



Background

The Washington State Transit Insurance Pool (WSTIP) insures 25 public transit agencies in the state of Washington. In the fall of 2014, WSTIP management saw an opportunity to improve the safety record of their member fleets through collision avoidance technology. WSTIP and Munich Reinsurance America, Inc. (Munich Re) saw an opportunity to partner on WSTIP's reinsurance needs and to pilot first generation collision avoidance equipment on a small subset of the WSTIP member fleet. Mobileye® Shield+™ was the collision avoidance system used in the study.

Situation

According to recent data from the National Transit Database (NTD), in 2015 bus transit agencies nationwide reported 4,678 collisions, 16,766 injuries and 102 fatalities, costing over \$594M in casualty and liability expenses. The number and severity of bus injuries have grown steady each year, leading to an average 2.88% annual increase in casualty and liability expenses. Based on a study by Veritas Forensic Accounting and Economics LLC, on average WSTIP was seeing historic loss costs in the \$7M range annually.

As WSTIP's losses were continuing to increase, WSTIP had difficulty identifying the right technology partner to test collision avoidance technology. In early 2015, Munich Re introduced WSTIP to Mobileye and Rosco as potential technology partners. WSTIP also secured an IDEA grant from the Transportation Research Board thus creating the synergy for the first ever statewide test of collision avoidance technology on transit buses in a variety of operating environments.

Solution

WSTIP and Munich Re developed a proactive and innovative approach to retrofitting current bus fleets which allows transit agencies to improve safety and reduce losses in the near term rather than waiting for collision avoidance equipment to become standard on new buses.

Munich Re contributed to the initial funding grant and developed a prototype for the technology rollout. We also developed a detailed loss analysis model for pre- and post-pilot rollout and assisted WSTIP with identifying potential route hotspots based on telematics analysis from the pilot buses.

Results

The pilot's success confirmed our assumptions about the benefits of collision avoidance technology in mitigating losses. Veritas Forensic Accounting and Economics LLC projects WSTIP would realize an escalating loss-related cost savings if their members retrofitted their entire fixed route fleet with mature collision avoidance warning and deceleration technology. This savings would start immediately and escalate into multi-million dollar annual savings over the approximated seven-year retrofitting period.

WTSIP views Munich Re as a valued innovative and future-focused partner. We demonstrated how collision avoidance technology can improve public transit safety today. Our success with WTSIP has led to additional transit accounts, improving public transit safety in many communities and helping mitigate losses for public transit companies.

Product and services provided by Munich Reinsurance America, Inc. (Munich Re) and its affiliates.

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