SIGNS WITH SMART CONNECTIVITY FOR BETTER ROAD SAFETY

Authors	Type	Availability	Research	Findings
Houser ,Pierowicz ,& Fuglewicz (2005)	FMCSA report	Public	Areporttoprovideabetterunderstandingofthefunctionofon-boardsafetysystemsandprovideinsightintothesafetyandefficiencybenefitsofusingsuchsystems.	Describestheconceptofoperationsandthevoluntaryrequirementsfortheuseof VSS forlargetrucksgreaterthan10,000 pounds GVWR.
Berg,Niewohner, Burkle,& Morschheuser (2001)	Journal article	Public	Aninvestigationof109reallifetruckcrashesandacrashtestinvolvingaMercedes-BenzActros.	Safetybeltsinheavytruckshaveapotentialtosavedriversandpassengers.Ejected truckoccupantshavethegreatestprobabilityofbeingkilledinacrash.
Trevorrow &Eady(2010)	Australian roads report	Public	Areporttoimproveknowledgeandunderstandingof heavyvehiclebrakesafetyonlongsteepandverysteeproads. literature review ,review of crash data ,and a vehicle test	Advancedbrakingsystemsofferincreasedsafetyinanemergencyonsteeproadsduetotheautomaticapplicationoftheservicebrakespreventingroll-overorrun-off-roadcrashes. Whilebrakefailurecrashesaccountedforlessthanonequarteroffatal truck crashes ,break failure crashes were found to be mores curious. Fatal break failure crashes were more likely on horizontal curves ,how ever brake failure crashes on acombination of horizontal curveandverticalgradeweremoreseriousthanthoseoccurringonverticalgradealone. Themainsafetyissuehighlightedwasthedrivers'interactionwiththeauxiliarybrakingsystem.Inadequateownersmanualinformationandalackofreal-timedriverfeedbackregardingtheperformance(orlackthereofbrakeswereidenti
Lambert& Rechnitzer (2002)	MUARC report	Public	A review and report of the Issue of rear and side under run crashes.	Twomajoreffectsofunderrunonthe outcomesofcrasheswereidentified:underrun canexposelightvehicleoccupantstotherigidstructuresofthetruckbeforethesafetyfeaturesofthelightvehiclecomeintoeffect;anddamagetoheavyvehiclecomponents(e.g.,steering,braking,etc.) can reduce the controllability of the truck during or after the crash. Thereislittleevidencesuggestingthatimprovementsintruckunderrunprotectioncannotbeachieved. Thereissomeevidencethatenforcementofunderrunrequirementsandstandardsislacking. Performanceoffrontbarriersmusthaveasignificantlyhigherstandard,atleast twice that of rear under run barriers. The requirements of barriers should extend to vehicles of 3.0tonnesGVM.
Hart(2010)	Conference paper	Public	DescribesthedevelopmentoftheAustralianbrakebalancecodeofpracticetoguidetheintermixingofbraketechnologiesonheavyvehiclecombinationvehicles.	Awiderangeofbrakingtechnologiescannowbeintermixedoncombinationvehicles,e.g.,advancedelectroniccontrolsarebeingconnectedtobasicvehicles.Therecommendedperformancelevelsetoutbythecodeisthatacombinationvehiclebeabletoachieveaninstantaneousdecelerationlevelonasealed60km/h

Rakja ,Fitch ,Arafeh ,Blanco,& Hanowsi (2010)	Journal article	Public	A study to estimate the safe Benefits of deploying forward collision Warning systems across the national flee to fhe vehicles. Involved the use of simulation Models.	Estimated a potential 21% Reduction in heavy vehicle Rear end crashes ,which hequatesto4,800fewercrashes on US highways per year.
Lee ,Kourtellis ,Lin ,& Hsu(2010)	Journal article	Public	A study to evaluate the Effectiveness of rear view video systems(RVS) for reducing reversing man over crashes soft trucks.	Use of the RVS increased stop rates by 46.7% In straight line reversing man oeuvres ,withincreasesof4.4%foroff set right and17.8%fordockreversingmanoeuvres. Drivers generally showed positive attitudestowardsusinganRVSwith90% agreeing that the RVS could reduce the rear blind spot for large trucks.