report 03/2021
June 2021

Report 07/2021
October 2021



RAIB investigations (by theme)

Track worker safety

Trackworker struck and killed by train, Roade

report 03/2021

Near miss with MOM, Rowlands Castle

report 06/2021

Near miss with trackworkers, Llandegai Tunnel

digest 03/2021

Near miss with trackworkers, Eccles station

digest 05/2021

Surbiton, track worker struck & killed by train

report 05/2022

- Protection
- Where are you/which line is blocked?
- Planning and setting up a safe system of work
- Signage at access points
- Management assurance
- Culture and leadership



Implementation of safety learning - signage at access points

Four very near misses near-misses due to confusion over location

- Acton West in 2008 (report 15/2009) – rec 3 recommended track layout signs at access points
- South Hampstead (report 20/2018) – no sign
- Sundon (safety digest 05/2019) – no sign
- Llandegai (safety digest 03/2021) – no sign



An example of access point information signage (as fitted near Basingstoke)



Blake & Arnold access point

RAIB investigations (by theme)

Platform train interface

Fatality at Eden Park, visually impaired passenger falls off platform and is struck by train

report 01/2021

Fatality at Waterloo (LUL), passenger falls between train and platform

report 05/2021

- Tactile surfaces
- Accessibility and safety
- Platform body side gaps, particularly at curved platforms
- Understanding risk at specific platforms

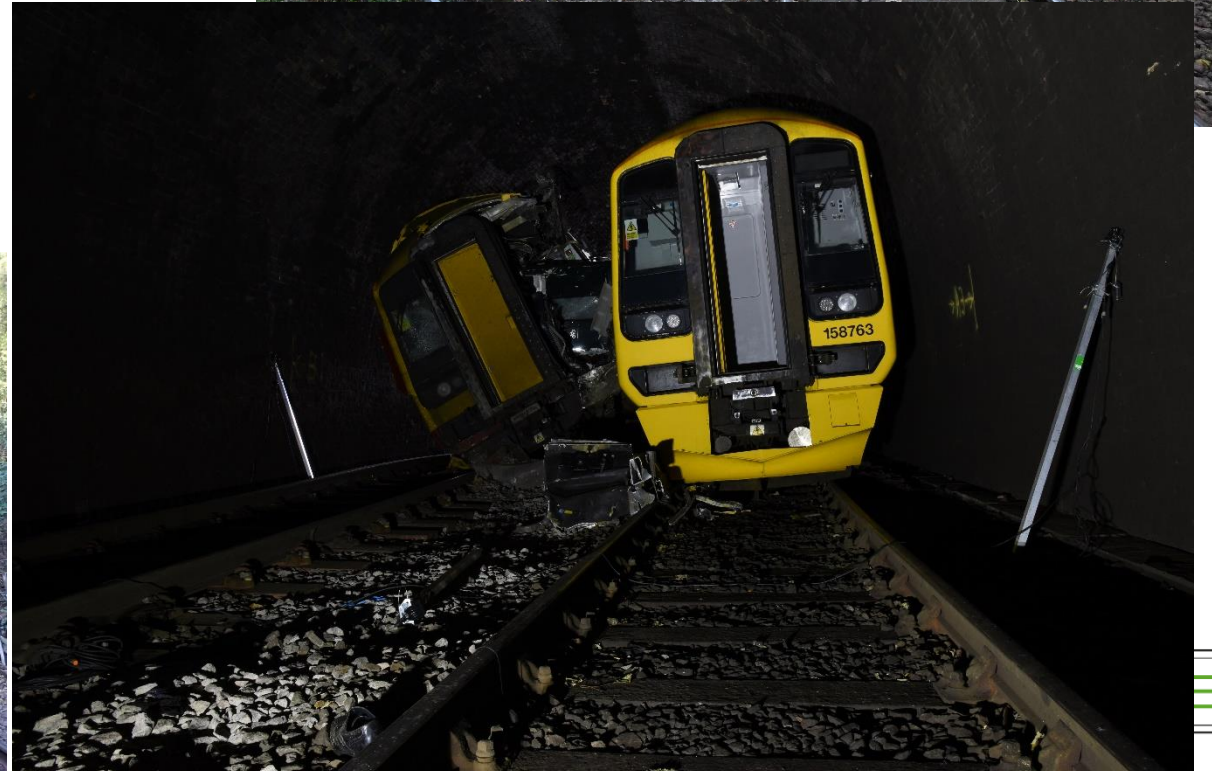
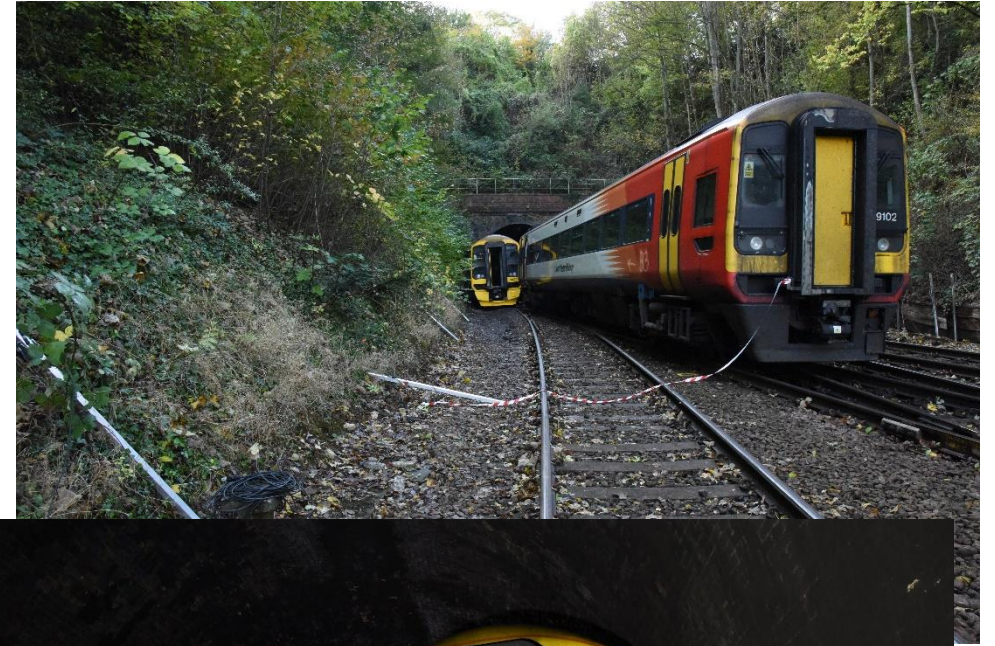


RAIB investigations (by theme)

Railway Operations

<i>Narrowly avoided collision, Chalfont and Latimer</i>	<i>report 04/2021</i>
<i>Overspeeding between Laurencekirk and Portlethen</i>	<i>report 08/2021</i>
<i>Overspeeding, Beattock</i>	<i>digest 02/2021</i>
<i>Slow speed collision, Grosmont station</i>	<i>digest 08/2021</i>
<i>Derailment, Carmont</i>	<i>(12 Aug 2020)</i>
<i>Buffer stop collision, Kirkby</i>	<i>(13 Mar 2021)</i>
<i>SPAD and near miss, Sileby</i>	<i>(05 May 2021)</i>
<i>Buffer stop collision, Enfield</i>	<i>(12 Oct 2021)</i>
<i>Train collision, Salisbury</i>	<i>(31 Oct 2021)</i>

Salisbury, Wiltshire, 31 October 2021



Railway Operations; key topics

- Driver attention
 - use of technology to detect a loss of attention and intervene where appropriate?
 - is there more that can be done to manage fatigue risk?
- Driver management, competence and performance
- Communicating safety critical information to drivers (eg blanket speed restrictions)
- Operational response to extreme rainfall (exploiting modern 'nowcasting' technology)
- Management of adhesion
- Management assurance

RAIB investigations (by theme)

Management of weather events

Derailment, Carmont (12 Aug 2020)

*Collision with tree/derailment,
Balderton (26 Nov 2021)*

- Protecting (resilience)
- Predicting (forecasting)
- Monitoring (nowcasting)
- Mitigating (reacting)



Carmont – key areas of learning

- Management of civil engineering construction activities by Network Rail and contractors
- Improved response to extreme rainfall events
- Improve capability of route control offices to effectively manage complex events
- Clarify the arrangements to be applied for the operation of route proving trains
- Address the obstacles to effective implementation of lessons learnt from the investigation of accidents and incidents
- A review of previous research on fitting secondary impact protection for train drivers (eg seatbelts and airbags)
- Assessment of the additional risk to vehicle occupants associated with the lack of modern crashworthiness features on HSTs

RAIB investigations (by theme)

Freight wagon maintenance

Derailement of tank wagons, Llangennech

report 01/2022



- Documentation/records
- Defect reporting
- Facilities, tools, training
- ECM responsibilities
- ECM certification

Llangennech investigation – key areas of learning

- Braking component design
- Task analysis of wagon maintenance processes, equipment and facilities
- ECM processes
- ECM certification body processes
- Guidance of practical implementation of ECM Regs
- Regulatory oversight of non-UK ECMs and Certification Bodies
- Technology used to detect wagon faults in real time

RAIB investigations (by theme)

User worked crossings

Collision with mobility scooter, Burgess Drove UWC (industry letter)

Near miss with cars, Forestry UWC (digest 07/2021)

Train stuck tractor and derailed, Kisby UWC (19 Aug 2021)

Near miss with cars, Coltishall UWC (21 Jan 2021)

- Determination of train location
- Authorised user/user behaviour
- UWCs on public roads
- Vulnerable user crossing times



RAIB investigations (by theme)

Management assurance

Trackworker stuck and killed by train, Roade

report 03/2021

Train struck lorry outrigger, Penistone

digest 06/2021

Llangennech

report 01/2022

Derailment, Carmont

(12 Aug 2020)

- Corporate knowledge
- Monitoring, audit & review
- Open, honest reporting
- Willingness and ability to learn and change



Management assurance – safety learning

- Reliable and effective management assurance is based on the free flow of accurate information up, down and across the organisation
- We need to understand how teams actually work (the gap between ‘the plan’ and the real world)?
- Railway industry’s great at ‘lagging indicators’ (what went wrong) and less so, what might go wrong (‘leading indicators’)

Annual report; themes

1. Safety of railway employees on or near the track
2. Safety at the interface between platforms and train
3. Railway operations (including driver attention)
4. Managing the consequences of bad weather
5. Freight wagon maintenance
6. User Worked Crossings
7. Management assurance

Summaries of learning; updated from last year

1. Design and operation of User Worked Level Crossings
2. Protection of trackworkers from moving trains
3. Managing risk at the platform-train interface
4. Safe management of abnormal train-operating events
5. Freight train derailments
6. Safe design operation and maintenance of on-track plant and trolleys
7. The safe management of weather-related events which affect train operation
8. The integrity of train braking systems

Data & information – what's the use ?

- A generation ago, the issue was often insufficient data
- Now we have a different problem - we have lots of data but are not always able to utilise it as effectively as we should
- Further, does the fact we have data provide a false sense of security that the risk associated with an issue is controlled when it is not?
 - Llangennech – wheelset detection
 - Carmont - weather information
 - Multiple freight derailments – TRV traces over time show developing track faults
 - Salisbury ? – low adhesion management

The need for 'chronic unease'

- Statistics show that we operate a safe railway, both in absolute and relative terms
- However, recently we have had a number of very bad accidents
- **But they could have been much worse**
 - Carmont would have resulted in more injuries and probably deaths had it not been for COVID measures depressing passenger numbers
 - Margam would have been a triple-fatality accident, but for inches
 - Llangennech could just have easily occurred in a urban area or with a more volatile payload
 - The Salisbury collision was a minute or so away from a collision with a much more heavily laden train

RAIB and Europe

- RAIB has agreed revised Protocols with its equivalents in Ireland and France, to cover cooperation at or near or international frontiers
- RAIB continues to work closely with rail accident investigation bodies in Europe, and beyond
- We are assisting DfT with revised Channel Tunnel Regulations in the areas affecting accident investigation.

RAIB priorities for 2022

- maintaining high quality, timely investigations in a (post ?) COVID environment;
- keeping up with changes in technology and industry structure;
- recruiting, developing and keeping the right expertise
- continued positive engagement with the rail industry and other statutory bodies;
- preserving and enhancing RAIB's international contacts;
- working with other railway accident investigators in the UK to share good practice and to help improve the quality of investigations

Questions?



Railway Industry Health and Safety Advisory Committee Provisional Forward Programme (as of June 2022)

V	Subject	Lead	June 2022	October 2022	Feb 2023	2023
1.	RAIB annual report	Andy Hall, RAIB	✓			
2.	Climate change effects on the railway	Chris Davis, ORR	✓			
3.	ORR's Annual Health and Safety Report	Ian Prosser, ORR	✓			
4.	Sandilands: <ul style="list-style-type: none"> • lessons learnt • tram policy updates • future activities 	John Cartledge / ORR		✓		
5.	Industry progress on track worker safety, including leadership and culture	TBC		✓(TBC)		
6.	Pam Warren report: post publication responses	Sukhninder Mahi / Ian Prosser / Pam Warren		✓(TBC)		
7.	Health and mental health risk management / including prevention (for both industry and passengers)	TBC		✓(TBC)		
8	Good Practice in Regulation: Better Regulation Framework and NAO report on the principles of effective regulation	ORR			✓(TBC)	
9	How the industry handles track plant	TBC			✓(TBC)	