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Guidance Document

Title:	Traffic Regulation FRS Display Screens	Exemption
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For the attention of:	Chief Fire Officers	
Distribution CFOA Members	Fire & Rescue Service 🛛	General Public
Relevant to: England ⊠	Northern Ireland 🗌 Scotland 🖂	Wales

Related Documentation: NFCC Guidance - Vehicle Special Order

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Summary of the paper: The use of displays in vehicles where they can be seen by the driver when a vehicle is being driven is prohibited under regulation 109 (Television Sets) of The Road Vehicles (Construction and Use) Regulations 1986. Following involvement from members of the NFCC ESN team, along with Ambulance colleagues, an exemption to this has just been created through a vehicle special order (VSO). This paper provides background and context to this exemption along with some guidance as to how FRSs will be able to comply with the relevant regulations.

1. Background

Regulation 109 (Television Sets) of The Road Vehicles (Construction and Use) Regulations 1986 [Reg. 109] prohibits a driver from being able to see or observe a display screen whilst the vehicle is in motion. Until recently an exemption from this regulation for Fire and Rescue purposes did not exist.

109 (Television Sets) -

(1) No person shall drive, or cause or permit to be driven, a motor vehicle on a road, if the driver is in such a position as to be able to see, whether directly or by reflection, a television receiving apparatus or other cinematographic apparatus used to display anything other than information -

- (a) about the state of the vehicle or its equipment;
- (b) about the location of the vehicle and the road on which it is located;
- (c) to assist the driver to see the road adjacent to the vehicle; or
- (d) to assist the driver to reach his destination.

(2) In this regulation "television receiving apparatus" means any cathode ray tube carried on a vehicle and on which there can be displayed an image derived from a television broadcast, a recording or a camera or computer.

The Police Service already has a limited exemption to Reg. 109 for automatic number plate recognition (ANPR) purposes. This exemption supports the Police duty of preventing and detecting crime by being able to observe a display screen in a moving vehicle in a limited sense subject to certain conditions. Despite popular beliefs within the FRS sector, no similar exemptions previously applied to the FRS or Ambulance Services.

Due to both current and future potential use of displays screens within vehicles, a 3ES Traffic Exemption working group (3ES TEWG), including representation on behalf of the NFCC, was formed (Apr 18) in recognition of the impacts regarding –

- the cessation of the police ANPR exemption in Oct 19
- the continued increase in, and exploitation of, technology within emergency service vehicles e.g. the Emergency Services Network (ESN) particularly for all emergency service staff
- the need to comply with traffic law
- emergency service incident operations
- maintaining high standards of road safety
- the conflicts experienced in complying with existing traffic law.
- medical, professional and legal expertise on interaction with display screens and associated devices whilst driving

This working group has successfully progressed discussions with the lead government department for this area, the Department for Transport (DfT), appropriate service leads and subject matter experts. This has now allowed the creation of a cross emergency service traffic exemption.

2. Emergency Service Approach to Vehicle Special Orders

Following a decision by the National Police Chiefs Council (NPCC) to pursue an extension to their existing police traffic exemption as a matter of urgency, two VSO's will be issued by DfT; a police specific VSO and a joint Fire and Ambulance VSO. The difference being that the joint VSO does not describe the ANPR system used by the Police.

The Road Vehicles (Construction and Use) (Ambulance and Fire Vehicles) (Great Britain) Order 2019, the joint Ambulance and Fire VSO, was signed on 20 August 2019 by the authority of the Secretary of State for Transport, Ian Yarnold Head of International Vehicle Standards Division, exercising powers conferred by section 44 of the Road Traffic Act 1988. It will be effective from the 1st November 2019 and is set to expire on 1st November 2023. Going forward it is anticipated that the NPCC Strategic Roads Steering Group, on behalf of the 3ES, will approach the DfT to request that the 3ES VSO's are moved into full legislation in due course, removing the need for specific exemptions. The 3ES TEWG have since arranged a meeting (3rd March 2020) with Dft and the Home Office to discuss the next stages and will remain engaged with DfT over the coming years to ensure that any outcomes remain appropriate to the needs of the emergency services and facilitate rather than hamper the use of technology and digital innovation to deliver services into the future. The challenge being that experience has proven that legislation will generally lag behind innovation and the use of such technology.

Ultimately, it will be case law that will further define or clarify the boundaries of the VSO within which FRSs and the emergency services can operate.

3. Vehicle Special Order (VSO) conditions

As such to meet each emergency services' modus operandi and concept of operations whilst remaining compliant to traffic law, an enshrined set of principles (below) have been agreed for the exemption based upon:

- Immediate risk to life.
- Immediate risk of harm to a person or people.
- Immediate risk of serious damage to property

From these principles, an exemption could be used (by an emergency service driver) when responding to an incident. The principles being designed to provide a clear, risk assessed approach to the operation and use of equipment and a visual display to provide safety critical information in pursuit of statutory duties to protect the public, property or fire service personnel.

The principles described above provide for circumstances when the traffic exemption may be used. During discussions with DfT some broad conditions were agreed that outline what would be considered acceptable to be displayed and visible on a screen to a driver when the VSO principles are invoked, these being –

- a) Other vehicle location
- b) Still images.
- c) The use of symbols or icons

All other information being displayed to a driver e.g. large pages, paragraphs, sections or lines of text, video briefings, complex flowcharts etc via a screen would need to be removed

when the vehicle was in motion, that being defined as a GPS input recognising a vehicle speed of 7mph or above.

It is important to note that this VSO does not exempt a driver from other elements of Road Traffic legislation, namely-

• Regulation 104 of The Road Vehicles (Construction and Use) Regulations 1986– Driver Control - The driver must have proper control of the vehicle and full view of the road at all times.

• Regulation 110 of The Road Vehicles (Construction and Use) Regulations 1986– Handheld mobile devices - The driver shall not use, or another person cause the driver to drive a motor vehicle on the road whilst using a mobile phone or hand-held device of any kind (summarised).

This remains applicable where a data receiving or transmitting device is not fixed into the vehicle. Fixed in this context is defined as permanently fitted (bolted or screwed). Where a device can be taken out of the vehicle, e.g. via a docking cradle, it is considered a mobile device.

For clarity, the Road Vehicles (Construction and Use) (Amendment) (No 4) Regulations 2003, Regulation 110, Section 6, d covers TETRA equipment supplied as part of the FireLink / Airwave contract, given it is perceived within Section 6.d (i) as a two-way radio for the purpose of transmitting and receiving spoken messages and Section 6.d (ii) operates on exempt frequencies. Thus, permanently fixed Firelink vehicle terminals and installations are not technically classed as a mobile phone or hand-held devices, however, it should be noted that Regulation 104 (driver control and view) still applies and should be considered in the context of a driver using an Airwave device in particular those devices that are considered removable

Any exemption in place does not mean it must be utilised, any risk associated with using this exemption would rest with the driver of a vehicle and their FRS

4. Guidance for Fire and Rescue Services

FRS have always sought compliance to traffic law when considering technology solutions to deliver risk critical information within a vehicle. These solutions may not have been able to incorporate fully compliant functionality and, or, required bespoke adaptions to suit vehicle and driver ergonomics. In the future, the use of display screen areas to provide significant amounts of information are expected to play a larger part in FRS operations and ways of working. Understanding that the VSO does not remove all the risk from FRS's, however it does provide clearer direction on the use of display screens and allows some form of mitigation for emergency response purposes. Recent reports, including the Kerslake Report of May 17, have also indicated the need for the sector to make better use of technology, to improve the sharing and communication of critical information between incident roles and responders. The VSO lends itself to supporting FRS in achieving these goals more easily.

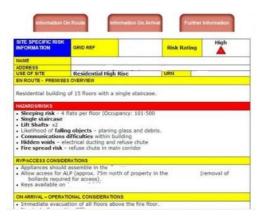
Whilst the risks to using a suppliers' technology to deliver information within the vehicle will in the main continue to be borne by the individual FRS concerned, the VSO provides for the first time, a clear responsibility for suppliers to share some of the burden of providing compliant systems. These could incorporate software and hardware working together to recognise vehicle speeds and remove extraneous information from the drivers view, the design of software and interfaces to also allow further or future compliance e.g. text to speech, the use of hands free accessories etc.

FRS's may need to consider how ICT and operational communications in vehicles is delivered in an integrated sense, including vehicle designs, installations, software and hardware packages that support operational requirements in respect of the VSO. These may need to encompass multi crewed vehicles e.g. fire appliances as well as those aimed at single person solutions e.g. flexible duty officer. Physical installations may also need to be reviewed to ensure compliance with the new VSO.

In this sense the VSO provides conditions that bound how information might be displayed to the driver, the processing of information includes the time it takes to have interpreted and understood what information has been displayed. Clearly complex information has to be provided in easily understood formats that require only momentary processing by the driver. As a rough principle the driver cannot be distracted more than would be expected to view a vehicle safety warning or the speed of the vehicle, therefore further explanatory notes are provided below regarding these conditions which may help an FRS to assess current and future compliance -

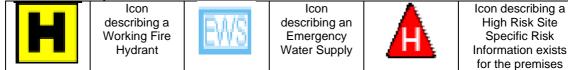
1. The use of symbols or icons

The DfT state that their research has defined the risk to road user safety is too high where a driver has to process textual information. Whilst the DfT would not provide a definition for "text", within the 3ES TEWG discussions text was considered by DfT to be words, sentences, paragraphs or pages. An example of FRS textual information that would be considered outside the bounds of the VSO is provided below, the example outlines a Site-Specific Risk Information sheet displayed through a Mobile Data Terminal. In this instance where this information was displayed to, or the screen / information was likely to distract the driver (and the vehicle moving), the screen would have to blanked or the software present navigation / routing information instead to help identify the driver's destination.



The use of symbols or icons therefore allows a large amount of information to be processed very quickly whereas the same amount of information presented in textual form to a driver would be unacceptable. The design methodology for Road information and signage uses unique characters, colours and shapes to describe information to the driver, in this respect the VSO condition allows for this methodology to be followed or expanded by the sector to describe critical safety or risk information to the driver when responding to an incident.

Examples of symbology and Iconology that could be considered as falling within the bounds of the VSO that already exist within the sector are described below:



The expansion of this methodology would allow its use as an information symbol which could be sent to a driver (on mobilisation) when attending an incident involving firearms, text to speech could also help bring an emerging MTFA incident to the driver's attention, example below -



2. The use of still images.

As with the condition for the use of symbols or lcons, still images can be used to portray information, the image should be easily interpreted and key information immediately obvious to the driver. Examples could be an image describing an access point or RVP which may not be easily understood from the navigation system in use or an image of a potential assailant involved in an MTFA incident which could be presented to the driver en route to the incident with appropriate text to speech warnings.

3. Other vehicle location

In most instances, the systems employed within FRS vehicles already report the location of the vehicle via Global Positioning Systems (GPS) either being displayed via a screen in the vehicle and / or to a control room or fleet management central location. In regard to this condition it is recognised that the display of other resource locations could also be considered safety critical information, potentially effecting how a driver responds to an incident or the decisions they might make. This condition allows for the display of other resource locations to the driver, again the information presented has to be cognisant of the amount of time or distraction required by the driver to process the information. Displaying only those resource status, thus significantly reducing the amount of information needed to be processed by the driver.

4. VSO Note for guidance (1)

Clarity on the Note for Guidance Extract below is also provided to assist FRS

"The speed allowance of 7mph is included in the modified regulation to allow for detection delays and limitations in equipment sensitivity, regardless of whether vehicle motion is detected by satellite positioning or vehicle sensors"

The modified regulation describes a speed allowance of 7mph, it is recognised that a vehicle may need to move before an automated system or sensor can implement any rules to limit information or blank a screen in view of the driver. GPS in particular may take a short period to recognise the vehicle has moved, in this instance, such automated systems or sensors must implement the rules that limit or blank screens to the driver before the vehicle reaches 7mph, that said the driver is still bound by the VSO or relevant traffic regulation as the vehicle moves whether or not an automated system has reacted appropriately.

5. Technologies

Regulation 110 (as summarised in section 3 above) defines a mobile phone or other device as that if it is, or must be, held at some point during the course of making or receiving a call or performing any other interactive communication function (internet, messaging etc.), this also applies to removable data only devices e.g. Demountable Mobile Data Terminals which the driver is not permitted to use whilst the vehicle is moving. Current technologies that FRS employ such as Hand free Operation would be considered as supporting this VSO in addition to considering emerging technologies that allow the display of data described in the VSO conditions to be transcribed without the need for a driver to interact with the device or screen, examples being text to speech or voice activation.

6. Policies and procedures

The NFCC Transport Officer, Road Safety and Driver training groups have been briefed throughout the process of creating the VSO. These groups will be able to consider the implications of the VSO in greater depth and provide future guidance if needed. That said FRS are ultimately responsible for their staff and therefore will need to consider the VSO in detail, consider and incorporate any outcomes into its policies and procedures. FRS response drivers in particular will need to be familiar with their FRS's interpretation of the VSO, along with any procedural or process changes to current operating practices, and there may be a need to incorporate elements of this into driver training.

7. Collaboration

A derived benefit from the way the VSO has been approached is that all 3 Emergency Services have jointly agreed the amendment with DfT. This allows for a consistent approach to its implementation further supporting collaborative opportunities, the ability to share critical information across the piece and vehicle technology to be led by a clearer understanding of the boundaries within which it must be procured, delivered and used.

8. Application and further guidance

FRS's need not apply to the DfT for the exemption, the VSO applies to those FRS (and NHS Trusts) contained within the Schedule. therefore, the VSO applies to all English, Welsh and Scottish Fire and Rescue Services listed (at the time of signature) within the schedule.

The VSO further identifies the Fire and Rescue Authorities as the legal entity for ensuring the VSO is enacted correctly, and it is assumed this responsibility will be further devolved to the Chief Fire Officer to ensure compliance.

It should be clear that ultimately this guidance cannot provide final determination on the implementation of the VSO, only case law will further elaborate and define the conditions within which FRS will operate.

Queries regarding the VSO compliance would be best directed towards FRS local teams who can then discuss queries with the relevant Subject Matter Experts, the NFCC Transport Officers Group (NFCC TOG) likely to be best placed to consider the majority of these queries.