



In this month's IRSE NEWS David Fenner reports on a paper published by Andrew Evans, Imperial College London, covering the statistical analysis of fatal rail accidents in Great Britain (GB) and major European networks. The welcome conclusion is that, in general, the rate of railway accidents per billion train kilometres is falling at around 5% per annum.

Railway systems are as safe as they have ever been with rail the safest form of transport per passenger-journey. However, we must not get complacent, as low risk is not the same as no risk. In GB the Rail Accident Investigation Branch has published its interim report into a collision near London Waterloo station on 15 August 2017. A train leaving the station collided with a stationary engineering train. The collision occurred because a set of points was not in the correct position due to a temporary modification to the points control system.

The ongoing investigation is considering the design and processes for identifying errors and the reasons why these were ineffective, and the extent of testing which could/should have identified the unsafe modification, along with why the points were not clamped.

In Singapore on 15 November 2017 a train collided with a stationary train near the Joo Koon station. Preliminary investigations suggest that there were problems related to the CBTC system and its operation with the legacy control system in failure mode.

On 18 December, 2017, near DuPont, Washington, in the USA a train derailed on the inaugural run of a new passenger rail route. Preliminary data from the data recorder showed that the train was traveling at nearly 50 mph (80 km/h) over the speed limit when the incident happened.

In all these cases lessons will be learned and systems and processes will be improved. As ever, IRSE members play a key role in reducing safety risk and in this month's IRSE NEWS Alexei Iliasov, Dominic Taylor and Alexander Romanovsky look at the automated testing of SSI, and Maurizio Palumbo describes new methods for ERTMS testing and maintenance.

One area that Andrew Evans identifies as not showing a decline in incidents is with level crossings. Wim Coenraad and Maarten Bartholomeus discuss how protecting crossings using ETCS level 2 can be implemented and which will deliver additional safety benefits. In next month's IRSE NEWS Rod Muttram continues the safety improvement theme and will describe how the number of accidents involving human factors can be reduced,

As ever we hope you find this edition of interest and welcome your feedback.

**Paul Darlington and the editorial team**

## Cover story

Our cover shows part of the Gali Batu Depot at the northern end of the Downtown Line in Singapore, which IRSE members visited during the ASPECT Conference in November 2017.



The line is run by SBS Transit, and uses Siemens Trainguard CBTC technology operating in driverless unattended mode.

Our report on the ASPECT conference will follow in a future issue of IRSE NEWS.

*Photo Francis How.*

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