

Statement of Clarence M. Ditlow
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On Toyota Sudden Unintended Acceleration
Before the House Oversight & Government Reform Committee
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Mr. Chairman and members of the Committee thank you for the opportunity to testify on sudden unintended acceleration in Toyota vehicles and the regulatory response of the National Highway Traffic Safety Administration (NHTSA). The Center for Auto Safety (CAS) is a consumer group founded by Consumers Union and Ralph Nader in 1970 to be a voice for consumers on auto safety.

Sudden unintended acceleration has always been recognized as a serious safety hazard. The very first recall obtained by NHTSA's Office of Defects Investigation (ODI) was on a throttle sticking open in Chrysler vehicles (ODI Investigation 003). The first large and still the fourth largest recall ever was for 6.7 million 1965-70 Chevrolets with defective engine mounts (71V-235). Early sudden acceleration recalls involved mechanical failures that were easy to detect and remedy. Beginning in the late 1970's, electronic controls began to be introduced in vehicles which made it difficult to detect the cause of a sudden acceleration event.

In the mid-1970's NHTSA anticipated the increased use of electronics in vehicles and potential hazards associated with their use beginning with the use of electronic ignitions in 1975. Lacking resources and personnel to adequately evaluate electronic controls, the agency contracted with the Institute for Telecommunications Sciences to assess the potential and methods for electronic magnetic interference (EMI) to cause malfunctions in the electronic controls in vehicles.¹ In a second research phase, the Institute produced Guidelines for Electromagnetic Compatibility (EMC).² Although the agency intended to develop safety standards for electronic controls, no standards were issued.

With the advent of electronic ignition systems and cruise control systems in the late 1970's and early 1980's sudden acceleration complaints without clear mechanical failures began to appear. NHTSA opened more and more sudden acceleration investigation. Some resulted in recalls for electronic control failures. The first two Toyota sudden acceleration recalls were for replacement of the cruise control computer which could cause sudden acceleration on start up (86V-132, 90V-040). Just like today, CAS filed a defect petition (DP86-08) on the vehicles recalled in 1990 which was denied because there wasn't a "reasonable possibility" that a recall order would issue. Like today, more complaints occurred and led to a new investigation (PE90-021) and a recall.

¹[NHTSA Study: "Investigation of Electromagnetic Interference Effects on Motor Vehicle Electronic Control and Safety Devices"](#) - Oct. 1975

²[NHTSA Study: "Electromagnetic Interference Effects on Motor Vehicle Electronic Control and Safety Devices, Volume I - Summary"](#) ; [NHTSA Study: "Electromagnetic Interference Effects on Motor Vehicle Electronic Control and Safety Devices, Volume II - Measurements, Analysis and Testing"](#); [NHTSA Study: "Electromagnetic Interference Effects on Motor Vehicle Electronic Control and Safety Devices, Volume III - Automotive EMC Guidelines"](#) - Nov. 1976.

As investigations mounted into sudden acceleration in a wide range of vehicles, in January 1989 DOT's Transportation System Center (TSC) conducted a review of sudden acceleration in which it concluded that absent evidence of throttle sticking or cruise control malfunction, driver error must have caused the sudden acceleration.³ The studies by the Institute for Telecommunications Sciences in 1975 and 1976 studies and their detailed analytical methods were neither cited nor used. TSC also did not look at electronic throttle control or computer software malfunctions.

After the TSC study, NHTSA adopted the position that absent physical evidence of a malfunction in the cruise control or throttle mechanism, it was driver error. Based on TSC's finding that brakes could stop a vehicle suddenly accelerating from start up, NHTSA ruled out complaints that the brakes failed or could not stop a sudden acceleration from start up as driver error. A classic example of NHTSA's use of the TSC study is its denial of a defect petition (DP03-003) into sudden acceleration in 1997-00 Lexus LS and GS model which had mechanical accelerator cables:⁴

“At the conclusion of TSC's effort, comprising thousands of person-hours gathering data, comprehensively testing vehicles including their systems and equipment, interviewing owners and drivers, and inspecting crash scenes and the vehicles involved, a report was released with the following conclusion: ‘For a sudden acceleration incident in which there is no evidence of throttle sticking or cruise control malfunction, the inescapable conclusion is that these definitely involve the driver inadvertently pressing the accelerator instead of, or in addition to, the brake pedal.’”

Beginning in 2001 with the introduction of electronic throttle control (ETC) in 2002 Camry and Lexus ES300, consumer complaints increased by 4-fold in Toyota and Lexus models. In response NHTSA received five defect petitions of which it denied four and granted one. It opened three Preliminary Evaluation (PE) investigations, two of which became Engineering Evaluations. None of these investigations was concluded with a vehicle safety recall. The investigations as a whole

Investigation	Year/Make/Model	Outcome
DP04-003	2002-03 Camry, Camry Solara, Lexus ES300	PE04-021
DP05-002	2002-05 Camry, Solara, Lexus ES	Denied
DP06-003	2002-06 Camry, Solara	Denied
DP08-001	2004-08 Tacoma	Denied
DP09-001	2007 Lexus ES350, 2002-03 Lexus ES300	Denied
PE07-016/EA07-010	2007-08 Camry, Lexus ES350	07E-082

³ [“An Examination of Sudden Acceleration,” HS-807-367, Jan. 1989 – Main Report, App. A-D](#)

⁴ [Defect Petition DP03-003 Denial](#)

PE08-025/EA08-014	2004 Sienna	Safety Improvement Campaign
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show significant weakness in the NHTSA enforcement program which Toyota exploited to avoid recalls until the tragic crash in San Diego in August 2009 that resulted in 4 deaths in a Lexus driven by an experienced highway patrol officer who was unable to bring the vehicle to a stop.

In the defect petitions, most consumer complaints were excluded because they were long duration events or where the driver said the brakes could not bring the vehicle to a stop. Not a single defect petition resulted in a recall. The one that was granted (DP04-003) and became an investigation (PE04-021) was closed without a recall after NHTSA excluded most complaints.⁵

In the most crucial investigation, PE07-016/EA07-010, the agency conducted a test of a 2007 Lexus ES350 to: "Determine whether reported incidents of unintended acceleration were caused by a vehicle system malfunction [electronic controls] or mechanical interference [floor mats]." Later during DP09-001 which the petitioner asked the agency to look at causes of unintended acceleration other than mechanical interference such as electronic controls, the agency used the test report from EA07-010 to deny the petition without even sending a single information request to Toyota.

According to NHTSA, this should have been the definitive test of whether it's floor mats or electronic controls.

"ODI and VRTC also conducted design reviews and testing to evaluate the possibility of other potential causes of unintended acceleration in the subject vehicles. Some of this work is summarized in the following excerpt from the VRTC test report:

The Vehicle Research and Test Center obtained a Lexus ES350 for testing. The vehicle was fully instrumented to monitor and acquire data relating to yaw rate, speed, acceleration, deceleration, brake pedal effort, brake line hydraulic pressure, brake pad temperature, engine vacuum, brake booster vacuum, throttle plate position, and accelerator pedal position. Multiple electrical signals were introduced into the electrical system to test the robustness of the electronics against single point failures due to electrical interference. The system proved to have multiple redundancies and showed no vulnerabilities to electrical signal activities. Magnetic fields were introduced in proximity to the throttle body and accelerator pedal potentiometers and did result in an increase in engine revolutions per minute (RPM) of up to approximately 1,000 RPM, similar to a cold-idle engine RPM level. Mechanical interferences at the throttle body caused the engine to shut down.

Yet when CAS filed a FOIA for the test results and test procedure, NHTSA said it had no test data or any records of test procedure. NHTSA couldn't say what it did, how it did it or what the results were.⁶ To make matters worse, Toyota agreed to only do an equipment recall of 55,000 all weather floor mats. That was a recall destined to fail. The notification letters to owners did not even require the vehicles be brought in for inspection to see what mats were in the vehicles or how they were secured. That saved Toyota \$100 million in recall costs. The only other investigation that resulted in an action

⁵ [NHTSA Memo Restricting Scope of PE04-021 Investigation](#)

⁶ [CAS Letter to NHTSA Administrator David Strickland - 2/2/10](#)

was PE08-025/EA08-014 which resulted in a Safety Improvement Campaign which is not even recognized under the Motor Vehicle Safety Act. The first Safety Improvement Campaign came in 1995 when Chrysler balked at recalling minivans for tailgates that spring open in low impact crashes and killed over 40 people. They are not subject to any sanctions under the Safety Act if they are not carried out. They are not safety recalls and they are not as effective as safety recalls in getting defects remedied.

From 2001 to the October 2009 floor mat recall (09V-388) generated the San Diego crash, all NHTSA's enforcement effort got was an ineffective equipment recall that saved Toyota \$100 million. Why? First, Toyota knew the investigatory system and exploited it. Only some acceleration complaints were submitted. It knew the agency had limited resources and agreed to do remedies less than a full vehicle recall because the agency would move on to other investigations. Toyota didn't tell the agency about foreign recalls for floor mat interference with the gas pedal that would have caused more emphasis on an earlier vehicle floor mat recall. Toyota requested confidentiality for a wide range of materials that prevented full public scrutiny of the record.

The agency itself relied too much on its outdated January 1989 sudden acceleration study that was done on 1980's vehicles which did not have the complex electronic control systems in today's vehicles made 20 years later. After the TREAD Act was passed, Congress required NHTSA to set up an Early Warning Reporting System (EWR) to prevent another Ford-Firestone crisis that led to TREAD. Obviously, it didn't work because we now have Toyota sudden acceleration. We don't know whether there are data in EWR on Toyota sudden acceleration and what use NHTSA made of it. The Center filed a FOIA for all EWR investigatory files and lists of EWR investigations but NHTSA responded by asking us to pay \$55,000 in advance.⁷ We limited our requests to just lists of EWR investigations but no response yet. In order to assess NHTSA performance, EWR investigations must be made public.

In 1990, Congress considered but did not pass HR 5099 which would have required:

- (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.*

In addition to stronger enforcement, HR 5099 serves as an important guidepost to what must be done to prevent more Toyota sudden acceleration crises from happening. NHTSA must develop the ability to set standards in advance of technology being integrated into vehicles so that the safety of

⁷[CAS FOIA Request Re: Early Warning Reporting and Death Inquiries](#) - 11/2/09; [NHTSA Response to CAS FOIA](#) - 12/16/09

consumers is protected. Toyota itself must rededicate itself to the principles of sound engineering and reliability that hallmarked it in the 1980's and 1990's. When the Camry was introduced in 1983, it had a number of major defects including pulsating brakes, engine and transmission failures. Rather than hide the defects and avoid responsibility, Toyota redesigned the systems, notified consumers and reimbursed them for failures. Toyota reached out to consumer groups like the Center for advice on the problems. Toyota needs to go back to resolving problems not avoiding responsibility.