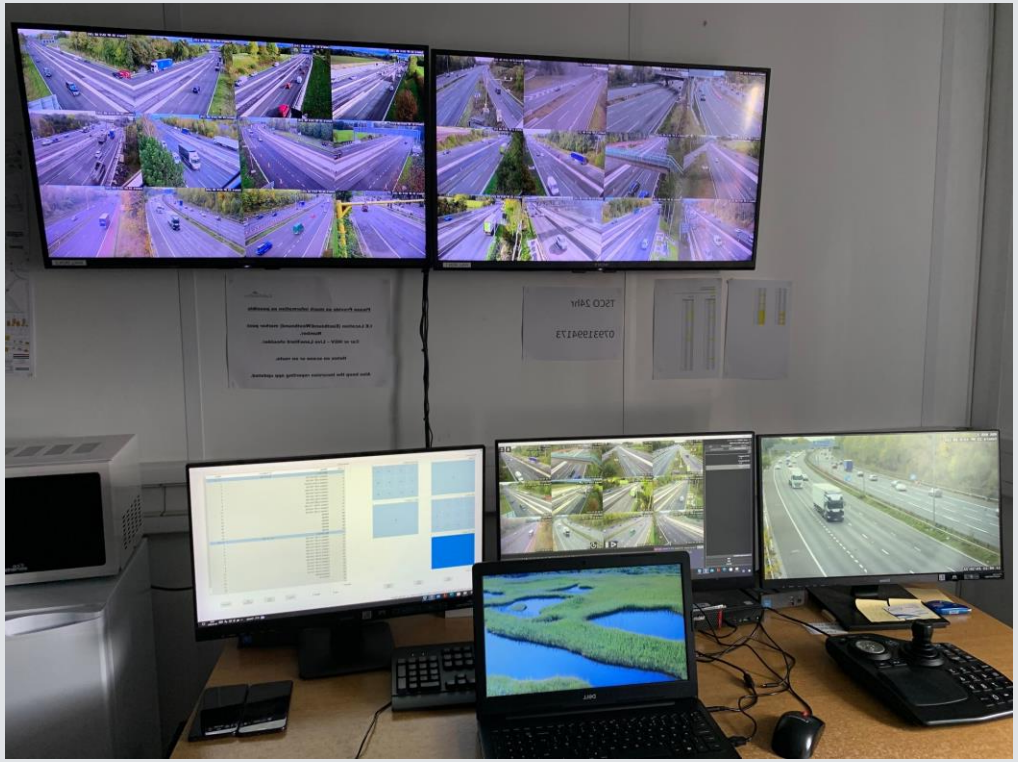
Stopped Vehicle Detection (SVD) Case Study

Galliford Try

Introduction

SVD helps protect the road users by improving the reaction time to incidents compared to operator only systems. Due to the benefits of SVD there has been an appetite to make this available in construction, to bring those benefits to the period prior to a fully operating system.

Galliford Try's Asset Intelligence business have successfully deployed an in-house developed system as a trial on M56 Motorway Upgrade project. It has been proven to be very successful and this paper outlines the benefits found.



M56 CCTV Feeds

Current State

Prior to the implementation of the trial system, the M56 operated in the following manner

- A CCTV Operator monitors **26** live camera feeds across multiple monitors
- On consultation with the operators they anticipate that it can take between 2-3 minutes for them to notice a live lane break down
- Once spotted they will then inform the Traffic Safety and Control Officer (TSCO) and Regional Operational Control Centre (ROC): this on average is 1-2 minutes
- Once the two latter parties are informed our vehicle recovery units are deployed and the Transportable Variable Message Sign (TVMS) is changed to reflect the incident

From break down to deploying the Recovery takes approximately 5 minutes

Future State

Mobile SVD algorithm spots a vehicle within 0.1 seconds

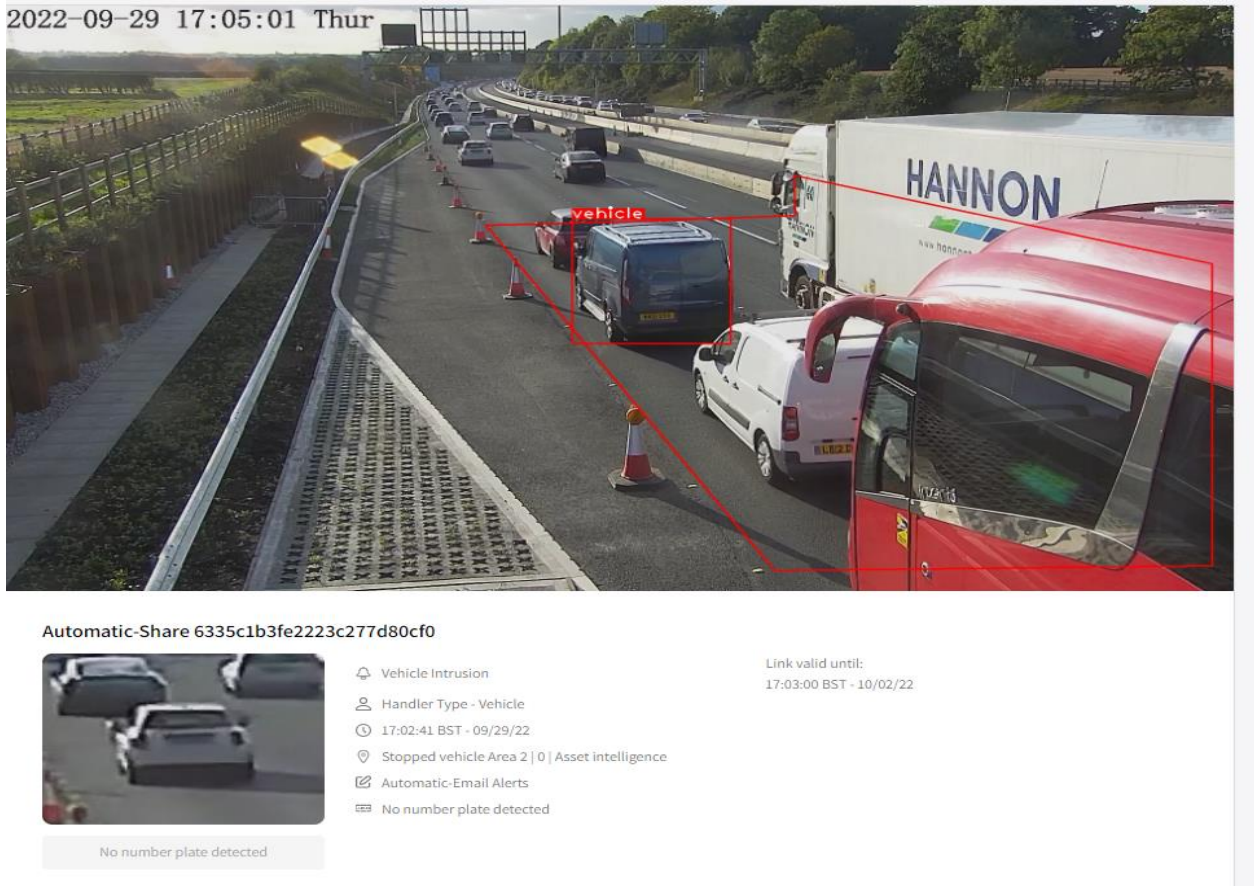
– Saving 2 minutes

On detection the system automatically (0.2sc) alerts the operator this distribution can include Traffic Safety and Constrol Officer (TSCO), Regional Operational Control Centre (ROC) and Recovery

– Saving 2 minutes

CCTV deploys the Recovery Units who will already be mobilising due to receiving the automatic message meaning time saved reaching the Member of Public (MOP)

TVMS changed by the CCTV op due to not having to manage information flow.



Summary

The hazard with a user only operated incident response system is the effect of time in detection and response. These human factors can lead to longer reaction times. This can vary from minute to minute and can widen dependent on many factors such as.

- Competence
- Time into shift
- Fatigue levels
- Boredom
- Distraction
- Expected workload or monitoring levels

The SVD solution we have proposed much like its permanent cousin means we use technology to react more efficiently. Consequently the operator can focus on escalation and incident management.

The use of such technology means we create a road which is under Temporary Traffic Management (TTM) safer for both the public National Highways customer but also our workforce.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