

Toyota Safety Package 'TSS-P' Wins Top Technology Award From New England Motor Press Association

May 31, 2016

Advance safety features for the masses: it's a bold promise, but beginning with the 2018 model year Toyota will make Toyota Safety Sense, a driver-assist technology designed to mitigate or help prevent collisions, standard on almost every Toyota trim level in the United States. That promise was recognized last Thursday when the most advanced version of Toyota Safety Sense—TSS-P—won the New England Motor Press Association (NEMPA) Yankee Cup Technology Award.

Toyota accepted the award at NEMPA's sixth annual conference and banquet, held at the Massachusetts Institute of Technology Media Lab in Cambridge. In addition to TSS-P's recognition, NEMPA bestowed Winter Vehicle Awards to the Toyota RAV4 Hybrid and Toyota Tacoma, in the Green Crossover and Midsize/Compact Pickup Truck categories, respectively.

Using an in-vehicle camera and front-grill mounted millimeter-wave radar, TSS-P is designed to enhance the driving experience by, among other things, detecting obstacles and automatically applying brakes to avoid collisions. The cutting-edge safety package comprises four key features:

- **Pre-Collision System with Pedestrian Detection Function:** Under certain conditions, when the system determines that the possibility of a frontal collision is high, it prompts the driver to take evasive action and brake, by using audio and visual alerts. The system may provide additional braking force with Brake Assist, or otherwise automatically apply the brakes. The in-vehicle camera may detect a potential pedestrian depending on size, profile, and motion of the pedestrian.
- **Lane Departure Alert with Steering Assist Function:** When lane markings are detected, if the system determines that the vehicle is starting to unintentionally deviate from its lane, it alerts the driver with an audio and visual prompt. In addition, the Steering Assist function provides small corrective inputs to the steering wheel to help the driver keep the vehicle in its lane.
- **Dynamic Radar Cruise Control:** On highways, the system is designed to adjust vehicle speed to help maintain a pre-set distance to a preceding vehicle. If the vehicle ahead is detected traveling at a speed slower than a driver's pre-set speed, the system automatically decelerates in order maintain an appropriate distance. When there is no longer a preceding vehicle, the system accelerates until the pre-set speed is reached.
- **Automatic High Beams:** At night and above certain speeds, the system is designed to detect the headlights of oncoming vehicles and tail lights of preceding vehicles, and then automatically switch between high and low beams as appropriate to provide more light and enhance forward visibility.

Selected with input from the faculty at MIT, the NEMPA Yankee Cup is awarded each year to a vehicle, automotive feature or system that “significantly enhances the motoring experience, whether by making driving safer, more cost-efficient or simply more enjoyable.”

NEMPA's Winter Driving Awards go to cars that offer a combination of winter-specific features and options plus the dynamic qualities that help make for safe, enjoyable and competent all-weather driving.