

FLEET CAMERA SYSTEM

BEST PRACTICES CHECKLIST

Operator

Task	Frequency	Date Completed
Equipment		
Vehicles		
Ensure the 'Diagnostic Button' (i.e. the green indicator light) located on the vehicle's control panel is not flashing, which indicates the camera is not recording.	Daily	
Ensure the vehicle antennas are intact and show no sign of damage.	Daily	
Cameras		
Ensure dome cameras are dry and clear of dust particles and debris. (Note: Inspection should occur as part of the Operator's Pre-Trip Inspection.)	Daily	
Ensure dome cameras and the wedge cameras are clean, free of moisture, and clear of obstructions. (Note: Inspection should occur as part of the Operator's Pre-Trip Inspection.)	Daily	

Maintenance Administrator

Task	Frequency	Responsible Party	Date Completed
Equipment			
Vehicles			
Ensure the 'Power Over Ethernet (POE)' light is illuminated.	Semi-Annually	Maintenance Admin.	
Cameras			
Clean dome cameras and wedge cameras thoroughly.	Semi-Annually	Maintenance Admin.	
Ensure that the cameras are properly aligned and focused to capture activities on and around the equipment.	Semi-Annually, unless obstruction is visible	Maintenance Admin.	
Ensure the WiFi-bullet is 1) illuminated (i.e. receiving power) and 2) has adequate 'bars' of connectivity (i.e. has enough signal to transit the data).	Semi-Annually, unless obstruction is visible	Maintenance Admin.	
Ensure the 'G-Force/Inertia' sensor is illuminated.	Semi-Annually	Maintenance Admin.	

Notes

For more information, please contact your Mobility Development Specialist
www.ncdot.com



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Date

System Information

Transit System Name

Camera Administrator

Maintenance Administrator

The North Carolina Department of Transportation Public Transportation Division (NCDOT-PTD) received ARRA funds in 2012 to install fleet camera systems statewide. The fleet camera systems offer numerous benefits:

- **Responsible use of resources** – The fleet camera systems required a significant investment of public funds. Using the cameras to the fullest extent possible justifies and maximizes this investment.
- **Safety** – The fleet camera systems can provide video to assist in reviewing safety events such as vehicle collisions, unsafe driving, and unruly passengers.
- **Efficiency** – The fleet camera system can help transit systems track no shows. Subsequent follow up and/or actions can improve the efficiency of transit operations.

The investment of public dollars to install and maintain the fleet camera systems statewide provides numerous benefits to the transit systems and the North Carolina Department of Transportation, and ensuring the fullest and best use of the equipment requires a partnership. This partnership places responsibility on numerous parties, including

- **Camera Administrator** – This person manages the fleet camera system. In some instances, the Transit Director will also serve as the Camera Administrator.
- **Maintenance Administrator** – This person is responsible for overseeing maintenance of the transit system fleet. In some instances, the Maintenance Administrator also may be a Operator.
- **Operator** – This person operates a vehicle and is responsible for basic maintenance of its components.

The Best Practices Checklist simplifies the maintenance and operation of the camera systems to ensure the fullest and best use of the camera systems is achieved by each transit system. The checklist is organized into Procedures and Equipment. A series of best practice actions are provided, including the frequency and responsible party. Some tasks should occur daily while others occurs annually or when changes in personnel occur. Where possible, this information should be integrated into pre-trip and post-trip checklists.

NCDOT's Role

Oversight of the Fleet Camera Systems is provided by NCDOT through the network of Mobility Development Specialists. The Mobility Development Specialists will review the checklists during their semi-annual visits. They will use this time to address deficiencies noted on previous checklists and to ensure changes in personnel do not affect the operation of the fleet camera systems.

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BEST PRACTICES CHECKLIST



Camera Administrator

Task	Frequency	Date Completed
Procedures		
Check for supplies (e.g. microfiber cloths, lens cleaner, glass cleaner, compressed air, etc.) needed to perform daily equipment inspection and cleaning.	Monthly	
Ensure materials provided by SEON (e.g. operating materials, operations manuals, handbook, software discs, etc.) are in one place and can easily be accessed.	Semi-Annually	
Determine if equipment inspection is included and documented on the Operator's Pre-Trip Inspection.	Any time reprint or reformatting of form (DVIR) occurs	
Determine if an administrative staff member has been assigned to perform the comprehensive servicing and oversight of equipment maintenance.	Annually or whenever change in Camera Admin.	
Determine if a 'Preventive Maintenance Checklist' has been developed for equipment servicing OR if the transit system is using the SEON-recommended checklist.	Annually	
Ensure that there are always two administrators who are fully trained and capable of operating the Fleet Camera Surveillance system, i.e. primary and alternate	Annually or whenever change in personnel occurs	

Task	Frequency	Date Completed
Equipment		
DVR		
Clean filters.	Semi-Annually	
Check the stability of the DVR in its frame (i.e. DVR is bolted securely).	Semi-Annually	
Check cables leading into the DVR to ensure that they are secure.	Semi-Annually	
Check to ensure the lock on the DVR is secure.	Semi-Annually	
Check to ensure the lock on the hard drive (inside the DVR) is secure.	Semi-Annually	
Check Access Point for proper mounting	Semi-Annually	
Check 'Power Over Ethernet' (POE) on PC-side	Semi-Annually	

Task	Frequency	Date Completed
Equipment		
Computers		
Check 'Service Manager'. Is the Service Manager operating correctly? (Note: Service Manager is displayed as a traffic signal icon in the lower right hand corner of the computer screen.)	Daily	
Ensure downloads are occurring from the units to the Commander computer (Note: Indicated by a red color.)	Daily	
Ensure all vehicles are communicating with the Commander unit.	Daily	
Check to ensure new data being downloaded.	Daily	
Ensure the computer is communicating with the Access Point (i.e. the antennae located on the bus lot or exterior premises).	Weekly	
View data (Note: Viewed data is indicated by unbold type and a smaller font. Unviewed data is indicated by bold type and larger font.)	Weekly	
Check for 'System Help Alert'. (Note: System Health Alert indicates that the Commander computer is not operating properly.)	Weekly	
Delete or archive old data	Monthly	
Check for 'Individual Vehicle Health Alert'. (Note: An Individual Vehicle Help Alert indicates that the camera in a specific unit is experiencing communication issues and is not communicating with the Commander computer.	Monthly	
Check operability of software (e.g. Does Commander 'freeze' and stop responding to incoming data? Is data download interrupted because the software associated with the DVR is not compatible with Commander software?).	Semi-Annually	
Check Access Point for proper mounting	Semi-Annually	
Check 'Power Over Ethernet' (POE) on PC-side	Semi-Annually	
Upgrade / replace computer	As Needed	