

Jom Teerawanit 2007: A Study of Red Light Running Factors: A Case Study of Railway Crossing. Master of Engineering (Civil Engineering), Major Field: Civil Engineering, Department of Civil Engineering. Thesis Advisor: Associate Professor Pongsak Suriyavanagul, Ph.D. 156 pages.

The objective of this study is to determine factors which affect the frequency of red-light running at railroad crossings. By way of considering the relationship of these factors with the frequency of red-light running incidents, analyzing frequency of the red-light running for each factor and speed, and comparing these factors which affect red-light running at railroad crossings. Statistical techniques to be used in analyzing data are percentile, average, standard of deviation, t-test, One-Way ANOVA values as well as Pearson's Correlation coefficient with the statistical significant set at 0.05 levels.

The study found that there are (7) seven factors which related to the frequency of red-light running at the railroad crossings during trains passing period. These factors, running in the order are traffic volume, cycle time, type of vehicle, time of day, number of traffic lane, gender and age-groups of vehicles' drivers. As for the period without passing trains, factors which affect the frequency of running of red-light, in their order of significant, are traffic volume, type of vehicle, number of traffic lane, gender, age-groups, cycle time, turning direction respectively. Traffic Volume is the most important factor that effects on frequency of traffic lights violation. Pearson's correlation coefficient is -0.050 and -0.068 for with and without passing trains, respectively. For the speed comparison of vehicles that are approaching the intersection between the period with and without passing trains, statistically significant difference at 0.05 can be found.

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Thesis Advisor's signature

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