ASSET ENGINEERING

Video road fault inspection

2022

CHALLENGE

In 2019 notices were issued by Waka Kotahi and Downer preventing out of vehicle mobile operations in > 65 km/h zones as a reaction to industry fatalities without static Temporary Traffic Management or level 2 mobile operations.

IMPACT

These notices impacted traditional road fault inspection what was traditionally completed on foot or from a parked vehicle on the verge. This resulted in less information for maintenance planning.

SOLUTION

- To use gopro video collected from vehicle mounted cameras to collect road images.
- Utilising an established video viewing application, Argonaut, to review the video and identify faults.
- Calibrating the video image to allow the use of a measurement tool from within Argonaut.
- Recording faults as dispatches in RAMM from the video along with multi media file from the video images.

KEY OUTCOMES

- Removing people from the road and therefore improving hazard risk
- Reduced driver fatigue risk through shorter days in the field
- Reducing the number of trip cycles to inspect roads. Drive once and review at will to identify faults
- Reduced fuel consumption and therefore lower carbon intensity (47% reduction assessed on Coastal Otago NOC)
- Improved completeness of collected faults (76% increase in Central Waikato NOC case study)
- Improved view of the road and faults. Front of vehicle point of view
- Potential to extend use to measurement of surface area of road sections
- Utilising gopro max 360 deg camera to provide wider context of environment and to view road side assets

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GOPRO CAMERA MOUNTED FOR FRONT FACING POINT OF VIEW

CAPTION: OPTIONAL 360 DEG GOPRO MAX

EXAMPLE IMAGE SHOWING THE MEASUREMENT FUNCTIONALITY AND ACCURACY OF CALIBRATION.