2012–13

Annual Report

Road Safety Camera Commissioner

To: The Honourable the President of the Legislative Council
And: The Honourable the Speaker of the Legislative Assembly

I am pleased to present to you the Annual Report of the Road Safety Camera Commissioner for the financial year 2012-2013 for presentation to Parliament, in accordance with section 21 of the *Road Safety Camera Commissioner Act 2011*.

Yours sincerely

HIS HONOUR GORDON LEWIS AM
Road Safety Camera Commissioner

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THE COMMISSIONER'S MESSAGE

This report marks the end of the first full financial year in which the Office of the Road Safety Camera Commissioner has been in existence. It has been an extraordinarily busy year in which the actual scope of what was a pioneering concept, has become better defined.

HIS HONOUR GORDON LEWIS AM
Road Safety Camera Commissioner

I AM RESPONSIBLE FOR THREE ESSENTIAL FUNCTIONS:

ONE As part of my statutory role, I am required to undertake a reporting and quality assurance function. This involves independently monitoring compliance of the road safety camera system with the requirements of the *Road Safety Act 1986*. I am required to review and assess the operation of the road safety camera system at least annually. This includes a regular review of the information made available about the camera system by the Department of Justice.

TWO I also have an investigative and review function. The *Road Safety Camera Commissioner Act 2011* empowers me to undertake investigations requested or agreed to by the Minister for Police and Emergency Services into the accuracy and efficiency of the road safety camera system. The Minister may also refer any matter in relation to the road safety camera system to me for investigation. I can also investigate any complaints received by my office that appear to indicate a problem with the road safety camera system. I am required to publish the findings of any investigations and recommendations in my annual report.

THREE In addition to this, I have a complaints management function. Any motorist who has a complaint concerning any aspect of the road safety camera system can lodge it with me, although it is not my role to intervene in individual cases.

My task is to investigate complaints about the road safety camera system itself. This means that I may investigate an issue where one or more individual complaints point to a systemic problem requiring attention.

The result has been an independent office to assist with complaints from motorists and to provide quality assurance in respect to the State's road safety camera system.

The scope of my role as Road Safety Camera Commissioner includes all facets of the automated road safety camera system, including intersection cameras, fixed freeway cameras and mobile cameras. It does not extend to hand-held radar devices used by Victoria Police.

The link between excessive speed and the road toll is inarguable. The road safety camera system represents just one means to deter motorists from driving at excessive speeds. This in turn involves the imposition of speed restrictions, their enforcement, a fair, accurate and reliable method of measuring the speed of vehicles and an appropriate system of sanctions.

The enactment of the *Road Safety Camera Commissioner Act 2011* acknowledged the public's distrust of both the accuracy and fairness of the placement of these instruments. Surveys still show that there is ongoing public concern that the road safety cameras are part of a program of revenue raising, inaccurate and not primarily directed to improving road safety.

Also, there is still a continuing public misconception that my office is in effect, a traffic offence ombudsman, with power to usurp the role of Victoria Police in reviewing traffic infringements. I believe, however, a more comprehensive website and increased publicity of my role has increased the proportion of correspondence which can be addressed within my statutory powers.

It is heartening to note also that there has been gradual public acknowledgement that my office is utterly independent and hopefully ensuring that motorists are the subject of a road safety camera system that is accurate, well maintained and transparent in its operation.

Twelve months after my initial annual report, I can still observe that I have not found evidence of a malfunctioning or inaccurate road safety camera.

In particular, in reviewing the activities of my office during the past twelve months, this report contains a number of recommendations and reports relating to:

- A reiteration of my recommendation in my previous annual report that motorcycles should have frontal identification, a recommendation that is reinforced by recent statistics.
- A streamlined and free method for motorists to view images of their alleged offences.
- A clarification of Victoria Police's guidelines in respect of the siting of mobile road safety camera vehicles.
- A rehearsal of my recommendations in last year's annual report in respect of advisory speed gantries.
- A report on the result of the testing of speed and red light cameras at 50 locations in Victoria.
- A report on the operation of all road safety cameras on EastLink and driver behaviour on that freeway, and
- A report on the operation of the road safety cameras installed on the Keilor Park Drive Bridge on the Western Ring Road and a recommendation that images of variable speed signs be made available to the public.

My continuing role as Commissioner has satisfied me that the Victorian road safety camera system is excellent. While human error can never be excluded, the checks and balances implemented in respect of road safety cameras should reassure the motoring public about their fairness, accuracy and reliability. However, it is important that the motoring public be kept fully aware of the existence of those checks and balances.

I thank Mr Brendan Facey, the Director of Infringement Management and Enforcement Services in the Department of Justice, the Assistant Commissioner Road Policing Command, Mr Robert Hill, Mr Neil Robertson, the Executive Director of Police and Emergency Management in the Department of Justice, and VicRoads for their ongoing support and assistance.

Finally, I thank my staff for their dedication to the role my office performs.

RECOMMENDATIONS

Investigation into yellow light timing at eight intersections

As a result of my investigation, I found that the red light cameras at each of the intersections were operating accurately and in accordance with the Road Safety (General) Regulations 2009 throughout the relevant periods. However, as a result of the erroneous length of the yellow light phases,

I recommended that:

A. Any person who received a traffic infringement notice for a red light offence at the intersection of:

- Terminal Drive and Centre Road, Melbourne Airport, between 16/11/2010 and 24/01/2012, where the time elapsed since the traffic light turned red was 1 second or less
- Doncaster Road and Williamsons Road, Doncaster, between 5/10/2011 and 7/08/2012, where the time elapsed since the traffic light turned red was 2 seconds or less
- Fyans Street and Moorabool Street, Geelong, between 11/05/2010 and 24/08/2012, where the time elapsed since the traffic light turned red was 1 second or less
- High Street and Mahoneys Road, Thomastown, between 20/10/2011 and 26/09/2012, where the time elapsed since the traffic light turned red was 2 seconds or less, and the length of the yellow cycle was incorrect
- Centre Road and Warrigal Road, Bentleigh, between 1/08/2010 and 16/08/2012, where the time elapsed since the traffic light turned red was 1.5 seconds or less, and the length of the yellow cycle was incorrect
- Heatherton Road and Gladstone Road, Dandenong North, between 29/12/2004 and 16/08/2012, where the time elapsed since the traffic light turned red was 1.5 seconds or less, and the length of the yellow cycle was incorrect
- Foster Street and McCrae Street, Dandenong, between 18/10/2010 and 16/08/2012, where the time elapsed since the traffic light turned red was 1.5 seconds or less, and the length of the yellow cycle was incorrect, and
- Stud Road and High Street, Wantirna South, between 28/12/2006 and 23/08/2012, where the time elapsed since the traffic light turned red was 2 seconds or less, and the length of the yellow cycle was incorrect,

should have any traffic infringement notice withdrawn, any infringement penalty refunded and any demerit points reversed.

This recommendation only applied to vehicles travelling straight through the intersection and not to vehicles turning left or right at the intersection.

B. VicRoads undertake a comprehensive audit immediately with a view to identifying any traffic light discrepancies in the past 12 months. This audit should apply to all intersections controlled by traffic lights irrespective of whether or not a road safety camera is installed and should be repeated on a six monthly basis.

C. The present guidelines be translated into state legislation and/or regulations, rather than relying on a set of guidelines agreed upon by state road authorities, while encompassing the formula contained in Appendix E of the Austroads *Guide to Traffic Management Part 9: Traffic Operations* and allowing for VicRoads to alter traffic light sequences at any time to cope with changed conditions.

D. VicRoads, TAC and Victoria Police undertake a campaign to promulgate traffic light sequences and to educate motorists that entering an intersection during a yellow light phase is an offence under road rule 57 of the Road Safety Road Rules 2009 unless they cannot stop safely, similar to the "Amber Gambler" campaign in Victoria and the United Kingdom in the 1970's.

Investigation into mobile road safety camera site selection

As a result of my investigation to determine whether mobile road safety camera deployment complied with the physical field criteria contained in the Victoria Police *Mobile Road Safety Camera Policy and Operations Manual*,

I made the following recommendations:

- I endorsed the decision of Victoria Police to review the physical field criteria contained in the *Mobile Road Safety Camera Policy and Operations Manual*.
- As a part of that review, I recommended that Victoria Police revisit the prohibition on concealment of a mobile road safety camera vehicle or equipment contained in the Manual and state in clear terms the circumstances in which it will be permitted.

Access to images of variable speed signs

In order to enhance the transparency of the road safety camera system and to provide certainty to motorists in relation to their offences,

I recommend that:

- images of variable speed limit signs, such as those installed on the Western Ring Road, be made available to motorists in addition to the images of their infringement offence.

Access to images of offences

I recommend that:

- images of infringement offences detected by road safety cameras be made available to the public, free of charge, by way of a secure website.

Motorcycle frontal identification

I recommend that:

- immediate steps be taken to enable frontal identification on motorcycles and motor scooters.

Electronic speed advisory signs

I recommend that:

A. An appraisal be conducted to determine:
   - Whether all six existing electronic speed advisory signs can be made both operational and accurate, and if so, those speed advisory signs that are not currently operational and/or accurate should be upgraded and recommissioned, and
   - Whether, if funding is a problem, the gantries can be made available for commercial advertising.

B. In the event that accuracy cannot be guaranteed to the standard required of road safety cameras, those advisory signs should be dismantled.

THE ROAD SAFETY CAMERA COMMISSIONER

THE ROAD SAFETY CAMERA COMMISSIONER

The position of the Road Safety Camera Commissioner was established by section 4 of the *Road Safety Camera Commissioner Act 2011*.

His Honour Gordon Lewis AM was appointed the inaugural Road Safety Camera Commissioner in December 2011 and the Office of the Road Safety Camera Commissioner commenced operation on 6 February 2012.

The role of the Road Safety Camera Commissioner is to provide an independent, impartial and objective office to monitor compliance of the road safety camera system with the *Road Safety Act 1986*, to receive complaints in relation to the road safety camera system and to investigate any systemic issues in relation to the road safety camera system.

THE ANNUAL REPORT

This is the second annual report of the Road Safety Camera Commissioner and the first to cover an entire financial year. Section 21 of the *Road Safety Camera Commissioner Act 2011* requires the Road Safety Camera Commissioner to provide a report to Parliament in respect of the performance of his functions under that Act during the financial year ending 30 June 2013.

Section 21 provides that the annual report must include:

- a report on the activities of the Reference Group during the financial year
- the findings of investigations conducted by the Commissioner during the financial year and the recommendations made
- any other information or recommendation that the Commissioner considers appropriate, and
- any information requested by the Minister.

VISION, MISSION AND VALUES

VISION

To increase the public's confidence in the accuracy and integrity of the Victorian road safety camera system.

MISSION

To provide Victorian motorists with ongoing support in relation to the state's road safety camera system and to provide an alternative avenue for complaints, quality assurance and investigations.

VALUES

The Commissioner is committed to the four following values to guide and inform his work:

Integrity – The Commissioner will carry out his functions with honesty, accuracy and consistency.

Transparency – The Commissioner will provide credible expert advice about the road safety camera system to Parliament and the community.

Accountability – The Commissioner will monitor and review the accuracy, integrity and efficiency of the Victorian road safety camera system.

Independence – The Commissioner will act impartially and objectively in the fulfilment of his functions under the *Road Safety Camera Commissioner Act 2011*.

FUNCTIONS OF THE ROAD SAFETY CAMERA COMMISSIONER

The Office of the Road Safety Camera Commissioner was established to promote increased transparency in the road safety camera system and to enhance accountability for that system.

Section 10 of the *Road Safety Camera Commissioner Act 2011* provides for the Road Safety Camera Commissioner to perform various functions. These functions are:

- to undertake, at least annually, reviews and assessments of the accuracy of the road safety camera system in order to monitor compliance of the system with the requirements of the *Road Safety Act 1986* and regulations made under that Act
- to undertake, at least annually, reviews and assessments of the information about the road safety camera system that is made available to the public by the Department of Justice
- to undertake investigations requested or agreed to by the Minister into the integrity, accuracy or efficiency of the road safety camera system
- to receive complaints concerning any aspect of the road safety camera system and:
  - if appropriate, to refer a complaint to an appropriate person or body for further action, or
  - to provide information on the available avenues for resolution of a complaint,
- to investigate complaints received by the Commissioner that appear to indicate a problem with the road safety camera system and to make recommendations to the Minister to address any systemic issues identified
- to investigate any matter in relation to the road safety camera system that the Minister refers to the Commissioner
- to provide advice to the Minister on any matter in relation to the road safety camera system
- to refer appropriate matters to the Reference Group for research and advice
- to keep records of investigations undertaken and complaints received by the Commissioner and the action taken in response, if any
- to make available to the Minister, on request, the records of investigations undertaken and complaints received, and
- any other function conferred on the Commissioner by or under this or any other Act.

PART A
THE YEAR IN REVIEW

KEY ACHIEVEMENTS FOR THE FINANCIAL YEAR 2012-2013

Relationship development

Over the past 12 months, I have continued to develop my relationship with the Department of Justice generally, and with Infringement Management and Enforcement Services (IMES) in particular. Meetings with IMES have continued to be beneficial, both in respect of identification of any potential systemic issues in relation to the road safety camera system, and in sharing any technological information relating to how best to deal with any potential issues.

I have also established a good working relationship with Assistant Commissioner Robert Hill of Victoria Police. This relationship allows for direct communications between myself and the road policing area of Victoria Police.

I acknowledge the cooperation and assistance of VicRoads throughout the year in providing prompt and insightful information relevant to investigations and other issues that my office has dealt with on a day to day basis.

I also began to reach out to the wider Australian road safety community, particularly to the South Australia, Queensland and Western Australia police forces to understand the similarities and differences between their road safety camera programs and the road safety camera program in Victoria.

For the Road Safety Camera Commissioner's office to fulfil the public's expectations, it is essential that it receives full cooperation from the Department of Justice and IMES, Victoria Police and the Traffic Camera Office, VicRoads, Serco, SGS Australia, ConnectEast and the Transport Accident Commission. At the date of this report, I could not have received greater cooperation from these bodies.

The Reference Group

The Road Safety Camera Commissioner is empowered under the *Road Safety Camera Commissioner Act 2011* (the Act) to establish a group of advisors to be known as the Reference Group. The Reference Group members were appointed in the first half of 2012, and those members have served on the Reference Group during this financial year.

The Reference group consists of the Commissioner and not less than three and not more than seven other members, appointed by the Minister for Police and Emergency Services on the recommendation of the Commissioner. The members of the Reference Group were initially appointed by the Minister in June 2012.

The members of the Reference Group provide information and advice to the Commissioner from their unique backgrounds and areas of expertise. The Reference Group is made up of experts in the fields of road safety research, road safety engineering, road safety technology and public relations.

The Reference Group met nine times during the 2012-2013 financial year. In May 2013, Dr Tay informed me that regrettably, he would not be making himself available for reappointment. However, I am delighted that the remaining three members have all been reappointed for another term.

Section 21 of the Act provides that the annual report must include a report on the activities of the Reference Group during the financial year. In this regard, I am pleased to report that the Reference Group has proved to be a very valuable reference tool. The width

The members of the Reference Group are:

Professor Tom Drummond
Department of Electrical and Computer Systems Engineering, Monash University

Professor Drummond's research specialisation is in real-time processing of sensor information, in particular computer vision with application to robotics, augmented reality and assistive devices for the visually impaired. He has a BA in mathematics and an MA from the University of Cambridge, UK and a PhD in computer science from Curtin University, WA.

Dr Richard Tay
Faculty of Business, Economics and Law, LA Trobe University.

Dr Tay is the Chair in Road Safety Management and his work has led him to evaluate policies and programs as well as to develop, implement and evaluate multidisciplinary measures to improve road safety and reduce the social cost of road crashes.

David Jones
Manager, Roads and Traffic, RACV.

Mr Jones leads RACV's advocacy on roads and traffic issues, and represents RACV's members on government and industry advisory committees. His background is in managing transport research and in transport planning and traffic engineering.

Jane Fenton AM
is a non-executive director and expert in communications.

Ms Fenton is the Chair of the Queen Victoria Women's Centre Trust, a director of the Queen Victoria Market Pty Ltd and of the Cancer Council Australia Pty Ltd. She is a Fellow of the Australian Institute of Company Directors and the Public Relations Institute of Australia, a Life Governor of Very Special Kids and a consultant to the business she founded in 1987, Fenton Communications.

of experience and the different areas of expertise provided by its members, have regularly proved of assistance in dealing with the problems encountered by my office. I am presently considering widening the scope of expertise on the Reference Group by appointing a suitable expert to contribute on the question of driver behaviour. At the date of this report, a replacement member has not yet been appointed.

Monitoring the road safety camera system

The *Road Safety Camera Commissioner Act 2011* requires the Commissioner to undertake reviews and assessments of the accuracy of the road safety camera system in order to monitor compliance of the system with the requirements of the *Road Safety Act 1986* and the regulations made under that Act. The reviews and assessments should be undertaken at least annually.

The objectives of the technical analysis and monitoring of the road safety camera system are:

- To find any potential systemic issues with the camera network or technologies
- Performance monitoring of the cameras and the camera system as a whole, and
- An oversight of the testing and maintenance activities performed on the camera system.

"IN THE 2012-2013 FINANCIAL YEAR, THE ROAD SAFETY CAMERA COMMISSIONER MONITORED 50 FIXED ROAD SAFETY CAMERA SYSTEMS AS A REPRESENTATIVE SAMPLE OF THE ENTIRE VICTORIAN CAMERA NETWORK."

In the 2012-2013 financial year, the Road Safety Camera Commissioner monitored 50 fixed road safety camera systems as a representative sample of the entire Victorian camera network. This sample included road safety cameras which monitor the speed travelled by vehicles on highways as well as cameras installed at intersections which monitor both speed and red light compliance. The sites selected are listed in Appendix B.

This sample took into account the proportional representation of different types of cameras, utilising the full range of enforcement technologies available to the state. Furthermore, a geographical spread of camera systems, including metropolitan and rural sites, were examined. It also included cameras that carried high volumes of traffic or issued the highest number of traffic infringement notices for the 2010-2011 financial year.

Camera sites not considered for monitoring during this financial year included the point-to-point system of the Hume Freeway, which was undergoing refurbishment and testing, as well as the EastLink cameras, which were the subject of a separate investigation during the financial year 2012-2013. A summary of my report on the accuracy and reliability of the road safety cameras installed on EastLink can be found in Part C of this annual report.

Powers of investigation

The Commissioner has the power to conduct investigations into matters requested or agreed to by the Minister into the integrity, accuracy or efficiency of the road safety camera system pursuant to section 10(c) of the *Road Safety Camera Commissioner Act 2011*. The Commissioner also has the power to investigate any matter in relation to the road safety camera system that the Minister refers to the Commissioner pursuant to section 10 (f) of that Act.

In addition to this, the Commissioner has the power to investigate complaints that he has received concerning any aspect of the road safety camera system that appear to indicate a problem with the road safety camera system and to make recommendations to the Minister to address any systemic issues identified pursuant to section 10(e) of the *Road Safety Camera Commissioner Act 2011*.

I completed the following four major investigations during this financial year:

- In late 2012, the Road Safety Camera Commissioner was requested by the Minister for Police and Emergency Services to conduct an investigation into the operation of eight incorrectly programmed traffic light controlled intersections in Victoria and the operation of the road safety cameras installed at them.
- In the beginning of financial year 2012-2013, the biggest project undertaken by the Office was the full technical investigation of the road safety camera systems installed on EastLink. This investigation examined the operation of each of

the road safety camera systems installed on EastLink to investigate the accuracy and reliability of all speed measurements recorded by the cameras. This investigation was initiated as a result of 40 written complaints about the road safety cameras on EastLink, which were received by the Road Safety Camera Commissioner between 6 February 2012 and 30 June 2012.

- The Road Safety Camera Commissioner conducted a technical investigation into the road safety cameras installed at the Keilor Park Drive Bridge on the Western Ring Road, following complaints relating to the number of infringement notices issued at this site.
- In late 2012, the Road Safety Camera Commissioner was contacted by a concerned member of the public regarding a mobile road safety camera site that he believed contravened the Victoria Police guidelines. Following enquiries into the site in question, the Commissioner launched a wider investigation into mobile camera site selection with the aid of the general public in nominating locations they believed did not comply with the guidelines set out in the Victoria Police *Mobile Road Safety Camera Policy and Operations Manual*.

A summary of each investigation and the relevant recommendations are set out in Part C of this Report

Complaints and correspondence

One of the functions of the Road Safety Camera Commissioner is to receive complaints concerning any aspect of the road safety camera system. Complaints may be made to the Commissioner only by a person or body (or a representative of that person or body) that is aggrieved by any aspect of the road safety camera system and the complaint must be made in writing.

Once the Commissioner has received a complaint concerning any aspect of the road safety camera system, the Commissioner may refer the complaint to an appropriate person or body for further action, or he may provide information on the available avenues for resolution of a complaint.

If a complaint appears to indicate a problem with the road safety camera system, the Commissioner has the power to investigate that complaint and to make recommendations to the Minister to address any systemic issues identified.

During the financial year 2012-2013, the Commissioner received 462 letters and emails.

Road Safety Camera Commissioner rebranding

The Office of the Road Safety Camera Commissioner developed a new corporate identity to represent the Road Safety Camera Commissioner. This new identity represents the independence of the Road Safety Camera Commissioner.

Road Safety Camera Commissioner website

The Office of the Road Safety Camera Commissioner launched its new website in April 2013. The look and feel of the new website is based on the new corporate identity of the Road Safety Camera Commissioner. The website was redeveloped to make it easier for the public to use and navigate, and to provide more relevant information and links to other road safety websites.

A version of the website was also launched to be compatible with mobile devices, to make contact with the Commissioner as accessible as possible.

The website can be accessed at www.cameracommissioner.vic.gov.au.

PART B
ABOUT THE OFFICE

GOVERNANCE AND ORGANISATIONAL STRUCTURE

The Road Safety Camera Commissioner is a statutory office holder appointed by the Governor in Council and reports to Parliament through the Minister for Police and Emergency Services.

As at 30 June 2013, there were three full time employees employed under Part 3 of the *Public Administration Act 2004* to enable the Road Safety Camera Commissioner to perform his functions and exercise his powers under the *Road Safety Camera Commissioner Act 2011*.

The three permanent staff include a Manager Operations, a Technical Officer and an Executive Assistant to the Commissioner.

The staff of the Road Safety Camera Commissioner are appointed by the Commissioner, but are employed by the Department of Justice. For the purposes of their work for the Commissioner, the Commissioner's staff work independently of the Department of Justice.

The Road Safety Camera Commissioner is committed to applying merit and equity principles when appointing staff. The selection processes employed ensure that applicants are assessed and evaluated fairly and equitably based on the key selection criteria and other accountabilities without discrimination.

FINANCIAL REPORTING OBLIGATIONS

The Office of the Road Safety Camera Commissioner's annual financial statements and report of operations have been consolidated into the Department of Justice's annual financial statements and report of operations pursuant to a determination made by the Minister for Finance under section 53(1)(b) of the *Financial Management Act 1994*.

This report contains only the reporting requirements under Part 3 of the *Road Safety Camera Commissioner Act 2011*

FREEDOM OF INFORMATION

The *Freedom of Information Act 1982* allows the public a right of access to documents held by the office. For the financial year 2012-2013, no Freedom of Information applications were received.

Making a request

Access to documents may be obtained by making a written request to the Freedom of Information Manager, as provided by section 17 of the *Freedom of Information Act 1982*.

In summary, the requirements for making a request are:

- it should be in writing
- it should identify as clearly as possible which document is being requested, and
- it should be accompanied by the appropriate application fee (the fee may be waived in certain circumstances).

Requests for information in the possession of the office should be addressed to:

Freedom of Information Manager
Office of the Road Safety Camera Commissioner
Locked Bag 14
Collins Street East
MELBOURNE VIC 8003

Requests can also be lodged online at www.foi.vic.gov.au.

Access charges may also apply once documents have been processed and a decision on access is made, for example, photocopying and search and retrieval charges.

Further information regarding Freedom of Information may be found at www.foi.vic.gov.au.

COMPLIANCE WITH THE PROTECTED DISCLOSURE ACT 2012

On 10 February 2013, the *Protected Disclosures Act 2012* replaced the *Whistleblowers Protection Act 2001*. The *Protected Disclosures Act 2012* encourages and assists people in making disclosures of improper conduct by public officers and public bodies. The legislation provides protection to people who make disclosures in accordance with its provisions and establishes a system for the matters disclosed to be investigated and rectifying action to be taken.

Reporting procedures

The office cannot receive disclosures under the *Protected Disclosures Act 2012*. Disclosures of improper conduct or detrimental action by the Commissioner or employees of the office may be made directly to the Independent Broad-based Anti-corruption Commission.

Independent Broad-based
Anti-corruption Commission
Level 1
459 Collins Street (North Tower)
Melbourne VIC 3000

toll free: 1300 735 135
website: www.ibac.vic.gov.au

Alternatively, disclosures of improper conduct or detrimental action by employees of the office may be made to the Protected Disclosure Coordinator of the Department of Justice:

Protected Disclosure Coordinator –
Department of Justice
GPO Box 4356
Melbourne VIC 3001

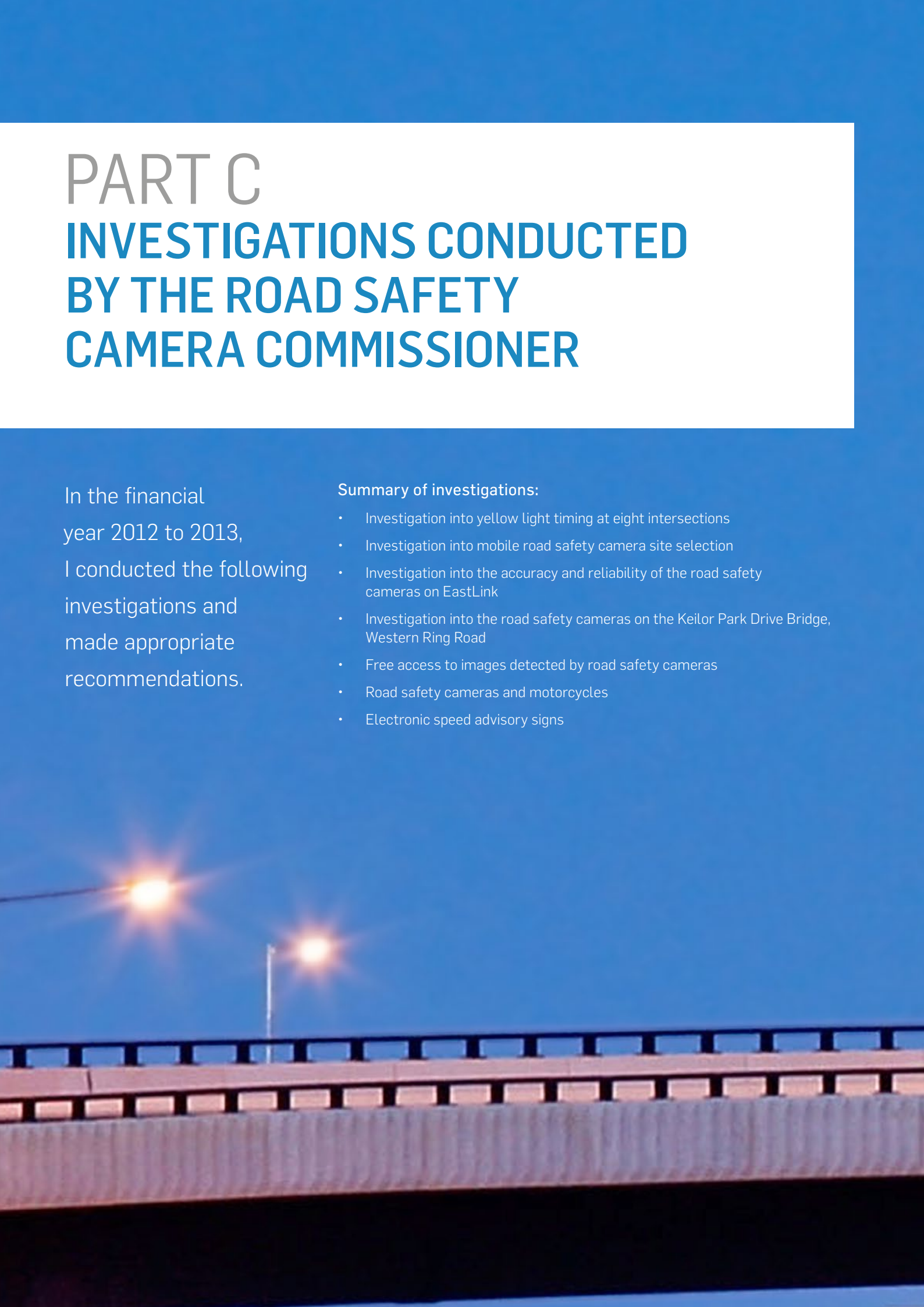
tel: 03 8684 0090
tel: 03 8684 0085
(deputy coordinator)

PART C
INVESTIGATIONS CONDUCTED BY THE ROAD SAFETY CAMERA COMMISSIONER

In the financial year 2012 to 2013, I conducted the following investigations and made appropriate recommendations.

Summary of investigations:

- Investigation into yellow light timing at eight intersections
- Investigation into mobile road safety camera site selection
- Investigation into the accuracy and reliability of the road safety cameras on EastLink
- Investigation into the road safety cameras on the Keilor Park Drive Bridge, Western Ring Road
- Free access to images detected by road safety cameras
- Road safety cameras and motorcycles
- Electronic speed advisory signs



INVESTIGATION INTO YELLOW LIGHT TIMING AT EIGHT INTERSECTIONS

On 21 September 2012, a member of the public told the 3AW breakfast show that he successfully challenged his red light infringement in court on the basis that the length of the yellow light phase of the traffic lights at the intersection of Terminal Drive and Centre Road, Tullamarine Airport did not comply with the guidelines set out by VicRoads.

VicRoads conducted a general audit of all traffic lights at intersections where road safety camera systems were installed and discovered that there were an additional seven intersections with red light cameras installed where the length of the yellow light phase did not comply with the VicRoads guidelines.

I was requested by the Minister for Police and Emergency Services to investigate the issue. The scope of my investigation and subsequent recommendations related only to the eight intersections set out in the table below, during the relevant periods.

For each intersection, I investigated whether the road safety cameras in question were functioning correctly and the cause of the error in relation to the length of the yellow light phase.

The VicRoads guidelines for standards of yellow light lengths applicable to all traffic light controlled intersections in Victoria are based on a standard set by AustRoads, agreed to by all roads authorities in Australia and New Zealand. These guidelines are based on world's best practice in terms of balancing road safety while maximising traffic flow.

The length of the yellow light phase is based on the expected approach speed of vehicles travelling towards the intersection. For vehicles travelling straight through an intersection, this is the speed limit. For vehicles turning left or right, the assumed approach speed is less than 45 km/h. This means turning vehicles are generally afforded a shorter yellow light time than vehicles travelling straight through the intersection.

The root cause of the issues was the incorrect programming by VicRoads of the yellow light phases at each of the eight intersections. The reasons for the incorrect programming at each intersection were:

LOCATION OF INTERSECTION	PERIOD OF INCORRECT YELLOW PHASE	
	START	END
Terminal Drive and Centre Road, Tullamarine Airport	16/11/2010	24/01/2012
Doncaster Road and Williamsons Road, Doncaster	5/10/2011	7/08/2012
Fyans Street and Moorabool Street, South Geelong	11/05/2010	24/08/2012
High Street and Mahoneys Road, Thomastown	20/10/2011	26/09/2012
Centre Road and Warrigal Road, Bentleigh	1/08/2010	16/08/2012
Heatherton Road and Gladstone Road, Dandenong North	29/12/2004	16/08/2012
Foster Street and McCrae Street, Dandenong	18/10/2010	16/08/2012
Stud Road and High Street, Wantirna South	28/12/2006	23/08/2012

- At Terminal Drive and Centre Road, Tullamarine Airport – VicRoads raised the speed limit from 40 km/h to 50 km/h, but due to a series of miscommunications the length of the yellow light phase was not altered to suit the new speed limit.
- At Doncaster Road and Williamsons Road, Doncaster – VicRoads installed new signal programming to accommodate bus lanes. However, a shortened yellow light timing phase was used for the northern approach to the intersection, leading to an incorrect length of the yellow phase for vehicles travelling straight through the intersection.
- At Fyans Street and Moorabool Street, South Geelong – VicRoads installed new signal programming for vehicles completing right hand turns from Moorabool Street into Fyans Street. Subsequently, the yellow light phase was mistakenly shortened for vehicles travelling straight through the intersection.
- High Street and Mahoneys Road, Thomastown – this traffic light is directly adjacent to a railway level crossing. The traffic light phasing at the intersection is designed to clear traffic from the level crossing when a train is approaching. On very rare occasions, when a train is approaching the level crossing and the traffic lights are at a certain part of their normal cycle, the traffic lights will skip to the traffic clearing phase. This led to an incorrect yellow time for vehicles travelling straight through the intersection, only in these instances.
- The following four intersections were incorrectly programmed for the same reason:
  - Centre Road and Warrigal Road, Bentleigh East
  - Heatherton Road and Gladstone Road, Dandenong North
  - Foster Street and McCrae Street, Dandenong, and
  - Stud Road and High Street, Wantirna South.

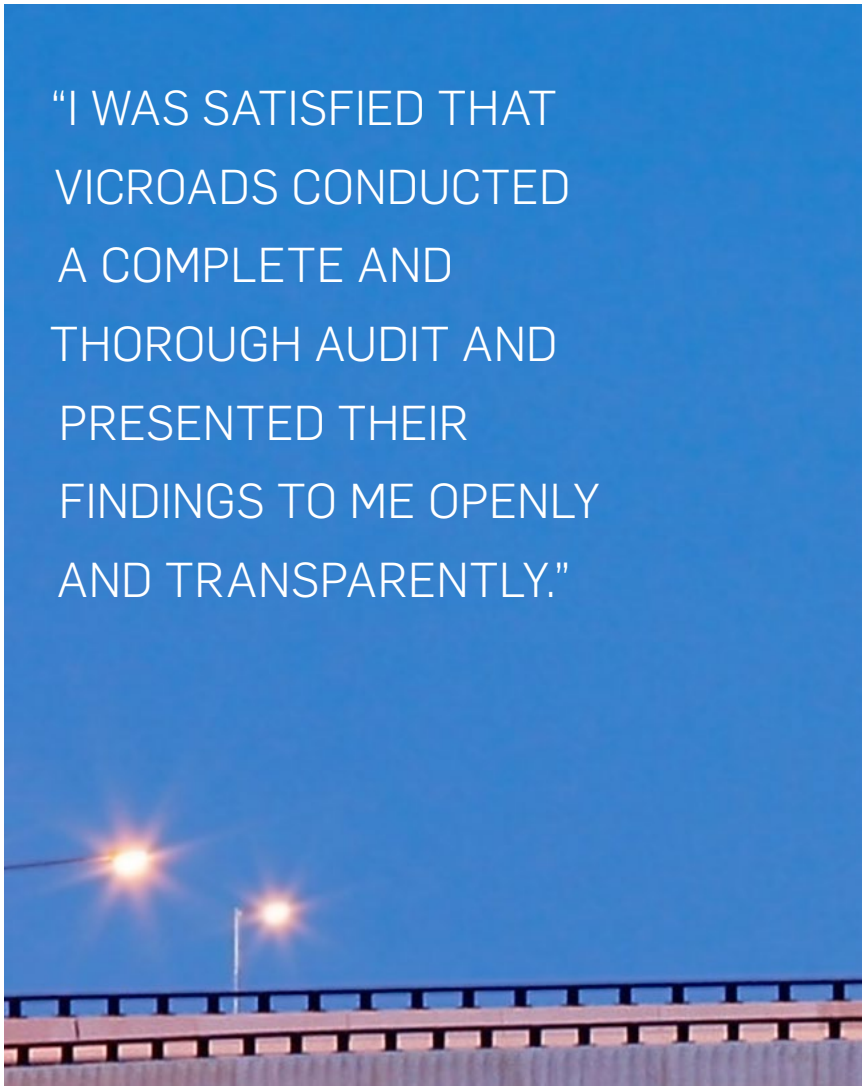
  VicRoads installed flexible traffic light programming at these intersections to allow for faster switching of the traffic light phases, while still maintaining priority traffic flow for the busier road. This type of programming enables vehicles to complete a safe right hand turn late at night and in the early morning. The programming included the wrong yellow light timing for vehicles travelling straight through the intersection, but the error occurred only late at night or in the very early morning.

I was satisfied that VicRoads conducted a complete and thorough audit and presented their findings to me openly and transparently. I was also satisfied that each of the eight road safety cameras that were the subject of this investigation were functioning correctly and that each camera was tested, sealed and used in accordance with the Road Safety (General) Regulations 2009.

The length of the yellow light phase does not affect the operation of the red light camera. The camera only arms once the traffic light has turned red, and it only captures images of vehicles that have entered the intersection after the light has turned red.

The recommendations that I made in relation to this investigation were not based on any assumption that the drivers were technically "not guilty" of an offence, but by a fundamental concern that drivers entering an intersection against a yellow light should not be treated inconsistently and that the law should be administered equally.

"I WAS SATISFIED THAT VICROADS CONDUCTED A COMPLETE AND THOROUGH AUDIT AND PRESENTED THEIR FINDINGS TO ME OPENLY AND TRANSPARENTLY."



Recommendations

As a result of my investigation, I found that:

the red light cameras at each of the intersections were operating accurately and in accordance with the Road Safety (General) Regulations 2009 throughout the relevant periods. However, as a result of the erroneous length of the yellow light phases, I recommended that:

A. Any person who received a traffic infringement notice for a red light offence at the intersection of:

- Terminal Drive and Centre Road, Melbourne Airport, between 16/11/2010 and 24/01/2012, where the time elapsed since the traffic light turned red was 1 second or less
- Doncaster Road and Williamsons Road, Doncaster, between 5/10/2011 and 7/08/2012, where the time elapsed since the traffic light turned red was 2 seconds or less
- Fyans Street and Moorabool Street, Geelong, between 11/05/2010 and 24/08/2012, where the time elapsed since the traffic light turned red was 1 second or less
- High Street and Mahoneys Road, Thomastown, between 20/10/2011 and 26/09/2012, where the time elapsed since the traffic light turned red was 2 seconds or less, and the length of the yellow cycle was incorrect
- Centre Road and Warrigal Road, Bentleigh, between 1/08/2010 and 16/08/2012, where the time elapsed since the traffic light turned red was 1.5 seconds or less, and the length of the yellow cycle was incorrect
- Heatherton Road and Gladstone Road, Dandenong North, between 29/12/2004 and 16/08/2012, where the time elapsed since the traffic light turned red was 1.5 seconds or less, and the length of the yellow cycle was incorrect
- Foster Street and McCrae Street, Dandenong, between 18/10/2010 and 16/08/2012, where the time elapsed since the traffic light turned red was 1.5 seconds or less, and the length of the yellow cycle was incorrect, and
- Stud Road and High Street, Wantirna South, between 28/12/2006 and 23/08/2012, where the time elapsed since the traffic light turned red was 2 seconds or less, and the length of the yellow cycle was incorrect,

should have any traffic infringement notice withdrawn, any infringement penalty refunded and any demerit points reversed.

This recommendation only applied to vehicles travelling straight through the intersection and not to vehicles turning left or right at the intersection.

B. VicRoads undertake a comprehensive audit immediately with a view to identifying any traffic light discrepancies in the past 12 months. This audit should apply to all intersections controlled by traffic lights irrespective of whether or not a road safety camera is installed and should be repeated on a six monthly basis.

C. The present guidelines be translated into state legislation and/or regulations, rather than relying on a set of guidelines agreed upon by state road authorities, while encompassing the formula contained in Appendix E of the *Austroads Guide to Traffic Management Part 9: Traffic Operations* and allowing for VicRoads to alter traffic light sequences at any time to cope with changed conditions.

D. VicRoads, TAC and Victoria Police undertake a campaign to promulgate traffic light sequences and to educate motorists that entering an intersection during a yellow light phase is an offence under road rule 57 of the Road Safety Road Rules 2009 unless they cannot stop safely, similar to the "Amber Gambler" campaign in Victoria and the United Kingdom in the 1970's.

In total, there were 6794 infringement notices that were identified as being affected by the incorrect yellow light timings and it is my understanding that they have all been the subject of refunds as at the date of this report.

A copy of my full report can be found on my website at www.cameracommissioner.vic.gov.au.

INVESTIGATION INTO MOBILE ROAD SAFETY CAMERA SITE SELECTION

In September 2012, I received a complaint from a member of the public that a mobile road safety camera was set up at the bottom of a hill. The complaint was based on the belief that the placement of the camera contravened the guidelines set out by Victoria Police in the *Mobile Road Safety Camera Policy and Operations Manual* (the Manual). Upon making enquiries with the Department of Justice, it was found that the mobile road safety camera had been set up contrary to the policy set out in the Manual and any potential infringements captured during this session were rejected.

As a result of this, I asked members of the public to report other mobile road safety camera deployments they believed did not conform with the guidelines set out in the Manual. In response, I received 116 complaints regarding mobile road safety camera deployments.

Of the 116 complaints I received, 30 were made in relation to hand held speed measuring devices which are managed and operated exclusively by Victoria Police and were outside the scope of this investigation. Of the remaining 86 complaints, 40 complaints contained enough information to identify a specific mobile road safety camera session and to enable an investigation into whether the mobile road safety camera was set up in accordance with the physical field criteria set out in the Manual.

The 40 complaints that I investigated suggested that the mobile road safety camera deployments did not comply with the physical field criteria set out in the Manual, on the basis that the camera was:

- Set up on an "unsuitable" gradient
- Set up on a bend in the road
- Concealed
- Set up in proximity to sources of reflection
- Set up too close to an overpass or elevated road, and/or
- Set up within 200 metres of a speed limit change.

All but one of the sites were visited by my staff or an independent contractor on my behalf to determine whether the complaint had any substance. One site was not visited due to its remoteness, however, it was scrutinised using topographical data.

Since this report was published in June 2013, Victoria Police has withdrawn the guidelines contained in the Manual and has commenced to rewrite these guidelines. I have been advised that September 2013 is the anticipated completion date for the new guidelines.

The majority of the complaints I investigated alleged that the mobile camera was set up on an "unsuitable" gradient or within 300 metres of the bottom of a hill. The Victoria Police guidelines did not allow mobile road safety cameras to enforce against vehicles descending down "unsuitable" gradients or within 300 metres of the bottom of a hill, unless a Regional Traffic Inspector approved the enforcement of speed on the downward direction of the gradient, or the site had a significant speed related collision record. A gradient would be deemed "unsuitable" if a vehicle, travelling at the speed limit, increased in speed whilst driving down the gradient without any input from throttle or brakes.

Upon investigating these complaints, it was found that there were three sites where the gradient could be considered "unsuitable" in accordance with the definition in the Manual. However, two of these had been granted an exemption from a Regional Traffic Inspector and the other site was selected on the basis that it had a significant speed related collision record. In fact, in late 2012, an accident involving four vehicles was recorded at this location.

All other complaints relating to gradient were found to have no merit, either because the gradients were minor, the camera vehicle was on the top of a hill or crest or because the location of the vehicle was deployed at least 200 metres from any gradient and complied with the Victoria Police guidelines.

I also received complaints that a mobile road safety camera vehicle was set up on a bend in a road, contrary to the guidelines in the Manual. The mobile camera system must take measurements from vehicles travelling in a straight line to ensure an accurate speed measurement. A mobile camera may be set up near a bend, however, as long

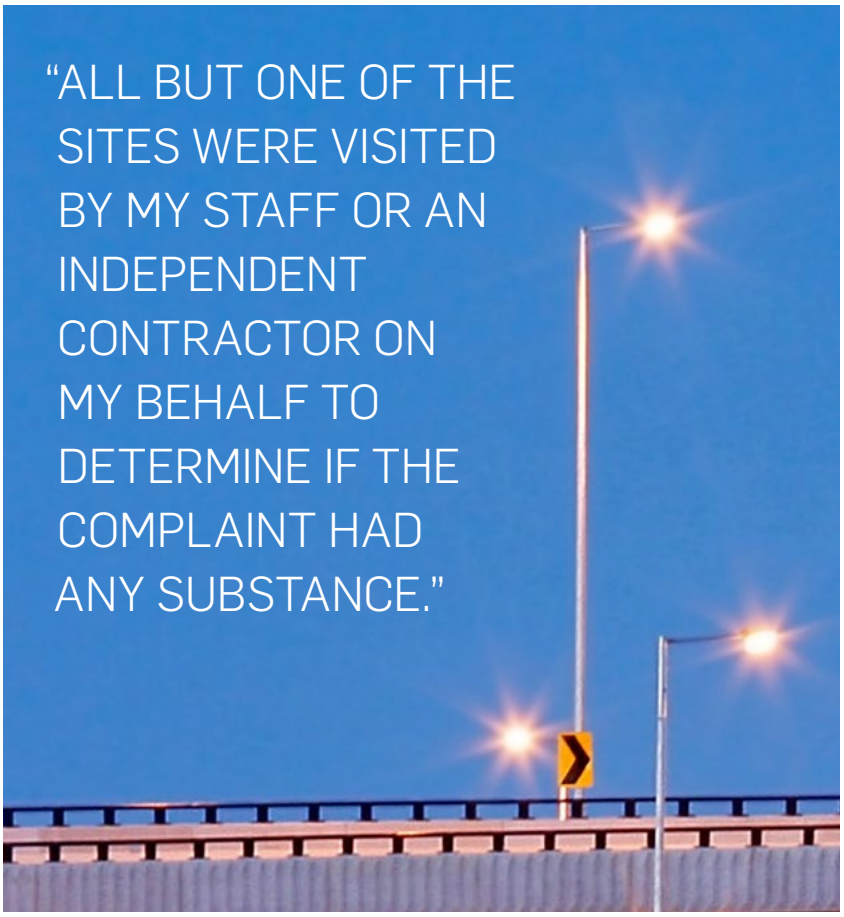
as it is facing a straight length of road, it is compliant with the guidelines contained in the Manual. Upon investigating these complaints, it was found that the mobile cameras were not set up on bends and all the speed measurements were taken from straight stretches of road.

The guidelines in the Manual provide that "under no circumstances" are the camera vehicles or equipment to be disguised by signs, tree branches and so on. I investigated two complaints where the mobile camera vehicle was alleged to have been concealed, one on a freeway behind a large bush and another behind a road sign.

Victoria Police advised me that the mobile road safety camera vehicles in question were positioned behind a tree and a sign, as a matter of safety for the mobile camera operator. I have viewed CCTV footage taken from within various camera vehicles showing cars and trucks driven in a manner that is deliberately intimidating to the mobile camera operator, constituting a real risk of injury or worse. Parking behind a protective object can reduce the threat of injury to the camera operator. It is clear that there is some conflict between the guidelines contained in the Manual and the practice that is currently adopted in siting some mobile cameras. However, I cannot ignore the need to ensure a safe working environment is provided for camera operators.

I also investigated complaints that mobile cameras were set up in the vicinity of reflective objects, in the vicinity of an overpass, or less than 200 metres from the change to a speed zone. None of these complaints raised a legitimate issue.

In my investigation, I found that of the 40 mobile camera sites that I examined, in each case the mobile camera was deployed in accordance with the guidelines set out in the Manual. Further, each camera was tested, sealed and used in accordance with the Road Safety (General) Regulations 2009 and I was satisfied that any infringement notices issued by the 40 camera sessions I investigated, were valid and correct.



Recommendations

From the findings of my investigation, I made the following recommendations:

- I endorse the decision of Victoria Police to review the physical field criteria contained in the *Mobile Road Safety Camera Policy and Operations Manual*.
- As a part of that review, I recommend that Victoria Police revisit the prohibition on concealment of a mobile road safety camera vehicle or equipment contained in the Manual and state in clear terms the circumstances in which it will be permitted.

A copy of my full report can be found on my website at www.cameracommissioner.vic.gov.au.

INVESTIGATION INTO THE ACCURACY AND RELIABILITY OF THE ROAD SAFETY CAMERAS ON EASTLINK

Since my appointment as the Road Safety Camera Commissioner, I have received over 50 written complaints from motorists questioning the reliability and accuracy of the speed measurements made by the fixed cameras on EastLink. As a result of these complaints, I conducted an investigation into the reliability and accuracy of the road safety cameras installed on EastLink.

The cameras on EastLink began monitoring speed in September 2008 and they are installed at the following six locations:

- Mullum Mullum Tunnel, Donvale
- Melba Tunnel, Donvale
- Wellington Road Bridge, Rowville, Southbound
- Wellington Road Bridge, Rowville, Northbound
- Dandenong Bypass Bridge, Keysborough, Southbound, and
- Dandenong Bypass Bridge, Keysborough, Northbound.

Since the cameras began monitoring speed, there has been a public perception that the road safety cameras on EastLink are not reliable or accurate. These complaints appear to be reinforced by media reports surrounding the number of infringements that the cameras recorded.

Scope and method of investigation

The scope of this investigation was limited to determining the reliability and accuracy of the speed measurements recorded by the road safety camera systems on EastLink between 1 July 2011 and 30 June 2012. This investigation did not include an examination of the procedures relating to the manual processing of images captured by the cameras, nor the processes surrounding the issuing of traffic infringement notices.

Between 1 July 2011 and 30 June 2012, 60,169,400 speed measurements were recorded by the road safety camera systems installed on EastLink. The reliability and accuracy of these speed measurements were examined by the following means:

- The certification, testing and maintenance reports in relation to the road safety camera systems were examined, and
- All the speed measurements made by the primary and secondary speed calculation units were compared by a computer algorithm to ensure that the primary device measured vehicle speeds accurately.

In addition to examining the reliability and accuracy of the camera systems, my office also investigated the data presented to me to identify any possible behavioural trends that could offer plausible explanations for the number of infringements issued by Victoria Police for speeding on EastLink. As a part of this data analysis, a study was conducted to examine driver behaviour in the northbound carriageway as drivers approached, and drove under, the Wellington Road Bridge.

Road safety cameras on EastLink

All fixed road safety camera systems in Victoria are comprised of two independently calibrated and operating devices. The primary device is the camera unit which captures images of vehicles that it detects exceeding the speed limit. The secondary device measures speed, but does not take images, and is used solely to corroborate the speed measurement of the primary device.

The type of camera unit installed on EastLink is the Gatsometer Digital Radar Camera System-Parabolic (DRCS-P), which is prescribed for use in Victoria by the Road Safety (General)

Regulations 2009. This type of camera uses radar signals to detect vehicle presence and measure speed. The speed measurement is taken from the change in frequency of the reflected radar signal, known as the Doppler Effect.

The secondary devices installed on EastLink are inductive loop sensors that react to the metallic content in vehicles as they pass over them and they are installed where the radar signals hit the ground.

The two devices use different methods of measurement to ensure that the recorded speeds are accurate. All vehicles travelling past the EastLink cameras have their speeds measured twice and both speed measurements must correlate. If the speed measurements produced by the primary and secondary devices do not correlate, the measurement is rejected.

To comply with all regulatory requirements, the primary system must be tested, sealed and used in accordance with the Road Safety (General) Regulations 2009. As part of this process, the speed calculation unit is calibrated and certified annually by an independent Testing Officer. Furthermore, the Department of Justice places strict testing and maintenance requirements on the cameras. All fixed cameras are maintained on a monthly basis and they are also subject to quarterly speed accuracy and reliability testing completed by independent contractors.

During the quarterly speed accuracy and reliability testing, temporary calibrated speed measurement devices are installed where the primary and secondary systems measure the speed of vehicles. Vehicles with calibrated speedometers and speed display boards are then driven past the cameras. The speed measurements of the primary device, the secondary device, the temporary device and the calibrated vehicle must correlate in order for the camera system to pass the test. I have personally witnessed these tests and I am satisfied the processes used are thorough and robust. The fact that four independently operating speed measurement systems must correlate in these tests gives me the highest degree of confidence in the accuracy and reliability of Victoria's road safety camera systems.

Results of investigation

As a result of this investigation, I found that the road safety cameras on EastLink accurately and reliably measured the speed of vehicles. The annual certification activities showed that they complied with the regulatory requirements in the Road Safety (General) Regulations 2009. In addition to this, the cameras were maintained in accordance with the requirements of the manufacturer and tested to the requirements of the Department of Justice.

"I AM SATISFIED THAT EVERY VEHICLE DETECTED SPEEDING BY THE PRIMARY DEVICE WAS PROCESSED CORRECTLY BY THE CAMERA SYSTEMS AND THAT ONLY IMAGES OF THOSE VEHICLES WITH A CORROBORATING SPEED MEASUREMENT FROM THE SECONDARY DEVICE, WERE SENT TO VICTORIA POLICE FOR FURTHER CONSIDERATION."

I am satisfied that every vehicle detected speeding by the primary device was processed correctly by the camera systems and that only images of those vehicles with a corroborating speed measurement from the secondary device, were sent to Victoria Police for further consideration. Speed detections that were not verified by the secondary speed measurement process were automatically rejected by the road safety camera system.

I am satisfied that the secondary device is an effective safeguard against anomalies that can affect the system's reliability or accuracy. Some specially shaped vehicles such as trucks with rear ends with protruding horizontal surfaces, open trailers or articulated vehicles, can have their speeds measured twice by the primary device. These occurrences have been anticipated by the manufacturer in the design of the system with the secondary device. In these cases the cameras will immediately reject the second measurements of these vehicles, as there is no corresponding measurement from the secondary device.

During the period investigated, the camera monitoring the second lane of the northbound carriageway at the Wellington Road Bridge was found to be non-compliant during a scheduled test. This camera should have been deactivated, however the camera in the first lane was inadvertently deactivated. As a result, Victoria Police withdrew 717 infringement notices. This error resulted solely from human error. A summary of my findings into this matter can be found in my 2011-2012 annual report.

Apart from this issue caused by human error, there is no evidence that any speeding infringements issued by the EastLink cameras were incorrect.

Driver behaviour on EastLink

The results of the statistical analysis completed on the data presented to me, showed that over 99.5 per cent of all vehicles passing the road safety cameras between 1 July 2011 and 30 June 2012 complied with the speed limit.

The two camera sites located in the tunnels recorded the lowest number of speeding vehicles. Of the total number of vehicles detected speeding on EastLink, only eight per cent of vehicles were recorded speeding in each of the tunnels. Conversely, the cameras monitoring traffic travelling northbound at the Wellington Road Bridge and

southbound at the Dandenong Bypass Bridge, detected the highest percentage of speeding vehicles at 25 per cent and 26 per cent respectively.

It was also found that 52 per cent of all vehicles detected speeding were travelling in the outside lane. In principle, the outside lane is the overtaking lane, it generally has less traffic and can therefore support a higher average speed. This is a reasonable explanation why the majority of speeding vehicles are detected in these lanes.

Further, at most of the camera sites, the highest number of vehicles detected speeding were in the afternoon peak hour period and the early evening. Only two locations did not follow this trend, the Mullum Mullum Tunnel and the southbound camera site at the Dandenong Bypass Bridge.

Driver behaviour at Wellington Road Bridge

During this investigation, my office also conducted an experiment to test the urban myth that many motorists believe the road safety cameras are installed at the tolling gantry located prior to the Wellington Road Bridge, rather than on the Wellington Road Bridge itself. The purpose of this experiment was to determine whether motorists were slowing down for the tolling gantry and speeding up at the location of the camera.

Between 29 April 2013 and 26 May 2013, independently calibrated speed monitoring devices were installed to measure the speed of all vehicles passing the tolling gantry 700 metres south of the Wellington Road Bridge, and near the signage gantry, 450 metres south of the Wellington Road Bridge. The speeds recorded by these devices were then directly compared to the data recorded by the camera systems at the Wellington Road Bridge.

During this period, over 1.2 million vehicles were detected passing the two gantry locations and 1.1 million were detected by the camera systems. The smaller number of vehicles detected by the camera is due to vehicles leaving EastLink on the exit ramp for Wellington Road.

The experiment showed that motorists are aware of the location of the cameras at the Wellington Road Bridge. Speed measurements from the three devices showed that drivers decreased their average speed by 0.1 km/h between the first and second temporary devices and by 1.6 km/h between the second temporary device and the fixed cameras. More significantly however, this experiment showed that 8,885 vehicles were detected exceeding the speed limit by 10 km/h or more at the first temporary device. As those vehicles passed under the cameras located at the Wellington Road Bridge, the number of vehicles exceeding the speed limit by more than 10 km/h fell to only 706.

The results of this experiment showed that the urban myth surrounding the tolling gantries is “busted”. It also shows that motorists are adjusting their driving behaviour only in the vicinity of the road safety camera, in a practice known as “camera surfing”. The driving behaviour displayed by motorists is very disappointing.

A copy of my full report can be found on my website at www.cameracommissioner.vic.gov.au.

INVESTIGATION INTO THE ROAD SAFETY CAMERAS ON THE KEILOR PARK DRIVE BRIDGE, WESTERN RING ROAD

The road safety cameras installed at the Keilor Park Drive Bridge were reactivated in April 2012 following the conclusion of road works on the Western Ring Road in the vicinity of Keilor Park Drive Bridge. After the cameras were activated, over 74,000 speeding infringements were issued in a the first six month period of enforcement.

I received complaints from members of the public about the accuracy and reliability of these cameras due to the high number of infringement notices that were issued from these cameras. These complaints prompted me to conduct an investigation into the operation of these road safety cameras.

My investigation focused on the technical operation of the cameras and the reliability and accuracy of the speed measurements recorded by these cameras. This investigation did not include an examination of the procedures relating to the manual processing of images captured by these cameras, nor the processes surrounding the issuing of traffic infringement notices.

To determine the reliability and accuracy of the speed measurements taken by the camera systems installed on the Western Ring Road, my office completed a detailed analysis of the testing, maintenance and certification activities performed on them.

In addition to this, my office also investigated the data presented to me for any possible behavioural trends that could offer plausible explanations for the number of infringements issued by Victoria Police for speeding at the Keilor Park Drive Bridge.

This location had a speed limit of 80 km/h during the Western Ring Road Upgrade, as well as lower variable speed limits directly controlled by VicRoads. The speed limits can be lowered by 20 km/h to a minimum of 40 km/h during periods of roadworks. I also examined the effect of lowering the speed limit on the number of vehicles detected speeding.

The type of camera unit or primary device installed on the Western Ring Road is the Gatsometer Digital Radar Camera System-Parabolic (DRCS-P), which is prescribed for use in Victoria by the Road Safety (General) Regulations 2009. This type of camera uses radar signals to detect vehicle presence and measure speed. The speed measurement is taken from the change in frequency of the reflected radar signal, known as the Doppler Effect. There are two cameras installed at Keilor Park Drive Bridge, one for each lane of traffic.

The secondary devices installed at the Keilor Park Drive Bridge are inductive loop sensors that react to the metallic content in vehicles as they pass over them and they are installed where the radar signals hit the road surface.

As a result of my investigation, I found that the cameras were correctly calibrated according to the requirements of the Road Safety (General) Regulations 2009. Further, they were maintained and tested to the specifications of the manufacturer and the requirements of the Department of Justice. I found that the cameras were operating correctly.

The speed limit that is in force at the Keilor Park Drive Bridge is displayed on electronic variable speed signs. There are two variable speed signs, one located on each side of the road, approximately 300 metres before the Keilor Park Drive Bridge. When the speed limit on the variable speed limit signs is changed at this location, the speed limit that is enforced by the road safety cameras is also changed. When a change to the speed limits occurs, the road safety camera correctly purges any images of vehicles detected speeding a short time before and after the change.

In order to provide evidence of the speed limit that was in force at the time of the offence, images are taken of the variable speed limit signs. When a vehicle is detected speeding, several images of the variable speed limit signs are also taken. These images are taken at the time of the offence when the vehicle passes under the road safety camera, and a short period before the vehicle passed

under the camera. This is done to ensure that there is proof of continuity of the speed limit as the vehicle passed the camera system.

If any of the images of the variable speed limit signs do not match or are not displaying any speed limit at all, the entire incident is rejected during manual processing. This ensures that there is no doubt relating to the speed limit at the time of the detection.

Images of the variable speed limit signs are currently not available to be viewed by a person who has received an infringement notice, unless that person elects to have the matter heard in the Magistrates' Court. It is my view that provision of the images of the speed limit that was in force at the time of the offence, and that was displayed on the variable speed signs, would enhance the transparency of the road safety camera program and provide more certainty to motorists in relation to their offences.

During the period 5 April 2012 to 12 December 2012, the road safety cameras at Keilor Park Drive Bridge measured the speed of 10,027,889 vehicles. Of those vehicles, 130 333 were detected exceeding the speed limit. This gives a speed limit compliance rate of 98.7 per cent.

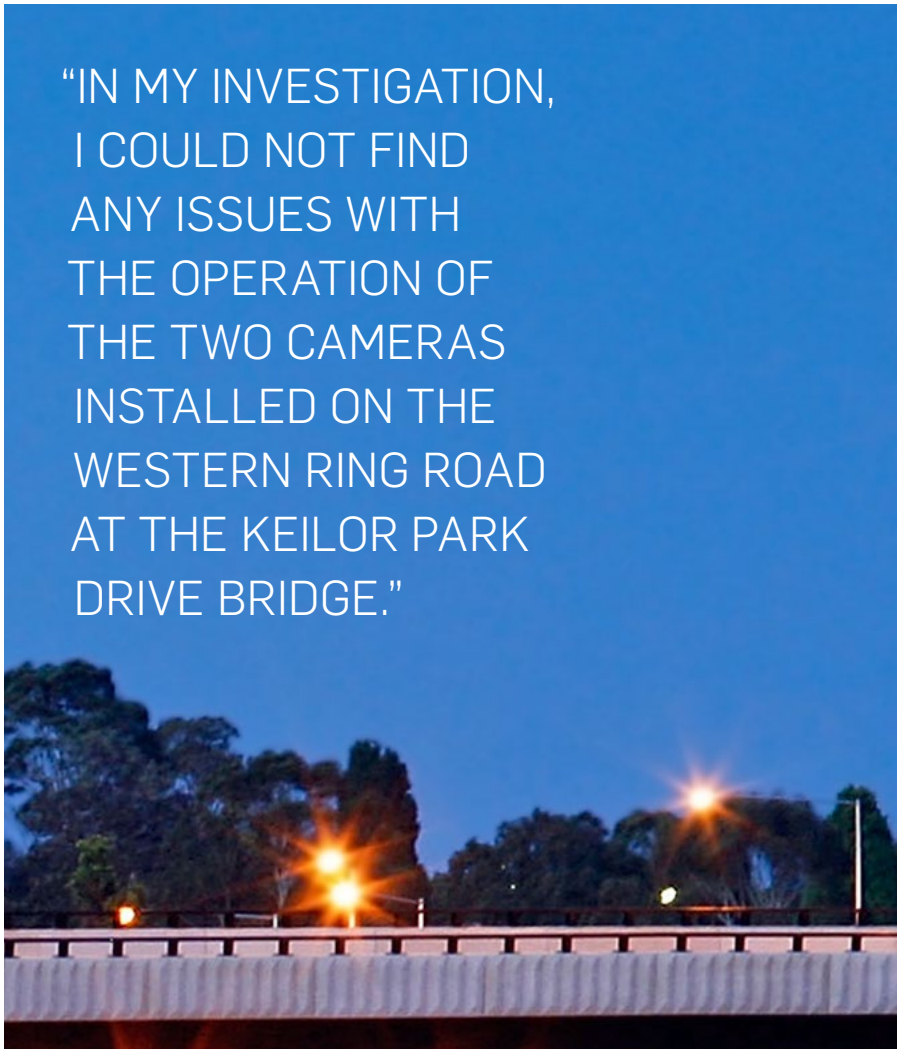
After conducting statistical analysis of the traffic flow at the camera site, it was found that the 60 per cent of vehicles detected speeding were in the outside lane where the traffic is lighter and which is able to support a higher average speed. It was also determined that the highest number of vehicles detected speeding was always during the weekends. This suggests that motorists are able to travel at a higher speed during the weekend due to less traffic and are therefore more likely to be detected speeding.

There are two peaks in the numbers of vehicles detected speeding over an average day, one during the middle of the day and one in the evening at around 8.00 pm. Both peaks coincide with a drop in the volume of traffic travelling past the cameras in the outside lane.

My office also found that lowered speed limits dramatically increased the number of vehicles detected speeding. There were two instances when the speed limit was lowered to 60 km/h for some hours at night to accommodate roadworks. These two instances showed a dramatic increase in the number of vehicles detected speeding, including one day where approximately 6,000 motorists were detected speeding past the cameras. Overall, 90 per cent of vehicles detected speeding were exceeding the speed limit of 80 km/h, 9 per cent were exceeding the speed limit of 60 km/h and the remaining one per cent were detected exceeding 40 km/h.

In my investigation, I could not find any issues with the operation of the two cameras installed on the Western Ring Road at the Keilor Park Drive Bridge.

The cameras were calibrated, tested and maintained regularly in accordance with the requirements Road Safety (General) Regulations 2009 and all measurements of speeding vehicles were processed correctly by the camera system. Only images of those vehicles detected speeding which had a corroborated secondary speed measurement, were sent to Victoria Police for further processing. Speed detections that did not meet these criteria were immediately rejected.



Recommendation

- In order to enhance the transparency of the road safety camera system and to provide certainty to motorists in relation to their offences, I recommend that images of variable speed limit signs, such as those installed on the Western Ring Road, be made available to motorists in addition to the images of their infringement offence.

FREE ACCESS TO IMAGES OF OFFENCES DETECTED BY ROAD SAFETY CAMERAS

Road safety cameras take images of vehicles that are detected committing certain prescribed traffic infringement offences. Currently, if a person wants to view the image of their offence, the image can be viewed for no charge at Civic Compliance Victoria, which is located at 277 William Street, Melbourne. Alternatively, Civic Compliance Victoria will provide a copy of any images of the offence by mail for a fee of $7.50.

In the financial year 2012-2013, I have been advised that 26,957 people viewed images of their offences at Civic Compliance Victoria or requested copies of those images be sent to them.

It is my view that images of infringement offences should be provided free of charge to the public and that it should be easier for members of the public to access images of their alleged infringement offences. It is my belief that free access to images of infringement offences provides greater fairness, transparency and certainty for motorists.

Initially, I was attracted to the Queensland and Western Australian approach of placing images of alleged offences on traffic infringement notices. However, I acknowledge that in Victoria, there is insufficient space to place images of the infringement offence on traffic infringement notices. This is due to the statutory and regulatory requirements in relation to the information that is required to appear on an infringement notice.

In June 2013, South Australia Police launched a website that enables a person who has received an infringement notice to log on and securely access images of their offences online. New South Wales had already implemented a similar system that allows a person who has received an infringement notice to log on to a secure website to view images of their offence instantly. This is a simple and efficient method for a person to access and view images of their offence.

The New South Wales experience has shown that over the last two years there has been a reduction by approximately 40 per cent in the number of matters where a person who has received an infringement notice, has elected to go to Court. This figure relates to elections to go to Court in relation to all infringements notices that are issued, including those issued as a result of a camera detection, those issued "on the spot" by New South Wales Police and parking infringement notices. I have been advised that the reduction in the number of people electing to have their matter heard in Court is due to a number of initiatives, including the provision of free online images of infringement offences.

While I acknowledge that there will be an initial increased cost associated with setting up a system similar to those now existing in New South Wales and South Australia, I believe that there will ultimately be significant benefits. I believe that the ability to access images online will help members of the public to better understand the circumstances surrounding their offences, will enhance the transparency and fairness of the road safety camera program in Victoria and expedite the infringement process.

I acknowledge that there are presently systems limitations to the implementation of this initiative in Victoria. The current Victorian Infringement Management System, which is used to manage infringements in Victoria, is due to be replaced by a new infringement management system. The new infringement management system should accommodate a facility for motorists to view their images online.

Recommendation

I recommend that

- images of infringement offences detected by road safety cameras be made available to the public, free of charge, by way of a secure website.

ROAD SAFETY CAMERAS AND MOTORCYCLES

In my annual report for the financial year 2011-2012, I made a recommendation that motorcycles and motor scooters should be required to be equipped with means to identify the registration number of a motorcycle or motor scooter from a front perspective, thus bringing motorcycles and motor scooters into line with all other registered motor vehicles.

This recommendation has not been adopted. At first I thought the delay in its implementation related to the fact that a Parliamentary Road Safety Committee was conducting an inquiry into Motorcycle Safety throughout 2012 and was due to hand down its report in December 2012. Ultimately that report became Parliamentary Paper 197 of 2010-2012 and together with appendices occupied 495 pages. Although included in the Committee's terms of reference was, "new initiatives to reduce motorcycles crashes and injuries", I was unable to find any reference in the report to the absence of frontal identification on motorcycles or motor scooters registered in Victoria.

That omission was surprising in the light of the comments made by the Victorian Auditor General in his August 2011 report on the Road Safety Camera Program.

As I observed in my earlier annual report, the Auditor General found that:

> "Motorcyclists and pillion passengers are approximately 30 times more likely to sustain a fatal or serious injury per kilometre travelled than other vehicle occupants ... If motorcycles could be identified by all cameras, it would be possible to evaluate any changes in road safety outcomes for motorcyclists in comparison to an established baseline at the time of the introduction of the initiative."

The Auditor General went on to make the following recommendation:

> "VicRoads, in partnership with the Department of Justice, Victoria Police and the Transport Accident Commission should address the gap in speed enforcement for motorcyclists."

In support of the views of the Auditor General, I was provided with an analysis by the Department of Justice of what I was told was a Victoria Police study of 63 motorcycle fatalities that occurred from January 2007 to May 2008. The conclusions contained in that analysis were dealt with in my last annual report. A salient aspect of the analysis was that over 60 per cent of motorcycles detected speeding were not issued with infringement notices and the most common reason for this was due to the lack of frontal identification.

While the Victorian Motorcycle Council has endeavoured to obtain a copy of the study upon which the above analysis was said to be based, without success, the figures for that period are now dated. What is relevant are the statistics relating to the number of motorcycles detected speeding which were not issued with infringement notices for the three subsequent financial years 2009-2010, 2010-2011 and 2011-2012.

This data, which I have obtained from the Department of Justice, continues to show that a lack of frontal identification on motorcycles and motor scooters is the most common reason that riders of motorcycles and motor scooters who have been detected speeding are not issued with an infringement notice. This provides compelling evidence in support of my original recommendation that frontal identification is required on both motorcycles and motor scooters.

That data relating to motorcycles detected speeding by road safety cameras in Victoria for financial years 2009-2010, 2010-2011 and 2011-2012 is set out in Table 1. This table includes the number of motorcycles detected speeding and the total number and percentage of motorcycle speed detections that were rejected. It also shows the number and percentage of incidents that were rejected due to a lack of frontal identification. A more detailed table of statistics can be found in Appendix A.

As can be seen from the information provided in Table 1, the number of motorcycles detected speeding remains relatively constant at around 17,000 per year. However, the total number of

motorcycles detected speeding that were not issued with an infringement notice has increased, both in number and percentage, from 64.04 per cent of all detections in the financial year 2009-2010 to 68.85 per cent in the financial year 2011-2012.

The number of motorcycles detected speeding that were rejected specifically because the motorcycle did not have frontal identification have also increased from 33.03 per cent of all detections in the financial year 2009-2010 to 41.6 per cent in the financial year 2011-2012.

These figures, set out in Table 1, cement my argument that lack of frontal identification on motorcycles continues to be the most common reason that motorcycles are unable to be identified when they have been detected committing speed offences by road safety cameras. Compared with all other vehicles, this number is disproportionately high and places motorcycles at an advantage, compared with other vehicles.

In the light of this new data, I am satisfied that the case for frontal identification of motorcycles is inarguable. Expressed in its simplest terms, during the financial years 2009-2010, 2010-2011 and 2011-2012, of approximately 50,000 motorcyclists detected speeding, almost 20,000 were unable to be identified due to lack of frontal identification. That situation cannot be tolerated.

Table 1: Motorcycle speed infringement statistics

FINANCIAL YEAR	2009-2010		2010-2011		2011-2012	
Total incidents detected	17730		16693		17665	
Incidents rejected due to 'no number plate'	5856	33.03%	6527	39.10%	7355	41.63%
Incidents rejected due to 'unreadable number plate'	5174	29.18%	4562	27.33%	4424	25.04%
Incidents rejected for all other reasons	324	1.83%	223	1.34%	384	2.17%
Total incidents rejected	11354	64.04%	11312	67.76%	12163	68.85%
Total incidents accepted as infringements	6376	35.96%	5381	32.24%	5502	31.15%

Recommendation

I recommend that

- immediate steps be taken to enable frontal identification on motorcycles and motor scooters.

ELECTRONIC SPEED ADVISORY SIGNS

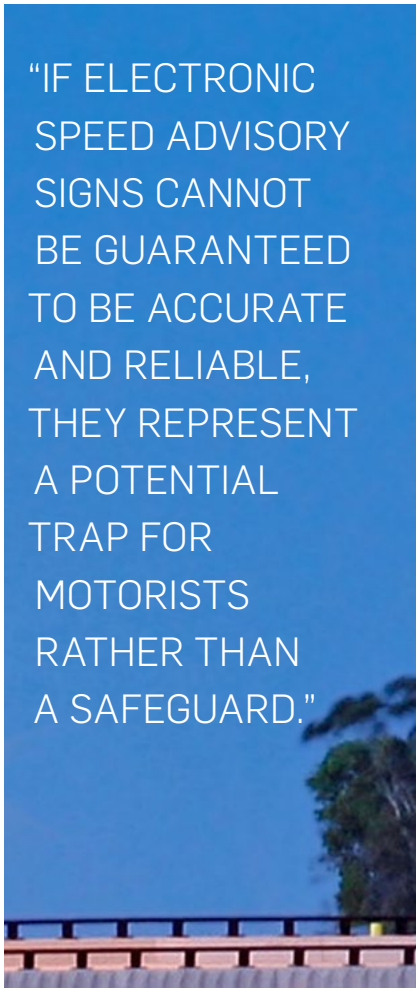
As stated in my previous annual report, I observed that there are six electronic speed advisory signs erected on freeways in Victoria, located at:

- Princes Freeway West, Lara
- Western Freeway, Ballarat
- Western Freeway, Ballan
- Hume Freeway Northbound, Beveridge
- Hume Freeway Southbound, Barnawartha North, and
- Calder Freeway, Diggers Rest.

At the time of writing that report, only four were operational.

Not much has changed. The speed advisory signs on the Hume Highway at Beveridge and on the Calder Freeway at Diggers Rest remain non-operational. Of the four remaining advisory signs, there is only one on which I believe motorists can place complete reliance. This is the electronic speed advisory sign located on the Princes Freeway at Lara, facing Melbourne bound traffic. This sign relies on the same type of sensor strips to measure speed as those used in the road safety camera systems installed on the Princes Freeway between Melbourne and Geelong. Importantly, this speed advisory sign is calibrated annually and maintained to the same standard of accuracy and reliability as the road safety cameras themselves. In my view, it provides real assistance to motorists in monitoring their speed to comply with the relevant speed limit.

The three other operational electronic speed advisory signs located at Ballarat, Ballan and Barnawartha North provide advisory speed readings, however, they are not calibrated to the same standards as road safety cameras or the speed advisory sign located at Lara. Therefore, in my view, they are not as accurate and reliable as the speed measuring device contained in a road safety camera. If electronic speed advisory signs cannot be guaranteed to be accurate and reliable, they represent a potential trap for motorists rather than a safeguard.



Recommendation

I recommend that:

A. An appraisal be conducted to determine:
   - Whether all six existing electronic speed advisory signs can be made both operational and accurate, and if so, those speed advisory signs that are not currently operational and/or accurate should be recommissioned and upgraded, and
   - Whether, if funding is a problem, the gantries can be made available for commercial advertising.

B. In the event that accuracy cannot be guaranteed to the standard required of road safety cameras, those advisory signs should be dismantled.

PART D
ANNUAL REVIEW OF THE ROAD SAFETY CAMERA SYSTEM

ANNUAL REVIEW OF ROAD SAFETY CAMERA SYSTEM

Under the *Road Safety Camera Commissioner Act 2011*, the Road Safety Camera Commissioner is required to undertake, at least annually, reviews and assessments of the accuracy of the road safety camera system in order to monitor compliance of the system with the *Road Safety Act 1986* and the Road Safety (General) Regulations 2009.

In the financial year 2012-2013, the Road Safety Camera Commissioner monitored 50 fixed digital road safety camera sites in Victoria. These 50 sites are listed in Appendix A and they represent approximately 20 per cent of the fixed digital road safety camera sites in Victoria.

The 50 camera sites monitored are a representative sample of the different camera technologies used in Victoria and their selection was based on a number of factors:

- The geographical spread of the camera systems, including both metropolitan and rural locations
- The presence of high traffic volumes, such as on freeways or major arterial roads, and
- Whether the camera site was among the top 50 camera sites based on the number of infringement notices issued in the previous financial year.

This representative sample included systems on two major highway systems, the Princes Freeway between Geelong and Melbourne and the Western Ring Road. The road safety cameras installed on EastLink were deliberately excluded from this review, as they were the subject of a full technical investigation during this financial year. In addition, the cameras on the Hume Freeway were not included in this review, as they were not activated until August 2012.

The review of the 50 road safety camera systems included detailed examinations of all the maintenance, testing and certification activities carried out on the cameras during the twelve month period, to monitor compliance of the system with the *Road Safety Act 1986* and the Road Safety (General) Regulations 2009. The review also looked into the number of vehicles detected either speeding or running a red light, the consistency of the number of detected offenders and the number of infringements issued.

The objectives of this review were:

- To find any potential systemic problems with the road safety camera system
- To monitor performance of the cameras and the camera system as a whole
- To oversee the testing and maintenance activities performed on the camera system, and
- To establish a trend in the data and statistics gathered by the camera systems and their operation.

In the course of the annual review, there were no instances in which a road safety camera system recorded infringements incorrectly. All 50 road safety cameras were tested, maintained and calibrated according to the requirements set out in the Road Safety (General) Regulations 2009 and were functioning reliably and as intended.

APPENDIX A

Motorcycle infringement statistics for financial years 2009-2010, 2010-2011 and 2011-2012

MOTORCYCLE INFRINGEMENT STATISTICS FOR FINANCIAL YEAR 2011-12

Type of camera	Incidents detected	Incidents accepted	Incidents rejected	Reason for rejection	Number of rejections	% of rejections
Fixed road safety cameras	10411	3282	7129	Motorcycle – no number plate	3343	32.11%
				Motorcycle – unreadable plate	3620	34.77%
				All other rejection reasons	166	1.59%
Mobile road safety cameras	7254	2220	5034	Motorcycle – no number plate	4012	55.31%
				Motorcycle – unreadable plate	804	11.08%
				All other rejection reasons	218	3.01%
TOTALS	17665	5502	12163		12163	68.85%

MOTORCYCLE INFRINGEMENT STATISTICS FOR FINANCIAL YEAR 2010-11

Type of camera	Incidents detected	Incidents accepted	Incidents rejected	Reason for rejection	Number of rejections	% of rejections
Fixed road safety cameras	9332	2794	6538	Motorcycle – no number plate	2753	29.50%
				Motorcycle – unreadable plate	3661	39.23%
				All other rejection reasons	124	1.33%
Mobile road safety cameras	7361	2587	4774	Motorcycle – no number plate	3774	51.27%
				Motorcycle – unreadable plate	901	12.24%
				All other rejection reasons	99	1.34%
TOTALS	16693	5381	11312		11312	67.76%

MOTORCYCLE INFRINGEMENT STATISTICS FOR FINANCIAL YEAR 2009-10

Type of camera	Incidents detected	Incidents accepted	Incidents rejected	Reason for rejection	Number of rejections	% of rejections
Fixed road safety cameras	9841	3295	6546	Motorcycle – no number plate	2495	25.35%
				Motorcycle – unreadable plate	3861	39.23%
				All other rejection reasons	190	1.93%
Mobile road safety cameras	7889	3081	4808	Motorcycle – no number plate	3361	42.60%
				Motorcycle – unreadable plate	1313	16.64%
				All other rejection reasons	134	1.70%
TOTALS	17730	6376	11354		11354	64.04%

APPENDIX B

Fixed road safety camera sites included in the annual review

The following table contains the 50 fixed digital road safety camera sites monitored by the Road Safety Camera Commissioner in the financial year 2012-2013 pursuant to section 10(a) of the *Road Safety Camera Commissioner Act 2011*.

1.	Geelong Road – Avalon Road Bridge in Lara – Geelong Bound
2.	Geelong Road – Forsyth Road Bridge in Hoppers Crossing – Melbourne Bound
3.	Western Ring Road Boundary Road North Side Gantry in Sunshine West – Southbound
4.	Western Ring Road Boundary Road South Side Gantry in Laverton North – Northbound
5.	Railway Crossing – Midland Highway at Bagshot level crossing
6.	Hoddle Street and Victoria Street in Abbotsford – Southbound
7.	William Street and Flinders Street in Melbourne – Northbound
8.	Barry Road and King Street in Dallas – Westbound
9.	Nepean Highway and Warrigal Road in Mentone – SouthEastbound
10.	Dandenong Road and Warrigal Road in Malvern East – Eastbound
11.	City Road and Montague Street in South Melbourne – NorthEastbound
12.	Scoresby Road and Mountain Highway in Bayswater – Northbound
13.	Kings Way and Park Street in South Melbourne – Southbound
14.	Princes Highway and Pioneer Road in Grovedale – SouthWestbound
15.	Nepean Highway and Bungower Road in Mornington – Southbound
16.	St Georges Road and Normanby Avenue in Thornbury – Northbound
17.	Royal Parade and Gatehouse Street in Parkville – Northbound
18.	High Street Road and Huntingdale Road in Mount Waverley – Westbound
19.	Punt Road and Toorak Road in South Yarra – Northbound
20.	Frankston Freeway Off Ramp and Dandenong – Frankston Road in Frankston Dandenong – Frankston Road and Skye Road in Frankston
21.	Lincoln Causeway and Hume Highway Ramp in Wodonga – Southbound
22.	Centre Road and Springs Road in Clayton South – Westbound
23.	St Kilda Road and Kings Way in Melbourne – Northbound
24.	Ballarat Road and Churchill Avenue in Maidstone – NorthWestbound
25.	Geelong Road and Droop Street in Footscray – Eastbound
26.	Alexandra Parade and Smith Street in Fitzroy North – Eastbound
27.	Ogilvie Avenue and High Street in Echuca – Eastbound
28.	Loddon Valley Highway (Don St) and Calder Highway (High St) in Ironbark – SouthWestbound
29.	Stud Road and Ferntree Gully Road in Scoresby – Northbound
30.	Sydney Road and Barry Road in Campbellfield – Southbound
31.	Latrobe Terrace and Fyans Street in South Geelong – Southbound
32.	Springvale Road and High Street Road in Glen Waverley – Southbound
33.	Princes Highway and Belgrave Road in Malvern East – Eastbound

34.	Wyndham Street and High Street in Shepparton – Northbound
35.	Stud Road and Wellington Road in Rowville – Southbound
36.	Hoddle Street and Wellington Parade in East Melbourne – Northbound
37.	Denmark Street and High Street South in Kew – Northbound
38.	Hallam Road and Fordholm Road in Hampton Park – Northbound
39.	Sturt Street and Gillies Street in Lake Gardens – SouthEastbound
40.	Fifteenth Street and San Mateo Avenue in Mildura – SouthEastbound
41.	Raglan Parade and Mahoneys Road in Warrnambool – Westbound
42.	Heatherton Road and Monash Freeway in Endeavour Hills – Eastbound Heatherton Road and Monash Freeway in Doveton – Westbound
43.	Kings Road and Melton Highway in Taylors Lakes – NorthEastbound
44.	Williamsons Road and Doncaster Road in Doncaster – Southbound
45.	Pascoe Vale Road and Reservoir Drive in Coolaroo – SouthEastbound
46.	Bell Street and St Georges Road in Preston – Eastbound
47.	Spencer Street and Dudley Street in West Melbourne – Northbound
48.	Grimshaw Street and Macorna Street in Watsonia North – Eastbound
49.	Foster Street and McCrae Street in Dandenong – SouthWestbound
50.	Princes Highway and Sparks Road in Norlane – Northbound

Notes

Notes

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