

Comment from Mark Gleason

A camera monitoring system can be superior to outside mirrors in these ways:

- Reducing the aerodynamic drag of the vehicle and thereby increasing vehicle range especially battery electric vehicles. With proper design and positioning of the camera housing, this is a significant reduction. Mirrors are continually getting larger while cameras are reducing in size and cost.
- By reducing the mirror related wind noise of the vehicle
- Significantly reducing the deviation of the driver's eyes from the road ahead to monitor the image of the "outside mirrors", by placing the display screens nearby, but not obstructing, the normal vision lines of the driver. This is very valuable in reducing the time during which a driver's eyes are diverted from the road.
- By providing enhanced night vision to the driver through image processing and illumination sensing.
- By contributing the camera's information to 360 deg monitoring systems for the periphery of the vehicle.
- By implementing a system of fluid spray and compressed air to clean the lens of the camera during weather conditions that would cause water droplets and residue to partially obscure the normal outside mirror.
- By using the CMS to identify people, animals and vehicles not easily discernible to the driver using artificial intelligence.
- A CMS system can be designed such that catching the unit on a garage door opening is no longer a concern reducing repair and insurance costs.

I have driven a vehicle with a CMS and found it was an easy adaptation within a short period of time. Many current drivers have gotten very used to driving in reverse while monitoring the backup cameras enabling the transition to be accommodated easily.