



Photo: Rex Features

Amtrak's Northeast Regional Train 89 was travelling at 160 km/h when it struck an excavator in a possession zone in Pennsylvania on April 3 2016.

that both trials had proved useful in understanding how differentiated fares could be used to shape travel patterns.

To encourage an increase in pre-peak ridership from the current level of 300 000 passengers a day, a revised pre-peak fare structure will offer fares that are up to S\$0.50 per journey lower than the normal tariffs. These will be offered to all passengers entering any metro station before 07.45 on weekdays excluding public holidays. PTC plans to monitor travel patterns and adjust the pre-peak fares accordingly.

Meanwhile, the government says it will seek to encourage off-peak travel through the Travel Smart Network, which was launched earlier this year. This scheme helps employers to introduce flexible working so that staff can travel to and from work outside peak times.

LTA has also been looking at reducing congestion in other areas. It announced on October 23 that it will not allow any growth in the number of private cars and motorcycles licensed in the city from February 2018.

The current car ownership growth rate set by LTA is 0.25% per year, at which level it will remain until the end of January. This rate will remain unchanged for buses and goods vehicles until a review in the first quarter of 2021. LTA says that this is to provide businesses more time to improve the efficiency of their logistics operations and reduce the number of commercial vehicles that they require.

LTA cites the main reason for halting expansion of private car numbers as land constraints: at present 12% of Singapore's total land area is roads. In parallel with this, the metro and bus networks are expanding. The vehicle growth rate will be reviewed again in 2020. ■

**USA**

## Safety under scrutiny

On November 14 the National Transportation Safety Board issued a fierce rebuke of the safety culture at US national passenger railway Amtrak.

In the synopsis of its report into a fatal collision between an Amtrak Northeast Regional train and an excavator working in a possession zone at Chester, Pennsylvania, on April 3 2016, which killed two track maintenance staff, NTSB found '29 active failures and latent conditions' which reflected a 'systemic problem' with Amtrak's approach to safety.

An excavator operator and a possession supervisor were killed, and 39 people injured, when Amtrak Train 89 struck the excavator at about 07.50. The driver saw equipment and staff on and adjacent to the running line and initiated emergency braking. This slowed the train to approximately 160 km/h at the time of impact from an authorised speed of 175 km/h.

In determining the causes of the accident, NTSB pointed to 'numerous inconsistent views of safety and safety management throughout Amtrak'. Specific failings identified included 'inadequate use of supplemental shunting devices' which effectively over-rode the track worker protection function of Amtrak's ACSES train control system. Poor communication between both the night and day possession foremen and the train's dispatcher was also highlighted. This included the widespread use of mobile phones for operational communications rather than the railway radio network, preventing other Amtrak staff from noticing any potentially unsafe

arrangements.

However, NTSB also pointed to 'disconcerting' evidence of substance misuse among Amtrak staff. Three employees at different levels of the organisation tested positive for 'potentially impairing drugs', including opioids, marijuana and cocaine. NTSB determined that while drug use was not a factor in this accident, it was symptomatic of a weak safety culture at Amtrak.

NTSB also found that the Federal Railroad Administration's failure to require redundant signal protection for maintenance possessions contributed to the accident.

'Amtrak's safety culture is failing, and is primed to fail again, until and unless Amtrak changes the way it practices safety management', said NTSB Chairman Robert Sumwalt. 'Investigators found a labour-management relationship so adversarial that safety programmes became contentious at the bargaining table, with the unions ultimately refusing to participate.'

Following its investigation, NTSB has issued 14 safety recommendations including nine to Amtrak and two to FRA. Three more have been made to the various trade unions representing workers involved.

Responding to NTSB, Amtrak's joint chief executives Wick Moorman and Richard Anderson issued a statement to employees on November 14. 'We have a team in place that will immediately review the NTSB recommendations and look to implement them, along with the many significant steps we have already taken to improve safety', it said. 'In the 19 months since the Train 89 event, we have taken a series of actions to improve workplace safety at Amtrak — including the implementation of many of the actions discussed by NTSB.'

These include appointment of Justin Meko as Vice-President, Safety, Compliance & Training; the launch of a 'Safety Starts With Me' training programme across the business in 2018; and evaluation of the expansion of the C3RS close call reporting system already used by some of Amtrak's operational teams. ■

**EUROPE**

# 29

NUMBER OF 'ACTIVE FAILURES' IN SAFETY POLICY IDENTIFIED IN NTSB'S REPORT INTO AN AMTRAK DERAILMENT IN APRIL 2016

## An improving picture

Non-railway factors are responsible for an increasing majority of accidents on Europe's railways, according to the International Union of Railways' annual report on safety in Europe issued on November 6. UIC's safety database has been