School Bus Safety Report Card

Steve Gardner Founder/President Gardian Angel, LLC

www.GardianAngelLLC.com

Qualifications of Presenter



- 20 years of experience as an ASE certified school bus mechanic
- 15 years of experience as a transportation supervisor
- Credited with organizing the first mock school bus disaster in the state of Ohio in 1996, which involved mentally and physically challenged individuals
- Inventor of the patented Gardian Angel[®] School Bus Safety Lighting System



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Patent # US 8,669,853 B1

Top Safety Concerns When Boarding the School Bus

- Illegal school bus passing
- Distracted drivers
- Poor visibility



Sobering Fact: 119

 "From 2003 to 2012, 174 school-age children died in schooltransportation related crashes, 55 were occupants of school transportation vehicles and **119 were pedestrians**."



Focusing on the pedestrians: if each child's life represents one floor in a building, it would exceed the tallest building in the western hemisphere, One World Trade Center, which soars above the city skyline at 104 stories.

Compare that to the 119 stories that were taken away from their families too soon.

NHTSA 2003 - 2012 Data (Revised June 2014)

What's the Law for Passing a Stopped School Bus in GA?



 Once the flashing lights have turned red and the stop signs have extended from the side of the bus, it is unlawful for any vehicle to pass the stopped school bus while it is loading or unloading passengers. On a highway divided by a median, cars traveling on the opposite side from the stopped school bus are not required to stop.



Do You Know Where the Stop Arm Violations are Occurring?

- "Of the 75,966 stop-arm violations counted, 98% were on the left side of the school bus (the driver's side)."
- "More vehicles passed from the **front (58%)** than from the rear (42%)"



School Bus Fleet Magazine October 2014 issue page 8

Prior to 2000

 From 1979 – 1999 in Georgia there were 13 children fatalities in the loading zone of a bus.



Kansas Department of Education/ School Bus Safety Unit

Continued Reports of Fatalities

• 2004 - 2005 Georgia: 2 fatalities

2004 - 2005 National School Bus Loading & Unloading Survey

• 2005 - 2006 Georgia: **1 fatality**

2005 - 2006 National School Bus Loading & Unloading Survey

• 2006 – 2007 Georgia: 3 fatalities

2006 - 2007 National School Bus Loading & Unloading Survey

• 2008 – 2009 Georgia: **1 fatality**

2008 - 2009 National School Bus Loading & Unloading Survey

• 2009 – 2010 Georgia: **5 fatalities**

2009 - 2010 National School Bus Loading & Unloading Survey

Sadly, Even More Fatalities

• 2010 – 2011 Georgia: 2 fatalities

2010 - 2011 National School Bus Loading & Unloading Survey

• 2011 – 2012 Georgia: **2 fatalities**

2011 - 2012 National School Bus Loading & Unloading Survey

• 2012 – 2013 Georgia: **1 fatality**

2012 - 2013 National School Bus Loading & Unloading Survey

• 2013 – 2014 Georgia: 2 fatalities

2013 - 2014 National School Bus Loading & Unloading Survey

Fatality Excerpt

 Georgia: A 5-year-old male kindergarten student had exited the bus in a heavy rain and was crossing in front of the bus to his home. The stop arm was out and the lights were flashing when a pickup approaching from the opposite direction failed to stop and struck and killed him.



2012 - 2013 National School Bus Loading & Unloading Survey

Recommendation for Georgia

The patented Gardian Angel[®] School Bus Safety Lighting System



- Warns motorists to pay attention while the stop arm is out
- Alerts drivers that students are crossing
- Traffic can clearly see children boarding
- Students can see where they step to prevent falls
- Keeps children safe and out of the "danger zone"
- Illuminates through inclement weather, extreme climate change, even creates a visible path in daylight

What is the Gardian Angel®?

 See our promotional video and more at <u>www.GardianAngelLLC.com</u>



About the System



- The lighting system works with any type of bus (A/C/D) and installation can typically take under thirty minutes.
- The lighting system even works on buses equipped with multiplex wiring.
- There are no additional switches
 for the driver to operate. The
 system automatically turns on
 when the red lights are activated,
 and turn off when the entrance
 door of the bus is closed.

Consider This



- Stop sign cameras are infrared.
 In darkness, every car is gray in color.
- The Gardian Angel[®] can show the camera the actual color of the offending vehicle, which is required in some states in order to prosecute.

Specifications



- DOT SAE lens markings ensures peace of mind during vehicle inspections.
- IP 67 certified with O-ring sealed construction – extra protection from dust & water immersion.
- It operates in temperatures of -40 to +65 degrees Celsius.
- Current draw is 1.66 Amps at 12.8 VDC.

Effectiveness of the System



- Preliminary data from field test in WY revealed at least a 50% reduction of coal trucks running the school bus red lights on a major road.
- Data after completion of the pilot study in WY revealed only one vehicle running a driver's red lights since installing the lighting system.
- The pilot was deemed a success and we were given state approval.

Endorsements



- Gardian Angel[®] is endorsed by the Michigan Association for Pupil Transportation.
- We have numerous customer surveys that display the driver's positive opinions of the system.
- Entire fleets are now using our technology.

States Allowing the Gardian Angel ®



- Michigan (2013)
- Wyoming (June 2014)
- Mississippi (Aug. 2014)
- Vermont (Oct. 2014)
- North Carolina (Nov. 2014)
- Nevada (Dec. 2014)
- Colorado (Dec. 2014)
- Nebraska (Jan. 2015)
- New Jersey (Jan. 2015)
- Wisconsin (Jan. 2015)
- Missouri (Jan. 2015)
- Texas (Jan. 2015)
- Alaska (Jan. 2015)
- Idaho (April 2015)

Ordering Information



Thank you!