

IN THE CORONERS COURT
OF VICTORIA
AT MELBOURNE

Court Reference: COR 2012 004191

FINDING INTO DEATH WITH INQUEST

Form 37 Rule 60(1)

Section 67 of the Coroners Act 2008

Inquest into the Death of: Werner Viertmann

Delivered On: 4 April 2016

Delivered At: Coroners Court of Victoria
65 Kavanagh Street
Southbank Victoria 3006

Hearing Dates: 25 March 2015

Findings of: Coroner Paresa Antoniadis SPANOS

Representation: Mr T. BURNS of Counsel, instructed by Mr R. Barton of
Metro Trains Melbourne, appeared on behalf of Metro
Trains Melbourne.

Police Coronial Support Unit Leading Senior Constable P. COLLINS, assisting the
Coroner

I, PARESA ANTONIADIS SPANOS, Coroner,
having investigated the death of WERNER VIERTMANN
and having held an inquest in relation to this death at Melbourne
on 25 March 2015
find that the identity of the deceased was WERNER VIERTMANN
born on 24 January 1929, aged 83
and that the death occurred on 4 October 2012
at Laburnum Train Station, Laburnum Road, Blackburn, Victoria
from:

I (a) MULTIPLE INJURIES SUSTAINED IN COLLISION WITH TRAIN
(PEDESTRIAN)

in the following circumstances:

BACKGROUND¹

1. Werner Viertmann was an 83-year old retired man. He had separated from his wife in about 1988 while the couple were living in France. Mr Viertman continued to live in France until September 2010 when his neighbours became concerned about his ability to continue to live independently and informed his adult children who were living in Australia. Mr Viertmann's daughter, Elsa, and her brother travelled to France and returned to Australia with their father who stayed with family until accommodation was available for him at Crofton House Aged Care Facility [Crofton House] in November 2010.²
2. Mr Viertmann reportedly settled in well at Crofton House which was situated in Lithgow Avenue, Blackburn, a short distance north of the Blackburn train station. He had his own room, got along well with staff, received visits from family and was sometimes taken to visit his wife who lived in Abbotsford.
3. Mr Viertmann was also a keen walker – and had been used to taking walks daily when living in France – and this continued at Crofton House. Mr Viertmann knew the access code for the

¹ This section is a summary of facts that were uncontentious, and provide a context for those circumstances that were contentious and will be discussed in some detail below.

² Coronial Brief of Evidence, Statement of Elsa Viertmann dated 9 October 2012.

entry/exit at Crofton House and would often go out unsupervised, sometimes just for a walk around the block and at other times farther afield, returning to Crofton House by train.³

4. By early 2011, Crofton House staff were concerned about Mr Viertmann's safety should he continue to leave the facility unsupervised and raised these concerns with his daughter.⁴ Although he was physically robust, Mr Viertmann's cognitive capacity was diminishing and on three occasions he became lost requiring police involvement to locate him. Moreover, on two occasions Mr Viertmann sustained minor injuries as a result of falls when unsupervised in the community.⁵ Knowing that her father hated being confined and perceiving that he would regard being permitted to leave Crofton House only with supervision as an unacceptable imposition on his quality of life, Ms Viertmann gave written instructions to the facility that her father should be allowed to leave unsupervised.⁶
5. In mid-2011, a Consultant Geriatrician assessed Mr Viertmann and attributed his cognitive decline to probable Alzheimer's disease.⁷ A further cognitive assessment in May 2012, this time by a Consultant Psychiatrist, revealed significant memory impairment and severe executive dysfunction suggestive of a neurodegenerative disorder, most likely Alzheimer's disease. It was noted that Mr Viertmann was coping less well due to diminished frontal lobe functioning and was becoming more dependent on staff at Crofton House to assist him with activities of daily living.⁸

CIRCUMSTANCES PROXIMATE TO DEATH

6. At about 1.30pm on 4 October 2012, Mr Viertmann left Crofton House alone and on foot.⁹ A little under an hour later, at 2.25pm, he purchased grocery items at an IGA supermarket on South Parade, Blackburn, which runs parallel and to the south of Blackburn train station.¹⁰

³ Coronial brief of Evidence, Statements of Elsa Viertman and Margaret Riza dated 16 November 2012.

⁴ Coronial Brief of Evidence, Statement of Margaret Riza.

⁵ Coronial brief of Evidence, Statements of Elsa Viertman, Margaret Riza and Dr Robert Dunn dated 22 October 2012. The precise timing of these incidents relative to concerns being raised by Crofton House unclear from the available information (and is not material).

⁶ Coronial Brief of Evidence, Statements of Margaret Riza and Elsa Viertmann. Ms Riza, an employee of Crofton House, referred to Ms Viertmann's written instructions as 'an indemnity'.

⁷ Correspondence from Consultant Geriatrician Dr Andrea Bea dated 9 June 2011 to Mr Viertmann's general practitioner, Dr Dunn, at the Blackburn Clinic.

⁸ Correspondence from Consultant Psychiatrist Dr Peter Drysdale dated 18 May 2012 to Mr Viertmann's general practitioner.

⁹ Coronial Brief of Evidence, Statement of Margaret Riza.

7. At 2.37pm, train driver, Ian Brown, manoeuvred TD 3570,¹¹ the Ringwood to Flinders Street six carriage X'Trapolis electric train express/empty carriage service from the Ringwood sidings, and commenced the run to the city on time. Before setting off, Mr Brown performed safety checks to confirm the train was operational, manually entered the train's TD Number into the train radio to connect it to the Urban Train Radio System [UTRS] network, set the head board to show the train was not in service¹² and communicated by radio with the Ringwood signaller to indicate that the train was ready for departure.¹³ This was all in accordance with normal and required procedures.
8. At around 2.38pm, on the line five stations ahead of TD 3570,¹⁴ Jan Handerek, the driver of TD 3208¹⁵ a Lilydale to Flinders Street train, stopped as scheduled and on time¹⁶ at Laburnum station. Here, Mr Handerek used his train radio to make a standard (rather than emergency) call to Metrol¹⁷ and reported that he had seen a pedestrian walking near the train tracks. Mr Handerek told Metrol Radio Operator, SB, that he had seen an elderly male carrying a shopping bag walking along the tracks to the left of his train in the direction of, and about 100 metres from, Laburnum station.¹⁸ Mr Handerek then resumed driving his city-bound service.
9. SB understood Mr Handerek to have reported seeing the pedestrian 'between Blackburn and Laburnum' stations, 'approximately 100 metres on the down side of Laburnum' station.¹⁹ SB turned to inform Line Controller, MH, who was working with him at Metrol monitoring the operations of the Burnley and Clifton Hill group train services. According to his statement,

¹⁰ Coronial Brief of Evidence, Exhibit 1 Incident Investigation report prepared by Alan Scott and in particular, Photograph 10 of Attachment 3, which depicts a tax invoice for grocery items located on the Platform of Laburnum train station.

¹¹ This is a 'TD number' or Train Describer Number which is unique to a route and time of day.

¹² TD 3570 was an empty/non-passenger service.

¹³ Coronial Brief of Evidence, Statement of Ian Brown dated 19 October 2012.

¹⁴ Exhibit D.

¹⁵ TD 3208 was a six carriage X'Trapolis-type electric train.

¹⁶ TD 3208 was scheduled to pass through Laburnum station at 2.37pm (after passing Blackburn station at 2.35pm). It was due at Box Hill station at 2.40pm.

¹⁷ Metrol provides train control for the metropolitan rail network and communicated with train drivers through a radio system.

¹⁸ Coronial Brief of Evidence, Statement of Jan Handerek dated 5 November 2012.

¹⁹ Coronial Brief of Evidence, Statement of SB dated 16 October 2012. I note the explanation of 'rail terminology' provided by Mr Scott in his Incident Investigation report (above note 10): a 'down train' is an outbound train and an 'up train' is a city-bound train. Similarly, in relation to locations, the 'down side' is the non-city-side of an area and the 'upside' refers to the city-side.

SB told MH that there was a pedestrian near the tracks ‘who was heading towards Blackburn’.²⁰

10. MH recounted in his statement that as a result of this interaction, he understood that there was a pedestrian on the tracks ‘approximately 200 metres on the downside of Blackburn railway station, walking towards Blackburn’.²¹
11. MH consulted his MTR Timetable²² and observed that two trains, an outbound train TD 3605 and inbound train TD 3570, Mr Brown’s city-bound express service, were approaching the area. MH asked SB to warn the drivers of these two trains of the presence of the pedestrian near the tracks and provided him with the relevant TD Numbers for the purpose.²³ In the interim, MH contacted station staff at Blackburn train station, asking them to keep a lookout for the pedestrian and report back to him.²⁴
12. In 2012, metropolitan rail network communications occurred via the analogue UTRS.²⁵ Radio Operators initiated a radio call to a train radio by selecting its TD Number on their computer with a computer mouse. Only the TD numbers of “active” train radios were displayed and so if a TD Number was not visible, its train radio was not connected to the radio network and the Radio Operator was unable to initiate a radio call to the train.²⁶ Similarly, if a ‘line’ or ‘group’ radio call was made to a group of train services, the train radio of a train whose TD number was not displayed, would not receive the transmission.²⁷

²⁰ Coronial Brief of Evidence, Statement of SB.

²¹ Coronial Brief of Evidence, Statement of MH dated 17 October 2012.

²² Also known as a ‘Train Graph’ [see Transcript page 51] or Train Controller’s Map. The Train Graph is a paper record that depicts the timetabled position of each train on particular routes. Railway stations are listed down the left hand side of the graph and the time of day across the top; solid lines printed in a downward direction represent down (outbound) trains, solid lines printed in an upward direction represent up (city-bound) trains and broken lines in either direction represent empty trains (those not scheduled to carry passengers). Each line is labelled with a TD number. In the case of the extract of the 4 October 2012 Train Graph tendered as Exhibit F at inquest, those routes for which the Eastern Line Controller was responsible (train movements on the Burnley and Clifton Hill groups) were depicted along with the annotations made by the Line Controller to reflect information received from drivers and others on the rail network and un-timetabled train movements made in response to emergent conditions.

²³ Coronial Brief of Evidence, Statement of MH.

²⁴ Ibid.

²⁵ Exhibit H.

²⁶ Coronial Brief of Evidence, Incident Investigation report prepared by Alan Scott.

²⁷ Exhibit H. I note that there appeared to be some uncertainty about whether a ‘group’ call would be received on a train radio irrespective of whether its TD Number was ‘logged on’/‘connected’ to the radio network. Some thought this was a misconception (that is, train radios of TD Numbers that were not ‘on’ the system would still receive a group call), others were not sure. Mr Salas’ evidence appeared to resolve the issue: ‘if the TD Number did not appear on the Metrol system, that particular train could not participate in the group call’ [Exhibit H and Transcript page 98].

13. Based on the information available to him, SB considered notification of Mr Brown's TD 3570 service to be his 'first priority'.²⁸ He consulted his computer's display of the TD Numbers of trains logged into the radio system and noted that TD 3570 was not among them.²⁹ He dismissed as redundant the possibility of contacting TD 3570 through a group call and considered that his only means of contacting the train's driver would be to obtain the driver's employer-issued mobile telephone number via the Driver Allocation Officer [DAO].³⁰ SB contacted the other train in the vicinity, which was registered on UTRS, and informed the driver of the pedestrian near the tracks within three minutes of receiving Mr Handerek's warning.³¹
14. SB became unsure of the location of the pedestrian seen by the driver of TD 3208 and so contacted Mr Handerek for clarification. SB then informed MH that the pedestrian was between Blackburn and Laburnum stations, heading towards Laburnum.³²
15. SB received a radio call from a train driver reporting a fault who then started to discuss 'non-train-related issues'.³³ Although he 'tried to end this call as quickly as possible', two minutes had expired before he did so.³⁴ During the call, SB noticed that TD 3570 had 'popped up on the screen' in front of him and could therefore be contacted.³⁵
16. Meanwhile, MH annotated the Train Graph with 'BBN [Blackburn] Trespasser 200m Upside BBN'³⁶ to reflect information about the location of the pedestrian and contacted Blackburn station staff a second time to update them. CCTV footage from cameras at Blackburn station depicts station staff walking along the outbound platform, Platform 2, presumably in response to MH's initial request to be on the lookout for a pedestrian near the tracks, as TD 3570 was passing alongside the city-bound platform, Platform 1, en route to Laburnum station.³⁷

²⁸ Coronial Brief of Evidence, Statement of SB.

²⁹ This was noted on both the Radio Call Sheet maintained by SB and the Train Graph maintained by MH; these documents appear as attachments to Mr Scott's Incident Investigation report in the Coronial Brief of Evidence.

³⁰ Coronial Brief of Evidence, Statement of SB.

³¹ Ibid. See also the Radio Message Sheet maintained by SB included in Coronial Brief of Evidence, Exhibit 1 Incident Investigation report prepared by Alan Scott and labelled as "Attachment 13".

³² Ibid.

³³ Ibid.

³⁴ Coronial Brief of Evidence, Statement of SB.

³⁵ Ibid.

³⁶ Exhibit F.

³⁷ Mr Scott's Incident Investigation report in the Coronial Brief of Evidence.

17. Around 2.40pm, a passenger SJ was waiting for a train on Platform 1 at Laburnum station. He observed a man in the train pit walking along the city-bound tracks, asked him what he was doing and told him that a train would arrive at the station shortly. The man told him that he was 'trying to get up' and SJ watched as the man placed a shopping bag and a walking stick on Platform 1 and position his hands on the platform in an effort to climb up onto it.³⁸
18. Blackburn and Laburnum stations are about 860 metres apart. The city-bound track between them has a left curve which straightens as it reaches Platform 1. However, the curve obscures a train driver's view of the track and platform ahead until the train is less than 95 metres from the leading edge of the platform.³⁹ The speed limit applicable to trains on this section of track is 65 kilometres per hour.⁴⁰ TD 3570 was travelling at 64km/p/h⁴¹. The expected stopping distance of an X'Trapolis train travelling on a straight dry track at that speed is about 156 metres.⁴²
19. As TD 3570 was emerging from the 'blind left bend' leading into Laburnum station, Mr Brown saw an elderly man in the train pit ahead, about 20 metres from the leading edge of Platform 1. It appeared as though the man was attempting to climb up out of the pit. Mr Brown immediately applied the emergency brake and sounded the train's horn but could not avoid impact. TD 3570 stopped about 50 metres after the initial impact point,⁴³ 123 metres after the emergency brake was applied.⁴⁴
20. At about 2.45pm, SJ telephoned emergency services⁴⁵ while Mr Brown used his train radio to contact Metrol and his employer-issued mobile telephone to contact the DAO.⁴⁶
21. Emergency services personnel quickly arrived on scene. Attending paramedics confirmed that the pedestrian, who was later identified as Mr Viertmann,⁴⁷ was deceased. Police attended

³⁸ Coronial Brief of Evidence, Statement of SJ dated 18 October 2012.

³⁹ Coronial Brief of Evidence, Exhibit 1 Incident Investigation report prepared by Alan Scott and in particular, Photographs 1-5 of Attachment 3.

⁴⁰ Exhibit D.

⁴¹ As documented by the Train Data logger.

⁴² Coronial Brief of Evidence, Mr Scott's Incident Investigation report.

⁴³ Coronial Brief of Evidence, Mr Scott's Incident Investigation report.

⁴⁴ I note that once the emergency brake is applied by the driver, s/he can make no further adjustment to braking speed and that on this occasion, TD 3570 exceeded stopping distance expectations [see Transcript pages 12-14].

⁴⁵ Coronial Brief of Evidence, Statement of SJ.

⁴⁶ Coronial Brief of Evidence, Statement of Ian Brown. I note Mr Brown's comment, "While waiting to speak to Metrol I contacted the DAO".

and commenced an investigation on behalf of the coroner.⁴⁸ Alan Scott, a Metro Trains Melbourne [MTM] Investigator, commenced an investigation of the collision on behalf of MTM.⁴⁹

INVESTIGATION – SOURCES OF EVIDENCE

22. This finding is based on the totality of the material the product of the coronial investigation of Mr Viertmann's death. That is the brief of evidence compiled by Senior Constable Brad Johnson of the Transit Safety Police, the statements, reports and testimony of those witnesses who testified at inquest and any documents tendered through them, and the final submissions of Counsel. All of this material, together with the inquest transcript, will remain on the coronial file.⁵⁰ In writing this finding, I do not purport to summarise all the material and evidence, but will refer to it only in such detail as is warranted by its forensic significance and in the interests of narrative clarity.

PURPOSE OF A CORONIAL INVESTIGATION

23. The purpose of a coronial investigation of a *reportable death* is to ascertain, if possible, the identity of the deceased person, the cause of death and the circumstances in which death occurred.⁵¹ The *cause* of death refers to the *medical* cause of death, incorporating where possible the *mode* or *mechanism* of death. For coronial purposes, the *circumstances* in which death occurred refers to the context or background and surrounding circumstances, but is confined to those circumstances sufficiently proximate and causally relevant to the death, and not merely all circumstances which might form part of a narrative culminating in death.⁵²
24. The broader purpose of any coronial investigations is to contribute to the reduction of the number of preventable deaths through the findings of the investigation and the making of

⁴⁷ Mr Viertmann was presumptively identified by police at the scene via a Victorian Driver's Licence issued in his name. His identified was confirmed by his son-in-law, Mark Durre.

⁴⁸ Coronial Brief of Evidence, Statement of Senior Constable Brad Johnson dated 13 November 2013.

⁴⁹ Mr Scott's report of his investigation was included in the Coronial Brief of Evidence [as Exhibit 1] and he provided a number of further statements and materials [see generally Exhibits C and D].

⁵⁰ From the commencement of the *Coroners Act 2008* (the Act), that is 1 November 2009, access to documents held by the Coroners Court of Victoria is governed by section 115 of the Act.

⁵¹ Section 67(1) of the *Coroners Act 2008*. All references which follow are to the provisions of this Act, unless otherwise stipulated.

⁵² This is the effect of the authorities – see for example *Harmsworth v The State Coroner* [1989] VR 989; *Clancy v West* (Unreported 17/08/1994, Supreme Court of Victoria, Harper J.)

recommendations by coroners, generally referred to as the *prevention* role.⁵³ Coroners are also empowered to report to the Attorney-General in relation to a death; to comment on any matter connected with the death they have investigated, including matters of public health or safety and the administration of justice; and to make recommendations to any Minister or public statutory authority on any matter connected with the death, including public health or safety or the administration of justice.⁵⁴ These are effectively the vehicles by which the prevention role may be advanced.⁵⁵

25. It is important to stress that coroners are not empowered to determine the civil or criminal liability arising from the investigation of a reportable death, and are specifically prohibited from including in a finding or comment any statement that a person is, or maybe, guilty of an offence.⁵⁶ However, a coroner may include a statement relating to a notification to the Director of Public Prosecutions *if the coroner believes an indictable offence may have been committed in connection with the death.*⁵⁷

FINDINGS AS TO UNCONTENTIOUS MATTERS

26. In relation to Mr Viertmann's death, most of the matters I am required to ascertain, if possible, were uncontentious from the outset. His identity and the date and place of death were not at issue. I find, as a matter of formality, that Werner Viertmann born on 24 January 1929, aged 83, late of Crofton House, Lithgow Avenue, Blackburn, died at Laburnum train station, Laburnum Road, Blackburn in Victoria on 4 October 2012.
27. Nor was the cause of Mr Viertmann's death contentious. On 5 October 2012, Forensic Pathologist, Dr Jacqueline Lee of the Victorian Institute of Forensic Medicine [VIFM] reviewed the circumstances of the death as reported by police and post-mortem CT scanning of the whole body undertaken at VIFM [PMCT], and performed an external examination of Mr Viertmann's body.

⁵³ The 'prevention' role is now explicitly articulated in the Preamble and purposes of the Act, cf: the *Coroners Act 1985* where this role was generally accepted as 'implicit'.

⁵⁴ See sections 72(1), 67(3) and 72(2) regarding reports, comments and recommendations respectively.

⁵⁵ See also sections 73(1) and 72(5) which requires publication of coronial findings, comments and recommendations and responses respectively; section 72(3) and (4) which oblige the recipient of a coronial recommendation to respond within three months, specifying a statement of action which has or will be taken in relation to the recommendation.

⁵⁶ Section 69(1).

⁵⁷ Sections 69 (2) and 49(1).

28. Dr Lee advised that external examination revealed deformities of the torso and extremities and, PMCT revealed fractures to the right tibia and fibula, each femur, pelvis, ribs, thoracic spine, each scapula, sternum and the skull; all being injuries consistent with the reported circumstances. Post-mortem toxicology did not detect any common drugs, poisons or alcohol. Dr Lee concluded by advising that it would be reasonable to attribute Mr Viertmann's death to multiple injuries sustained in collision with train (pedestrian), without the need for an autopsy.⁵⁸
29. In light of Dr Lee's advice, I find that Mr Viertmann died of the multiple injuries sustained when he was involved in a collision with a train as a pedestrian.

FOCUS OF THE CORONIAL INVESTIGATION AND INQUEST

30. In common with many other coronial investigations, the primary focus of the coronial investigation and inquest into Mr Viertmann's death was on the circumstances in which he died. Mr Viertmann's death was clearly preventable. It seems tolerably clear that had the driver of TD 3570 been alerted to Mr Viertmann's presence near the tracks in a timely way, the collision and Mr Viertmann's death may well have been avoided. Accordingly, the focus of my investigation and the inquest was the adequacy of communications between train drivers and Metrol, and in particular, the adequacy of the communication systems in place at the time of the incident. Improvements made to communication systems subsequent to Mr Viertmann's death were also investigated.
31. I also examined secondary but inextricably linked issues relating to the time available to respond to Mr Viertmann's presence near the tracks and, to a limited extent, the actions that could have been taken to avert the collision. The evidence in relation to these issues will be examined in turn.
32. MTM commenced operation of the metropolitan electrified rail network in 2009.⁵⁹ There are approximately 2,320 timetabled services each day⁶⁰ and during the off-peak period⁶¹ about 175 trains are in service at any given time.⁶²

⁵⁸ Exhibit A.

⁵⁹ Transcript page 34.

⁶⁰ Exhibit E; figures are those applicable in 2015.

33. MTM data indicates that during 2012 there were 1,402 reports of “trespassers” within the geographical bounds of its rail network – equivalent to just under four pedestrians in unauthorised areas each day – and that there were 37 fatalities.⁶³ Data for subsequent years suggests that the incidence of unauthorised pedestrian incursions has increased and the frequency of fatal incidents remains static.⁶⁴
34. While MTM monitors and maintains fencing in proximity to some areas of the network,⁶⁵ it is not obliged to erect fencing.⁶⁶ That said, given that the presence of pedestrians in unauthorised areas can be anticipated, to say nothing of the catastrophic consequences that may follow, it is reasonable to expect that MTM has adequate systems in place to manage this eventuality successfully and to mitigate the potentially fatal consequences, as far as is reasonably possible.

PREVENTING THE COLLISION: TIME TO ACT

35. In his investigation report, Mr Scott estimated the interval between Mr Handerek’s sighting of Mr Viertmann and the collision as between six and ten minutes.⁶⁷ Prior to the inquest, on his own initiative and of his own volition, Mr Scott revisited the various sources of timed data and revised his estimate.⁶⁸

⁶¹ At 2.30pm, when the incident resulting in Mr Viertmann’s death occurred.

⁶² Exhibit E.

⁶³ Transcript pages 86-87. The term “trespasser” is used by MTM to encompass a range of (mainly but not exclusively) pedestrians who access its property without authority including graffiti artists and/or others intent on causing criminal damage, individuals endeavouring to self-harm and vulnerable individuals like Mr Viertmann or children. Similarly, the number of fatalities is inclusive of individuals who died in both intentional and accidental circumstances, the former circumstances accounting for the vast majority of fatalities.

⁶⁴ Transcript pages 88-89.

⁶⁵ See for instance MTM’s Track Maintenance Instruction document [L2-TRK-PRO-003/019] extracted in Coronial Brief of Evidence, Exhibit 1, Mr Scott’s report of his investigation. I note that I heard some evidence, from Mr Scott, in relation to fencing. During his investigation, he noted that the fencing in the vicinity of Laburnum station had been inspected in September 2012 and that he had observed there are areas along South Parade in Blackburn, which runs parallel to the train line, including a hole in fencing, through which pedestrians could access the tracks. As potential points of unauthorised access are myriad, and there is no evidence before me concerning precisely where Mr Viertmann entered MTM property, I have not pursued the matter but note, for completeness, that the fencing defect Mr Scott observed was later rectified [Transcript page 34].

⁶⁶ Section 61 of the *Rail Management Act* 1996, Transcript page 33 and the oral submissions of Counsel appearing on behalf of MTM.

⁶⁷ Coronial Brief of Evidence, Exhibit 1, Mr Scott’s report of his investigation.

⁶⁸ Transcript page 14.

36. In evidence at inquest, Mr Scott confirmed that the various sources of timed data he analysed including TD 3570's train data logger, time over distance calculations from staunchens, CCTV time stamps, mobile telephone records, and witness reports are independent and disparate systems⁶⁹ that are not synchronised in any way.⁷⁰ He agreed that times recorded on digital systems were likely to be more reliable than those dependent upon a witness' perception. Mr Scott testified that having regard to all of the information available to him, he was as confident as he could be that the period available to Metrol within which Mr Viertmann's death may have been averted was around five minutes.⁷¹

PREVENTING THE COLLISION: OPPORTUNITIES TO ACT – STOPPING TD 3570

37. Mr Scott also provided evidence about the ways in which a train could be stopped in the event of an emergency. I note the comment made in his investigation report, that had TD 3208, Mr Handerek's train, remained stopped at Laburnum station, the collision between TD 3570 and Mr Viertmann would not have occurred.⁷² I infer from the oral evidence of Mssrs Scott and Young, that Automatic Block Signalling [ABS] would have halted TD 3570's progress if TD 3208 remained at Laburnum station because it is designed to separate trains on the same track by a distance of two sections.⁷³ As an automated system of signals operated by the passage of trains, ABS has no facility to respond to the presence of pedestrians on or near the tracks.⁷⁴ Moreover, once TD 3570 had passed through signal BBN303 at the western end of Blackburn station, it could not be stopped by mechanised signals, automated or otherwise,⁷⁵ before reaching Laburnum station.⁷⁶

38. It is not clear why Metrol did not advise Mr Handerek to remain at Laburnum station. I assume that, at least in part, logistical considerations prevailed. Moreover, it may be that Mr Handerek, a train driver with 25 years' experience, did not know how to interpret Mr

⁶⁹ Transcript page 36.

⁷⁰ Transcript page 9.

⁷¹ Transcript page 38 and Mr Scott's supplementary statement, Exhibit D.

⁷² Coronial Brief of Evidence, Exhibit 1, Mr Scott's report of his investigation.

⁷³ Section lengths vary depending on the features of the track (straight, curved, etc) and the permissible speed limit thereon: Transcript pages 20 [Mr Scott], 44 and 45 [Mr Young].

⁷⁴ Transcript page 45.

⁷⁵ Transcript page 45.

⁷⁶ Transcript page 20.

Viertmann's presence walking alongside the tracks with his shopping.⁷⁷ Mr Viertmann was perhaps an unusual "trespasser" in that, not appearing to react to Mr Handerek's train as it passed,⁷⁸ he could not easily be categorised as someone intent on self-harm, nor as someone intent on damaging or interfering with MTM property. Even so, Mr Handerek was sufficiently concerned about the potential hazard posed by Mr Viertmann's presence to notify Metrol, albeit in a standard rather than emergency train call.⁷⁹ In this setting (and others), "human factors" such as individual perception and judgement are likely to remain central to risk recognition and management and as such not fully susceptible to procedural or technological remediation.

39. At inquest, Mr Scott conceded that it would have been possible to stop TD 3570 at Blackburn station by station staff making an "emergency stop" hand signal to the driver, if station staff had been informed in sufficient time.⁸⁰ However, significantly, the Radio Operator misinterpreted information from TD 3208's driver about Mr Viertmann's location and relayed this to the Line Controller who, in turn, told Blackburn station staff to look out for a pedestrian 200m from, and walking towards, the station.⁸¹ In short, despite there being some six minutes between TD 3570's scheduled departure from Ringwood station, virtually simultaneous with Mr Handerek's notification, and TD 3570's arrival at Blackburn station at 2.43pm,⁸² the initial advice from Metrol to Blackburn station staff was simply to 'be on the lookout for' a pedestrian.⁸³
40. A manual "emergency stop" signal would not have been possible at Laburnum station as Laburnum Station is not staffed at any time, and in any event, if a manual emergency stop

⁷⁷ Coronial Brief of Evidence, Statement of Jan Handerek.

⁷⁸ Ibid.

⁷⁹ I note that, according to Mr Young, either a train driver or the Radio Operator can designate a given situation as "an emergency" [Transcript page 69].

⁸⁰ Transcript pages 18-19.

⁸¹ Coronial Brief of Evidence, Statements of SB and MH.

⁸² Coronial Brief of Evidence, Belgrave-Lilydale-Alamein-Glen Waverly-Flinders Street Mondays to Fridays Timetable, extracted as Attachment 21 to Mr Scott's report of his investigation included in the Coronial Brief of Evidence [as Exhibit 1].

⁸³ Coronial Brief of Evidence, Statement of MH.

signal was given from Platform 1, it would be obscured to the train driver by the blind left-hand bend on approach.⁸⁴

41. However, it does not appear that Metrol staff ever contemplated *stopping* trains in the vicinity of Mr Handerek's sighting of Mr Viertmann: they sought only to warn the relevant drivers. The policy⁸⁵ in place at the time provided little guidance to Metrol staff/train controllers or drivers about response to pedestrian incursion, beyond requiring that Metrol take 'all reasonable steps' – which are nowhere defined – to 'advise' all drivers approaching or travelling through the incident area.⁸⁶ Notably, the policy was revised in the month following Mr Viertmann's death, though it is unclear whether his death precipitated the revision. The later policy⁸⁷ is more detailed and enables Metrol to prevent trains from approaching an area, including by isolating overhead power, 'if necessary', although again what constitutes such a necessity is nowhere defined.⁸⁸

PREVENTING THE COLLISION: CONFOUNDING COMMUNICATIONS

42. It is trite to observe that effective communication is critical in the successful management of time-sensitive emergent situations. Metrol, MTM's command and control centre, coordinates incoming and outgoing information and communications for the 'provision of safe, reliable train services and deployment of resources' throughout the metropolitan train network.⁸⁹ At any given time, Metrol is staffed by two teams, each comprising one Radio Operator (who communicates with train drivers), one Line Controller (who communicates with train stations)

⁸⁴ Transcript page 18.

⁸⁵ Document No cml-8.13-pr-485 (Revision 2, 21 July 2009), 'Reporting and dealing with Incidents involving Rock Throwing, Level Crossing Failures and Trespassers', originally a Connex Melbourne P/L document adopted by MTM [hereinafter Old Trespasser Policy] extracted as Attachment 16 to Mr Scott's report of his investigation included in the Coronial Brief of Evidence [as Exhibit 1].

⁸⁶ Old trespasser Policy, section 42.

⁸⁷ MTM Document No L2-SWS-PRO-009 (effective 9 November 2012), 'Dealing with an Incident of Condition Affecting the Safety of the Network' [hereinafter New Trespasser Policy] extracted as Attachment 17 to Mr Scott's report of his investigation included in the Coronial Brief of Evidence [as Exhibit 1].

⁸⁸ New Trespasser Policy, section 4.2. I note that according to Mr Scott [Transcript page 22] isolation of overhead power was not ever used to cause a train to stop in an emergency at the time the incident. Mr Scott's report suggests that under the New Trespasser Policy, section 4.3.1, drivers will be advised by Metrol to 'operate under extreme caution through the area' – that is, to travel at not more than 25 km/p/h but at a speed enabling the train to be stopped in half the distance that can be seen ahead. I cannot find any definition, or the phrase, 'operate under extreme caution' in the policy, though it may appear in another related policy such as L4-SWS-FOR-021, 'Incident or Condition Affecting the Network [CAN] Warning Notice', which was not provided to me during the investigation and inquest into Mr Viertmann's death

⁸⁹ Exhibit E.

and one Senior Controller with oversight of operations. Each team is responsible for operations on one half of the train network.⁹⁰

43. In 2012, the analogue UTRS, installed in the early 1990s, facilitated communications between Metrol, train station staff and, via train radio and/or the driver's portable radio, with train drivers.⁹¹ UTRS did not envisage or enable driver-to-driver communications. Train radios joined UTRS when the train driver successfully entered the relevant TD Number into the train radio system prior to commencing a journey as required by policy.⁹² Radio Call Logs confirm that Mr Brown, TD 3570's driver, did this at about 2.19pm.⁹³
44. UTRS generally provided good coverage over 'much of the suburban area' but it was known that there were areas where the radio system did not operate or could "drop out" intermittently.⁹⁴ That is, a fixed train or portable radio could fail to connect to, or become disconnected from, the network in much the same way as a mobile telephone may lose connection to its carrier network due to geography, electrical interference, hardware malfunction or transient atmospheric disturbance. In 2012, the UTRS network's coverage was routinely tested bimonthly,⁹⁵ with additional testing taking place if connectivity issues were identified by drivers. The Belgrave and Lilydale lines had passed radio testing conducted on 28 August 2012, the last test in the relevant area prior to Mr Viertmann's death.⁹⁶
45. If a radio disconnected from the analogue network, the radio handset would automatically scan frequencies in an attempt to reconnect. This may or may not be successful. A train driver may be unaware that the train radio had disconnected from the network or was scanning to reconnect to it. Significantly, in such an eventuality, the radio (or more properly, its TD

⁹⁰ See generally Exhibit E and the evidence of Mr Young [Transcript pages 41-96]. One Metrol team manages operations of train services in the Burnley and Clifton Hill groups and the other manages the Dandenong, Northern and Cross City groups.

⁹¹ Exhibit H. The fixed train radio and the driver's portable radio are essentially two parts of the same communication device, linked to the train radio system by the TD Number [Transcript page 72]. This arrangement is retained in the new digital radio system.

⁹² Simoco Fixed and Portable Train Radios, Document No cml-8.13-tsg-110 (revision 01, 22 July 2009), originally a Connex Melbourne P/L document adopted by MTM [hereinafter UTRS Radio Policy] extracted as Attachment 18 to Mr Scott's report of his investigation included in the Coronial Brief of Evidence [as Exhibit 1].

⁹³ Coronial Brief of Evidence, Exhibit 1, Mr Scott's report of his investigation.

⁹⁴ Coronial Brief of Evidence, Exhibit 1, Mr Scott's report of his investigation.

⁹⁵ I note Mr Salas' evidence that by 2014 connectivity issues were sufficiently problematic to require weekly radio testing [Exhibit H].

⁹⁶ Coronial Brief of Evidence, Exhibit 1, Mr Scott's report of his investigation.

Number) was not visible on the Radio Operator's computer display and the train radio could neither send nor receive transmissions.⁹⁷ I note that no explanation was proffered to explain why TD 3570's train radio was not visible to the Radio Operator, despite Mr Brown having successfully logged into UTRS and recent radio testing confirming satisfactory network function in the area.⁹⁸

46. The train radio was, and remains now under the new digital system,⁹⁹ the primary form of communication¹⁰⁰ but each driver is issued with and required to carry an employer-issued mobile telephone to be used in the event of train radio network failure or malfunction.¹⁰¹ A driver's mobile telephone number was and is still not directly accessible by Metrol staff. Rather, they must obtain it from one of six DAOs on duty.¹⁰² They, in turn, use an electronic database to reconcile TD Numbers with shift numbers, to identify the correct one of a thousand train drivers on staff and then locate his/her mobile telephone number.¹⁰³
47. Although cumbersome enough for MH to comment that he did not believe there was sufficient time available to obtain Mr Brown's mobile number through the DAO,¹⁰⁴ according to MTM's Head of Network Control and Security, Tim Young, the process takes 15 to 30 seconds optimally, outside of peak times.¹⁰⁵ Mr Young conceded that in an emergency the 'extra step' involving the DAO meant that time to act was lost.¹⁰⁶ There is no evidence before

⁹⁷ Ibid.

⁹⁸ For example, Transcript pages 16 and 31.

⁹⁹ Counter-intuitively, the 'train radio' and 'portable radio' are essentially the same radio, the former is fixed in the cabin while the latter is, as the name suggests, portable and is for use by the driver if s/he leaves the cabin. Thus, if the train radio's TD number is not registered on the system neither it nor the portable radio can be used [Transcript page 72].

¹⁰⁰ UTRS Radio Policy.

¹⁰¹ MTM document L2-TSD-PRO-003 Train Driver Metro Issue Mobile Phones, extracted as Attachment 19 in Mr Scott's report of his investigation included in the Coronial Brief of Evidence [as Exhibit 1]. I note that in addition to the primary communications (via train/portable radio) and secondary communications (via mobile telephone) there is also a tertiary communication option, Local Train Radio [LTR] with limited operation on a 'line of sight' basis relevant to the metropolitan electric rail network. Diesel, freight and V-Line train radio communication systems, with some capacity for interface, also operated in 2012 and continue to operate now.

¹⁰² Transcript page 70.

¹⁰³ Transcript pages 65-68.

¹⁰⁴ Coronial Brief of Evidence, Statement of MH.

¹⁰⁵ Transcript pages 67-68.

¹⁰⁶ Transcript page 65.

me that the Radio Operator initiated enquiries with the DAO, though he had formed the view that he would need to do so because he was unable to contact TD 3570's driver by radio.¹⁰⁷

48. Irrespective of the means of communication used, drivers were (and are) required to use mobile telephones only when 'in a position of safety' which ordinarily means when the train is stationary, either at a signal or platform.¹⁰⁸ Accordingly, MTM would not have expected Mr Handerek to notify Metrol of his sighting of Mr Viertmann any sooner than he did, at 2.38pm, while stationary at Laburnum station.¹⁰⁹ Though not explicitly canvassed at inquest, the presumptive corollary of this is that even if the Radio Operator had obtained Mr Brown's mobile telephone number and dialled it in advance of the collision, he ought not, according to policy, have answered the call unless and until he was stopped at a station (or signal).
49. Mr Handerek's notification to Metrol was timely and specific. At first instance, its details appear to have been correctly noted by the Radio Operator on the Radio Message Sheet as 'Trespasser w [with] shopping up line [city-bound line]... BBN + LBM [Laburnum] down side of platform [non-city end of the platform]'.¹¹⁰ Thereafter, and somewhat inexplicably, the location information appears to have been miscommunicated when relayed to the Line Controller and likely, through him, to Blackburn station staff. Notwithstanding the Radio Operator's call to Mr Handerek for clarification (and relay of this information), a misunderstanding appears to have persisted given the Line Controller's notation on the Train Graph: 'BBN Trespasser 200m Upside BBN'.¹¹¹ While not necessarily determinative of the outcome in this case, the implications of miscommunications of this kind about the location of a hazard – between habitual users of a specialist idiom¹¹² – are clear.
50. Even if miscommunication of location information was not determinative, the Radio Operator's effort to verify location produced delay. Although it is not unreasonable to verify important information where there is uncertainty, Mr Young conceded that in the context of

¹⁰⁷ Coronial Brief of Evidence, Statement of SB.

¹⁰⁸ Transcript page 75.

¹⁰⁹ Ibid.

¹¹⁰ Radio Call Sheet, Attachment 13 of Mr Scott's Incident Investigation report, Coronial Brief of Evidence [Exhibit 1].

¹¹¹ Exhibit F.

¹¹² Observe Mr Young's interpretation of MH's annotations on the Train Graph and its accuracy vis-à-vis Mr Viertmann's actual location when first sighted [Transcript pages 54-56]. The exchange also demonstrates the impenetrability of specialist language to 'outsiders'. I note in passing that 'upside of Laburnum' and 'downside of Blackburn' appears to describe the same 860m between Blackburn and Laburnum stations.

Metrol's strategy to notify trains in the vicinity irrespective of their direction of travel, particularly where one of two drivers had already been informed, it was 'potentially' a waste of time for SB to do so.¹¹³ It was also conceded by Mr Young that the Radio Operator 'potentially' should not have spent two minutes on a radio call about a fault while the need to alert TD 3570's driver of Mr Viertmann's presence was extant: it, too, was an inefficient use of precious available time.¹¹⁴

MTM COMMUNICATIONS AFTER 24 AUGUST 2014

51. As early as 2007, the 'limitations and life expiration' of UTRS and the need to upgrade to a digital communication system had been acknowledged.¹¹⁵ Victorian government and Public Transport Victoria [PTV] funding of a Digital Train Radio System [DTRS] was secured by 2008 and PTV's delivery of the new system to MTM was scheduled to occur before the end of 2012. However, the project was delayed and DTRS did not "go live" until 24 August 2014.¹¹⁶ It is still only used by MTM metropolitan electrified rail network trains.¹¹⁷
52. Train radios¹¹⁸ remain the primary means of communication across the DTRS and the system still requires that a service's TD Number be entered to register the radio on the system.¹¹⁹ While there is still a requirement that communication devices only be used when safe, it follows that 'if the message is of an urgent nature' it can be heard on a fixed or portable train radio via a loudspeaker function.¹²⁰ The DAO controls access to portable radios' unique numbers¹²¹ and train drivers' work-issued mobile telephone numbers, in the event that a train

¹¹³ Transcript page 60.

¹¹⁴ Transcript page 61. I note Mr Young's evidence that the only other person available to take any radio calls (any of which may also have been to report an emergency) while the Radio Operator was trying to alert Mr Brown was the Senior Controller for the group.

¹¹⁵ Exhibit H.

¹¹⁶ Exhibit H.

¹¹⁷ Exhibit H. Mr Young considered universal use of DTRS by all train operators would be an improvement on the current system where it is only presently available to MTM trains.

¹¹⁸ The fixed train radio and the driver's train radio operate independently [Transcript page 96].

¹¹⁹ I note that Mr Salas' evidence about the impact of a failed train TD Number registration onto DTRS was unclear. His answer to a question concerning whether an alert would notify Metrol/the driver the radio had 'dropped off' the network was: 'the user will be presented with an alert tone to say that it has not been entered' [Transcript page 103].

¹²⁰ See section 4.5 (including the "Note" below that section) of MTM Document No L1-COO-PRO-001, 'Digital Train Radio Standard Operating Procedures', (Version 2, effective from 30 July 2014) [DTRS SOP].

¹²¹ DTRS SOP, section 4.4.9.

radio or both the fixed and portable train radios fail and a secondary means of communication is required.¹²²

53. Both Mr Young and MTM's Control Systems Project Manager, Lloyd Salas, emphasised the reliability of DTRS. That is, DTRS is regarded as providing 'extremely high levels of coverage' and stability across the communication network¹²³ such that there is a 'low likelihood' of losing communication with a train driver.¹²⁴ In the seven months of operation between its introduction and the inquest, MTM had reportedly received no reports of DTRS communication failure.¹²⁵ DTRS' reliability continues to be tested on a quarterly basis.¹²⁶
54. DTRS is considered to have greater functionality than UTRS. Of particular relevance to this investigation are the Train Emergency Call [TEC]¹²⁷ and Railway Emergency Group Call [REC] functions.¹²⁸ Both TEC and REC calls are a means of communicating emergency information, though only the latter is intended for use in circumstances of *imminent* danger to people or trains and infrastructure.¹²⁹
55. A REC call is the highest priority call – accompanied by a visual and audible alarm – and terminates any call of lower priority.¹³⁰ A REC call has the effect of stopping trains immediately, for one minute and/or until further notice.¹³¹ REC calls may be initiated by either train drivers or Metrol. Such calls will be received irrespective of whether or not a train radio's TD Number is registered on DTRS, by all radios within a pre-set geographical limit of a base station closest to the reporting train radio, for driver-initiated calls, or by all trains in a particular service group cell, for Metrol-initiated calls.¹³² A REC call allows a train driver to

¹²² DTRS SOP, section 4.4.

¹²³ Transcript pages 64 [Mr Young] and 83-84 [Mr Salas].

¹²⁴ Transcript page 65.

¹²⁵ Transcript page 84.

¹²⁶ Transcript page 83.

¹²⁷ A TEC call is a high priority (Priority 2) point-to-point call but unlike a REC call, it will only be received by the Train Controller at Metrol. It will cause calls of lower priority to be terminated and can only be terminated by a Priority 0 REC call. A TEC call should be the normal method of relaying emergency information unless trains approaching on other lines are in immediate danger, in which case, a REC call should be used.

¹²⁸ DTRS SOP.

¹²⁹ DTRS SOP.

¹³⁰ Ibid.

¹³¹ Ibid, section 6.5.2.

¹³² Exhibit F and Transcript page 84 and DTRS SOP. REC calls may also be initiated and received by Signallers.

alert other drivers in the vicinity of a hazard directly, eliminating the intermediate step required by UTRS of notifying Metrol.

56. Mr Salas testified that if DTRS were in place at the time of Mr Viertmann's death, the driver of TD 3570 could have been contacted even though the train radio was not registered on the system through the use of a REC call.¹³³
57. A policy delineating Standard Operating Procedures [DTRS SOP] was introduced along with DTRS. The policy provides guidance about communication procedures generally, including the prioritisation of radio communications, and those to be employed in the event of an emergency. In particular, DTRS SOP provides a list of circumstances in which REC or TEC calls may be used.¹³⁴ Notably, a REC call may be used when there are 'persons on or near the line who are in *immediate and direct risk of being struck by a train*' [my emphasis]. Significantly, DTRS SOP acknowledges that 'professional judgment is relied upon' when interpreting the procedures,¹³⁵ as did Mr Young, when giving evidence at inquest.¹³⁶

CONCLUSIONS

58. The standard of proof for coronial findings of fact is the civil standard of proof, on the balance of probabilities, with the *Briginshaw* gloss or explication.¹³⁷ The effect of the authorities is that Coroners should not make adverse findings against or comments about individuals, unless the evidence provides a comfortable level of satisfaction that they caused or contributed to the death.
59. Having applied the applicable standard to the available evidence, I find that –
- Mr Brown entered TD Number 3570 into the train radio in order to register it with the UTRS train radio system as required.

¹³³ Exhibit F.

¹³⁴ See sections 6.3 [REC calls] and 7.2 [TEC calls].

¹³⁵ DTRS SOP, section 6.1.

¹³⁶ Transcript page 91.

¹³⁷ *Briginshaw v Briginshaw* (1938) 60 C.L.R. 336 esp at 362-363. "The seriousness of an allegation made, the inherent unlikelihood of an occurrence of a given description, or the gravity of the consequences flowing from a particular finding, are considerations which must affect the answer to the question whether the issues had been proved to the reasonable satisfaction of the tribunal. In such matters "reasonable satisfaction" should not be produced by inexact proofs, indefinite testimony, or indirect inferences..."

- Mr Handerek provided timely and sufficiently clear and detailed information to Metrol about Mr Viertmann's presence near the train tracks between Blackburn and Laburnum stations to enable Metrol staff to manage the hazard it presented.
- I am unable to determine whether the choice of an emergency rather than a standard call by Mr Handerek to Metrol would have materially altered the actions taken by the Radio Operator and Line Controller or changed the outcome in this case. Accordingly, I make no criticism of Mr Handerek's judgement in this regard, nor should any criticism be inferred.
- Metrol staff had a period of about five minutes after Mr Handerek's radio call in which to manage the hazard presented by Mr Viertmann's presence near train tracks.
- The management plan adopted by Metrol staff was reasonable, namely to warn train drivers in the vicinity that a pedestrian had been seen near train tracks, and had they managed to do so in the time available, was likely to have averted the collision.
- The Line Controller correctly identified the trains – the outbound TD 3605 and Mr Brown's city-bound TD 3570 – to which a warning about the presence of a pedestrian near the train tracks should be issued.
- Metrol was unable to communicate directly with the driver of TD 3570 via the train's UTRS radio for much of the five-minute period prior to the collision. This was a systemic UTRS failure, perhaps related to connectivity, and not the result of any omission by Mr Brown or oversight on the part of the Radio Operator.
- The Radio Operator's decision to notify the driver of TD 3605 before attempting to obtain Mr Brown's mobile telephone number via the DAO was reasonable in the circumstances.
- Although not entirely unreasonable, the Radio Operator's decision to seek clarification from Mr Handerek of the location where he had seen the pedestrian was not an efficient use of time in circumstances where Metrol's strategy was to warn the drivers of both inbound and outbound trains.
- The Radio Operator's continuation of a non-urgent radio call was imprudent and an inefficient use of valuable time given that notification of the driver of TD 3570 was identified by him as his first priority.

- Despite determining that it was appropriate to do so, there is no evidence before me that the Radio Operator initiated contact with the DAO to obtain Mr Brown's mobile telephone number, a procedure estimated to take about 30 seconds in optimal, off-peak circumstances, within the five or so minutes available to him.
- Human error on the part of Metrol staff and systemic failure of the UTRS network prevented TD 3570's driver from receiving a warning that Mr Viertmann was near the tracks close to Laburnum station and so contributed to the collision.
- Absent any warning to TD 3570's driver of the hazard ahead, the approved speed limit, extent of obscured visibility on approach to Laburnum station's Platform 1 and the anticipated stopping distance of a six carriage train combined to render Mr Brown's prompt application of the emergency brake insufficient to stop the train in time to avoid a collision.
- No act or omission on the part of TD 3570's driver, nor any operation of the train's emergency braking system, caused or contributed to Mr Viertmann's death.

COMMENTS

Pursuant to section 67(3) of the Coroners Act 2008, I make the following comments connected with the death:

1. Although not relevant to Mr Viertmann's death, on the basis of the evidence of Mr Young and Mr Salas, it appears likely that implementation of DTRS is likely to enhance communications across the metropolitan electrified rail network and reduce the risk that a train driver cannot be contacted in the event of an emergency.
2. Assuming that DTRS provides improved reliability of train communications within the MTM network, the REC call facility appears particularly well-suited to streamline the transmission of emergency alerts to train drivers and so reduce the potential for miscommunication that may occur when working through Metrol as intermediaries.
3. That said, given the terms of the DTRS SOP in relation to the use of REC calls – contingent as they are upon individual perception of risks and professional judgments about these matters – there is little guarantee that were it available at the time, a REC call would have been used in response to a pedestrian incursion like that of Mr Viertmann.
4. Given Metrol's management of Mr Viertmann's incursion by attempting to *alert drivers* rather than *stop trains* it appears that a significant cultural shift would be needed to

encourage use of a REC call in such cases. Indeed, it is difficult to see *when* a REC call for the presence of “trespassers” could actually be effective in avoiding collisions, as the DTRS SOP requires pedestrians to be at immediate and direct risk of being struck by a train.

I direct that a copy of this finding be provided to:

Ms Viertmann

Metro Trains Melbourne

Public Transport Victoria

Senior Constable Brad Johnson of the Transit Safety Police

Signature:



PARESA ANTONIADIS SPANOS

Coroner

Date: 4 April 2016