Welcome to RIHSAC 99

Dilip Sinha
Secretary, RIHSAC

9 June 2015
Investigation into the disruption caused by overrunning engineering works on 27 and 28 December 2014 at King’s Cross and Paddington

Joanna Whittington

9 June 2015
Outline of talk

- What happened?
- How did ORR respond?
- What we found?
- What we recommended
- What has happened since?
What happened…

“…wide spread confusion, frustration, disruption, discomfort and anxiety.”
How did ORR respond?

- Safety investigation

- Economic investigation
  - Criteria
  - Scope
  - Process
  - Timeline and analysis
What we recommended

■ Improved planning
  – Operational contingency plan fit for purpose
  – Cover risks to train services as well as on-time handback of the possession
  – Risk assessment in the context of all work on the network

■ Oversight of possessions and communications
  – Review processes for site reporting and management of contractors
  – Clear go/no go decision points on works and operational contingency and their interaction
  – Communicating up the chain of command

■ Incident response
  – Network Rail and TOCs to review cascading of information
  – Testing elements of the contingency plan
  – Network Rail and TOCs to review arrangements for managing control of an overrun incident

■ Also clear that accurate and timely information can mitigate some of the impact
  – TOC plans to improve
What we found?

- “….weaknesses in Network Rail’s planning, oversight and the incident response which followed, which failed to put the impact on passengers at the centre of decision making.”
  - Planning the King’s Cross possession did not take account of handing a working line back on the 27th
  - Communication of the contingency plan developed on 26th for King’s Cross was ineffective
  - Reporting the progress of works at Paddington was inaccurate

- Enough to establish that Network Rail had breached its licence

- Train operating companies followed established processes and did not breach their licences
What has happened since?

- Preparation for Easter/May day engineering works
- 1. Review of contingency plans and QSRAs
- 2. Participation in critical possessions deep dive reviews
- 3. Participation in T-4 & T-8 portfolio reviews
- Network Rail implementation plan
Safety, Technical, Engineering
Sharing our new STE organisation

Emma Head, Director Safety Strategy
STE: Safety, technical and engineering centre of expertise

Our proposed new structure will:

- Provide greater clarity and clearer accountability
- Reduce handovers
- Remove duplication

Enabling us to improve safety and performance
Proposed new STE organisation

Graham Hopkins
group STE director

Jane Simpson
chief engineer

TBC
chief Health & Safety officer

TBC
head of Environment & Sustainable Development

Barny Daley

Emma Head

Roan Willmore

Simon Warner
head of STE Business Management

Jamie Trigg
programme director, BCR

Brian Tomlinson
director of Risk, Analysis & Assurance

Key

Policy & Strategy

Delivery

Assurance
Chief engineer

Chief Engineer (Jane Simpson)

Deputy chief engineer

Buildings & Civils

Switches & Crossings

Command, Control & Signalling

Track & Lineside

Mechanical & Electrical

Asset Management Strategy
Our approach

- Head of [Asset Type]
- Head of Capability [Asset]
- Principal Engineers & Engineers
- Programme Delivery
- Reliability improvement manager
- Engineering director
- Engineering expert
- Lead practice manager
- Professional Heads
- STE Business Management
- Principal Engineer & Engineers
Environment & Sustainable Development

Head of Environment & Sustainability

Sustainability Strategy

Environmental Strategy

Energy Management

WRCC Strategy

WRCC Programme Management
STE Business Management

head of STE Business Management (Simon Warner)

- Change Management
- Programme Management
- Professional Development
- Research & Development
- Controls Management
**Key messages**

Asset Management Services

Clearer accountability and accelerate continuous improvement

More time now = less change in the future

Reporting lines and job scopes may change

Safety, Technical & Engineering

Safety & Sustainable Development

Infrastructure Projects
Freight Train Derailments:
RIHSAC Update

Paul Frary
ORR Safety Regulatory Committee

- ORR concern regarding recent freight container train derailments
- Common issues identified from these incidents
- Paper presented on the 27 October 2014
- SRC to consider the issues presented in the paper and the suggested actions, and provide comment and advice to
  - Refine the actions
  - Determine the approach to facilitate industry in recognising the issues, the need for action and to take action.
- Chief inspector to write to industry highlighting the system risk and need for action – December 2014
- Agreed to facilitate ORR Conference – March 2015
Conference Industry Conclusions

- Acceptance that the combination of track faults, suspension faults and uneven loading has the potential to cause derailment.
- Acceptance that the potential consequences are high – i.e. a catastrophic derailment.
- The industry is keen to tackle this issue in a joined up and co-ordinated way.
- The level of residual risk from derailments due to track twist and uneven loading is relatively low.
- However, the industry needs to review their understanding of the hazards and risks associated with container freight train derailments.
The industry to review their understanding of the hazards and risks associated with container freight train derailments

- This review to be approached from a first principles system perspective.
- The review should be based on detailed risk analysis supported by bow tie assessment. The existing SRM/PIM provides information that can form part of this review. The initial basic bow tie analysis presented in ORR’s paper is a potential starting point.
- The review should include consideration of what has changed/is changing on the railway that could change the industry understanding of the way in which these types of derailment can occur and the way they are modelled/assessed.
- The risk analysis work should take account of views and inputs from organisations outside the rail sector with responsibilities for forwarding, loading and handling of freight containers.
Conference agreed actions

- The XIWG should lead this work as it provides a good forum for taking the actions from this meeting forwards as it already includes specialist railway infrastructure (track), rolling stock and risk expertise.

- The XIWG would provide ORR with formal written progress reports in 6 months and 12 months.

- The ORR to contact other enforcing authorities (e.g. VOSA, MCA, HSE) to discuss potential opportunities for seeking improvements in the packing, weighing and loading of containers across the container delivery chain and feedback to the XIWG.

- ORR and RSSB to meet and discuss wider issues regarding safety decision making, Taking Safe Decisions Issue 2 and the linkages between the Safety Risk Model, risk assessments and managing risks so far as is reasonably practicable (SFAIRP).
Industry Progress - Update

■ XIWG met on 10-4-15 – items covered were:
  – Review of ORR meeting of 6\textsuperscript{th} March
  – Review of recent accidents
  – Twist measurement using longer wavelength
  – Industry Standards
  – Computer simulation testing
  – GOTCHA data
  – Intermodal container traffic

■ XIWG meets again on 3-6-15
  – In addition to items above
  – Bow Tie Workshops
  – Investigate contribution of container stiffness to wagon
  – Fit data logger to loading crane
ORR Progress - Update

- ORR providing Safety management expertise input to XIWG and withdraw engineering expertise.

- ORR has contacted HSE VOSA, MCA and PSS (Port Skills and Safety)

- Conference actions agreed and will go on ORR website in early June along with presentations from the conference and Ian Prosser’s initiating letter and paper.

- ORR and RSSB to met on 14-5-15 to discuss wider issues regarding safety decision making.
Railway Industry Health and Safety Advisory Committee
Road Driving Risk in the Rail Industry

Presented by:

9th June 2015
Road Traffic Injuries
Killed: 1,713
Seriously injured: 21,657
Minor injuries: 160,000
5 deaths and 60 seriously per day

Work Related Road Driving 25% - 40%
Killed: 428-685
Seriously injured: 5,414-8,663
Minor injuries: 40,000-64,000
1-2 deaths & 15-24 seriously per day

Out of 100 people:
4 on mobile phones
2 not wearing seatbelts
0.5-7.0 under the influence of Alcohol
0.5-9.5 Speeding

“After deep sea fishing and coal mining, driving 25,000 miles a year on business is the most life-threatening activity we undertake – more dangerous than working in construction”

Hampshire & Thames Valley Police
RoSPA
Agenda item 3
Review RTC incident data + Safety Alerts

2014/2015

- Minor injuries
  - 2014/2015:
    - 05/06: 23
    - 06/07: 18
    - 07/08: 7
    - 08/09: 45
    - 09/10: 51
    - 10/11: 69
    - 11/12: 67
    - 12/13: 73
    - 13/14: 95
    - 14/15: 68

- Major injuries
  - 2014/2015:
    - 05/06: 2
    - 06/07: 2
    - 07/08: 4
    - 08/09: 2
    - 09/10: 1
    - 10/11: 5
    - 11/12: 1
    - 12/13: 1
    - 13/14: 2
    - 14/15: 2

- Fatalities
  - 2014/2015:
    - 05/06: 1
    - 06/07: 1
    - 07/08: 2
    - 08/09: 2
    - 09/10: 1
    - 10/11: 1
    - 11/12: 2
    - 12/13: 2
    - 13/14: 2
    - 14/15: 2
RTC incidents 2005 - 2015

- Minor injuries:
  - 05/06: 23
  - 06/07: 18
  - 07/08: 7
  - 08/09: 45
  - 09/10: 51
  - 10/11: 69
  - 11/12: 67
  - 12/13: 73
  - 13/14: 95
  - 14/15: 68

- Major injuries:
  - 05/06: 2
  - 06/07: 2
  - 07/08: 2
  - 08/09: 4
  - 09/10: 5
  - 10/11: 1
  - 11/12: 5
  - 12/13: 4

- Fatalities:
  - 05/06: 1
  - 06/07: 1
  - 07/08: 2
  - 08/09: 6
RTC incidents 2014/15

- Fatalities: 6
- Major Injuries: 4
- Minor Injuries: 68
## Profile by Vehicle

### Vehicle Type against Incident Type (2010 – 2015)

<table>
<thead>
<tr>
<th>Vehicle Type</th>
<th>Collision Vehicle</th>
<th>Collision Object</th>
<th>Other</th>
<th>Overturned</th>
<th>Hard braking</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Van</td>
<td>142</td>
<td>24</td>
<td>8</td>
<td>11</td>
<td>3</td>
<td>188</td>
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<tr>
<td>Unknown vehicle</td>
<td>112</td>
<td>16</td>
<td>20</td>
<td>6</td>
<td>1</td>
<td>155</td>
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<tr>
<td>Taxi</td>
<td>28</td>
<td>2</td>
<td>8</td>
<td>3</td>
<td>41</td>
<td>41</td>
</tr>
<tr>
<td>Car</td>
<td>21</td>
<td>5</td>
<td>1</td>
<td></td>
<td></td>
<td>27</td>
</tr>
<tr>
<td>Other vehicle</td>
<td>5</td>
<td>2</td>
<td></td>
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<td>7</td>
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<tr>
<td>Motorbike</td>
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<td>1</td>
<td>5</td>
<td>7</td>
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<td>Total</td>
<td>309</td>
<td>49</td>
<td>38</td>
<td>22</td>
<td>7</td>
<td>425</td>
</tr>
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</table>
IOSH WRRD Conference feedback

A collaborative effort by the rail industry

- Led by RSSB Road Driving Risk – Project Steering Group
- Sponsored by IOSH
- Supported by Network Rail & RSSB
- Delivered by Industry Sector Groups
- Attended by the rail industry
RDR Project
RSSB
Road Driving Risk
Project Steering
Group

Principal Contractors

Agency
Staff
Suppliers

Rail Plant
Suppliers

Infrastructure
Managers

Freight
Operating
Companies

Train
Operating
Companies

External Advisors

HSE, ORR,
RoSPA, ACPO,
Trade Unions

RICA

External Advisors

ATOC
Safety Forum

NFSG

Road Risk
Steering Group
(IP/NSC/S&SD)

RSSB
Board
System
Safety Risk
Group (SSRG)

RIAG

TSA

ISLG

RPA

NR

(Principal Contractors)

(Train Operating Companies)

(HSE, ORR,
RoSPA, ACPO,
Trade Unions)

(Infrastructure Managers)
Governance Structure

Creation of Road Driving Risk project

System Safety Risk Group (SSRG) Board

RSSB Board

Road Driving Risk Project Steering Group

Train Operations Risk Group
Level Crossing Risk Group
People on Trains and in Stations Risk Group
National Suicide Prevention Steering Group
Road Risk Steering Group
Data and Risk Strategy Group

railway risk
<table>
<thead>
<tr>
<th>Task 1</th>
<th>Modifications to SMIS reporting process</th>
</tr>
</thead>
<tbody>
<tr>
<td>Task 2</td>
<td>Contractors RTC Reporting Process</td>
</tr>
<tr>
<td>Task 3</td>
<td>Evolving the RSSB RDR Website content</td>
</tr>
<tr>
<td>Task 4</td>
<td>Managing Contracted Road Services</td>
</tr>
<tr>
<td>Task 5</td>
<td>Developing Management Principles</td>
</tr>
</tbody>
</table>
SMIS Reports involving “road vehicles”

- Inconsistent regarding SMIS definition of when a RTC should be reported
- Location (highway, forecourt, car park) outside the railway environment
- Persons involved – usually focussed on the employee
- Injury types /definitions/near misses?
Task 3 – Evolving the RSSB RDR Website Content

• Developing portal to:
  o Promote the RDR project & objectives
  o Provide cross industry good practice
  o Provide performance statistics
• Linking RSSB RDR website to industry sector websites
Task 3 – Evolving the RSSB RDR Website Content
Thank you
Highways Monitor

The Highways Monitor has now been formally established, alongside Transport Focus, and Highways England
Outcome-based performance monitoring

There is a natural hierarchy of measures – with high-level outcomes at the top, measured by Key Performance Indicators

- **Outcomes**
  - For example “Improved user satisfaction”

- **Key Performance Indicators**
  - Assess progress towards outcomes
  - Monitor financial performance, especially delivery of £1.2bn of efficiency

- **Performance Indicators**
  - Monitor progress towards outputs
  - e.g. % of survey respondents who are satisfied with upkeep

- **Inputs**
  - e.g. Maintenance volumes
  - Monitor as indicators of KPI / PI / licence delivery

Primary focus of monitoring will be on efficient delivery of outcomes, measured through delivery against KPIs. Risks to delivery need to be clearly understood and managed. Financial monitoring will be developed to underpin efficiency analysis.

The Monitor will only focus on performance indicators or inputs to the extent that they are leading indicators of outcome performance, and in order to facilitate efficiency analysis and benchmarking.
Constructive engagement

We need to establish positive working relationships with all key stakeholders, and ensure we are transparent and proportionate

- Aim to be open and transparent, reaching out to a wide variety of sector stakeholders
- Regular, structured engagement with Highways England, Transport Focus and Department for Transport
- Partner with Highways England and others in developing the regime
- Seek to avoid perception of being "too detailed" or "not focused on user outcomes"
- Our engagement philosophy will be:
  - Positive, seeking to work together and avoiding an adversarial atmosphere
  - Open and communicative, providing all parties with information needed to perform their roles
  - Respectful, particularly in relation to different organisations’ roles and capabilities
  - Aligned on the promotion of value for public money and efficient operations
  - Robust in challenging, where necessary
Focus on efficiency and value-for-money

A primary objective of the monitoring regime: we will focus on financial performance and develop a programme of benchmarking

- Develop a programme to measure efficiency and conduct benchmarking
- Establish the correct "baseline" for measuring efficiency over RP1
- Use ORR expertise in rail – to ensure that efficiency analysis is supported by an assessment of asset management sustainability
- Bottom-up approaches may include: an assessment of spend versus funding, logging of efficiency initiatives, unit cost analysis, project-level outturn compared to budget
- Top-down approaches may include: regional, national and international comparators, both in the roads sector and other infrastructure areas
Highways Monitor initial plans
We are finalising our workplan for 2015/16 – which will establish the initial monitoring regime and kick-off longer-term initiatives

Consultations and Monitoring Framework
■ Publish conclusions from monitoring consultation (Autumn 2015)
■ Finalise framework including data requirements (Autumn 2015)
■ Agree engagement plans with Highways England and DfT (Summer 2015)
■ Consult on, and finalise, enforcement approach (Autumn 2015)

Performance Assessments
■ Review monthly reporting from Highways England (May 2015 onwards)
■ Piloting our assessment / reporting (throughout 2015); publication of annual assessment (Summer 2016)
■ Define and start delivery of benchmarking programme (Autumn 2015)

Governance and Capability
■ Establish Highways Committee and Expert Panel (Apr - Sep 2015)
■ Build Highways directorate, leveraging existing ORR expertise (ongoing)
■ External engagement to promote role of ORR and seek feedback (ongoing)