

Automated Speed Enforcement in Highway Work Zones

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Automated Speed Enforcement (ASE)

- Two programs in Maryland:

1. School Zones

- SHA's involvement in school zone cameras is limited to:
 - Establishing school zones on state highways
 - Permitting local jurisdictions wishing to use ASE on state roads
- SHA maintains non-tolled, numbered routes in Maryland's 23 counties.

2. Work Zones





The Maryland SafeZones program is first and foremost about SAFETY.


- In 4 out of 5 work zone crashes, the driver or passenger is injured or killed.
- *SafeZones* is helping everyone slow down, obey the posted speed limit, and focus on driving.

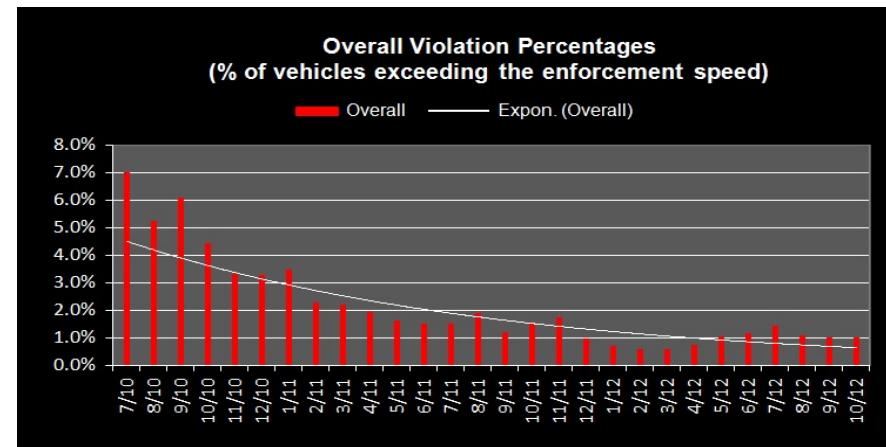




- The rate of vehicles cited for traveling 12 mph above the work zone speed limit has dropped by more than 80% since 2009.

- Maryland's work zone-related crashes, fatalities, and injuries are down to a 10-year low.

 MARYLAND SafeZones Automated Speed Enforcement	Fatalities in Work Zones	Injuries in Work Zones	Overall # of Work Zone Crashes
2009	9	827	1,685
2011	3	688	1,486



SAFEZONES EQUIPMENT IS ACCURATE & RELIABLE.



- PoliScan^{speed} LiDAR (Light Detection and Ranging) laser technology:
 - More accurate than radar
 - Measures a vehicle's average speed
- *SafeZones* initially deployed radar, but quickly learned that its capture rate was best suited for single-lanes.

SafeZones Calibration

All testing has verified that SafeZones equipment has ALWAYS been operating accurately and reliably.

1. All cameras are manned by a trained operator who checks calibration during every deployment.
2. Certification of calibration from manufacturer.
3. Certificates of calibration from independent laboratory prior to any new deployment and annually.



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Calibration certificates now available online at www.safezones.maryland.gov

	<p>MRA Digital 8808 Centre Park Drive, Suite 305 Columbia, MD 21045 (240) 447-8803</p> <p>Certificate of Calibration</p>	
Manufacturer: Vitronic, GmbH	Model: PoliScan^{Speed} M1-HP	Unit Serial Number: PS-642101
<p>This speed measuring device has been tested and verified to be functioning in accordance with the manufacturer's specifications. Testing was performed using equipment traceable to the Office of Legal Metrology of the German State of Hessen.</p> <p>The calibration testing and verification procedure includes:</p> <ul style="list-style-type: none">a) Verification of the LIDAR and camera sensor devices by use of a calibrated test stand. The horizontal and vertical beam aperture of the LIDAR as well as beam alignment and signal to noise ratio is verified. The alignment of the optical axis of the cameras with respect to the LIDAR sensor is also verified;b) Verify the low-voltage monitoring and correction function (suspends measuring process between 10.3V and 10.7V);c) Verify the accuracy of point distance measurements (max. 0.3125m at a distance of 20m) on a test stand;d) Verify the accuracy of the internal time base using a calibrated stop watch (max. deviation 0.3%, e.g. 0.4 seconds per 30 minutes). <p>The device meets all requirements and tolerances specified in the manufacturer's technical directives for calibration checking. The calibration check was performed under the direction of Heinz Stubblefield, who has been certified to calibrate Vitronic PoliScan^{Speed} devices.</p>		
Signed, Heinz Stubblefield (FCC License Number 0021-1744-89)		Date: February 22, 2012
Certification Expiration: February 21, 2013^[1]		
<p>[1] The validity of the calibration expires immediately if any official seals of the calibration on the device are broken or any mechanical, electrical or software modifications are made after this calibration.</p>		



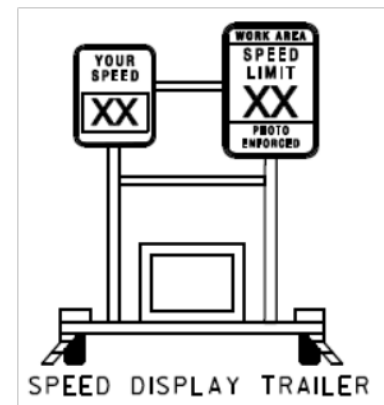
*SAFEZONES' QUALITY CONTROL PROCESS AT THE BACK
END ENSURES THAT CITATIONS ARE ONLY ISSUED TO
THOSE WHO VIOLATE THE LAW.*

- 3 sets of human eyes review every citation:
 - Vendor has two people review each potential violation
 - MSP / MDTA police review citation
- As of this date, 95% of violations have resulted in citations issued.



Notification

- 21-day warning period.
- Notification in advance – Signs, press releases, *SafeZones* website updates.
- Once ASE is deployed,
 - ASE signs are numerous, large, colorful, and conspicuously placed.
 - Digital speed trailers are placed prior to cameras to provide real-time speed to drivers.





Questions?



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