

**To require the Secretary of Transportation to request the National Academy of Sciences to report to the Secretary and the Congress regarding the use of, and risks associated with, electronic... (Introduced in House)**

HR 5099 IH

101st CONGRESS  
2d Session  
**H. R. 5099**

To require the Secretary of Transportation to request the National Academy of Sciences to report to the Secretary and the Congress regarding the use of, and risks associated with, electronic and microprocessor systems in automobiles.

**IN THE HOUSE OF REPRESENTATIVES**

**June 20, 1990**

Mr. HOCHBRUECKNER introduced the following bill; which was referred to the Committee on Energy and Commerce

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**A BILL**

To require the Secretary of Transportation to request the National Academy of Sciences to report to the Secretary and the Congress regarding the use of, and risks associated with, electronic and microprocessor systems in automobiles.

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,*

**SECTION 1. FINDINGS.**

The Congress finds that--

- (1) the planned and existing integration into automobile designs of electronic and microprocessor systems in the control of engine speed, braking, near-obstacle detection systems, electronic transmission controls, advanced ignition systems, advanced antitheft systems, and on board navigation aids will subject drivers and passengers to the risks of intermittent computer failure;
- (2) computer failures are much more difficult to predict than mechanical failures;
- (3) radio frequency interference and electromagnetic interference are serious hazards to computer circuits;
- (4) knowledge of the dangers posed by these kinds of interferences has been obtained through the experience of pilots and crews of aircraft controlled by similar computer systems;
- (5) a variety of safeguard techniques, such as backup circuits, exist to minimize the risks associated with random interference to computer-controlled equipment; and

(6) the Automotive Information Council has predicted that the integration of vehicle electronic and microprocessor systems in a cost effective manner will be the biggest automobile challenge of the 1990's.

## **SEC. 2. STUDY OF THE RISKS ASSOCIATED WITH VEHICLE ELECTRONIC AND MICROPROCESSOR SYSTEMS.**

(a) **STUDY**- The Secretary of Transportation shall enter into appropriate arrangements with the National Academy of Sciences to conduct a comprehensive study regarding the use of electronic and microprocessor systems in automobiles and the risks associated with such use.

(b) **COMPONENTS**- In conducting the study referred to in subsection (a), the Academy shall--

- (1) analyze the safety risks associated with electronic and microprocessor systems directly controlling automobile functions, such as engine speed, acceleration, and braking ability;
- (2) identify potential safeguards that could be incorporated into automobile designs to prevent the occurrence of incidents caused by radio frequency interference or electromagnetic interference, including the feasibility of utilizing redundant computer circuits;
- (3) analyze the potential costs and relative feasibility of such safeguards; and
- (4) develop standards for the importation into and sale in the United States of automobiles utilizing electronic and microprocessor systems.

## **SEC. 3. COOPERATION OF SECRETARY.**

The Secretary shall furnish to the Academy at its request any information which the Academy deems necessary for the purpose of conducting the study authorized by this Act.

## **SEC. 4. REPORT.**

The Secretary shall request the Academy to report to the Secretary and the Congress not later than one year after the date of enactment of this Act on the findings and conclusions of the study conducted pursuant to section 2. The report shall include recommendations for legislation that the Academy considers necessary to eliminate or minimize the safety risks associated with the use of electronic and microprocessor systems in automobiles.