

Implications of NHTSA Visual Manual Guidelines to the Design and User Experience of In-vehicle Interfaces

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ABSTRACT

NHTSA released visual manual guidelines in 2013 to limit the potential of distracted driving caused by in-vehicle telematics by loosely tying together guidelines published by the Alliance and JAMA, and adding additional parameters such as “per se lockouts”. While the implications to each automotive OEM may vary greatly, these guidelines have the potential to severely limit vehicle cockpit design and user interfaces which are at the core of the driving experience. NHTSA plans to reign in the automakers by increasing the scope and depth of vehicle systems by limiting non-driving tasks such as telematics, navigation, and entertainment to lower than the levels used by the Alliance and by including driving related tasks such as cruise and climate controls.

A caveat – most experts agree that a severely restricted in-vehicle interface will further push the driving population to use the handheld devices which have been documented to be inappropriate for use while driving but which allow for an unrestricted user experience. While the unintended safety implications of a heavily restricted in-vehicle interface and an unrestricted handheld interface is as yet unknown, this area of driver distraction will continue to be the forefront of research and debate for quite a while to come.