

# Vigil Vanguard technology a safety monitor

**The Vigil Vanguard monitoring system, purchased to support State Transit's prime objective of safety, is proving to be an invaluable asset.**

It is currently being used to assist the Driver Skills Maintenance Program and had previously proved its worth following the release of the Office of Transport Safety Investigation (OTSI) report into the Spit Hill collision of November 2005.

One of the recommendations arising out of this investigation related to bus speeds around the vicinity of Spit Hill. As a result, RTA elected to reduce the speed limit in certain parts to 30kms an hour.

The program allows bus operators to undertake operational assessment over a predetermined route without prejudice.

It does this by capturing specific trip components such as speeds, rates of acceleration and deceleration as well as cornering forces, by blending these dynamic inputs with a moving map display provided by a global positioning system (GPS).

Video is added by the use of flexible cameras which can be mounted anywhere on the bus. These are usually mounted facing forward through the front window, facing rearwards from the near side mirror and from behind the bus operator capturing side views.

The outcome of all these inputs is fed onto a laptop computer that captures the

data and enables it to be played back to the bus operator after the trip. There can be no arguments about what has occurred – it's all there on the screen.

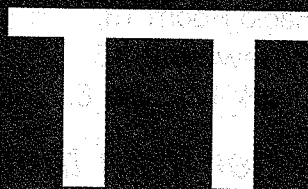
On 18 October, the RTA's Manager of Speed Management, Michael De Ross, briefed Northern Region RTBU delegates on the reasoning behind the reduced speed limits. During the meeting the delegates and management were able to discuss concerns related to safety, comfort and scheduling.

At the same time, RTA was able to hear first hand some of the practical issues from the people who drive this route every day. The net result was a shared understanding of the factors behind the changes.

After the reasoning process came the practical assessment. Safety and Standards specialists Phil Ivey and Andrew Masterson teamed up with Learning and Development's Warren Singleton to evaluate the impact on driving of the new limits on STA buses. Traffic engineer Tom van Drempt participated to evaluate the technical specifications and details.

A Mark 4 Mercedes and a Volvo B12 articulated bus were chosen as representative of the fleet and were driven along the affected route at a range of speeds and operating configurations. The trials revealed that the new speeds were within a reasonable range of safety and comfort for our bus operators and passengers.

## Contact



### Editor:

**ROSS PARKER**

Level 1, 219-241 Cleveland Street

Strawberry Hills NSW 2010

Ph: 9245 5661 Fax: 9245 5771

Email: [rparker@sta.nsw.gov.au](mailto:rparker@sta.nsw.gov.au)

### Contributors:

Theresa Garner, Sarah Young  
and Barbara Phillips.



Left to right: Warren Singleton, Andrew Masterson, Phil Ivey and Tom van Drempt positioning cameras and sensors on a B12 articulated bus prior to the evaluation.