



## IntelliDrive<sup>SM</sup> Principles

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IntelliDrive<sup>SM1</sup> is a major research program focused on enabling and using wireless connectivity with and between vehicles, between vehicles and the roadway, and with devices in the vehicle to achieve strategic goals. IntelliDrive is conducted through the VII Coalition, a partnership of USDOT agencies, automobile manufacturers, state and local governments, and their representative associations. The partners are committed to an IntelliDrive research program based on the following Principles:

### Overarching Principles

1. The IntelliDrive initiative envisions the deployment of an **information-rich surface transportation system** that:
  - a. enhances **safety**, **mobility** and **convenience**; and greatly reduces or eliminates vehicle crashes;
  - b. changes the way transportation is managed, operated and utilized;
  - c. fosters and supports **livable communities** and environmental **stewardship**.
2. The IntelliDrive program is ultimately focused on **deployment**.
3. IntelliDrive program activities are focused on **technical** and **institutional** research and planning leading to such deployment.
4. IntelliDrive research is important for advancing goals of the **public** and **private** sectors.
5. IntelliDrive research will be conducted in a **collaborative environment** with primary leadership provided by the United States Department of Transportation (USDOT), American Association of State Highway and Transportation Officials (AASHTO) with local agency partners, and the automobile manufacturers.
6. IntelliDrive research will address needs of **passenger**, **commercial**, **transit**, and **public fleet** operators and users.
7. The following safety and security requirements apply to the system and all applications:
  - a. Must not compromise **safety**. Applications shall be designed in a manner that will not interfere with the safe and reliable operation of the vehicle.
  - b. Must not compromise **security**. Unauthorized access, whether malicious or inadvertent, must be prevented in order to protect the integrity of connected devices, vehicles, and systems.
  - c. Must protect **privacy**. The involuntary divulgence of personally identifying information must not be compelled (whether deliberately or incidentally) by IntelliDrive applications.

## Safety

8. One goal is to enable *active safety applications*, defined as cooperative and communications-based applications designed to assist vehicle operators in avoiding imminent crashes. The following characteristics apply to active safety research and deployment:
  - a. It will focus on *5.9GHz Dedicated Short Range Communications (DSRC)* to enable necessary communications characteristics, including low latency, fast connection speeds, security and privacy.
  - b. It includes both *vehicle-to-vehicle* and *vehicle-to-infrastructure* systems.
  - c. Technical consensus *standards* will be developed and harmonized internationally.
  - d. The feasibility of OEM approved *retrofit* strategies will be studied as part of the deployment solution.
  - e. The program will allow for differences in *execution* within the vehicle environment.

## Mobility, Environment, Productivity and Convenience

9. Another goal is to enable *mobility, environmental, productivity* and *convenience* applications. The following characteristics apply:
  - a. The feasibility of also using *commercially-available communications networks* and *devices not integrated with vehicle systems* will be considered.
  - b. Consensus-based open *standards* will be established that enable access to a core set of non-sensitive data as agreed upon by the data source.
  - c. Mobility applications will require an understanding of and partnership with *other industries*, such as telecommunications and aftermarket providers.

<sup>1</sup> IntelliDrive<sup>SM</sup> is a registered service mark of U.S. Department of Transportation Intelligent Transportation Systems Joint Program Office.