H189 - Short Explanation

A red-light camera is a camera placed at an intersection that takes videos of vehicles that run red lights. When vehicles enter the intersection after the light turns red *and* after a period of time called the red-light camera *delay,* the red-light camera system mails a ticket to the vehicle owner. Some red-light camera systems call the "delay" the "grace period".

The NCDOT wrote H189. The NCDOT wants to set the delay to the value of the NCDOT traffic engineer's all-red clearance interval. In essence, H189 is an engineering regulation necessitated by the NCDOT's underlying engineering of the yellow light duration. The NCDOT sets the yellow light duration to make traffic flow more efficiently, but the efficiency comes at the sacrifice of forcing *all* drivers to unintentionally, though safely, run red lights. "All" means all. The red-light camera cities in North Carolina each had issued more tickets than their cities' populations. H189 compensates for the NCDOT's yellow light engineering, by changing the definition of a red-light camera "violation" so that safe drivers do not get tickets but unsafe drivers do.

The NCDOT *deliberately* makes drivers run red lights during the all-red clearance interval. In North Carolina, this has been going on since 1985. The all-red clearance interval is that period of time just after the light turns red, where all directions of traffic facing the intersection see red. For us drivers, it is safe to enter the intersection during the all-red clearance. Only after the all-red clearance interval is over, does cross traffic get a green light. Only after the all-red clearance interval is over, does it become unsafe for us to enter.

The problem with the current red-light camera delay is that cities and red-light camera firms set the delay to 0.2 seconds. That is arbitrary. From an engineering point-of-view, 0.2 seconds is way too short. 0.2 seconds has nothing to do with safety engineering, but rather has all to do with making millions of dollars by ticketing entire city populations without raising suspicions. To get an idea of how long 0.2 seconds is, 0.2 seconds is half the time it takes to blink your eye. Run the red light within an eye-blink, and you get a ticket.

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All sub-second incursions into the red light are safe. They harm no one. These incursions are so quick that neither driver nor policeman have the visual acuity to discern such incursions. About 80% of incursions are sub-second.

A human being—be it driver or policeman--cannot discern an incursion until about 1.5 seconds after the light turns red.

The NCDOT generally sets all-red clearance intervals to about 1.5 seconds and 3.0 seconds for left turns. The minimum time for all-red clearance intervals in North Carolina is 1 second.

Law enforcement cannot justifiably hold a human being accountable to the perception capability of a computer monitoring a magnetic induction loop.

In summary, after years of feeling guilty about causing millions of red-light camera tickets, the NCDOT now has a remedy. In my opinion, it is a brillant remedy from both legal and engineering points of view. Hold the red-light camera industry true to its slogan "We are about safety".

H189 limits the punishment to unsafe drivers according to the NCDOT definition of safety.