

INTERSECTION SAFETY DEVICE EVALUATIONS

Highlights

What reports were issued about Intersection Safety Devices?

Two evaluations have been completed on the safety impact of red-light and speed-on-green cameras in Alberta. These before-and-after studies were designed to examine how red-light cameras and speed-on-green cameras impacted the number of collisions, collision severity and collision types (angle or rear-end) at monitored intersections. The full reports can be accessed on Alberta Transportation's Publications page at <http://www.transportation.alberta.ca/601.htm>.

What are the report highlights?

- Data for these studies was provided by the Cities of Edmonton, Calgary, Fort Saskatchewan, St. Albert, Red Deer and Strathcona County.
- Results are based on an empirical Bayes statistical analysis that estimates the number of collisions expected at intersections if a red-light camera or a speed-on-green camera was not present, and compares against the number of observed collisions that took place when the red-light or speed-on-green camera was in operation.
- Red-light cameras – findings
 - 32.4 per cent **decrease** in casualty collisions
 - 3,391 collisions expected, 2,291 observed
 - 37.7 per cent **decrease** in angle collisions
 - 1,813 collisions expected, 1,129 observed
 - 7.7 per cent increase in rear-end collisions
 - 4,785 collisions expected, 5,152 observed
 - 1.4 per cent increase in property damage collisions
 - 7,550 collisions expected, 7,654 observed
 - 8.4 per cent **decrease** in total collisions
 - 10,854 collisions expected, 9,945 observed
- Speed-on-green cameras – findings
 - 32.3 per cent **decrease** in casualty collisions
 - 508 collisions expected, 344 observed
 - 31.3 per cent **decrease** in angle collisions
 - 214 collisions expected, 147 observed
 - 9.4 per cent increase in rear-end collisions
 - 1,272 collisions expected, 1,392 observed
 - 10.6 per cent increase in property damage collisions
 - 1,759 collisions expected, 1,946 observed
 - 1 per cent increase in total collisions
 - 2,267 collisions expected, 2,290 observed

The results show these devices are effective in reducing casualties and collisions by getting motorists to slow down and not run through red lights. But, enforcement alone isn't enough if we don't also create greater awareness of the need to make safe driving decisions.

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Background Information

- Amendments to the *Traffic Safety Act* (Sections 2, 3, 9 and 10 of the *Traffic Safety Amendment Act, 2007*) that came into force January 1, 2009 allow the use of speed technology at “red-light camera” locations, high collision locations and where violations are frequent. The technology tracks the speed of a vehicle as it proceeds through the location.
- These amendments were done in consultation with Alberta enforcement agencies.