

February 2, 2010

## **VIA FAX AND FIRST CLASS MAIL**

Honorable David Strickland, Administrator National Highway Traffic Safety Administration (NHTSA) 1200 New Jersey Ave. SE Washington, DC 20590

## Dear Administrator Strickland:

All across America, if not all across the world, Toyota owners are asking if they will be the next victim of unintended acceleration or will the latest recalls for floor mat interference and sticking accelerator pedals (of 6 million vehicles in the US alone)<sup>i</sup> announced by Toyota remedy the defect. If floor mats were at the heart of the matter, why didn't Toyota notify NHTSA in September 2000 that it did a floor mat accelerator pedal interference recall in the UK? What if intermittent failures in the electronic control system cause unintended acceleration?

A thorough analysis of all the NHTSA investigations and recalls into unintended acceleration shows there has been no documented engineering analysis done of whether intermittent failures in the electronic control system cause the unintended acceleration events.

During Engineering Analysis EA07-010, NHTSA purchased a 2007 Lexus ES-350 for \$34,778 and subjected it to testing with the objective to:

"Determine whether reported incidents of unintended acceleration were caused by a vehicle system malfunction or mechanical interference;"

The test report which is attached concluded:

"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."

During Defect Petition 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:

"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.

Petitioner's assertion that the Agency failed to investigate other causes of unintended acceleration and, as a result, may have failed to identify other causes of unintended acceleration is unsupported."

CAS filed two Freedom of Information Act (FOIA) requests to obtain information on the specific test procedures utilized by VRTC and the data obtained. Specifically, CAS sought:

- (1) Any and all records relating to or describing test protocols including the maneuver used to activate the ESC
- (2) Any and all records reflecting, containing, or recording test data including video tapes and other electronic media.
- (3) All documentation describing the type, location and intensity of magnetic or electro-magnetic fields used to evaluate their potential for causing increased vehicle engine RPM.
- (4) All documentation describing the selection of the type, location and intensity of magnetic or electronic fields used in the testing performed on the vehicle in question.

We were shocked by NHTSA's response to our FOIAs:

As to test protocols, NHTSA said it found "no records relating to or describing test protocols." As to test data, NHTSA provided only a video showing a driver on a course with floor mat entanglement, pedal entrapment and ESC maneuvers – i.e., no test data whatsoever.

As to type, location and intensity of magnetic, electro-magnetic or electronic fields, NHTSA responded that the only responsive information was the cursory summary quoted above in the VRTC test report and repeated in DP09-001.

Under the pressure of FOIA to produce documentation on the one test the agency did to see whether intermittent failures in the electronic control system cause unintended acceleration in Toyota and Lexus vehicles, NHTSA can't say what it did, how it did it or what the results were. To put this in context, the very first Toyota unintended acceleration recalls, 86V-132 and 90V-

040, were for defective cruise control computers. Incoming cell phones calls have produced inadvertent movement and transmission shifts in transit buses, 06V-100.

Toyota unintended acceleration to date raises more questions than answers. Toyota owners need to know if they are safe from unintended acceleration or if their next ride is their last ride. As the new Administrator of the agency whose mission it is to protect the public from "the unreasonable risk of accidents occurring as a result of the design, construction and or performance of motor vehicles," you are in a unique position to raise the agency to the challenges and opportunities presented by complex electronic systems in motor vehicles. There is no better place to start than with the issue of Toyota unintended acceleration.

Sincerely,

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<sup>i</sup> The following table lists all known unintended acceleration recalls of Toyota vehicles in the US, UK and Canada.

**Toyota Sudden Acceleration Recalls** 

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Recall Number	Make/Model/Year	# Recalled	Subject
86V-132	1982 Cressida, Supra	4,561	Cruise Control
			Computer
90V-040	1983-84 Camry	121,389	Cruise Control
	1984 Corolla		Computer
RCOMP/2000/2	1999-2000 Lexus LS200	10,919	Floor Mat
(UK)			
01V-012	1998-01 Camry	53,061	Accelerator Cable
07E-082	2007-08 Camry, Lexus ES350	55,000	Floor Mat
09V-023	2004 Sienna	26,501	Trim Panel
2009290	2006-10 Lexus IS250/350, IS C,	200,000	Floor Mat
(Canada)	IS F		
, ,	2007-10 Camry, Tundra, Lexus		
	ES350		
	2005-10 Avalon, Tacoma		
	2004-09 Prius		
09V-388	2005-10 Avalon, Tacoma	4,260,319	Floor Mat
	2004-09 Prius		
	2007-10 Camry, Tundra, Lexus		
	ES350		
	2006-10 Lexus IS250/350		
2010012	2005-10 Avalon	270,000	Accelerator Pedal
(Canada)	2007-10 Camry, Tundra		
	2008-10 Sequoia		
	2009-10 Corolla, Matrix, RAV4		
	2010 Highlander		
10V-017	2009-10 Corolla, Matrix, RAV4,	2,300,000	Accelerator Pedal
	Pontiac Vibe	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
	2007-10 Camry, Tundra		
	2008-10 Sequoia		
	2005-10 Avalon		
	2010 Highlander		
10V-023	2008-10 Highlander	1,093,000	Floor Mat
-0.020	2009-10 Corolla, Venza, Matrix,	1,0,0,000	
	Pontiac Vibe		
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