

## AITPM Technical Forum – 8 December 2004

### TSA Traffic Management Centre

At its meeting on 8 December, held at the Transport SA Traffic Management Centre, Roger Porter and Roger Whittington (the two Rogers), gave a presentation on the operations of the TMC and the processes used to manage traffic flows. The session was attended by 50 members and friends.

Roger Porter gave an overview of the TMC, and the equipment that makes it all 'tick'. There are 38 sites and 50 locations monitored with fixed cameras, as well as pan-tilt-zoom cameras. The system manages 598 coordinated signals through 9 regional computers, all feeding back to the central controller. The system is adaptive, and the green times can be adjusted to suit traffic flows. Priority can be given to particular movements when required, such as emergency vehicles, which can contribute to significant reductions in emergency response time.

Some of the issues that come up in the day to day activities include:

- Managing traffic flow when incidents occur on the network
- Change-over operations on the Southern Expressway (a reversible road)
- Surveillance of the Heysen Tunnels
- Managing queue lengths at intersections
- Managing traffic flow at community events (eg traffic leaving Football Park – sorry, AAMI Stadium).

The efficient operation of the system leads to smoother traffic flows, community savings in fuel consumption and overall energy use.

Roger Whittington discussed the Traffic System Optimisation Program, which is an audit / review of the operation of the traffic signal system for metropolitan Adelaide. By improving (optimising) the performance of the overall system, it is estimated that improvements in performance of the order of 5% - 10% can be gained, mainly achieved by reductions in travel costs and crash potential.

The optimisation process involves:

- Gathering data and conducting travel time runs
- Investigation of safety and efficiency improvements
- Analysis of different modal phasing options eg priority to bus movements
- Fine tune the improvements
- Post travel time runs
- Report and Recommendations

A study has been undertaken on Main North Road which indicates that significant savings in operating costs can be gained. While Main North Road gave very encouraging results in terms of savings, it is not expected that savings to the same level would be gained over the whole network. However, with improvements of 5% - 10% in efficiency, gains of \$0.75million to \$20million per year can be expected.

It is an adaptive system, enabling sections of the network to be treated differently at different times of the day. For example, Unley Road performs an important arterial / commuting function during the peak period, while during the off-peak period, its main function is to serve the local shopping precinct. The program enables appropriate traffic management controls to be utilised to serve the changing function of the road through the day.

The presentations were both interesting and informative, followed by a lively question time. The scope of discussion that took place during this period indicated that the topic had a high level of interest from a practitioner's point of view.