1. Key Safety Issues

1.1 Summary safety information is included in Annex A. The headlines since the last board meeting are:

1.1.1 During June and July 2014 there were no passenger or workforce accidental fatalities. There were four accidental public fatalities.

1.1.2 During August there was one passenger fatality, on 5 August, a passenger fell down the stairs to the platform at Hampstead Heath station (Anglia). The injured person subsequently died in a hospital on 10 August. There was one accidental public fatality.

1.1.3 During June and July, there were 56 signals passed at danger (SPADs). This is 8 more than in the same two months in the previous year. (Note that this figure is provisional until all cases have been agreed with the relevant parties.) Of the 56 SPADs, 13 were risk-ranked potentially significant (16+), and 6 were risk-ranked as potentially severe (20+).

1.2 RAIB initiated three investigations:

1.2.1 Fatal accident at Frampton Mansell level crossing, near Stroud, 11 May 2014
Motorcyclist fatality raises questions about risk management and road usage at rural interface.

1.2.2 ECS derailment at Paddington, 25 May 2014
Derailment calls state of track and rolling stock into question again.

1.2.3 Track worker struck by train near Redhill, 24 June 2014
Incident highlights need for vigilance re track worker safety.

1.3 RAIB published three reports:

1.3.1 Near miss at Butterswood level crossing, North Lincolnshire, 25 June 2013
Crossing failure combines with driver inattention to highlight asset management issues.

1.3.2 Road Vehicle Incursion (RVI) at Aspatria, 26 October 2013
RVI highlights need for guidance and risk assessment, though investigation overlooks cause of the road traffic accident.
1.3.3 Road Rail Vehicle (RRV) runaway and collision at Glasgow Queen Street High Level Tunnel, 21 April 2013

*RRV runaway reveals gaps in vehicle approval process.*

1.4 There was one other RAIB report:

1.4.1 Steam locomotive failure near Winchfield, 23 November 2013

*Component failure highlights issues around component modification and the operation of steam locomotives on the main line.*

1.5 Further details relating to the RAIB reports and investigations is available on the [RSSB board members extranet page.](#)

2. **Members and Stakeholders**

2.1 **Membership Applications**

2.1.1 **Govia Thameslink Railway Limited**

Govia Thameslink Railway Limited (GTRL) will replace the existing Thameslink and Great Northern franchise operated as First Capital Connect with effect from 14 September. Following that, a small number of services from the South Eastern franchise will also transfer to GTRL from December 2014, along with the entire South Central franchise (operated as Southern and Gatwick Express) in July 2015.

In accordance with their operating licence GTRL have applied for membership in the TOC category ‘A’.

The directors are asked to **ADMIT** Govia Thameslink Railway Limited as a member with effect from 14 September 2014 when the franchise change takes effect.

2.1.2 **Arcadia Alive Limited**

Arcadia Alive Limited specialises in delivering human factors consultancy for the rail industry, in particular changing human behaviour delivering training courses and development, via two disciplines: psychology and management.

Arcadia Alive Limited have applied for membership in the Supplier category ‘F’.

The directors are asked to **ADMIT** Arcadia Alive Limited as a member with effect from 04 September 2014.

2.1.3 **Rail for London / Crossrail**

Rail for London, who will be the infrastructure manager for the central section of Crossrail, became members of RSSB in the Infrastructure Manager category of membership on 01 July 2014.
Transport for London have announced that MTR have been awarded the franchise to become the train operator for Crossrail and the new operating company will be applying for membership of RSSB before it commences operation. MTR will start running the service from 31 May 2015 between Liverpool Street and Shenfield, taking over the stopping services currently operated by Abellio Greater Anglia.

2.2 Board meeting date change

The RSSB board meeting on 05 November 2015 has been rescheduled and will now take place on Thursday 12 November 2015. In addition the 2015 AGM scheduled from 12:00 - 13:00 and the Audit Committee scheduled from 13:00 - 15:00 will also take place on 12 November 2015 to coincide with the move of the board meeting.

2.3 2014 RSSB Annual General Meeting (AGM)

The 2014 RSSB AGM will take place at Angel Square on Thursday 06 November at 12:00.

The directors are asked to DELEGATE the authority and responsibility for drafting and mailing the Notice of Meeting and accompanying papers, to the Executive.

3. Standards

3.1 Change of Scope of Technical Specifications for Interoperability

Work is underway to support the industry when the scope of TSIs becomes the whole Network at the beginning of 2015. This includes reviewing with Network Rail whether there are any issues that stand in the way of significantly simplifying Railway Group Standards, publication of a consolidated Railway Group Standard for Energy sub systems (to enable the notification of GB requirements as ‘National Technical Rules’) and the intention to consult on the strategy for future simplification of Railway Group Standards.

3.2 On Track Plant and Machinery standards

A consensus has been developed around updating and simplifying the way industry manages on track plant and machinery – including standards, approvals and interoperability with LUL. As result of this a programme of changes is being initiated to update the Rail Industry Standards, revise the approval and verification processes and to introduce all these in collaboration with London Underground, thus generating significant simplification and efficiencies for infrastructure maintenance and renewal activities on both networks.
4. Research, Development and Innovation

4.1 R&D Budget Authorisations by RSSB Executive

<table>
<thead>
<tr>
<th>Date</th>
<th>T#</th>
<th>Title</th>
<th>Cross industry group</th>
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</thead>
<tbody>
<tr>
<td>23/07/2014</td>
<td>T1046</td>
<td>Optimising the ability of industry to deal with low wheel-rail adhesion and the use of sanders on train</td>
<td>Adhesion Research Group</td>
</tr>
<tr>
<td>11/06/2014</td>
<td>T1066</td>
<td>Bridge compatibility assessment for GB passenger rail vehicles for risk of excessive dynamic effects during resonance</td>
<td>Vehicle Structures SIC</td>
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</table>

4.2 R&D Budget Authorisations by TSLG Core Group

<table>
<thead>
<tr>
<th>Date</th>
<th>T#</th>
<th>Title</th>
<th>Cross industry group</th>
</tr>
</thead>
<tbody>
<tr>
<td>5/6/2014</td>
<td>T1071</td>
<td>FuTRO: Increase Fundamental Knowledge for Optimising Traffic Management</td>
<td>Vehicle/Train Control &amp; Communications SIC</td>
</tr>
<tr>
<td>12/08/2014</td>
<td>T1061</td>
<td>Exploring the prospects of 25kV static converter feeder station</td>
<td>Future Electrification group</td>
</tr>
</tbody>
</table>

4.3 R&D summary for Quarter 1 (April – June 2014)

4.3.1 The demand for new R&D from industry continues with increasing coordination with the growing innovation programme. 10 new R&D ideas were registered in the quarter, with 8 projects authorised to start work as well as 4 ideas being transferred to alternative R, D & I delivery mechanisms.

4.3.2 13 projects made publications in the quarter, and 11 projects completed and closed. Seven of these have directly quantifiable potential benefits totalling £11.5m arising from cost savings, safety improvements and improvements in train performance, with a benefit to cost ratio of 7.9.

4.3.3 Capital investment programmes in industry now have the opportunity to reduce the cost of risk assessment by at least £4m over the next 10 years by making use of tools delivered by T955 Safety Risk Model Hazard Analysis for Rail Projects, which also facilitate compliance with the Common Safety Method for Risk Evaluation and Assessment. The Thameslink Programme provided a live case study, so has already realised benefit from this work.

4.3.4 T996 Categorising the relationship between track condition, line speed, and vehicle forces provided the vital knowledge to enable industry to minimise the application of differential speed limits to rolling stock types and track
locations. Network Rail and the V/T SIC have plans in place to make use of the research knowledge to realise potential benefits of £2.5m over the next ten years in reduced rolling stock assessment costs and journey time savings.

4.3.5 Roll out of the tool developed by T1005 Enhancement of the TCA risk advisor tool to include on-track machines has the potential to reduce by 95% the occasions when engineering work is disrupted by failed on-track machine track circuit assistors. Saving £3.5m over the next ten years, this work will help reduce the disruption caused by repeat possessions.

4.3.6 The findings of T1004 Vehicle TCA testing review enabled First Great Western to keep a Class 153 unit in service which otherwise would have been out of action for up to six weeks at significant cost. The equipment and processes developed by the research enabled the TOC to demonstrate compliance of an alternative aerial when no standard spares were available.

4.3.7 The Operational Philosophy developed within T952 Future Traffic Regulation Optimisation has been both endorsed and adopted for further development by the Network Operating Strategy team at Network Rail.

4.4 FutureRailway Report

4.4.1 Delegated Authorities

At its meeting on 12 August the TSLG Core Group decided to hand back to the RSSB executive its delegated authority for the balance of the “skills” element of the grant from the DfT which equates to £500k.

The directors are asked to NOTE this change in delegated authority

4.4.2 FuTRO Demonstrators

On 28 July the suppliers presented their proposals for demonstrator funding as follow-on work to the feasibility studies. The TSLG Core Group has supported proceeding with five proposals, four focussed on train location and mapping and the other on data ontology.

4.4.3 Electrification (Pantograph Testing)

A meeting was held with the successful consortium bidder regarding their proposal to develop a dynamic pantograph demonstrator. A steering group has been proposed to provide advice and guidance to the project team.

4.4.4 Remote Condition Monitoring Demonstrators

A total of 14 feasibility stage investment agreements are being concluded. Planning meetings have been set up with Network Rail to ensure start-up meetings and asset data can be managed and provided with a planned approach. Results of the feasibility studies are expected to be available between 3 and 11 months.
4.4.5 **Ticketless Gates / Gateless Tickets**

There are three promising innovations that have been proposed and selected by the steering group for further development. Contract negotiations with the 3 lead companies representing the consortia are commencing. Contracts are expected to be in place by autumn.

4.4.6 **Rail Operator Challenge (ROCC)**

Fourteen entries were received and have been reviewed by the panel. Those selected to progress to stage 2 were advised at the end of July. The proposals have a range of funding requirements and the number of projects which will be supported is being evaluated at present.

4.4.7 **Innovation Culture Best Practice Study**

A report has been published on the FutureRailway website and has received a lot of praise – including very successful publicity and engagement session at the UIS workshop on 10 July. Recommendations have now been transferred into the portfolio mapping work, where full implementation and benefits work will be conducted.

4.4.8 **Innovation Academy – training course**

Positive discussions have been held with Abellio on the extension of the course to the TOC / operational requirements for innovation. The plan is to begin delivery of the course in Q3. The focus is now turning to procurement models for making the course a sustainable offering for the industry, including support/endorsement from NSARE.

4.4.9 **Future Skills Development**

As reported further in Agenda Item A2 we have started to support delivery of a rail sector skills strategy jointly with NSARE. This work will also form part of the Rail Technical Strategy Portfolio mapping work for the ‘People’ chapter. FutureRailway will also be co-funding NSARE work on future skills for T&RS being driven by ATOC.

5. **RISQS**

Removed for publishing.

6. **Industry Safety Meetings**

The next Industry Safety Meeting is scheduled for 07 October at RSSB. Likely topics are:

- Workforce safety – planning and delivery of safe work
- What is meant by system safety?
- Re-launch of Taking Safe Decisions (including Common Safety Methods)
The meeting will also feature a short update on actions from last meeting and PTI strategy.

7. SPAD Strategy

Development of the longterm SPAD risk control strategy is underway. The strategy is going to contain short, medium and longer term components and success factors. The strategy is being informed by the considerable volume of research undertaken or in progress, the TPWS strategy and human factors SPAD review. The opportunity is also being taken to engage with a number of European railways (Belgium, Germany and France) who are undertaking similar exercises to identify cross-learning improvement opportunities. A session is being organised at the October National Operations Risk Conference to review.

8. Future development of the Safety Management Information System (SMIS)

8.1 SMIS is the central industry database operated by RSSB on behalf of the industry for the collection of safety related event data for use in safety performance reporting, risk assessment and safety decision making. The database has been in operation since 1997. SMIS and the associated Close Call System (CCS) are bespoke systems hosted and supported externally for RSSB. There are currently a number of potential SMIS upgrade projects that have been specified to meet industry’s needs.

8.2 Rather than embarking on further upgrades to SMIS, a new approach should be taken to redevelop SMIS in an enterprise Commercially Off The Shelf (COTS) management system which could deliver industry’s increasing requirements and modernise the SMIS application while considerably reducing the operating costs of the current system. Additional savings could be realised through the integration of other safety information systems such as NIR-online, Railway Notices, CIRAS, etc.

8.3 Action should be taken quickly to develop the requirements specification and the business case. The premise of the business case is likely to be that the upfront cost of procuring a COTS system for SMIS would be offset by the savings to be made from reducing the operating costs of the current system. RSSB will undertake the initial work to develop the requirements specification for the new application and prepares a business case for discussion at the November 2014 board meeting.

9. Wheelset Axle Bearing Failures - Special Investigation

9.1 Between January and June 2014 eleven National Incident Report (NIRs) have been raised concerning axle bearing failures on passenger and freight rolling stock. Seven of the incidents related to wheelsets overhauled by RISAS certificated suppliers. Following dialogue between RSSB, the RISAS board, ATOC, Freight Technical Committee and BSI, it was agreed that a special route cause investigation is undertaken by RSSB.

The majority of the causes were identified as being due to process failures and in particular human errors in overhaul workshops. In total 13 recommendations have been made covering design and workshop practice, axlebox assembly,
manage the risk of intermediate attention and final assembly. In addition recommendations have been made concerning the NIR system, training/competence assessment and RISAS scheme protocols and approach.

The report findings and recommendations are now going to be formally reviewed and responded to by ATOC Engineering Council, Freight Technical Committee, BSI Bearing Group and RISAS board. RSSB will monitor the response to and close out of the recommendations.

10. **Internal**

10.1 **Finance Overview**

10.1.1 With the announcement of the July 2014 RPI figure as 2.5% we can confirm that membership fees will rise by 1.5%\(^1\) in April 2015. This is determined by the Constitution Agreement formula of the July RPI minus 1%.

10.1.2 At the end of period five core income was broadly in line with expectations and expenditure below budget. A detailed forecasting exercise is underway. The impact of the office move which is currently at too early a stage to be confident of quantifying, (see Agenda Item B3).

10.1.3 Expenditure against the R&D funding stream is lower than forecast but against FutureRailway funding there was a sharp increase in expenditure in period five.

10.1.4 The bulk of funding for FutureRailway is now received from Network Rail. Good progress has been made in finalising the funding agreement between RSSB and NR.

10.2 **Communications**

RSSB has received the Stakeholder Survey results. We received a good response rate from participants and the output was generally positive. The full report and key findings are covered under Agenda Item A1.

To help rail companies protect people's safety, satisfy the law, respect the interests of stakeholders and meet commercial objectives, Taking Safe Decisions version 2 has been published on the RSSB website. A 2-page briefing will be available at the meeting.

A detailed Communications update is available via the RSSB board members extranet page.

10.3 **Organisational Design**

Shortly after taking over as chief executive I set some clear objectives (Technical Excellence, Effectiveness and Efficiency, Influence and Impact) supported by outcomes based company objectives and prioritising or ceasing

\(^1\) Note: This does not include the additional 2015/16 membership fees associated with the support and hosting of the R2 project as described in Agenda item C1.b
internal projects. I also addressed the immediate need to move HR from a transactional function to a professional activity that reflects a technical services organisation and to assess IT and communications capability.

Based upon these assessments, feedback from members, including the stakeholder survey and learning in the meanwhile I am now making organisational changes to address these challenges. This includes the appointment of a Director of Standards and a Director of Information Technology as direct reports to me (both previously flagged and with recruitment process underway). I will update on further proposed changes at the board following discussion with my team on how we better make the outputs of our work clear and relevant to members whilst sustaining technical excellence.

10.4 RSSB staff safety issues

There have been no safety issues since the last report to directors.

10.5 Contracts over £250k

There are no new contracts over £250k to report.

11. Recommendations

The board are asked to:

- **NOTE** this report and **DISCUSS** individual items as appropriate
- **ENDORSE** individual items as appropriate.
Annex A - Key safety reports to July 2014

† Public accidental fatalities include trespass and non-trespass, but exclude fatalities at level crossings (which are shown separately).

RIDDOR-reportable major injuries to each person type reported in SMIS. The majority of passenger injuries occur in stations.

Statutorily reportable collisions (excluding roll back and open door collisions), derailments, buffer stop collisions and trains striking road vehicles. PHRTAs are normalised per million train miles.

‡ In the April 2014 summary of safety performance, we reported on a fatality of a teenage boy, who was electrocuted after falling from the platform at Horley station (Sussex). It has now been confirmed that this person was intending to travel from the station, so the fatality now appears in the passenger statistics, not the public statistics. In addition, the fatality chart has been amended to include a workforce fatality in May 2014 that occurred to a YD&S cleaner who came into contact with the live rail at West Marina Depot (Kent), and was electrocuted.
1. **Summary of safety performance for June and July 2014**

1.1 **Fatalities**

During June and July there were no passenger or workforce accidental fatalities. There were four accidental public fatalities:

- On 8 June, a body was found on the line at Ashford Chart Leacon, the person involved having been electrocuted by the third rail (Kent).
- On 26 June, a pedestrian was struck at Wharf Road AHB level crossing (Anglia).
- On 28 June, a body was found at Wandsworth Road (Kent), the person involved having been electrocuted and run over by a passing train.
- On 22 July, a body was found on the line between Slateford Junction and Haymarket East Junction (Scotland), the person involved having been electrocuted by the overhead lines.

There were 46 suspected suicides during June and July 2014. The average monthly figure over the past 12 months has been 23.3. Suicide figures are subject to change as more information (eg, coroners’ verdicts) is made available.

1.2 **Reportable train accidents: collisions, derailments and trains striking road vehicles**

There were no reported train accidents during June 2014.

On 15 July, a freight train passed a signal between Ulceby Junction and Brocklesby Junction (London North East) at red and subsequently derailed. There were no reported injuries.

On 23 July, a freight train derailed at Lostwithiel (Western). There were no reported injuries.

1.3 **SPADs risk ranked 20+**

There were six SPAD risk ranked 20+ during June and July 2014; there are currently eight risk ranking forms outstanding for June and July.

SPAD risk ranking 22 – On 12 June 2014 a passenger train passed WH354 signal at danger on the Up Slow line at Bedford South Junction by approximately 127m. The driver stated the SPAD was due to them cleaning the window at the time of the incident. WH354 is a signal protecting a plain line and the distance to the conflict point where a collision could have occurred is 225m. The signal is not protected by TPWS, and the risk ranking overrun probability is 9 (the highest being 10). In terms of the potential consequences, should a rear-end collision with a train have occurred, the SPAD risk ranking consequence score was 13 (the highest being 18). The score arises because (a) the permitted speed of the SPAD train was 90mph and for the potential conflict train was 0 mph (potential collision speed in the calculated – 45mph), (b) the collision would have involved two multiple unit passenger trains and (c) the SPAD train was 26-50% loaded with passengers, and the potential conflict train was ECS.
SPAD risk ranking 21 – On 26 June 2014 an ECS train passed SY240 signal at danger on the Down Main line at Salisbury by approximately 389m. The driver stated that he was temporarily distracted by events in the run up to the shunt move and was not focused at the time. SY240 is a position light signal protecting a junction and the distance to the conflict where a collision could have occurred is 138m. The signal is not protected by TPWS, and as the train reached the first potential conflict point the risk ranking overrun probability is 10 (the highest is 10). In terms of the potential consequences, should a head-on or side-on collision with a train have occurred, the SPAD risk ranking consequence score was 11 (the highest being 18). The score arises because (a) the permitted speed of the SPAD train was 15mph and for the conflict train was 30mph (potential collision speed in the calculation – 22.5mph), (b) the collision would have involved two multiple unit passenger trains and (c) the SPAD train was ECS, and the potential conflict train was 11-25% loaded.

SPAD risk ranking 23 – On 7 July 2014 a passenger train passed CEJ1/2 signal at danger on the Down Perth line at Carmuirs West Junction by approximately 419m. The driver stated misreading the previous signal. CEJ1/2 is a signal protecting a plain line and the distance to the conflict point where a collision could have occurred is 1086m. The signal is not protected by TPWS, and the risk ranking overrun probability is 9 (the highest being 10). In terms of the potential consequences, should a rear-end collision have occurred, the SPAD risk ranking consequences was 14 (the highest being 18). The score arises because (a) the permitted speed of the SPAD train was 70mph and for the conflict train was 0mph (potential collision speed in the calculation – 35mph), (b) the collision would have involved two multiple unit passenger trains and (c) the SPAD train was 5-10% loaded, and the potential conflict train was 51-100% loaded.

SPAD risk ranking 21 – On 9 July 2014 a passenger train passed K629 signal at danger on the Down Main line at Woolmer Green Junction by approximately 40m. The driver stated that they had become distracted. K629 is a signal protecting a junction and the distance to the conflict point where a collision could have occurred is 262m. The signal is not protected by TPWS, and the risk ranking overrun probability is 7 (the highest being 9). In terms of the potential consequences, should a rear-end or side-on collision have occurred, the SPAD risk ranking consequence was 14 (the highest being 18). The score arises because (a) the permitted speed of the SPAD train was 70mph and for the conflict train was 75mph (potential collision speed in the calculation – 36.25mph), (b) the collision would have involved two multiple unit passenger trains and (c) both trains were peak loaded.

SPAD risk ranking 21 – On 22 July 2014 a passenger train passed L91 signal at danger on the Down Suburban line at Bethnal Green by approximately 80m. The driver stated that they had started against the signal having failed to check the signal aspect. L91 is a signal that protects against a rear-end collision and the distance to the first potential conflict point where a collision could have occurred is 428m. The risk ranking for this SPAD is provisional and is awaiting confirmation of the details of the SPAD and the layout.

SPAD risk ranking 20 – On 31 July 2014 an ECS train passed VS685 signal at danger on the Up Catford Loop at Bellingham by approximately 60m. The driver stated loss of concentration. VS685 is a position light signal protecting a junction and the distance to the first potential conflict point where a collision could have occurred is 340m. The signal is not fitted with TPWS, and the risk ranking overrun probability is 8 (the highest being 10). In terms of the potential consequences, should a head-
on or side-on collision have occurred, the SPAD risk ranking consequence was 12 (the highest being 18). The score arises because (a) the permitted speed of the SPAD train was 15mph and for the conflict train was 60mph (potential collision speed in the calculation – 37.5mph), (b) the collision would have involved two multiple unit passenger trains and (c) the SPAD train was ECS, and the potential conflict train was 11-25% loaded.

2. Overseas accidents (June - July 14)

Equipment failures

**France: TGV collides with local service, at least 40 injured, 17 July 2014**

At 17:38 (local time) on 17 July 2014, a regional TER service struck the rear of a TGV near Denguin, on the Pau-Bayonne line. At least 40 people were reported injured, four of them seriously.

Initial reports indicate that the TGV had stopped at a red signal and was being driven on sight when the incident occurred. It had reached 19 mph when the TER struck it at around 56 mph. It is believed that the TER train had received a green aspect and was unaware that the TGV was in the section ahead. In this, it is not dissimilar to the Clapham Junction collision of 1988.

The signals were under maintenance at the time of the incident; a wrongside failure which occurred in the signal relay case, triggered by faulty insulation on two wires controlling the signal, is currently thought to be the underlying cause, although a senior member of SNCF noted in a private communication that the wires may have been gnawed through by rodents.

Track maintenance

**Australia: XPT derails near Southern Cross, no reported injuries, 11 July 2014**

At around 08:35 (local time) on 11 July 2014, two carriages in a Melbourne–Sydney XPT service derailed some three kilometres from Southern Cross station. There were no reported injuries, but it took two hours to evacuate the 180 passengers, who were left waiting to catch buses to their various destinations. An investigation is under way, though a track fault is thought to be the most likely cause.

**Russia: Metro train derails in Moscow, kills 22; two arrested, 15 July 2014**

On 15 July 2014, a Metro train derailed between Slaviansky Boulevard and Park Pobedy in Moscow, killing 22 people and injuring 129 more.

Early reports suggest the most likely cause to be a faulty set of points. Two people have been detained on suspicion of criminal negligence. The points were installed in May, when construction began on a new branch line. Instead of properly fixing the crucial element, workers attached it with ordinary wiring, which could not withstand the stress, a spokesman for the Investigative Committee told the press.
‘[W]e have the persons who did the job as suspects so far,’ he added. ‘But the Committee is determined to identify and prosecute everyone related to the tragedy, including contractors and officials, who were supposed to control the compliance of the works to the safety rules of the Moscow Metro.’

**Crossing user behaviour**

**India: Crossing collision with school bus kills 11 children, 24 July 2014**

The driver and 11 children were killed when a school bus was struck by a train at an unmanned level crossing in the Medak district of Telangana on the morning of 24 July 2014. It is currently believed that the driver took the bus onto the interface without checking that the line was clear.

**Platform-train interface**

**China: Pregnant woman survives being run down by train in Beijing, 3 July 2014**

On 3 July 2014, a pregnant woman, tired after a long day, leaned over to see if her train was coming and fell on to the line as it was arriving in the platform.

While other passengers looked on in shock, the driver applied the emergency brake, bringing the train to a stand just as it started to pass over the woman. As she squatted on the ground, she was unharmed and was able – with assistance – to climb back to the platform.

**Dangerous goods**

**US: Track defect found a day before Lynchburg derailment – UPDATE**

On 30 April 2014, an oil train derailed and burst into flames in Lynchburg, Virginia. There were no reported injuries, but some 300 people were evacuated from nearby buildings.

It has since been reported that a defect in the area of the derailment had been discovered the day before. It is currently not clear if this was a contributory factor, but the National Transportation Safety Board has factored it into its ongoing investigation.

**Canada: Oil train derailment near Plaster Rock – UPDATE**

At around 19:00 (local time) on 7 January 2014, a Canadian National (CN) freight carrying crude oil derailed in Wapske, near the village of Plaster Rock, New Brunswick. The resulting fire spread to an adjacent lumber yard and led to the evacuation of about 45 homes within a two-kilometre radius. There were no reported injuries to the crew or local residents.

It has since been reported in June 2014 that one of the causal factors was a cracked broken wheel near the front of the 122-wagon consist.

Transportation Safety Board of Canada investigator Ian Perkins said the wheel remains a focal point of the ongoing investigation: ‘We know any accident has multiple causes [but we also] know the wheel definitely played a role. To say the wheel equalled the derailment, we’re not at that point yet.’
Perkins added that the wheel, located on the 13th wagon, was manufactured in 1991 and had a crack under its surface that led to a shattered rim. Investigators know the wheel derailed about 16 kilometres before the other wagons followed.

He could not say how long the crack had been there, but it ‘was due to a porosity […] back during the manufacturing process’.

‘It's not a build defect, it's a quality control issue,’ he went on. ‘In that sense, we haven't been able to identify if it's a systemic issue.’

The next step in the investigation is to review the broken wheel’s history and the manufacturing process. The train's crew will also be interviewed and the damaged wagons examined.

**Canada: Government brings in new dangerous goods rules**

Canadian Transport Minister Lisa Raitt has announced that new regulations will come in during July 2014 to deal with the identification of dangerous goods transported by road or rail.

The move will harmonize Canadian and American rules to provide cross-border consistency, and will give emergency teams a clear understanding of the risks posed by dangerous goods in the event of an accident.

The changes clarify how danger signs are used to identify shipments of certain classes of dangerous goods, such as pool chemicals, propane and acetone, contained in small packages. They also introduce new safety marks to identify organic peroxides, marine pollutants and other dangerous goods transported in limited quantities.

‘The changes I'm announcing today will create a safer environment for the movement of goods that are necessary in a strong, developed economy,’ Raitt told the media.

**Canada: Freight train derails in Nova Scotia, 9 June 2013**

On 19 June 2014, a train carrying a mix of propane and butane derailed at West River station, some 150 kilometre northeast Halifax Nova Scotia. People living within a 2.5-kilometre radius of the crash site were evacuated as a precaution.

**Cause TBA**

**India: Rajdhani Express derailment kills 4, 25 June 2014**

At around 02:15 (local time) on 25 June 2014, the New Delhi–Dibrugarh *Rajdhani Express* derailed near Chapra. Five carriages overturned, while seven others left the tracks. Four people were killed.

The cause has yet to be ascertained, although local police have offered sabotage as a possibility (an idea dismissed by the authorities).

**US: Empty freight strikes rear of intermodal service in Sewickley, 2 July 2014**

At about 13:43 (local time) on 2 July 2014, an empty westbound freight struck the rear of an intermodal service in Sewickley.
Three locomotives and four wagons derailed; two crew members were taken to hospital with minor injuries. A diesel fuel spillage caught fire, which led to the evacuation of a number of local residents. The cause remains under investigation.

**Turkey: High-speed train derails while on test, no reported injuries, 3 July 2014**

On 3 July 2014, a ‘Piri Reis’ high-speed train intended for use in the Ankara-Istanbul high-speed project crashed during a test run near Köseköy-Gebze junction. The train collided with a maintenance vehicle, which was working near the Dilovası Diliskile tunnel. There were no reported injuries.

**US: ‘737’ fuselages damaged in Montana, 4 July 2014**

On 4 July 2014, a freight train carrying a number of Boeing 737 fuselages and other large aeroplane assemblies derailed on its way to the Boeing factories in Washington state.

Three of the fuselages fell down an embankment next to the Clark Fork River, near Alberton, western Montana. All were later recovered by salvage crews.

The cause of the derailment is still under investigation.

3. **Overseas Accidents - Post July 2014**

**2 August 2014, Germany:** An express collides with a freight train at Mannheim. Forty-five people are hurt, five seriously.

**13 August 2014, Switzerland:** A passenger train is struck by a landslide and derails at Tiefencastel. Eleven people are injured, five seriously.

**17 August 2014, USA:** Two trains carrying dangerous goods collide head on in Hoxie, Arkansas. Several wagons derail and a fire leads to the evacuation of local residents. One rail employee is confirmed killed; another confirmed injured.