



At last.....

there is a simple, affordable, and efficient vehicle camera system that has been designed for YOUR needs, not some razzle dazzle techno golly box that is a maintenance and/or operational nightmare. We call it System III. You'll call it incredible!

We interviewed police departments all over Alabama, large and small to determine what users like you really wanted. The response was good video quality, simple operating requirements, reduced cabin clutter in the driver compartment, secure and simple data transfer, minimal operations workload, reliability, fast and affordable service when required, useable GPS capability, a good rear camera that records the full back seat area, low light level capability for both the front and rear cameras and simplified pricing. (Whew, I think we got it all in there.....).

System III addresses all these requirements with top of line low light level front and rear cameras supplied as standard. We didn't get into the CF card versus hard drive, versus DVD, versus automatic Wi-Fi downloading controversy except to acknowledge that from an operational viewpoint, critical data retention is 72 hours, secondary retention is 30 days and less than 2% of all data captured is useful. We concluded that the best operating protocol would be automatic ON whenever the ignition was ON with all data recorded on the users choice of a 32 GB CF card (32 hours of data) or 120 GB hard drive (120 hours of data).

We concluded that there was no need for the operator to do anything except switch cameras from front to back. That's about as simple as you can get! There is no need for administrative personnel to continually remove and archive data. You just pull the required CF card or hard drive as needed with up to a month of data ready when you need it! Now we can mount the DVR either in the console or under the seat depending on whether you prefer officer playback capability.

A side benefit of System III is full time GPS vehicle tracking – a fantastic administrative tool with NO MONTHLY AIRTIME CHARGES! We even took the guesswork out of camera selection by offering a choice of a 3.5" or 5.5" monitor at the same price. We developed a warranty program that provides a next day exchange for 2 full years and then priced our system with all the features you want at just \$3,995.

Installation by factory trained personnel adds \$250 for an on-site trip charge and \$175 per vehicle. If you choose a hard drive system, we offer a hard drive docking station with USB connector for use with an existing PC for \$250, or a CF card reader for \$50. Optionally, we offer a custom built PC with BOTH external hard drive docking and CF card reader plus all required software pre-installed for \$1,500. You're going to like System III - We guarantee it!

Burch H. Falkner

Things to Think About

After a great deal of consideration, we have come to the conclusion that the reason for using vehicle cameras can be reduced to just three requirements.



1. Litigation avoidance or winning those cases where court involvement is necessary.
2. Prosecution support by providing the evidence required for success in the courtroom.
3. Better administrative control of fleet vehicles

All too often these considerations are overridden by focusing on equipment rather than the basic objectives. The subject of administrative procedures generally doesn't come up until after the purchase of the equipment. The purchase of equipment is a one-time event. The operation and administration of that equipment lasts much longer. Let's take a look at some of those considerations.

Equipment manufacturers have done their best to reduce vehicle cabin clutter to the minimum size possible. One manufacturer crams the DVR, monitor, and rear seat camera into an oversized rear view mirror. Another sticks the DVR into the slot normally allocated for the AM/FM radio. Another offers a DVD burner mounted above the vehicle rear mirror. Still another moves the recorder to the vehicle trunk.



Virtually all manufacturers agree that a good front mounted camera is critical. The best we have seen is Sony as shown on the left. The Sony camera is used both by Eagleye and Safety Vision. As far as rear seat cameras are concerned, we had a revelation. If you want to see what's going on in the back seat, patient transport area for EMS folks, or prisoner transport area for prisoner transport vans,

you need the camera in the rear passenger area. With the exception of Digital Ally and WatchGuard, the majority of manufacturers, including Eagleye and Safety Vision use a very efficient low light level camera similar to the one shown at the right.



A wireless body microphone is an essential component of a patrol car camera system. This provides the ability to record officer/offender conversations outside the vehicle. Telex is the leading manufacturer of digital devices utilizing the 2.4 GHz band. Earlier systems used 900 MHz analog technology. In

general, both systems work well, but the 2.4 GHz systems seem to have longer range and better audio quality. Suffice to say that both Eagleye and Safety Vision offer the 2.4 GHz body microphone.

Now comes the tricky part - the selection of recording technology. Currently you have a choice of DVD's, Compact Flash (CF) memory cards, and hard drives designed specifically for mobile use. Without getting technical, let us just say for now that DVD technology was never designed for mobile use and contrary to what you may have been told, or even what you read, DVD is not a good choice. Additional information is available in our WatchGuard competitive report at [Competitive Reviews](#).

CF memory cards are a good choice from the viewpoint of good recording and transfer capability coupled with low cost administrative viewing. Many computers already have CF card readers. USP plug in readers are available for well under \$50 and the software is FREE! CF card memory is *practically* limited to 32 GB's. Hard drives offer greater capacity (120 GB) and faster downloading but don't work under 32 ° F and have a higher potential of mechanical failure.

Some manufacturers offer only 4 GB memory but the average is to 8 GB. Although higher capacity memory is available (32 and 64 GB), most manufacturers don't offer extended memory options to keep cost low.



Like many in our industry, we had accepted the fact that removable hard drives, while acceptable in ambulances, commercial vehicles and school busses had no place in law enforcement vehicle, or at least that's what we thought. After all, it is somewhat more difficult to remove a hard drive than it is to pull out a CF card. However, we had overlooked the greater storage capacity and faster file archiving of the removable hard drive.

We had hardly given any thought to transferring file data and what effect it had on administrative personnel. We know that larger system users could not be adequately served with a system that required periodic removal of data storage device, transferring, viewing and archiving the data. The traditional 8 GB DVR using CF memory cards as shown at the upper left, offered a good solution for smaller user but found little favor with larger users due to physical handling delays.

Large users required a faster method of data transfer. The early large fleet users transferred data from the vehicle cameras via plug in cables at the station headquarters. More recently, 900 MHz analog, and later the 2.4 GHz digital wireless systems provide wireless automatic downloads when the vehicle approaches headquarters. Only a few suppliers offer systems of this type with Mobile Vision and Integrian being two of the better known manufacturers. More recently, others have developed this technology in order to provide solutions for larger users. Still, there are some unresolved problems.

The wireless transfer of data is obviously more expensive than removing a CF card or hard drive. There is also the issue of increased cost for the wireless transceivers, computer servers with large data storage capability, fast operating speeds and custom software. In short, wireless data transfer has many advantages, but like anything else, there is always the dark side. Cost and complexity are major disadvantages. We know of one municipality that spent over a half million dollars for one of these systems. After giving the manufacturer a year to work out the problems, they took the system out which proved to be a costly proposition for all concerned!

We think there is a better way to deal with data transfer and administrative protocol, better than traditional 4 GB CF cards, and better than wireless data systems. Best of all, existing CF card systems can be converted to this new way of handling data. Incredibly, we find that administrative handling of data is the number one problem with the operation of vehicle camera systems. Our new system, which we call System III, provides a new and simplified approach to data management while simultaneously addressing the need to reduce vehicle cabin clutter as well as including free GPS tracking for better fleet management.

An introduction to System III

System III addresses all system requirements including reduction of cabin clutter, improved administrative capability, and simplified system management.



First, let's talk about cabin clutter. The problem is that there are simply too many things that need to go into the driver's compartment. The camera isn't a problem. It can easily be mounted on the windshield near the mirror without interfering with the driver's forward vision. The monitor can be placed anywhere - on a visor, on the dash, on a console, virtually anywhere.

The body microphone charger doesn't require a lot of space and all body microphones require a charger, so we will say for now that the three things that MUST be in the drivers compartment are the forward camera, a monitor, and a charger for the body microphone. The rear seat camera is behind the officer, so that isn't a problem. So what have we left out? You guessed it - the Digital Video Recorder (DVR). That's the problem! So what is the solution? It most certainly is NOT settling for a consumer grade DVR squashed into a rear view mirror, AM/FM radio slot, or overhead console. The System III DVR, either CF or hard drive models easily mount in a standard console or even under the seat.



Both the CF card DVR and hard drive recorders are normally mounted in the drivers compartment since they contain the controls for turning the unit ON and OFF, Camera selection, Zoom, Record, Pause, Stop, and Playback. However, the DVR does not have to be in the driver's compartment if we handle operator control a little differently. We can move the DVR out of the driver's compartment and use either a CF card or mobile hard drive for recording data. As mentioned elsewhere a 32 GB CF card will normally provide up to a month of patrol car data when the camera is controlled by emergency light activation, body microphone, or action by the officer. A mobile hard drive such as the one shown above can handle 120 GB of data which should be able to handle up to 30 days of continuous data for average use. This increased capacity provides the capability for reducing cabin clutter, recording all vehicle movement and speed, and well as greatly simplifying administrative procedures.

With a mobile hard drive or high capacity 32 GB CF card, we don't need the control functions of the DVR. We set it up to record all activity when the ignition is ON. This eliminates the need to connect to external sensors or manually activated ON/OFF switches.

The only control function required by the driver is activation of the body microphone in the same manner as with other system and camera selection (front camera for normal driving and rear camera when passengers are in the back seat which requires limited access to the DVR). The GPS is on at ALL times to record routes, stops, and speed.

This brings us to the administrative benefits. No longer is it necessary for administrative personnel to collect CF cards, download, and archive data. If evidence is required, the hard drive or CF card in the applicable vehicle is removed and files transferred to the administrative PC. With up to 3 days of continuous storage (or more), the periodic removal of CF cards is eliminated. Better yet, large system users will be spared the complexity and expense of purchasing and maintaining expensive Wi-Fi download systems.

If you are considering the purchase of a Digital Ally or ICOP system, we invite you to visit <http://falcondirect.web.officelive.com/message.aspx> for information you won't find in their product literature. If you are considering the purchase of an Interceptor system, you may be interested in information at <http://falcondirect.web.officelive.com/competition.aspx>. If you are considering the purchase of a WatchGuard system, we offer an interesting review at www.info4u.us/WatchGuard_Competitive_Review.pdf.

A product data sheet on System III is available at www.info4u.us/System3.pdf. Additional information on our vehicle camera systems is available at www.vehiclecameras.us. System III could be the right system for YOU!

