

# TAC SAFE CAR PROJECT

**See what Intelligent Transport Systems can do for the safety of you and your family.**

The State of Victoria has made strong gains in reducing road trauma over the past decade through a cooperative approach by its lead road safety agencies and a focus on driver behaviour, enforcement and infrastructure.

The Transport Accident Commission (TAC) believes that technological advancement is one of the key areas where significant road safety gains can be made.

The SafeCar project is a world-first collaboration between the TAC, Ford Australia and Monash University Accident Research Centre (MUARC). The project evaluated the technical operation of selected Intelligent Transport System (ITS) technologies, driver performance and driver acceptability.

ITS technologies, as shown on this page, were fitted to 15 vehicles and were operated by drivers in nine public and private company fleets throughout Melbourne.

The ultimate aim of the project is to create a demand for these technologies amongst manufacturers, corporate fleets and motorists.

The results of the SafeCar project demonstrate the significant safety value of these ITS technologies when fitted to passenger cars and used in typical driving situations.



## **Intelligent Speed Adaptation**

Using satellite and digital map technology, this speed alert system automatically provides escalating warnings if a driver exceeds the posted speed limit.



## **Following Distance Warning**

Uses radar to assess the speed and proximity of vehicles in front of the car and warns the driver if they are too close.



## **Reverse Collision Warning**

Uses sonar proximity sensors to warn the driver if they are too close to other objects, including pedestrians, when reversing.



## **Seatbelt Reminder**

Seat and seatbelt buckle sensors work together to determine whether any of the car's occupants are unbelted.



## **Daytime Running Lights**

Headlights are illuminated to 80% of normal intensity once the ignition is started.

# TAC SAFE CAR PROJECT RESULTS

## System effectiveness

Speeding continues to be a major contributor to road trauma and research shows that even small reductions in both excessive and average traffic speeds will significantly improve the safety of all road users. To this end, the use of the Intelligent Speed Adaptation (ISA) system resulted in a significant reduction in average and peak travel speeds as well as a reduction in the percentage of time drivers spent travelling above the speed limit.

Notably, there was no increase in the amount of time it took drivers to reach their destination when using the system.

Approximately one in every five drivers who dies on the road is unrestrained. So it was significant to find that use of the Seat Belt Reminder (SBR) system led to large decreases in the percentage of trips taken where an occupant was unbelted.

Results from the Following Distance Warning (FDW) system are also promising. Drivers left a greater gap between their car and the car in front and spent far less time travelling at very close distances. This finding is important because rear-end collisions are among the most frequently occurring crash types.

The final results show that the ISA, FDW and SBR systems had a significant positive effect on driving safety.

## The road to success

Driver acceptance of the SafeCar systems was high. The ISA, FDW, SBR and Reverse Collision Warning (RCW) systems were generally rated as being useful, effective and acceptable to the drivers that used them.

Another positive finding from the study was that drivers didn't compensate for the added safety benefits in their vehicles by increasing their risk-taking behaviour.

## What's around the corner?

To achieve further reductions in the road toll, the next step is to ensure manufacturers, government agencies and consumers – especially fleet buyers – work together to improve vehicle safety in Australia. The SafeCar project has identified significant safety benefits from these new systems which are no longer technologies of the future.

### Thank you to our project Partners:

Ford Australia and Monash University  
Accident Research Centre (MUARC)

### Thank you to our contributors:

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