Top Vehicle Video Camera Considerations
(Customer contributed direct concerns and questions)

Over the last 21 years in the mobile digital market, we receive hundreds of requests each year and occasionally we get a question that really defines their concerns or their specific needs for a system. The best of those questions have been rephrased and are listed below in the hope it can also assist your district, department or company to learn the most about these systems and technologies and make a truly educated decision to provide the best value for your investment.

1 – Can We Reduce Fleet Fuel Costs Dramatically?

Yes, International studies have demonstrated that proper Eco-driving training programs in Europe and Canada have documented reductions in fuel consumption ranging from 16% to 25% for individual drivers.

This means a possible **reduction in fuel costs fleet wide of up to 25%** with Eco-Drive Smart Driver Training Devices (DTD) like the Digital Eye.

2 – What Is The Best System Warranty Offered?

The **10 Year Limited Warranty** on the Digital Eye is double the warranty period of any mobile video system we are aware of currently.

3 - How Long Do You Want Your Vehicle Video System To Last?

The obvious response should be "As long as the vehicle lasts".
The problem is; I do not know of a single conventional hard drive capable of surviving 15 years sitting still at a desk in an air-conditioned or heated environment.

Now put this same fragile hard drive in a vehicle riding on steel springs, bouncing along on rough roads, in summer heat, in winter cold, high moisture, really rotten vehicle electrical charging systems and it is a wonder they survive their warranty period. In reality many of them do not survive their warranty.

The only digital system I am aware of with any chance of exceeding the life of the average vehicle is the 100% Solid State Drive memory card based DVR.

4 - How Reliable Do You Want Your System To Be?

Hard drive based DVRs have the highest failure rates and are poorly suited for mobile vehicle applications due to their fragile design.

How often do they fail from "ideal" office environments?

- About 560,000 hard drives crash every month (*Mozy.com).
- "Disk drive failures 15 times what vendors say, study says, drive vendors declined to be interviewed" (Computerworld)
- The Carnegie Mellon study found hard drive failure "up to 13% observed on some systems", (this is from a stationary office environment)

Put these in a mobile vehicle environment and I expect to see a 4 fold increase in their failure rates.

100% Solid State CF or SD based DVRs offer the highest reliability, longest life (Limited Lifetime Warranty), operate in extreme heat, cold, vibration, shock and impact. Why trust video evidence to anything less?

The future is unwritten; circumstance and misfortune can combine without warning creating unanticipated problems in the best-laid plans. Prudence suggests it is better to have a device that works as reliability as possible when protecting the district, department or company from liability concerns.

5 – Can You Move This From Vehicle To Vehicle?

Digital Eye is a Driver Risk Management Solution that was designed with mobility in mind. The system in its hard-wired configuration takes as little as 5 minutes to install. The “Mobility Kit” option takes that a step further and permits installations in as little as 1 minute if you just want a quick swap of vehicles.

Most 2 camera systems are not designed to be mobile and may require:

- Installation times of up to 4 hours to install,
- Require severe modification to the vehicle,
- Drilling of holes, running cables in conduit tracks,
- Aligning cameras on hard to level surfaces,
- Damaging multiplexed vehicle wiring,
- Damaging the vehicle ECM or CCM,
- Not to mention voiding the vehicle warranty

The worst part is your company district or municipality could be charges up to $590 per vehicle for the installation.
The worst insult to injury after an accident might be to pay someone several hundred dollars to pull it out of the wrecked car and than reinstall it in the new vehicle.

6 - Do You Want To Use This Video In Case of Bad Accidents?

Car Airbags deploy in accidents at about 3 "G"s of impact, or as slow as hitting an object while your car is moving about 10 miles per hour. Often the airbag replacement costs several times the damage to the vehicle.

A conventional hard drive in a vehicle video system can survive about 3 "G"s, which explains why so many of them crash the hard drive when the vehicle hits a large bump, big pothole, storm curb or other object even at slow speeds.

Some salesmen will assure you their hard drive based DVR is
"Buffer protected, shock isolated by isometric elastic polymer".

This might be the cynic in me, but I would not let a potential $20,000,000.00 lawsuit defense rest on 20 cents worth of synthetic rubber bushings or washers likely made in China where they have a hard time making dog food that does not kill the dogs eating it!

When you are purchasing a video system to protect your district, department or company from liability and act as an expert witness in the worst case scenarios, it seems a wise idea to make sure the one you invest district, department or company budget dollars into, will not fail you when you need it most, such as in the case of a bad accident.

This is the type of decision that separates those of vision; job security and career advancement from those who might look back in hindsight after losing the lawsuit due to a failed hard drive system that was damaged in the crash.

7 - Can This Device Be Used In Accident Analysis?

Digital Eye is an Internationally Recognized & Certified Driver Training Device (DTD) designed to enhance driver safety and actively remind drivers when they operate the vehicle in an unsafe manor, while at the same time creating a video document of the entire driven journey with dual cameras one documenting what occurs inside the vehicle and one documenting what the driver sees out the front windshield.

Part of that design goal was to document in detail what may have caused an accident, what happens during the accident as well as what happens after the accident in a complete driving video record from start of the vehicle to key off. High technologies like passive GPS, On Screen Mapping and 3-Axis "G" sensors combine to create accident recreation data that can be used to accurately determine the cause and effects of the accident.

Playback video provides graphic representation of all "G" forces and speeds to assist in professional accident analysis, time stamped video to comply with courtroom evidence requirements.

8 – Can This Actually Reduce Our Drivers Accidents?

Yes when used properly the device can significantly reduce dangerous driving behaviors and actively remind the driver when they are exhibiting potentially dangerous driving behaviors that can cause an accident so they can adjust their driving habits and become a safer driver.

Digital Eye is an Internationally Recognized & Certified Driver Training Device (DTD) designed to enhance driver safety and actively remind drivers when they operate the vehicle in an unsafe manor, while at the same time creating a video document of the entire driven journey with dual cameras one documenting what occurs inside the vehicle and one documenting what the driver sees out the front windshield.

While most other systems only concentrate on what happens during the accident Digital Eye also

helps your drivers learn what they may be doing that could cause and accident, and offers a proactive solution before potentially dangerous driving behavior causes vehicle damages, bodily injury or loss of life.
The “Drive Smart” part of the Eco-Drive Smart program can help prevent accidents and save lives.

9– How Can We Prevent Driver Abuse & Assault?

This needs to be broken down into 2 categories: rude / obnoxious and criminal.

The rude / obnoxious passengers in a vehicle or outside a vehicle that may engage or annoy the driver are usually restrained to a degree once they realize or it is pointed out to them that they are being recorded.
A degree of deterrence is provided by the presence of the camera and many threats or verbal abuses can be quieted by the knowledge that an administrator or law enforcement officer can later review this entire matter. An additional sticker in their view can reinforce the fact they are being recorded.

Criminals, like predators in the animal world, select their victims based on opportunity and risk. They prefer “soft targets” meaning those who will offer little resistance to them and low risk of being caught. A degree of deterrence is provided by the presence of the camera, as this is something they will realize can greatly elevate their level of risk in getting caught. Few criminals want their image on the nightly news for all to see, so in most case the mere presence of a video camera might get them to abandon their efforts or criminal intent on your driver.

The best insurance for this type of problem might be a driver “panic button”/Active GPS vehicle Tracking system in a remote location that the driver can trigger if they feel they are under assault and with a silent alert to administration help can be summoned to their exact location hopefully before anything bad happens.

10- How Much Future Funding Could You Waste On Memory Repairs?

How often over the long service life of the vehicle do you want to replace the hard drives when they fail through normal wear and tear or from crashes due to bumps or impacts?
Lets take the manufacturers at their warranty, the average is 1 year, but lets go with a 3 year warranty. Average life of a vehicle is about 15 years, so it is possible the district, department or company could need to replace the hard drives in each vehicle 5 times.

Who pays for 4 additional hard drives per vehicle after they are out of warranty?

Non-Propriety Hard Drive Cost of $40-$100
Your district, department or company could be expected to pay an additional $160.00 per vehicle in parts alone; of future budget dollars just to keep existing hard drives working until the vehicle is retired. This does not include the labor to troubleshoot the problem, the labor to replace them, the shipping costs, or the possible loss of video evidence when you need it most. Possible future expense of additional parts $160.00 -$400.00 per vehicle

Propriety Hard Drive Cost of $150-$600
Your district, department or company could be expected to pay an additional $150.00-$600.00 per vehicle in parts alone; of future budget dollars just to keep existing propriety hard drives working until the vehicle is retired. This does not include the labor to troubleshoot the problem, the labor to replace them, the shipping costs, or the possible loss of video evidence when you need it most. Possible

future expense of additional parts $600.00-$2,400.00 per vehicle

100% Solid State CF & SD Card
Your district, department or company could have no expected costs in parts, of future budget dollars as 100% Solid State CF & SD Memory cards come with a Limited Lifetime Warranty when purchased with the system.
Possible future expense of additional parts $0.00

11 – Would you like Free GPS w/On Screen Mapping?

The China or Taiwan (Republic of China) made DVR competition, charge a high cost for GPS, the Digital Eye provides GPS for Free! Free GPS and On Screen Mapping, no use fees, no service contract, as it is “passive GPS”.

With this feature you can document, verify or disprove a parent claims that;
The bus was too early and my child missed it.
The bus was too late, and my child missed it.
The bus did not stop at our stop,
My child got on the bus at school, but never got off."
The vehicle was speeding past our house.

These parent claims can now be verified or proven false with On Screen Mapping and its GPS mapping on screen display.

Document, verify or disprove driver related concerns;
Did the driver stop at the 4 way stop signs,
Did the driver stay on route or wander all over the place?
Did the driver make personal trips in the vehicle?
Does the driver speed on certain roads?
Does the driver stop at a railroad crossing?
Was the vehicle used on weekends for unauthorized trips?

These driver concerns can now be verified or proven false with On Screen Mapping.
This system option requires no service connection or monthly fees from GPS satellite or cellular service provider. All that is required is a GPS FMI DVR to be played back on a PC that has access to high speed Internet.

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