Selwyn Active Advanced Stop Warning Trial

Stats

- Selwyn Rural Intersection Crashes 2011-2015.
- 488 Crashes 9 fatalities 73 Serious injuries 234 other injuries.
- Social cost in excess of 100 million dollars.
- Data from NZTA CAS system identified 47 crashes that specifically were attributed to did not stop. Resulting in 3 fatalities, 4 serious and 27 minor injuries, resulting in social costs of 19.21 million. CAS data is collected by Police on TCR's.
- New Zealand wide from 2005-2009 there were 2468 Rural Intersection Crashes, comprising of 123 fatalities, 593 serious injuries, and 1792 minor injuries, total social cost of 235 million per year.
- Some ACC claims , run into several million dollars over the lifetime of the claim.

About Active Signs

- Vehicle Activated Signs have been in use in most western countries for at least the last two decades.
- Active sign are activated by radar, usually at a predetermined speed, to approaching vehicles.
- There are a variety of messages and configurations, but are all essentially designed to alert the motorist using luminescence, and light movement to the message or sign.
- Numerous studies both in NZ and overseas have shown active signs are more effective than static signs. In the RIAWS trial 90% of motorists stated that they agree or strongly agree that the signs catch your attention.

- Crash levels decreased by 30-40% in trials of similar systems, that were conducted in Sweden and the UK. (source Hamish Mackie TERNZ)
- Active sign technology is becoming cheaper with better reliability, and are now used extensively overseas.
- Active signs are well perceived by the public, and the general consensus is that they have a greater impact than static signs.

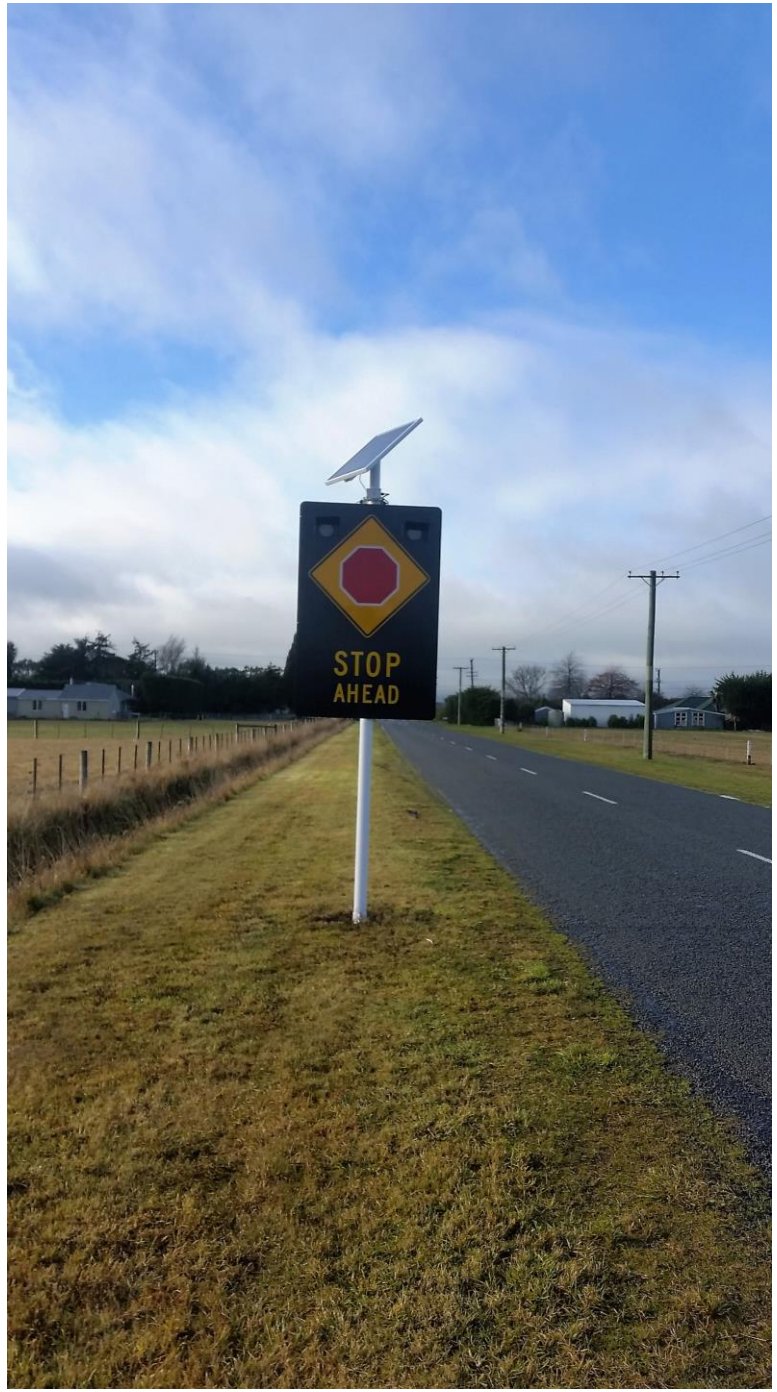
Selwyn Signs

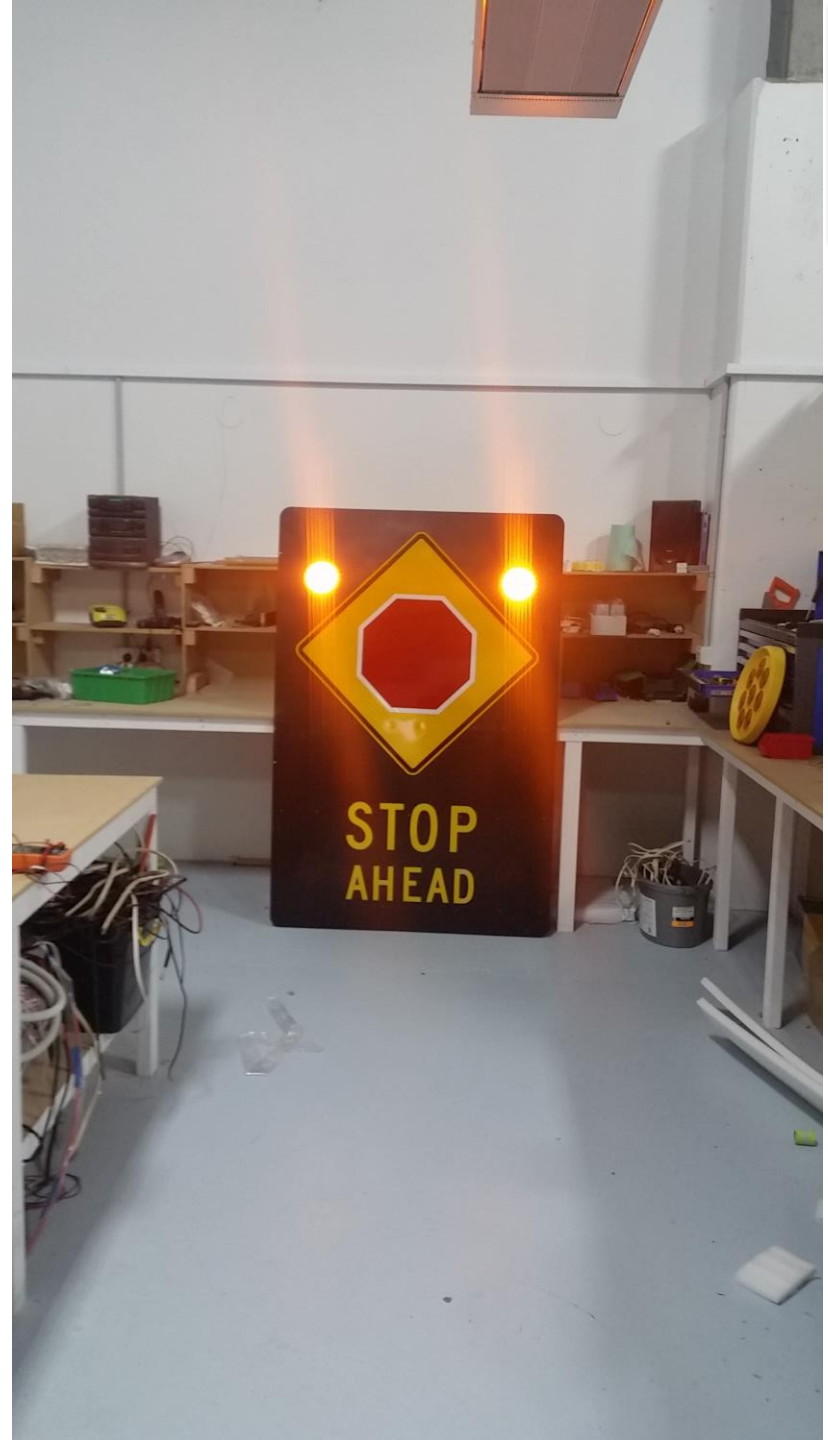
- The active signs in the Selwyn Trial are designed to address the root cause of high speed intersections crashes, which is the failure to stop.
- In an intersection crash there is a 50% probability of death in a side impact at 75kmh, in a head on, the speed has to be 105kmh to have the same probability of death.
- The signs are designed for low to medium volume local roads, where there is a crash history or near miss history.
- The signs replace the existing pre warning sign at 200m prior to the stop. The signs are activated 150-200m before the sign and the high intensity LEDs has a strobe type pulse that alternates between the two lights.

- Due to the movement and intensity of the LEDs, they are very easy to see and catch your attention.
- They are especially effective, in adverse light conditions like fog and darkness, but also equally as effective in direct sun.
- We have the ability to dim them at night if they are deemed too bright at night.
- The trial signs have been made by Fulton Hogan, with all of the solar and hardware radars etc sourced and installed by Solar Bright Ltd. They are currently located in 4 locations, and all have received positive feedback, and there have been no recorded crashes since installation

- The radar and hardware in the signs have multiple uses, we are able to live stream traffic counts, and use signals to active other signs or road studs on the limit line, within a 1km radius.
- During the trial to date they have been 100% reliable, and one sign is located beside a hedge which shades it for most of the day. The system has survived on around an hour of sunlight a day.
- There are of course limitations with the solar, ie cannot be installed under a large tree with no sun.
- Costs will be 4-5K, excluding installation, as most RCA's uses different contractors.
- Installation will be very simple, and no more time than an existing sign of similar size.

- Road safety is about incremental changes in Education, Enforcement and Engineering.
- There is a need to modernise local roads and make safer some of our higher risk intersections and roads.
- Each fatality has a social cost of around 4.4 million dollars, that is enough to install 1000 signs.
- Each rural intersection crash, has an estimated social cost of $440,000, enough for 100 signs. (Source NZTA)
- If we can save one crash or one life the signs have done their purpose.


STOP
AHEAD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