HENRY WAXMAN AGREES W/ME; TOYOTA STUDY IS HORRIBLE WHITEWASH

Last week I promised I would come back and explain why the report Toyota had produced, purportedly claiming that they had shown they don't have a software/electronic problem with their electronic throttle controls, did no such thing.

I never got around to doing that, but I was going to show that the report only tested the connection between the accelerator and the Engine Control Module, but never looked at what was going on in the black box of the ECM, where plenty can go wrong—and precisely the kinds of things that Toyota has been denying. I was also going to point out that the tests Exponent had done were all very basic QC tests, none of the kinds of tests that would reproduce likely causes of the throttle failure. I would have also noted that the Exponent team had pointedly excluded any software engineers—they didn't even try to look at the software involved (or even hardware like chips).

Well, Henry Waxman has just released the letter he sent to Jim Lentz, Toyota North America President of Sales, in preparation for tomorrow's hearing. And, after consulting with experts with 30 years of experience in this stuff, it basically lays out the case I would have made.

> Second, the one report that Toyota has produced that purports to test and analyze potential electronic causes of sudden unintended acceleration was initiated just two months ago and appears to have serious flaws. This report was prepared for Toyota by the consulting firm Exponent, Inc. at the

> request of Toyota's defense counsel, Bowman and Brooke, LLP. Michael Pecht, a professor of mechanical engineering at the University of Maryland, and director of the University's Center for Advanced Life Cycle Engineering (CALCE), told the Committee that Exponent "did not conduct a fault tree analysis, a failure modes and effects analysis . . . or provide any other scientific or rigorous study to describe all the various potential ways in which a sudden acceleration event could be triggered"; "**only to have focused on some simple and obvious failure causes"; used "extremely small sample sizes"; and as a result produced a report that "I would not consider . . . of value . . . in getting to the root causes of sudden acceleration in Toyota vehicles**."
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> Another expert consulted by the Committee, Neil Hanneman, an engineer with over 30 years experience in automotive manufacturing, product design, and product development, reached a similar conclusion, informing the Committee that the report "does not follow a scientific method" and f**ails to test "major categories" of potential causes of sudden unintended acceleration, including "electromagnetic interference/Radio frequency interference," "environmental conditions," the electronic control module (ECM), and "the software algorithms in the ECM**. [my emphasis]

And let me emphasize, again, this stuff—the software, possible chip failure, interference—are all the things people have been saying probably do cause the Toyota car failures. But for some reason Toyota deliberately did not look at these issues. Here's the explanation that Paul Taylor, one of the study's lead authors, gave for not studying

these obvious issues.

> He also said that the study did not analyze the vehicles' computer systems, seek to identify potential chip failures, examine software and programming of the vehicles' electronic control modules, conduct any testing under differing environmental conditions, or assess the effects of electromagnetic or radio frequency interference on the electronic throttle control system. **According to Dr. Taylor, these are not among his or his co-authors' "areas of expertise**."21 Dr. Taylor said that Toyota's counsel has hired other researchers at Exponent to conduct such tests of Toyota and Lexus vehicles, but Toyota did not request that Exponent provide interim reports on these additional studies. [my emphasis]

Of course they're not their expertise—that's the problem going to a damage control firm rather than an automotive firm to do this study!!

More troubling still, when Commerce Committee asked Toyota for documentation it used to justify its public claims that the electronic throttle control was not the problem, it produced still more evidence that they haven't even tested on this question.

> The electronics testing documents Toyota provided include thousands of pages of engineering standards; test methods; pre-production vehicle and component evaluations; e-mail correspondence between Toyota engineers about field testing of new features of the company's ETCS-i system; engineering change instructions; reports on field testing of competitor vehicles; and sketches, diagrams, test engineering reports, photographs, e-mails, and Powerpoint presentations by Toyota and part manufacturers related to proposed fixes

> for “sticky pedals.” Except for [the Exponent] report, the documents did not include any analyses that purported comprehensively to test and analyze possible electronic causes of sudden unintended acceleration.

This is absolutely inconceivable to me. Either Toyota is withholding documents that do show they did this testing, or Toyota has, for years, refused to test for some of the most likely causes of this problem.

Toyota has known about this problem for years. It has reassured customers for years it wasn’t the electronic throttle control—at least it reassured customers when it wasn’t accusing customers of doing something themselves. And now they claim they have never systematically tested for the cause of this problem.

There’s got to be some underlying explanation. I’ll be curious to see whether we get any closer to what that explanation really is in the hearings this week.