



Office of the Chief Investigator
Transport and Marine Safety Investigations

Rail Safety Investigation

No 2008/09

Brief Report

Train Impact with Passenger

On Station Platform

Springvale

27 September 2008



The Chief Investigator

The Chief Investigator, Transport and Marine Safety Investigations is a statutory position established on 1 August 2006 under Part V of the *Transport Act 1983*.

The objective of the position is to improve public transport and marine safety by independently investigating public transport and marine safety matters.

The primary focus of an investigation is to determine what factors caused the incident, rather than apportion blame for the incident, and to identify issues that may require review, monitoring or further consideration. In conducting investigations, the Chief Investigator will apply the principles of 'just culture' and use a methodology based on systemic investigation models.

The Chief Investigator is required to report the results of investigations to the Minister for Public Transport and / or the Minister for Roads and Ports. However, before submitting the results of an investigation to the Minister, the Chief Investigator must consult in accordance with section 85A of the *Transport Act 1983*.

The Chief Investigator is not subject to the direction or control of the Minister(s) in performing or exercising his or her functions or powers, but the Minister may direct the Chief Investigator to investigate a public transport safety matter or a marine safety matter.

Issuing of a Brief Report

In those cases where an investigation is curtailed or a full investigation report is not considered warranted, the Chief Investigator may issue a Brief Report.

A Brief Report will typically include the particulars of the event, a description of the incident, a summary of pertinent investigation information plus any key findings and, as applicable, a description of identified safety issues and recommended safety actions

Occurrence Details

Date

27 September 2008

Time

Approximately 1505 hrs

Location

Platform 2, Springvale Railway Station

Trip/route details

V/Line train 8417, Melbourne (Southern Cross) to Traralgon

Incident outcomes

Member of public injured

Vehicle details

V/Line VLocity Diesel Multiple Unit № 6

Vehicle operator

V/Line Passenger Pty Ltd

Infrastructure manager

Connex Melbourne Pty Ltd

Environmental details

Fine weather

Circumstances

Background/context

As train 8417, the 1425 V/Line passenger service to Traralgon, ran non-stop through Springvale railway station its left-hand driver's cab rear-view mirror struck a person standing on the platform. The victim sustained an injury to their right upper arm. The victim and her companions left the platform and walked across the adjacent railway level crossing to the booking office located on Platform 1. They reported the incident and an ambulance was called. The victim was taken to hospital.

Sequence of events

At about 1450, a group of three girls are observed on CCTV walking towards the eastern end of Platform 2. During the next thirty-two seconds two of the girls are seen to move backwards and forwards between their safe position on the platform and various positions between the coping strip at the extreme edge of the platform and the yellow safety line. Both the coping strip and the safety line run the entire length of the platform horizontal surface. The safety line is located some 450 mm from the coping strip to provide a guide to platform users of a safe distance from the platform edge. At times, the victim is seen to be standing on the coping strip with her back to the track, at other times she is facing the track.

At a time that is about three seconds from the train reaching their position one of the girls remains standing on the edge of the platform. At the time the front of the train reaches the girls' position one of them is standing between the yellow safety line and the edge of the platform and is leaning away from the train: this frame may depict the instant of impact. Twenty-three seconds later the group is shown approaching the exit point of the platform. The injured girl is holding her arm across her chest with her left hand placed on her right upper arm. Her right arm is being supported by another girl. The girls are then seen to exit Platform 2, cross the tracks via the pedestrian crossing, enter the enclosed waiting area on Platform 1 and approach the ticket window. At this point they report the incident and Connex staff call an ambulance.

Summary Investigation Information and Findings

Rail Infrastructure

Springvale is a suburban station on the Pakenham line. This route also carries V/Line trains operating to-and-from Gippsland destinations. The station consists of two platforms either side of the double-track (Up and Down lines) and is located at Springvale Road, which crosses the tracks immediately to the west of the platforms. Pedestrians moving between the platforms do so via the adjacent level crossing.

Each platform is marked by a yellow line that defines the area beyond which platform occupants should not stand unless boarding or alighting from a stationary train. There are no signs warning platform occupants to remain 'behind' the yellow line, although posters are placed on station walls from time-to-time.

Non-stopping V/Line trains travel through this station at up to 80 km/h.

Rolling-stock

The VLocity DMU (Diesel Multiple Unit) railcar comprised two semi-permanently-coupled cars. The driver's cabs — one at each end — are fitted with exterior, truck-type rear-vision mirrors located one on either side of the cabin. These protrude about 25 mm outside of the vehicle maximum width dimension when the mirrors are deployed to the normal extent required for operation. In this position, the mirrors only barely project across the platform edge, if at all. This minimal degree of overhang beyond the relevant rolling-stock and infrastructure maximum outlines is permitted and is well clear of the 'warning' area defined by the yellow safety line.

DMU rolling-stock such as the VLocity and Sprinter railcars are significantly physically lower in relationship to platform height than are diesel locomotives. The configuration utilising rear-view mirrors on this type of rolling-stock within Victoria differs from other practice across Australia in that on similar rolling-stock under similar operating conditions alternative solutions are utilised. These include operating practices that negate the need for train drivers to maintain rearward observation along the train (for example, the *Australind* service in WA and the Explorer railcars and XPT locomotive in NSW), smaller, more streamlined mirrors (the Queensland Tilt Train locomotives), or rear-view cameras (the *Prospector*, *AvonLink* services in WA).

Train Operation

The driver of the V/Line train was aware that his train had hit an object as the mirror folded back against the cab side. He contacted the Springvale signaller and Control (train control) by radio to advise. The driver reported that he had sounded the train's horn as usual for the approach to the Springvale Road level crossing, which is located at the immediate western end of the station platforms.

The data download from the VLocity railcar indicated that the train horn was sounded, as required, twice on approach to the level crossing and a third time as the train occupied the crossing and approached the Up (Melbourne) end of the platform.

When interviewed, both the signaller and the station manager stated that juvenile platform occupants often stood close to the platform edge in the face of approaching trains as a game of 'chicken'. In most cases, there would be an expectation that the train would be stopping.

Data supplied from V/Line indicates that in the last quarter of 2008 there were some fifty incidents of train/person safety-related interactions reported by staff in metropolitan areas that were classified, generically, as 'near-miss'. What might be termed 'platform-edge' incidents specifically similar to this, though, are not separately categorised.

Victim information

When interviewed by police, the victim stated that she had not been paying attention and was unaware of the approach of the train. The victim declined a request to be interviewed by Transport & Marine Safety investigators.

Safety Actions Taken Since the Event

Connex are continuing with their regular campaigns to remind the public of their safety responsibilities. Under the auspices of the Victorian Safe Communities Network, October is dedicated as Community Safety Month, and Connex use this period each year to promote network safety awareness. One of the weekly themes is a focus on reminding the public of safety measures around trains, including the need to stand behind the yellow line. This campaign is communicated by posters at railway stations, advertisements placed in the *mX* newspaper, and by Connex and Community Safety websites. In addition, Connex have advised that their education unit presents safety briefings at primary schools and to migrant groups.

Connex has also recently introduced pre-recorded messages warning passengers to 'stand behind the yellow line' at selected stations at which special events are expected to generate larger-than-normal passenger numbers.

Identified Safety Issues and Recommended Safety Actions (RSA)**Safety Issue**

Connex do not have a specification for the provision of platform warning signage regarding the yellow safety line at stations.

RSA 2008045

That Connex develop an appropriate specification and review the placement and distribution of permanent platform warning signage regarding the yellow safety line.

Safety Issue

Connex do not have a general company instruction to staff to provide Public Address announcements for non-stopping trains at suburban stations.

RSA 2008046

That Connex consider the common provision of Public Address announcements on suburban platforms warning of the approach of all non-stop train movements.

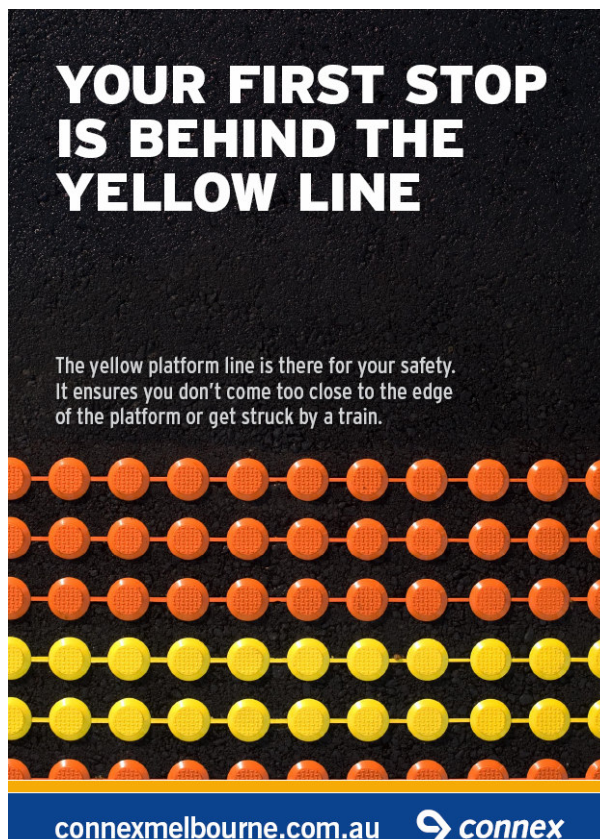
Safety Issue

V/Line Diesel Multiple Units, such as VLocity and Sprinter trainsets, are fitted with truck-type exterior rear-vision mirrors similar to those fitted to V/Line diesel locomotives. Some other Australian operators of similar rolling-stock — and some overseas — have dispensed with this type of mirror by employing alternative solutions, including the use of on-board safety staff such as the conductor or train manager.

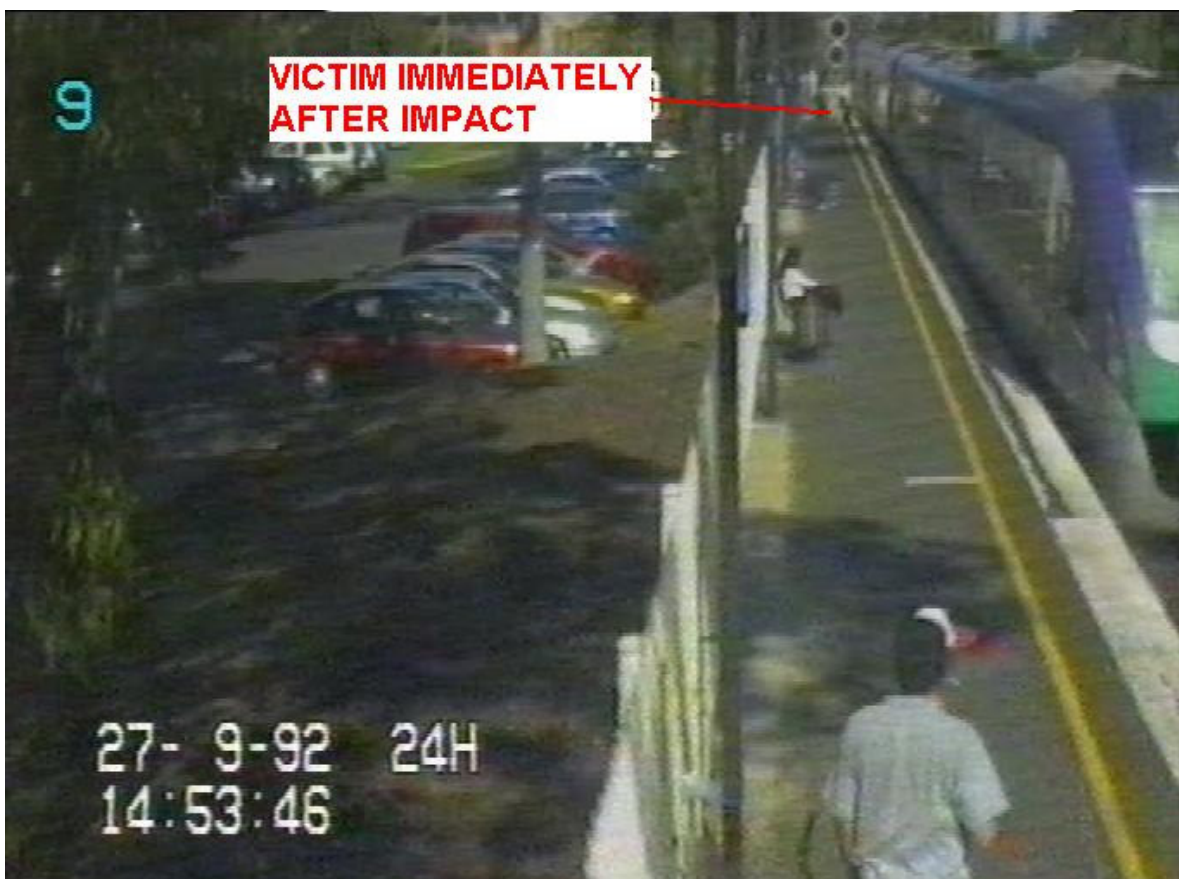
RSA 2008047

That V/Line consider — particularly when refurbishing or purchasing new rolling-stock — the provision of alternative arrangements or equipment configurations that would permit the removal of large exterior mirrors on Diesel Multiple Unit rolling-stock in regional passenger service.

Appendixes
Appendix 1



Appendix 2



Appendix 3

Scale Diagram showing relationship of VLocity railcar outline to platform edge – plan view. Diagram indicates degree of overhang of rear-vision mirror (both outside of the maximum rolling-stock outline as well as over the platform edge) in normal service.

