New congestion-minimization technology tested
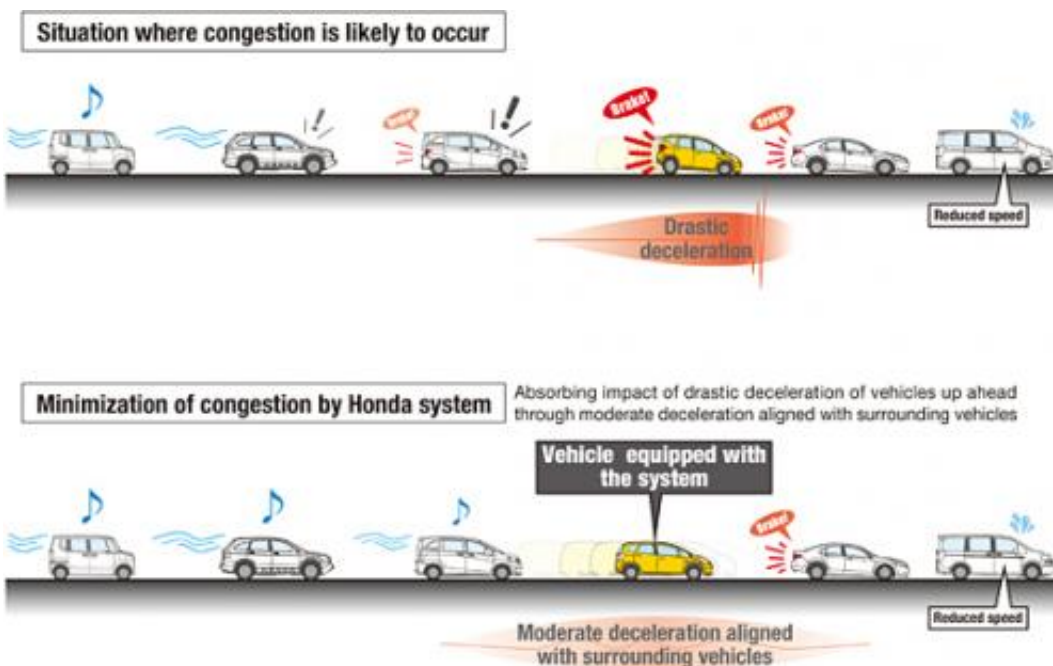
March 21 2013


Image of congestion minimization effect.

Honda Motor conducted public-road testing of its new traffic congestion-minimization technology in Indonesia and verified the effectiveness of the technology in delaying the development of congestion, and improving fuel efficiency by more than 20 percent. The public-road testing in Indonesia was conducted from September 2012 through February 2013 on a toll road between Ulujami and Pondok Ranji (in Jakarta) which is operated by PT. Jalantol Lingkarluar Jakarta.

[Traffic congestion](#) is caused by the disorderly flow of the traffic. Therefore, to minimize congestion, the driver of each vehicle needs to adjust driving behavior to the surrounding vehicles. Honda developed a smartphone app which changes the colors of the smartphone display to help the user to check at a glance whether his/her driving is aligned with surrounding vehicles. This app was used in the public-road testing conducted in Indonesia. This smartphone app monitors the pattern of acceleration and deceleration and determines if the pattern is likely to create traffic congestion, and if so, provides support to aligning driving to the surrounding vehicles. In addition to minimizing traffic congestion, this app is expected to improve the safety and [fuel efficiency](#) of the user's vehicle as well as several hundred vehicles operating on the same roads.
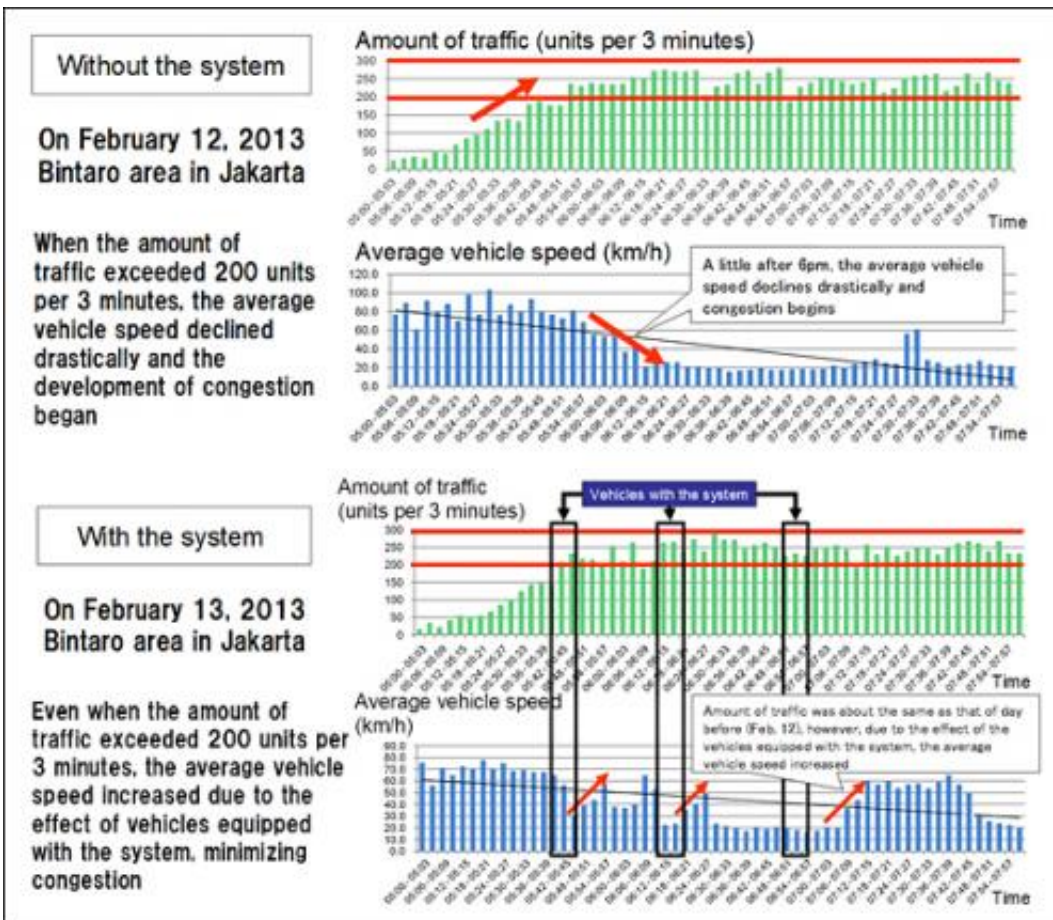
The amount of traffic and pattern of changes in average speed with vehicles equipped with the system.

Honda will continue its effort to realize a congestion-free mobility society through development of new functions including a function that employs an on-board device to provide the users with information about possible congested areas determined based on the actual amount of traffic and driving patterns. To realize the widespread use of this technology for motorcycles and other types of vehicles, Honda also will develop a function that supports riding/driving aligned through the use of audio and vibration alerts.
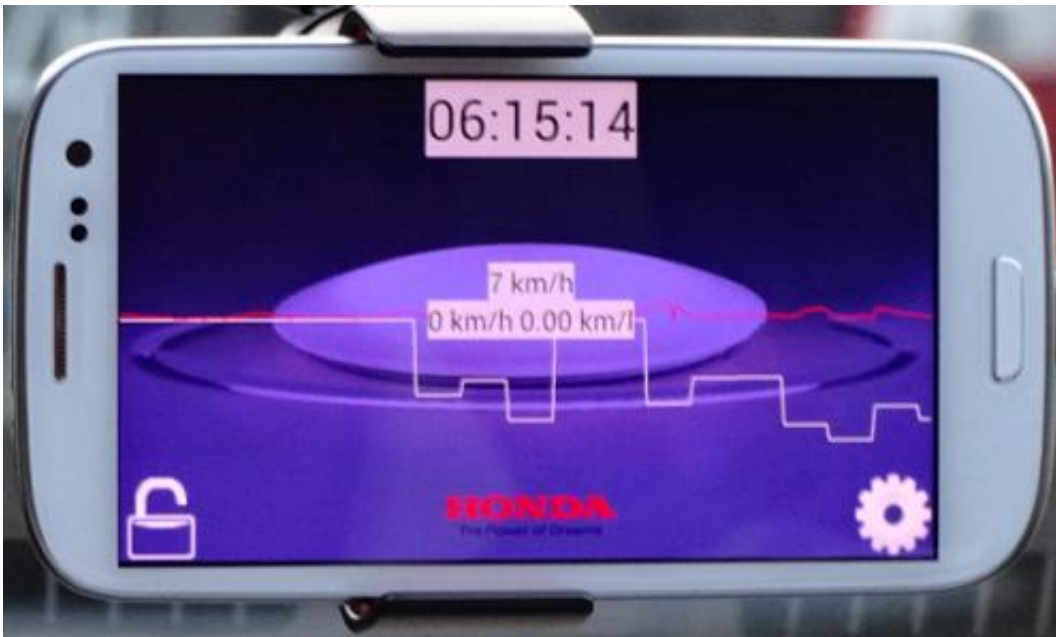
Display of the app: When the driving pattern is likely to cause congestion, the color changes from green to blue.

Two different types of systems were tested.

- Stand-alone system: using a stand-alone [smartphone](#) on one vehicle, the system determines if the driving pattern leads to traffic congestion.
- Interactive system: multiple smartphones in multiple vehicles are connected to a cloud server to provide synchronized assistance to the driver taking into consideration the behavior of multiple vehicles and information about other vehicles up ahead.

Provided by Honda