

Document Information

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4.10 Stop Sign Violation Warning (SSVW)

4.10.1 General description

The Stop Sign Violation Warning (SSVW) application is designed to warn riders that they may violate an upcoming stop sign based on their speed and distance to the stop sign. In order for the application to operate, the vehicle needs to have detailed geometric information about the intersection, which is used by the on-board application to determine if a stop / yield sign violation is likely and to provide the rider a warning about it. The geometric information could be obtained from an infrastructure such as Road Side Unit (RSU) at the intersection, or obtained from an infrastructure at some earlier point in the vehicles trip.

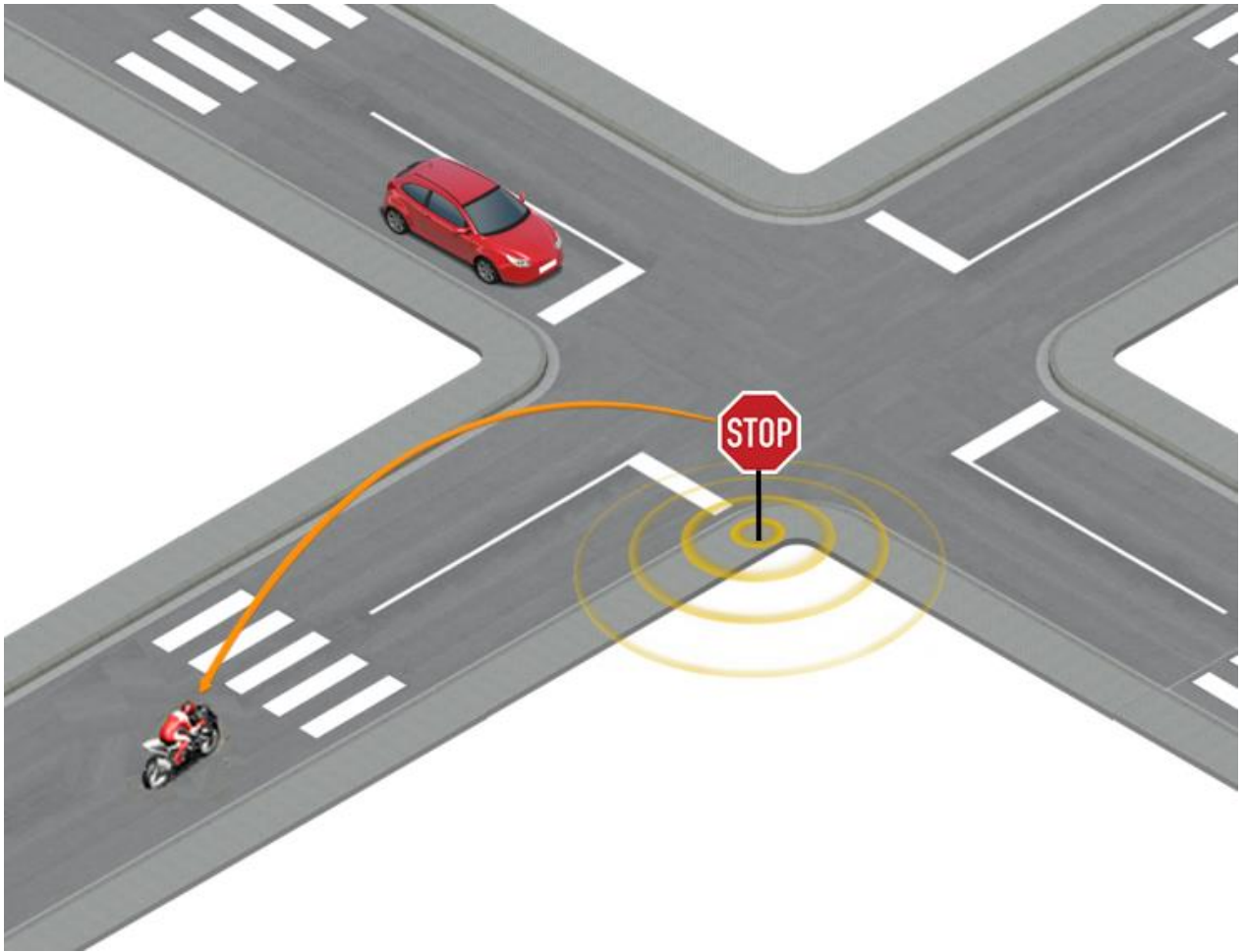
4.10.2 Use case description¹

The SSVW application is intended to warn the rider of the vehicle in case of a stop sign on the road. The Infrastructure to Vehicle Information Message (IVIM) is sent by the infrastructure to the PTW. When the PTW receives the above message, this application calculates the distance required to stop the PTW and compares it with the remaining distance to the stop line. If a brake is required for the PTW to stop before the stop line or the violation cannot be avoided, a warning is issued to the rider to brake.

The infrastructure will broadcast queue warnings to vehicles in order to minimise or prevent the collisions. This application will engage well in advance of any potential crash situation, providing messages and information to the rider in order to minimise the likelihood of a crash.

¹ Intelligent Transport Systems (ITS); V2X Applications; Part 2: Intersection Collision Risk Warning (ICRW) application requirements specification from ETSI,

(https://www.etsi.org/deliver/etsi_ts/101500_101599/10153902/01.01.01_60/ts_10153902v010101p.pdf, accessed 16.11.2020)



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Figure 1: Use case of SSVW

Abbreviations

Please refer to the abbreviations in Preamble document.