



Office of Transport Safety Investigations

BUS SAFETY INVESTIGATION

INTERIM FACTUAL STATEMENT

**BUS REAR WHEEL DETACHED AND COLLIDED WITH
ONCOMING VEHICLE
BOSSLEY PARK**

12 MAY 2009



The Office of Transport Safety Investigations (OTSI) is an independent NSW agency whose purpose is to improve transport safety through the investigation of accidents and incidents in the rail, bus and ferry industries. OTSI investigations are independent of regulatory, operator or other external entities.

Established on 1 January 2004 by the Transport Administration Act 1988, and confirmed by amending legislation as an independent statutory office on 1 July 2005, OTSI is responsible for determining the causes and contributing factors of accidents and to make recommendations for the implementation of remedial safety action to prevent recurrence. Importantly, however, OTSI does not confine itself to the consideration of just those matters that caused or contributed to a particular accident; it also seeks to identify any transport safety matters which, if left unaddressed, might contribute to other accidents.

OTSI's investigations are conducted under powers conferred by the Rail Safety Act 2008 and the Passenger Transport Act 1990. OTSI investigators normally seek to obtain information cooperatively when conducting an accident investigation. However, where it is necessary to do so, OTSI investigators may exercise statutory powers to interview persons, enter premises and examine and retain physical and documentary evidence.

It is not within OTSI's jurisdiction, nor an object of its investigations, to apportion blame or determine liability. At all times, OTSI's investigation reports strive to reflect a "Just Culture" approach to the investigative process by balancing the presentation of potentially judgemental material in a manner that properly explains what happened, and why, in a fair and unbiased manner.

Once OTSI has completed an investigation, its report is provided to the NSW Minister for Transport for tabling in Parliament. The Minister is required to table the report in both Houses of the NSW Parliament within seven days of receiving it. Following tabling, the report is published on OTSI's website at www.otsi.nsw.gov.au.

OTSI cannot compel any party to implement its recommendations and its investigative responsibilities do not extend to overseeing the implementation of recommendations it makes in its investigation reports. However, OTSI takes a close interest in the extent to which its recommendations have been accepted and acted upon. In addition, a mechanism exists through which OTSI is provided with formal advice by the Independent Transport Safety and Reliability Regulator (ITSRR) in relation to the status of actions taken by those parties to whom its recommendations are directed.

Incident Overview

At approximately 2.10pm on Tuesday 12 May 2009, a West-bound motor car, stationary at the intersection of Cowpasture Road and Prairie Vale Road at Bossley Park, was hit by a wheel which had come away from a Westbus Scania bus heading in the opposite direction (Figure 1).

The bus involved had come to a stop opposite the car at the intersection of Stockdale Crescent and Cowpasture Road when the bus driver saw one of the bus's rear wheels travel past the bus and collide with the car. The car involved suffered moderate damage, but the driver escaped injury. Police attended and investigated the incident, later locating a wheel nut from the bus not far from the incident scene.

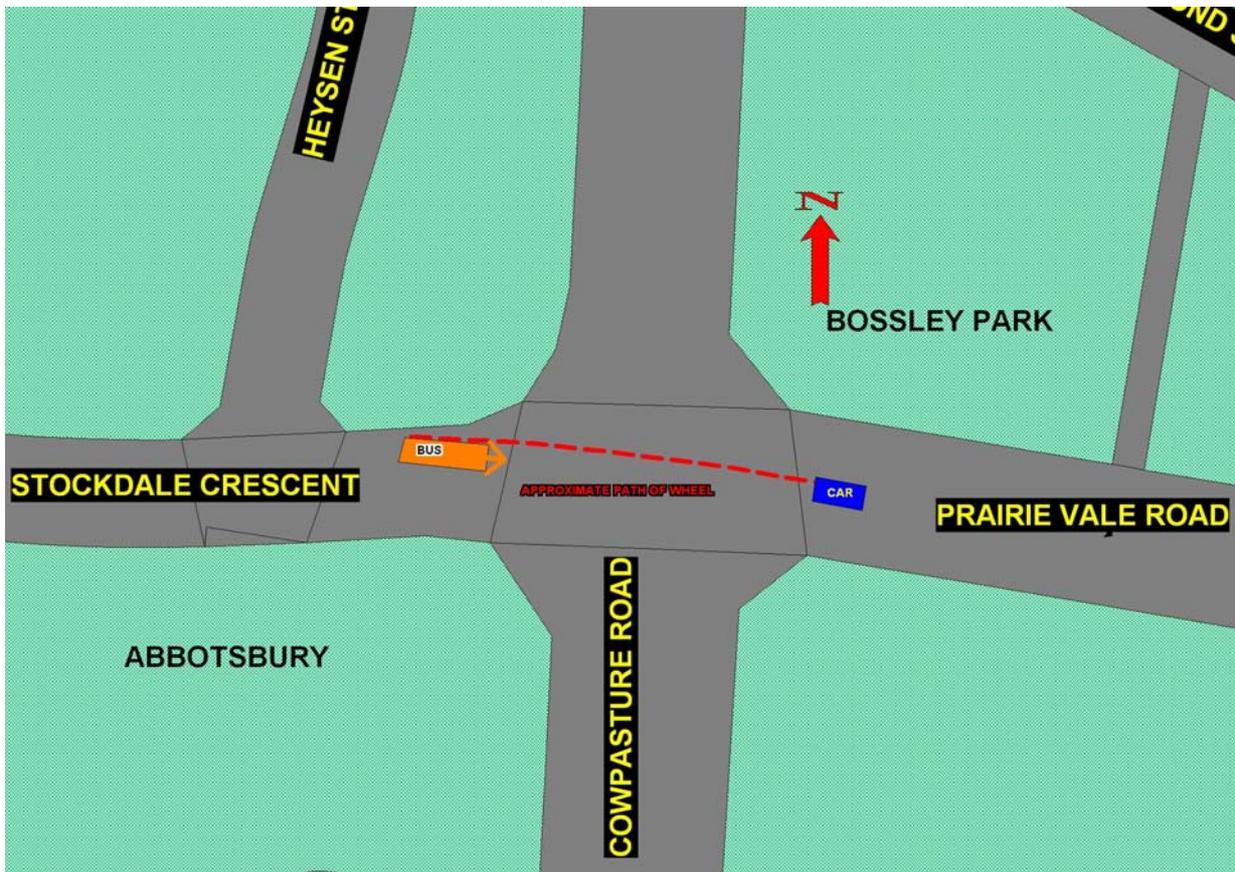


Figure 1: Incident Location

OTSI was notified of the incident and an investigator attended the location the next day in an effort to establish how the wheel had come off the bus. A search of the entire route driven by the bus on the day of the incident failed to locate any of the remaining nine wheel nuts used to secure the wheel to the hub.

The bus involved was examined at the depot, along with the maintenance records detailing the last time the subject wheel had been removed and replaced. The examination of the rims, hub, studs and wheel nuts showed signs of the dual rear wheels on the passenger's side having been loose for some time. The last record of the wheels being removed and replaced was on 4 May 2009, eight days before the incident.

The absence of any of the remaining wheel nuts on the route taken by the bus on the day of the incident indicated that the wheel had been working its way loose over the period of eight days since being fitted to the bus. The extent of damage to the hub, rims and studs was consistent with the sort of damage to be expected from nuts working loose over this timeframe. Significantly, half the thread had been pulled from the base of the wheel nut located near the incident scene, indicating that it was likely to have been the last remaining nut to be torn from the wheel stud.

As a result of a preliminary investigation, the Chief Investigator determined that the incident warranted formal investigation in accordance with Section 46BA of the *Passenger Transport Act 2008*.

Terms of Reference

The terms of reference established by the Chief Investigator require OTSI's Investigator in Charge to:

- a. determine what caused the wheel to separate from the bus and what factors may have contributed either directly or indirectly to the incident;
- b. examine all aspects of vehicle inspection and maintenance procedures, together with quality control measures, for all safety critical operating components;
- c. determine whether the standards of vehicle inspection and maintenance, and quality control measures identified in Westbus, are reflective of operating practices within the bus industry in NSW;

- d. make safety recommendations, the implementation of which would prevent, or at the very least, minimise the potential for recurrence of this type of incident, and
- e. identify and provide advice in relation to any other matters arising from the investigation that would enhance the safety of bus operations.

Status of the Investigation

OTSI's investigation has commenced. During the course of the investigation, all Directly Involved Parties (DIPs) will be consulted and will be afforded the opportunity to provide information and commentary which will contribute to ensuring that the investigation and its report are inclusive and comprehensive.

Once completed, OTSI's investigation report will be tabled in both Houses of the NSW Parliament by the Minister for Transport in accordance with Section 46D of the *Passenger Transport Act 1990*. When the Report has been tabled, it will be published on OTSI's website and will replace this Interim Factual Statement.