Great Britain’s Rail Safety Performance and Trends in 2013/14

RSSB has today published the Annual Safety Performance Report (ASPR) reviewing the rail industry’s safety performance over the financial year 2013/14.

The mainline railway continues to get busier. In 2013/14, there were 1.59 billion passenger journeys (6% increase on 2012/13), 60.1 billion passenger kilometres (3% increase), and 48.5 million freight train kilometres (1% increase). In fact over the last 10 years the number of passenger journeys has increased by 53%. At the same time the railway remains the safest form of land transport.

Main points for 2013/14:
- No passenger or workforce fatalities in train accidents
- Reduction in passenger harm per passenger journey
- Decrease in potentially higher risk train accidents
- No passenger train derailments but 11 non-passenger train derailments
- Predicted risk from train accident precursors essentially level
- Increase in workforce harm per hour worked
- Increase in both the number and risk from Signals Passed at Danger
- Increase in the total number of fatalities to members of the public (including suicides)

The end of March 2014 marks the end of Control Period 4 (CP4) in the industry’s planning cycle (April 2009 to March 2014) which enables us to compare the safety performance in CP4 with the safety performance covering the previous five years of Control Period 3 (CP3) (April 2004 to March 2009).

Chris Fenton, Chief Executive of RSSB said
‘While it is encouraging that over Control Period 4 improvements in safety have been recorded across the majority of measures, the industry is not complacent. The overall
increase in the use of the railway means that that the possibility of accidents and harm to individuals remains and we must support the industry in improving safety’.

Main points for CP4:
- When normalised, all the key risk areas under the direct control of the railway show a reduction in harm over CP4 when compared to CP3
- The industry safety objectives set for CP4 were met

Maintaining and improving on this broadly positive safety record remains a high priority for all rail businesses. The industry as a whole works with the expertise and management systems within RSSB to understand risk, and how and where risk is being managed. Part of this understanding relies on the publication of the ASPR and its sister publication, the Learning from Operational Experience Annual Report.

Colin Dennis, Technical Director at RSSB explains: 'Rail continues to be the safest form of land transport in Britain and the industry’s performance continues to meet the requirement of ensuring that safety is generally maintained and, where reasonably practicable, continuously improved. The recorded increase in the risk from SPADs during 2013/14, the continued occurrence of events at the platform-train interface and the number of notable multiple fatality train accidents on other railways abroad that occurred in 2013, has led to specific actions being initiated to develop industry strategies to manage these issues in the future’.

One of the inputs to the management of safety in the industry is the learning that is gained from the things that happen during the operation of the railway. The Learning from Operational Experience Annual Report, which has been published at the same time as the ASPR, provides an insight into the learning points from within the railway and from other industries and showcases deliverables to support identified areas of risk.

More details on the key facts from the 2013/14 ASPR:
Press Release

- There were no passenger or workforce fatalities in train accidents in 2013/14. This is the seventh year in succession with no such fatalities. At 0.2 events per year, the 10 year moving average for these train accidents is at its lowest ever level.

- Four passengers died in separate incidents, all at stations. When non-fatal injuries are also taken into account, the total level of passenger harm was 43.1 fatalities and weighted injuries (FWI); this is 9% lower than the 47.4 FWI (four fatalities) recorded for 2012/13; the decrease is due mainly to a reduction in the number of major injuries. When normalised by passenger journeys, the rate of harm shows a 14% decrease compared with 2012/13 and when CP4 is compared with CP3, there has been a 17% decrease.

- There were three workforce fatalities; all were infrastructure workers. Including non-fatal injuries, the total level of workforce harm was 25.2 FWI, which is an increase of 10% compared with 22.8 FWI (two fatalities) occurring in 2012/13. The rate of harm normalised by workforce hours increased by 8%. When CP4 is compared with CP3, there has been an observed improvement in this normalised rate of harm of 20%.

- There were 32 potentially higher-risk train accidents (PHRTAs). This is a decrease of three on the previous year’s total of 35. The normalised rate of PHRTAs per train km for CP4 was 39% lower than for CP3.

- There were no passenger train derailments in 2013/14. This is the first year with no such derailments since recording began more than 20 years ago. There were 11 non-passenger train derailments. There were no reported injuries resulting from any of these derailments.

- The Precursor Indicator Model (PIM) provides a measure of trends in the underlying risk from PHRTAs. At March 2014, the overall indicator stood at 7.52 FWI, compared with 7.90 FWI at the end of 2012/13. The reduction was due mainly to reductions in the number of events at level crossings. When only the passenger risk proportion of the PIM is considered, the risk to passengers from PHRTAs remained essentially level. At the end of March 2014, it stood at 3.32 FWI, compared with 3.28 FWI at the end of the previous year.

- At 293, the number of SPADs occurring during 2013/14 was a 17% increase on the 250 occurring during 2012/13. At the end of 2013/14, the estimated level of risk
from SPADs was 73% of the September 2006 baseline, compared with 60% at the end of 2012/13.

- At 308, the number of fatalities to members of the public was the highest recorded. Eight of the fatalities were members of the public at level crossings: two were occupants of the same road vehicle, who died when their car was involved in a collision with a train, and six (including one cyclist) were pedestrian users of footpath crossings. When CP4 is compared with CP3, there has been an observed improvement of 33% in the normalised level of harm at level crossings per train km.

- The remaining three hundred fatalities to the public resulted from trespass or suicide. This is an increase of 22 on the 278 trespass and suicide fatalities occurring in 2012/13, and the highest figure recorded. When CP4 is compared with CP3, there has been no observed improvement in trespass and suicide as a whole.

- In total, and excluding suicides, there were 36 fatalities, 440 major injuries, 11,382 minor injuries and 1,238 cases of shock/trauma. The total level of harm was 102.1 FWI, compared with 116.9 FWI recorded in 2012/13. The main cause of the decrease was a fall in the number of accidental fatalities to members of the public.

-ENDS-

For further information, please contact RSSB’s press office, on 020 3142 5331/2/3 or email pressoffice@rssb.co.uk or visit the website at www.rssb.co.uk

Notes to editors:

1. The Annual Safety Performance Report’s main purpose is to inform those in the industry who manage risk. It is also intended to inform other rail industry employees, passengers, the Government (and its agencies) and the public at large. The report is generally limited to events on or affecting stations and Network Rail Managed Infrastructure.

2. The Learning from Operational Experience Annual Report contributes to the industry’s learning process by identifying specific points and highlights co-operative activity in areas affecting rail users and employees.

3. About RSSB
   We help the industry understand risk, guide standards, manage research, development and innovation and collaborate to improve.
The rail industry in Britain is made up of many different organisations, but they all form a system and share a common purpose, to move people and freight safely and efficiently by rail. RSSB bring all parts of this system together to support shared decisions, products and services, to help industry drive out unnecessary cost, improve business performance and develop long-term strategy.

Our activities involve:
• Understanding risk – Using safety intelligence from across the rail industry and elsewhere with the latest risk modelling to inform members and support safe decision making.
• Guiding standards – Creating, reviewing and simplifying GB standards to align with European requirements; managing the Rule Book and making it easier for the railway to deliver efficiently and safely.
• Managing research, development and innovation – Undertaking, commissioning and managing research and innovation programmes to address current needs, provide knowledge for decision making now and for the future, and promoting step changes to deliver the Rail Technical Strategy.
• Collaborating to improve – As an independent cross-industry body with a critical mass of technical expertise, supporting activities which require collaboration. These range from supplier assurance schemes (RISQS, RISAS) to confidential reporting (CIRAS), from health and wellbeing strategies to sustainability principles.

We are run by the industry, for the industry, with member companies from across the mainline system. The demand for our services comes from the industry itself, and from the involvement of cross-industry groups. For more information go to www.rssb.co.uk

4. A copy of the Annual Safety Performance Report and the Learning from Operational Experience Annual Report can be found on RSSB’s website.

5. RSSB supports the industry in managing system safety through an auditable trail from data to taking decisions affecting safety. The data side includes the collection, analysis and sharing of information about safety related events – including analysis through the Safety Management Information System (SMIS) and publications such as the Annual Safety Performance Report. It also includes the development of the industry’s Safety Risk Model which identifies all significant risks affecting the system, a Precursor Indicator Model that looks specifically at the risk from train accidents, and the SPAD risk ranking methodology, which looks specifically at the risk from signals passed at danger.

6. The Annual Safety Performance Report assesses performance against the trajectories for the key risk areas outlined in the Railway Strategic Safety Plan 2009-14. These include risks to passengers, workforce and the public and take account of station environments, trains, trackside, engineering, level crossings and crime. It benchmarks rail safety in Britain against other transport modes and overseas railways, and compares safety performance with National Reference Values (NRVs) relating to the second set of European Common Safety Targets (CSTs), as defined by the European Railway Agency. The report also monitors industry progress on the targets for improvement relating to passenger and workforce risk, which have been defined by the Government through the High Level Output Specification (HLOS).

7. Fatalities and weighted injuries is the measure used by the industry to take account of major and minor injuries in the overall level of risk on the railway. See below.
<table>
<thead>
<tr>
<th>Injury degree</th>
<th>Definition</th>
<th>Ratio</th>
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<tr>
<td>Fatality</td>
<td>Death occurs within one year of the accident.</td>
<td>1</td>
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<tr>
<td>Major injury</td>
<td>Injuries to passengers, staff or members of the public as defined in schedule 1 to RIDDOR 1995. This includes losing consciousness, most fractures, major dislocations, loss of sight (temporary or permanent) and other injuries that resulted in hospital attendance for more than 24 hours.</td>
<td>10</td>
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</tbody>
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| Class 1 minor injury | Injuries to passengers, staff or members of the public, that are neither a fatality nor a major injury, and are defined as reportable in RIDDOR 1995 amended April 2012, plus:  
- Workforce injuries, where the injured person is incapacitated for their normal duties for more than three consecutive days, not including the day of the injury. | 200   |
| Class 2 minor injury | All other physical injuries.                                                | 1000  |
| Class 1 shock / trauma | Shock or trauma resulting from being involved in, or witnessing, events that have serious potential of a fatal outcome eg train accidents such as collisions and derailments, or a person being struck by train. | 200   |
| Class 2 shock / trauma | Shock or trauma resulting from other causes, such as verbal abuse and near misses, or personal accidents of a typically non-fatal outcome. | 1000  |