

**Statement of Principles, Criteria  
and Verification Procedures on  
Driver Interactions with  
Advanced In-Vehicle  
Information and  
Communication Systems**

**2006 Revision, Amendment 2**



*Originally published by the Alliance of Automobile Manufacturers and  
currently under the stewardship of the Alliance for Automotive Innovation*

## **Preamble:**

This amendment clarifies the applicability of section 2.1 of the subject guidelines for vehicles employing driver attention monitoring technologies.

When these guidelines were developed, real-time driver attention monitoring systems were not yet widely available. For that reason, the focus of these guidelines was on limiting the driver's visual manual interactions (eyes-off-road time and total task duration) with in-vehicle devices during the completion of specific tasks (e.g., programming navigation system destination, etc.). The task of conventional radio tuning was selected to develop an acceptable risk baseline. As a result, the section 2.1 requirements are focused on the performance of specific, discrete tasks and implicitly assume a single, generalized risk for a given task. However, the risk of a task or any ongoing secondary activity is influenced by a driver's history of eyes-off-road behavior and the driving environment (e.g., crowded city street vs. deserted highway) along with other considerations.

In recent years, technologies that aid in both assessment and reduction of driver inattention have become increasingly prevalent.

Auto Innovators is cognizant of this new reality. It is acting to allow these systems as inputs to when and how content is made available to the driver. These inputs have potential to increase safety in two ways: first, by making content availability sensitive to the driver's immediate risk profile and, second by reducing the "lure" of an unrestricted handheld device.

These guidelines are therefore modified to clarify that use of attention management technologies are out of scope with respect to the section 2.1 requirements. As these systems further mature and become more prevalent, alternate guidelines specific to these emerging technologies may be considered.

## **Amendments:**

Subject amendments are underlined for clarity in the appropriate section(s) below.

### **Scope**

This Statement of Principles is concerned with advanced information and communication systems and the visual-manual interaction of the driver while the vehicle is in motion. For example (not exhaustive), navigation, phoning, messaging or interactive information services of the types listed below should be evaluated utilizing these guidelines.

Navigation	Destination Entry Route Following
Phoning <sup>2</sup>	Incoming call management initiating and terminating call Conferencing Walkie Talkie – like services
Messaging	Caller ID Reminders Paging Short Message Services (SMS) Email Instant Messaging
Interactive Information Services	Stock Quotes Real-time Traffic advisory – on request Horoscopes Headlines Advertising Address Book Database Search (e.g. internet search) Financial services Directory

These guidelines are applicable to vehicles in which the role of performing the object and event detection and response (OEDR) portion of the driving task is assumed by the driver, as well as to vehicles equipped with driver support features that require the driver to supervise the feature’s performance and to complete the OEDR in real time.

For vehicles employing higher levels of driving automation level 3-5 automated driving system (ADS) features that perform the complete dynamic driving task (DDT), including OEDR, these guidelines are not applicable while the ADS is engaged. However, these guidelines become applicable whenever a driver seated in the driver’s seat with access to primary driver controls chooses to perform manual driving, whether or not this is done in response to a system-generated request to intervene.

Section 2.1 of these guidelines are not applicable to vehicles that directly and/or indirectly measure driver road awareness (e.g., eye glance monitoring; interaction counts with in-vehicle systems), which then use this data to inform adjustments to the permissible amount of driver interaction with in-vehicle information/entertainment systems. Non-behavioral factors (e.g., traffic density, collision avoidance feature availability) may also be utilized to further inform interaction limit adjustments.

These Principles are not intended to apply to conventional information or communication systems, nor to collision warning or vehicle control systems. These principles are not a substitute for regulations and standards that should be respected and used by suppliers and manufacturers

of in- vehicle information and communication systems. In the event of any conflict between these principles and applicable regulations, the regulations take precedence.

In this context it is helpful to clarify what is meant by “conventional” systems. Following is a list of what currently would be considered conventional information or communication systems:

AM radio	CD
FM radio	MP3
Satellite radio	RDS
Cassette	Vehicle Information Center <sup>3</sup>

In addition to these listed information and communication systems, other conventional controls and displays such as HVAC, speedometer, gauges, etc. are also out-of-scope.

While these “conventional” systems would not be subject to the requirements of this document, the direction of future driver interfaces may be to combine multiple functions into a single integrated system. As these “conventional” systems become integrated with any in-scope capability such as navigation, phoning, messaging, or interactive information services, consideration should be given not to increase the workload of these conventional systems by virtue of integrating them with in-scope systems.

\*\*\*\*\*

---

<sup>2</sup> The visual-manual aspects of phoning are covered by these principles

<sup>3</sup> A vehicle information center displays information about vehicle systems status (e.g., trip information, door ajar, fuel economy, etc.); it does not display information from off-board the vehicle