Safety Effects of Yellow Alert Changeable Message Signs

A study to identify and evaluate the safety effects of the Yellow Alert Changeable Message Signs on drivers.

WHAT IS THE NEED?

In 2015, a bill was signed into law in California that mandated the implementation of the Yellow Alert Changeable Message Signs (CMS) for hit-and-run accidents. The Yellow Alert CMS was briefly implemented in California, but shortly after, the Federal Highway Association (FHWA), which has strict regulations about what can be displayed on the CMS, ordered California Department of Transportation (Caltrans) to discontinue the use of Yellow Alert.

In 2016, Caltrans requested for FHWA’s approval to conduct a two-year demonstration program to evaluate the effectiveness of displaying Yellow Alert messages on CMS. FHWA denied Caltrans’ request addressing safety concerns of using CMS. FHWA contended that the alert may distract drivers as they look for the subject vehicle, change driving behaviors when examining and reporting a suspected vehicle, and even follow or stop the suspected vehicle.

An in-depth study would provide an insight to Caltrans, to decide if further actions for reinstating the Yellow Alert CMS should be pursued.

WHAT ARE WE DOING?

The research team will utilize a survey to ask drivers about their understanding of the Yellow Alert CMS and their responses after reading it. Drivers who indicate high likelihood to take actions after reading the Yellow Alert CMS will be invited to participate in a simulation experiment to investigate the safety effect of their driving behavior.
WHAT IS OUR GOAL?

The primary objective of this research is to identify and evaluate the safety effects of the Yellow Alert CMS on drivers. The research should address the following three questions in order to achieve the goal:

1. Are there potential safety impacts of Yellow Alert CMS on drivers?
2. What is the drivers' immediate response to the Yellow Alert CMS when they read and after they read it?
3. How will drivers change their driving behaviors after reading the Yellow Alert CMS?

WHAT IS THE BENEFIT?

The research is designed to explore the research questions described above, so the research team will have a better understanding of the safety effects if the proposed Yellow Alert message is displayed on CMS. If the safety effects are proven to be non-hazardous to the driving public and traffic on highways, the appropriate results can be used to support Caltrans' further actions to seek approval for reinstating the Yellow Alert CMS.

WHAT IS THE PROGRESS TO DATE?

The research proposal has been submitted to Caltrans from University of California, Berkeley. The expected start date is May 1, 2018.