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TOYOTA'S RECALLS AND THE GOVERNMENT'S RESPONSE

HEARING

BEFORE THE

COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION UNITED STATES SENATE

ONE HUNDRED ELEVENTH CONGRESS

SECOND SESSION

MARCH 2, 2010

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SENATE COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION

ONE HUNDRED ELEVENTH CONGRESS

SECOND SESSION

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CONTENTS

WITNESSES

Page

CONTENTS
Toyota's Recalls and the Government's Response—Afternoon Session

TOYOTA'S RECALLS AND THE GOVERNMENT'S RESPONSE

TUESDAY, MARCH 2, 2010

U.S. SENATE,
COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION,
Washington, DC.

The Committee met, pursuant to notice, at 10:02 a.m. in room SR 253, Russell Senate Office Building, Hon. John D. Rockefeller IV, Chairman of the Committee, presiding.

OPENING STATEMENT OF HON. JOHN D. ROCKEFELLER IV, U.S. SENATOR FROM WEST VIRGINIA

The CHAIRMAN. All right, this hearing will come to order, please.

I'll make my morning statement, and then, in order of seniority, others, as they come, will make their opening statements, and then we will proceed to our witnesses.

Good morning, Mr. Secretary.

At its core, today's hearing is about the millions of Americans who drive to work, drive to the grocery store, or carpool their kids to school and other activities, in every day in every way. It's about their safety and their security, and nothing is more important than that.

We're all here today because we know that something has gone terribly wrong. The system meant to safeguard against faulty vehicles has failed, and it needs to be fixed, and needs to be fixed right away.

This is an important hearing. We have dedicated an entire day—we've never done that before that I can remember—to one subject, so that we can examine the problems and get to the solutions. It is most immediately about the Toyota recalls, but, more broadly—and just as urgently—about the safety oversight system and how to fix it.

It's not just for some future problem, but right now, in order to get to the bottom of the dangers of sudden acceleration, which are not addressed in the recalls. I believe the way we respond to this serious situation will, and must, have a lasting impact on the carmaker and its employees, on the Federal agency charged with overseeing safety, and on the confidence of the public for years to come. This morning's hearing will focus on the government's role, and this afternoon we will focus on the company's role in this very serious situation.

It is no secret that Toyota is an important company in America, not only to my home State of West Virginia, but to our national economy. The carmaker operates 10 plants across the country, em-

ploying 35,000 workers, and dealerships in all 50 States. I worked very hard to bring a Toyota engine and transmission plant to Buffalo, West Virginia, because I knew Toyota was a company built on the philosophy of quality first, that if they designed and built the safest and most reliable car possible, then sales and profits, and jobs, would follow. Now it's clear that, somewhere along the way, public safety took a back seat and corporate profits drove the company's decisions. If Toyota wants to remain successful, and regain consumer confidence and trust, it needs to find this balance once again.

Toyota's consumers and its incredible employees, who've won all kinds of awards in our State of West Virginia, deserve nothing less than this. They drive Toyotas, too.

It also is apparent that the government—NHTSA—did not fulfill its responsibility in the past, and has more to do in the present, and needs greater resources and authority in the future. NHTSA's actions and inactions in the years leading up to today are deeply troubling. The American people count on NHTSA to protect them and to provide them with clear and reliable safety information. And even today, that picture is not clear.

And what's more, the American people do not yet clearly understand how this happened and how it will be solved; which defects have been addressed and what dangers remain; and what the recalls are fixing, and what they are not fixing. So, we need to look back and focus forward.

We will hear, from Toyota executives, how these problems occurred and why the company did not respond more quickly, but I also want to know what Toyota's plans are to fix the ongoing problems with sudden acceleration and set itself on a new course to identifying needed recalls in the future, and prevent new defects. Big company, serious problems, very important this be fixed for the future. And right away.

We will hear, from NHTSA and DOT officials, why they did not adequately connect the dots about the safety situation, and why they did not move aggressively to investigate. But, I also want to know NHTSA's plan to get to the bottom of sudden acceleration, industrywide, and to make sure that it has the resources and the authority, if it does not, to fulfill that mission. And last, but not least, we will hear from the—in a panel following this one this morning—the Center from—Auto Safety, Clarence Ditlow, about the best and most effective plan to success for all involved.

I do intend to work on comprehensive legislation—let that be known—to get at all of these issues in a real way. I will discuss that at the end of the day.

We need to look at current law and ask if it is strong enough to prevent something like this from happening again. I know my colleagues have much to contribute to this effort; and, of course, as always, I welcome that.

The American people deserve a top-to-bottom review, not just on past errors, but of the road ahead. They deserve more than reassurances; they deserve full disclosures, accountability, and solutions.

Thank you for all of our witnesses participating, not just this morning, but also during the course of the day, for working with

our committee, which has been at this for a long time. I look forward to hearing from all of you.

STATEMENT OF HON. DANIEL K. INOUYE,
U.S. SENATOR FROM HAWAII

Senator INOUYE. I thank you very much, Mr.——

The CHAIRMAN. Senator Inouye——

Senator INOUYE. Thank you very much, sir.

The CHAIRMAN.—who is really the Chairman of this committee. [Laughter.]

Senator INOUYE. The past few weeks have been extraordinary ones. Whenever you turn on the television set or listen to the radio, watch the printed pages, just about every article is on Toyota, the front-page articles. The Toyota problem. We've had interviews of attorneys who are bringing class suits. We have talk shows determining how long it will take this company to restore its credibility. And I suppose that it would be justified for Americans to get the impression that this is a Toyota problem.

And, Mr. Chairman, I decided to do a little research before coming over this morning, and I'd like to share some of these numbers with you. These numbers were prepared by the National Highway Traffic Safety Administration, NHTSA, prepared yesterday, March 1, 2010. So it's very current, sir. And it runs from the calendar year 2000 to and including yesterday.

In the year 2000, a total of 7,827,164 vehicles were recalled. Of that number: Ford Motor Company, 7,485,466; Toyota 8,379; Hyundai, 333,319.

In the year 2001, a total of 11,466,361 vehicles were recalled: General Motors, 2,496,900; Chrysler, 2,609,345; Ford Motor Company, 5,630,054; Mitsubishi, 379,919; Toyota, 158,259; Hyundai, 183,884.

In 2002, 15,186,221 cars were recalled. During that year: General Motors, 4,554,046; Ford, 2,322,932; Chrysler, 6,413,130; Toyota, 496,000.

Mr. Chairman, I'd like to put the rest of these numbers in the record.

The CHAIRMAN. It is so ordered.

[The information referred to follows:]

Significant Vehicle Recalls 2000–2009

(Based on National Highway Transportation Safety Administration Statistics) *

Year	Manufacturer	Number of Vehicles
2000	Ford Motor Company	7,485,466
	Toyota Motors NA, Inc.	8,379
	Hyundai Motor Company	333,319
	Total Vehicles Recalled	24,636,743
2001	General Motors Corp.	2,496,900
	DaimlerChrysler Corp.	2,609,345
	Ford Motor Company	5,638,054
	Mitsubishi America	379,919
	Toyota Motors NA, Inc.	158,259
	Hyundai Motor Company	183,884
	Total Vehicles Recalled	13,639,625
2002	General Motors Corp.	4,554,046

Significant Vehicle Recalls 2000–2009—Continued

(Based on National Highway Transportation Safety Administration Statistics) *

Year	Manufacturer	Number of Vehicles
	Mitsubishi America	22,263
	Ford Motor Company	2,322,932
	DaimlerChrysler Corp	6,413,130
	Toyota Motor NA, Inc.	496,213
	American Honda Motor Co.	1,066,171
	Hyundai Motor Company	311,466
	Total Vehicles Recalled	18,427,866
2003	Nissan North America, Inc.	1,995,524
	General Motors Corp.	7,158,299
	Mitsubishi America	74,649
	Mitsubishi Motors NA	17,481
	DaimlerChrysler Corp.	2,070,975
	Ford Motor Company	3,405,403
	American Honda Motor Co.	910,732
	Toyota Motor NA, Inc.	212,252
	Hyundai Motor Company	595,683
	Total Vehicles Recalled	18,858,930
2004	Nissan North America, Inc.	723,891
	General Motors Corp.	10,734,505
	Mitsubishi Motors NA, Inc.	219,533
	DaimlerChrysler Corp.	5,819,380
	Daimler Chrysler Manufacturing International	23,108
	Ford Motor Company	5,035,095
	Volkswagen of America, Inc.	1,082,477
	American Honda Motor Co.	2,135,070
	Toyota Motor NA, Inc.	1,132,334
	Total Vehicles Recalled	30,822,164
2005	Nissan North America, Inc.	709,838
	General Motors Corp.	4,997,923
	Mitsubishi Motors NA, Inc.	74,427
	DaimlerChrysler Corp.	765,777
	Ford Motor Company	6,705,309
	American Honda Motor Co.	714,527
	Toyota Motor NA, Inc.	2,374,162
	Hyundai Motor Company	318,111
	Total Vehicles Recalled	19,178,356
2006	Nissan North America, Inc.	1,267,021
	General Motors Corp.	1,369,916
	DaimlerChrysler	2,397,247
	Ford Motor Company	1,737,420
	Volkswagen of America, Inc.	949,973
	Toyota Motor NA, Inc.	657,308
	American Honda Motor Co.	1,190,774
	Hyundai Motor Company	172,993
	Total Vehicles Recalled	11,276,291
2007	Nissan North America, Inc.	1,225,057
	General Motors Corp.	545,972
	DaimlerChrysler Corp.	1,478,288
	Ford Motor Company	5,533,853
	American Honda Motor Co.	794,277
	Toyota Motor NA, Inc.	583,191
	Total Vehicles Recalled	14,860,416
2008	Nissan North America, Inc.	824,382
	General Motors Corp.	1,758,629
	Mitsubishi Motors NA, Inc.	269,821
	Ford Motor Company	1,604,819
	Volkswagen of America, Inc.	579,075
	American Honda Motor Co.	796,843
	Toyota Motor Corporation	196,222
	Hyundai Motor Company	293,910

Significant Vehicle Recalls 2000–2009—Continued
(Based on National Highway Transportation Safety Administration Statistics) *

Year	Manufacturer	Number of Vehicles
	Total Vehicles Recalled	10,539,188
2009	Ford Motor Company	4,521,993
	General Motors Corp.	2,239,394
	American Honda Motor Co.	454,003
	Hyundai Motor Company	532,633
	Mitsubishi Motors NA, Inc.	76,498
	Toyota Motor NA, Inc.	4,872,583
	Total Vehicles Recalled	16,403,426

*Report prepared 3/1/2010 and is retained in Committee files.

Senator INOUYE. I decided to read these numbers, and they're very interesting, because, Mr. Chairman, it is not a Toyota problem; it is an industry problem. Looking at these numbers, one would get the impression that maybe it's Ford Motor or Chrysler or General Motors. And I think we should be honest with ourselves. If it is an industry problem, we should hear from the industry, not just from Toyota.

And I'd like to commend NHTSA for compiling these statistics. They're very helpful. It gives a clear picture. And if I may respectfully suggest, the investigation and inquiry by this committee should be based upon the industry, instead of just Toyota.

Thank you very much, sir.

The CHAIRMAN. Thank you, Senator Inouye.

Following both this morning's statements and this afternoon's statements, for the first time, we'll go by seniority, because we have to divide them up, morning and afternoon. That's why I decided to do that.

Senator Dorgan.

STATEMENT OF HON. BYRON L. DORGAN, U.S. SENATOR FROM NORTH DAKOTA

Senator DORGAN. Mr. Chairman, thank you very much.

This issue of the automobile is an interesting issue. You know, we traveled only as fast as a horse could carry us, from the Roman legions until Lewis and Clark. And then for the next 200 years we got the train, the airplane, and the car, and now almost everybody has a car. They are now made bigger and faster and safer.

Except this issue of "safer"—not all cars have been made to the same standards. And, as Senator Inouye indicated, we've had a lot of recalls. At first, early on, the manufacturers weren't enthralled with recalls. You will recall the Pinto and the fires, and the industry was forced, actually, to understand the need to recall and to own up to defects.

This particular day and hearing is devoted to Toyota. It is the world's largest manufacturer of automobiles. There is now evidence of sudden acceleration of Toyota cars, certain Toyota models. People died, and then their relatives and others, loved ones, complained, then more people died and more complained. And the question for this hearing is, this morning, What about the government agencies that are engaged in worrying about safety issues? Did they take these things seriously? Did they seriously inves-

tigate? Were they fierce advocates for the public good, here, or have they become paper tigers and did not pursue these things the way they should have? I think this hearing will give us a lot of information about that.

And this afternoon, it is, with respect to the automobile company—in this case. Toyota—what did they know, and what did they do with what they knew? What kind of information did they describe to the Federal agencies that inquired, if they did?

All of these things are very, very important. It's about a matter of trust—number one, the American people being able to trust a company that they believe is going to sell them an automobile that is safe; and number two, the American people having trust and confidence in a Federal agency that is designed, and whose purpose is, to address safety issues.

I'm not an expert in this area, but I've read as much as I could, recently, about the hearings that have been held and the background information that has been provided to us. I think there are very serious questions, all the way around. I think this is a case where people experienced tragic consequences on the highways because of sudden acceleration, and a company pushed that off, saying, "Well, that's not really something that—that's a floor mat issue," or something like that. And there's also some evidence that, I think, the Federal agency did not take it as seriously as I wish a Federal agency would. So we'll have a chance, I think, to ask some difficult and tough questions today, and try to understand what has happened here, what are the consequences of that, and what should happen, going forward, to make certain that this doesn't happen again?

Thank you, Mr. Chairman.

The CHAIRMAN. Thank you, Senator Dorgan.

In order of seniority, Senator Boxer, to be followed by Senator Snowe.

STATEMENT OF HON. BARBARA BOXER,
U.S. SENATOR FROM CALIFORNIA

Senator BOXER. Thank you very much, Mr. Chairman.

Last August, California Highway Patrol Officer Mark Saylor, his wife, 13-year-old daughter, and brother-in-law were killed in a tragic car accident that shocked the community of San Diego and the Nation. A heart-wrenching 9–1–1 call, placed just seconds before the crash, described a horrific scene in which their rental Lexus reached speeds of 120 miles per hour, with no way of stopping. In the end, all the Saylor family could do was pray.

This tragedy should never have happened, and we're here today to ensure it never happens again.

The recalls, accidents, injuries, and tragic deaths associated with several Toyota-produced models have raised serious questions as to what Toyota knew, when they knew it, and whether their current strategy of recalls is sufficient.

NHTSA conducted eight investigations. But, Mr. Secretary, my friend, I want to ask you if you think they took appropriate action after those investigations.

In addition, Mr. Secretary, I want to ask your opinion, because I have so much respect for you; you are a very straight-from-the-

shoulder person. I am deeply concerned about reports that former NHTSA employees, who were later employed by Toyota, may have played a role in influencing the result of NHTSA's safety investigations.

And I ask unanimous consent to place in the record a CBS News story on this issue.

The CHAIRMAN. It is so ordered.

Senator BOXER. Thank you.

[The information referred to follows:]

DID TOYOTA PULL STRINGS TO STIFLE PROBES?

CBS News Investigates Questionable Ties between Toyota and NHTSA, the Federal Agency Charged with Regulating It—Washington, Feb. 25, 2010

(CBS) Critics in Congress say Toyota pulled strings at NHTSA—with help from two former insiders, reports *CBS News correspondent Sharyl Attkisson*.

Christopher Santucci's job at NHTSA was to conduct defects investigations of automakers and some of his probes were into Toyota.

At some point, while working at NHTSA, Santucci negotiated himself a job at Toyota—the very company he'd investigated. Santucci testified two months ago in a lawsuit against Toyota.

"Were there any procedures within NHTSA that would govern your negotiating a job with an entity that you were supposed to be regulating?" he was asked

"Not that I'm aware," Santucci said.

In 2003, Santucci gave his two weeks' notice and joined Toyota's team, working under the very man who'd been his Toyota contact: Christopher Tinto. Tinto also used to work for NHTSA.

Once together at Toyota, records show the two helped negotiate with their former NHTSA colleagues to limit probes into Toyotas surging out of control. They convinced NHTSA to focus only on the "brief burst" accelerations, ruling out so-called "long duration" events that have allegedly led to accidents and deaths.

"You use the word 'negotiated' . . . We discussed the scope," Santucci said.

But "negotiated" is exactly the word used in Toyota internal documents obtained by CBS News. One in 2006 says NHTSA requested information on "a broad testing and analysis question" regarding Camry and Solara engine surge. It says Toyota "negotiated to reduce the response" to provide much less data.

Consumer watchdog Joan Claybrook headed up NHTSA way before Toyota's problems—and says NHTSA ex-employees are key.

"They maneuvered and manipulated and I think bamboozled the agency," Claybrook said.

Yesterday, Congress asked Transportation Secretary Ray LaHood if there's a conflict.

"Absolutely not," LaHood said.

Other automakers say—unlike Toyota—they do not use ex-NHTSA people to deal with NHTSA on defect cases.

Toyota says its employees' only interest is "the safety of every single owner of one of our vehicles."

At Christopher Santucci's deposition, we found a third ex-NHTSA figure helping out Toyota off-camera: former NHTSA attorney Kenneth Weinstein.

For his part in limiting the investigations, Santucci said NHTSA got exactly what it was looking for.

"You say it worked out well for Toyota," Santucci said. "I think it worked out well for both the agency and Toyota."

Maybe not so well, in the end. NHTSA is now investigating whether Toyota provided all the materials it should have over the years. And the inspector general is investigating NHTSA's role.

Senator BOXER. And I want to tell you—I'll just quote from this—"Christopher Santucci's job at NHTSA was to conduct defects investigations of automakers, and some of his probes were into Toyota. In 2003, Santucci gave his 2 weeks' notice, joined Toyota's team, working under the very man who'd been his Toyota contact, Christopher Tinto. Once at Toyota, records show, the two helped nego-

tiate with their former NHTSA colleagues to limit probes into Toyotas surging out of control. They convinced NHTSA to focus only on the brief-burst accelerations, ruling out so-called long-duration events that have allegedly led to accidents and death."

Mr. Chairman, as a long-time Toyota Prius owner myself, I understand the unease that you feel getting in that car, especially when carrying my children and my grandchildren. So, Mr. Chairman, I believe that every Toyota model should be analyzed by an objective party. Every fix should be analyzed by an objective party. Every car owner should have the ability to have their car fixed at the earliest possible time. And I trust that, under your leadership, this committee's work will move us toward those three steps.

Thank you very much.

The CHAIRMAN. Thank you, Senator Boxer.

Senator Snowe.

STATEMENT OF HON. OLYMPIA J. SNOWE, U.S. SENATOR FROM MAINE

Senator SNOWE. Thank you, Mr. Chairman. And thank you for convening this critical hearing, because we're here, obviously, because we have an obligation to determine precisely where these massive breakdowns occurred that obviously with both the company and the Federal agency that failed to do their own due diligence that led to perpetuation of defects that resulted in the loss of life.

Key questions remain unanswered. Over this past decade, NHTSA, you know, for example, had 2600-percent increase in complaints regarding Toyota acceleration—a 400-percent increase over the last 3 years—and yet, they failed to properly, independently investigate this issue. So, regrettably, it points to NHTSA's enforcement program that's lethargic, it's outdated, not to mention that it lacks the software expertise and the experts necessary to conduct such an investigation, particularly in this age, you know, that's dominated by computer systems. Also, we have a company that exploited NHTSA's weaknesses in avoiding compulsory reporting of information that's so integral to exhaustive and an independent investigation.

Now, many of us here on the Committee were—this is reminding us of the time in which we held the Firestone tire recall, a session just about 10 years ago. At that time, Transportation Secretary Rodney Slater appeared before this committee, and he asked us to move expeditiously to grant NHTSA expansive investigative authority so that they could get the data that they required. And so, we, within months, passed the TREAD Act that created an early warning reporting system requiring manufacturers to report at—you know, defects that resulted in injuries or economic damages.

What's amazing is that, in the direct aftermath of the Firestone, there was an acceleration—there were a number of reports regarding Toyota's acceleration. The Department of Transportation's inspector general issued two reports—2002, as well as 2004—criticizing NHTSA for failing to act on its own reports within its system and then, in 2004, failing to set up a system to do this investigation. Those of us who were here at the hearing well remember.

It's obviously a disturbing pattern that's all too familiar, frankly, that has emerged. Back in 2000, State Farm notified NHTSA of the Firestone tire problems that were occurring years earlier. Well, in 2004, State Farm notified NHTSA that there was a trend occurring with respect to Toyota acceleration. And NHTSA had an investigation for about 4 months, and then closed that investigation and said that the agency's resources were not warranted in using—in further examining this issue.

In 2004, State Farm again notified NHTSA. NHTSA opened up an investigation narrowly targeted to the floor mats, did not expand it into an independent investigation.

We know that Toyota had a recall in Europe, did not alert American officials, regrettably, with respect to that. And it was only after the crash that Senator Boxer is referring to, that horrific crash, another one, that resulted in significant recall by Toyota.

Mixed messages from the company. Last week you had the Toyota USA President saying that he wasn't sure he could rule out the electronic systems being the actual cause of these crashes. And then, the very next day, Toyota's President saying he was absolutely confident that there were no flaws in the design system with these controls.

The bottom line is, we've got a huge problem, because NHTSA cannot independently verify or corroborate this information and the contradictory assertions that are occurring, either because they lack the expertise, or they haven't contracted it out, they haven't asked for the resources as to whether they needed to do an independent investigation. And they allowed a company to hide behind proprietary data and a corporate bureaucracy.

If you think about it, you know, NHTSA's mission, primary mission, is to save lives and to prevent injuries. And if this is an example how they police a fundamental design flaw in a major automaker, then how can we have confidence that they can live up to the one important word in their mission statement and their name, and that, of course, is "safety."

Thank you, Mr. Chairman.

The CHAIRMAN. Thank you, Senator Snowe.

Senator Nelson.

STATEMENT OF HON. BILL NELSON,
U.S. SENATOR FROM FLORIDA

Senator NELSON. Mr. Chairman, profits should never trump safety. And I must admit that I am highly skeptical, almost bordering on cynical, when it comes to the automobile industry. And now we have another example—dragging its feet on something that's safety.

I remember, Mr. Chairman, when I was a young Congressman, we in Congress had been able to put in, on a trial basis, airbags. And a grandmother and a granddaughter, going down a two-lane highway—A1A, in Satellite Beach, Florida—had a head-on collision. And that grandmother and granddaughter walked away from that head-on collision. And yet, over and over, the automobile industry prohibited us from having airbags until enough people died. And now, of course, it's standard issue. And here we come with a similar issue. So, what is it going to take for us to wake up?

Now, the sad thing is that we're in the middle of a recession, and guess who's being hurt? It's the Toyota dealers. You ask anybody whether or not they think a Toyota is safe today, and you'd be shocked at the percentage of people that will say no. And they're voting with their feet, because they're not walking into the Toyota dealers. And it's hurting them and their suppliers and all of those small businesses, in the middle of a recession.

So, thank you for getting to the bottom of this, Mr. Chairman.

I want to thank the Secretary. He has been straightforward on this. Very clear. Keep at it, Mr. Secretary.

The CHAIRMAN. Thank you, Senator Nelson.

Senator Ensign.

Senator Pryor.

STATEMENT OF HON. MARK PRYOR,
U.S. SENATOR FROM ARKANSAS

Senator PRYOR. Thank you, Mr. Chairman. And I want to thank you for having this hearing.

And one of the things that you made clear to me is that this is not a witch hunt. We're really trying to look at what's going on out there in the field, and whether DOT and NHTSA are doing what they need to do, and what Toyota's been doing, and, you know, how this has been handled. So, really doing our oversight here today, and I want to thank you for that.

I have seen some documents that I'd like to pass out to the Committee when it is the appropriate time to do that, to let people look at some documents that, actually, I think NHTSA provided to the Committee.

And may have some questions for our NHTSA witness there. And it's good to see both our witnesses today. Thank you all for being here.

And this is just a very important matter. I mean, there are Toyota owners all over the country who are concerned about this. And, you know, we need to make sure that NHTSA and DOT are functioning properly, we need to make sure Toyota's doing what it needs to do, and we just need to do everything we can to keep our roads safe.

Thank you, Mr. Chairman.

The CHAIRMAN. Thank you, Senator Pryor. You're the head of our Safety and Consumer Subcommittee, so your words count.

Senator Isakson.

STATEMENT OF HON. JOHNNY ISAKSON,
U.S. SENATOR FROM GEORGIA

Senator ISAKSON. Well, thank you, Mr. Chairman. I won't take much of my time at all, except to thank you for holding this hearing today.

And thanks, to my friend and former colleague, Ray LaHood. He's doing a great job at DOT.

You know, I talked to my Toyota dealers in Georgia. I called them to see how my constituents in Georgia were being treated, in terms of repair. And the report I got was that the company had given carte blanche to the dealers and the service entities to fix these cars as fast as possible. And I received some flow numbers,

in terms of the numbers that were being repaired, that were very impressive, which I appreciate. But, it caused me to think, if we had been just as quick to respond at the first death that took place on the highway, in terms of making sure we were doing everything to keep the cars safe, we may have saved some of those lives.

So, I think, the most important thing today for us to hear is, What is that threshold? We need to err on the side of caution. And we ought to be conservative. The first hint of a life-threatening safety defect, in terms of vehicles, should immediately cause actions to take place that hopefully save lives in the future.

I thank you for the time, Mr. Chairman.

The CHAIRMAN. Thank you, Senator Isakson.

I have Senator Thune and then Senator Klobuchar.

STATEMENT OF HON. JOHN THUNE,
U.S. SENATOR FROM SOUTH DAKOTA

Senator THUNE. Thank you, Mr. Chairman. I want to thank you for holding today's hearing, and thank our witnesses, as well, from the government—Secretary LaHood, nice to have you back in the Congress—and witnesses from the Toyota Motor Company, other consumer safety arena, who are going to join us throughout the day.

The necessity of today's hearing, Mr. Chairman, is unfortunate. And it's a manifestation of an oversight process that has failed the American consumer and a major car company whose practices have put lives in danger over the past several years. Clearly, the recent recalls have not been handled well by either the government officials in charge of overseeing the recall or the Toyota Motor Company's voluntary response to fixing the issue of unintended acceleration experienced by drivers of various Toyota models.

And after the several tragic accidents and the recalls, the investigations have intensified; and throughout that process, we've heard a changing story from the Toyota Motor Company on the root cause of the problem.

So, I'm hoping that today will shed some light on that subject. To date, as we all know, we've had unintended acceleration problems that have been linked to 39 deaths in the United States. Many of those were preventable. And I think the questions that need to be answered are, When was the problem first identified? Was Toyota too slow to react? Are the ongoing government investigations adequate? Does either Toyota or the National Highway Traffic Safety Administration know the true cause of the unintended acceleration?

As thousands of families bring their cars into dealerships hoping the problem will be fixed, these are the questions that deserve timely and honest answers.

So, Mr. Chairman, I look forward to continuing working with the Department of Transportation and my colleagues on this committee as we dig deeper in search of the answers to those questions.

Thank you.

The CHAIRMAN. Thank you, Senator Thune.

Senator Klobuchar, to be followed by Senator Wicker.

STATEMENT OF HON. AMY KLOBUCHAR,
U.S. SENATOR FROM MINNESOTA

Senator KLOBUCHAR. Thank you very much, Mr. Chairman.

Thank you, Secretary LaHood, and thank you, Administrator Strickland.

I first wish just to say that I believe that a full investigation of the Toyota Motor Corporation's conduct or misconduct in response to these complaints must be conducted. But I'm mostly interested, today, in how our government responded.

This is a basic matter of public safety and public trust. And I know very well the two of you were not in charge in the years leading up to this tragic situation that we find ourselves in now. But now, regardless of what happened before, you are in charge of cleaning it up within your own agency.

I believe there might be a problem of culture here. Industry executives can roam the hallways of government, unlike consumers. They are not on an equal playing field. Some of the auto dealers and some of the small businesses that rely on good products also don't have that same kind of access.

It was recently disclosed that, last summer, officials in Toyota's Washington office prepared an internal presentation boasting that they saved the company over $100 million by successfully negotiating with NHTSA to have only a limited equipment recall of floor mats in some Toyota and Lexus vehicles. They also claimed millions of dollars in savings for the company by delaying safety regulations, avoiding defect investigations, and slowing down the other industry requirements.

This internal Toyota presentation was entitled, "Wins for Toyota," but it could just as well be entitled "Losses for Consumers." Among the consumers who lost out were some of my constituents; for example, Jeff Pepski, of Plymouth, Minnesota. On February 3 of last year, he was driving home from work when his Lexus dramatically accelerated to 80 miles per hour. After almost 2 miles of high-speed driving, he was finally able to stop the car by putting it into neutral. He says the floor mat had nothing to do with it. I have talked to him over the phone.

A few weeks after the incident, he submitted a detailed complaint to NHTSA and specifically asked the agency to look beyond the floor mats. This guy was obsessed with this. And almost 8 months later, at the end of October 2009, he received a response from NHTSA. The agency denied his complaint. At that time, it was still accepting Toyota's explanation.

We've had several instances like this in Minnesota, and it always makes a citizen wonder what's going on and what happened between the industry and NHTSA. It was like a hockey puck going back and forth on the ice. The drivers would file complaints by the dozens; Federal regulators would open official reviews; Toyota would promise to answer; the regulators would complain about not receiving the information they needed; and in the end, almost nothing was done. The puck never got in the net. Nothing was resolved, and people died. Again, I have faith, in both of you, that you will get to the bottom of this and figure out how we fix this.

The questions I'm most interested in: Did the agency lack sufficient resources to do prompt, thorough investigations? Did the

agency suffer because of leadership turnover? Was the agency too reluctant to use all its investigating powers in order to get cooperation? Did NHTSA have all the tools it needed? Was the relationship too cozy between Toyota and the rest of the industry and NHTSA—the revolving-door issue that Senator Boxer raised? Is it all these things? Those are the questions that the American people deserve answers for, as they believe, and they have a right to believe, that NHTSA is there to protect them.

Thank you.

The CHAIRMAN. Thank you, Senator Klobuchar.

Senator Wicker, to be followed by Senator Udall.

STATEMENT OF HON. ROGER F. WICKER,
U.S. SENATOR FROM MISSISSIPPI

Senator WICKER. Thank you, Mr. Chairman, for calling this important hearing to look at the recent recalls by Toyota, as well as the response and involvement of the National Highway Traffic Safety Administration.

This is an issue that has grabbed the attention of all Americans and many others worldwide, and certainly warrants a thorough investigation. One of the most important roles of this committee, and even this Congress, is ensuring the safety of American motorists.

The tragic accident, last August outside San Diego, that took the life of a California Highway patrolman and his family, brought national attention to the problem of sudden unintended acceleration in certain Toyota and Lexus vehicles. Toyota has recalled millions of potentially affected vehicles. Media coverage has expanded, and the public is understandably concerned and confused about the problem and what is being done to correct it.

Since that time, Toyota has undertaken extensive outreach to owners and the public in general, and even taken the unusual steps of halting sales and production of certain affected models. Employees in dealerships around the country have been working tirelessly to fix affected vehicles. They are to be commended for this effort.

However, there are lingering questions that need to be examined, such as the timeliness of Toyota's response to these complaints and whether a definitive answer to the problem has been found. We're going to continue to ask the tough questions that need to be asked.

I also want to express that it is important, not only to be tough, but to be fair, and to keep the facts in perspective. We must not use a different set of standards for one company over the other.

NHTSA and the Department of Transportation have, likewise, become very active on the issue. Secretary LaHood, my friend and colleague, has stated publicly that he is committed to examining more deeply the possibility that the causes of unintended acceleration extend beyond floor mats and sticky pedals, and examining the potential for electronic defects and throttle control. Also, we have an obligation to review what NHTSA has been doing over the last several years as these accidents were being reported, and why they seemed to limit the scope of their review.

I believe there are still several outstanding issues we have an obligation to examine and ultimately answer. The most important is,

has the problem of unintended acceleration in these vehicles been correctly identified?

Next, as with any safety concern, I believe consumer education is an important component to ensure safety. Toyota has undertaken a massive outreach campaign to get necessary information to customers, and I applaud Toyota for this effort. However, questions remain: Do vehicle owners know where to find out if they are affected, how to get their vehicle repaired, and how to ensure that they can safely continue to drive until they get it fixed?

Finally, we need to thoroughly review the processes that are in place, both within Toyota and in NHTSA, to see if changes need to be made to help ensure owners and those on the road with them are safe.

There's a lot at stake here, and we need to get it right. Ultimately, all Americans should be able to feel confident that they are traveling in safe vehicles. It is also in the best interests of Toyota to continue cooperating and working hard on these problems.

Toyota has been a good partner to communities and States across the country, including my home State of Mississippi. Let the record show that Toyota is investing $1.3 billion to build a new plant in northern Mississippi, and although the economic downturn has delayed the plant's opening, the company has continued to honor its commitments to our State.

At this point, Mr. Chairman, I'd like to point out, and ask that we enter into the record, one op-ed written by a Democrat from Mississippi, Vernon R. "Randy" Kelley, the Executive Director of the Three Rivers Planning and Development District; and another op-ed from the *Washington Post* penned by Mississippi's Governor, Haley Barbour. Governor Barbour says, "On February 24, the U.S. owes Toyota fair, careful treatment on safety issues," and he says, among other things, "I worry that there has been a rush to judgment. The way that Congress and the Obama Administration respond to this controversy will have real economic consequences."

Mr. Kelley hopes that those involved will, quote, "give the Toyota company the same opportunity to deal with their issues that they afford other automobile manufacturers that experience recalls."

I ask that these two op-eds be placed into the record at this point.

The CHAIRMAN. Senator Wicker, they both will be included in the——

[The information referred to follows:]

"PILING ON" TOYOTA IS UNDERSERVED

by Randy Kelly

Back in my football playing days when a player had been tackled and was down on the ground and another player from the opposing team came along and jumped on the player that was already down then a penalty for "piling on" was assessed.

In today's football terminology the penalty is called "personal foul—unnecessary roughness." Regardless of what you call it, there is a penalty.

I find myself in one of those situations now with the publicity Toyota is receiving about some of their models. I believe there is some "piling on" taking place by some media and others while Toyota is "down" so to speak and I don't believe it is deserved. Intentionally trying to hurt someone on a football field or anywhere else is wrong and consequently deserves a penalty or punishment. Surely none of the Toyota critics believe a company like Toyota would ever do anything to intentionally hurt anyone. Additionally, I would hope that no one, be it media, companies or com-

petitors, would intentionally "pile on" another company to hurt them for gain of market share. Then again, perhaps I am too naïve.

The Toyota Company that I have had the opportunity to work with very closely is unquestionably a premier automobile manufacturer with an enviable customer satisfaction record. I don't pretend to believe, and I am not trying to imply, that in any manmade product there is always perfection. Toyota is experiencing some imperfection with parts of some of their models, and they are going the extra mile to assure customer safety and satisfaction with their product.

There have been about 2,000 complaints of unintentional sticking accelerators out of about 20 million Toyota vehicles sold worldwide. Do the math and that is less than 0.1 percent. Certainly I would never make light of any unfortunate accident that one of these unintentional malfunctions caused or played a part in. I value every human life as I am sure Toyota does. Toyota dealers across this great nation are repairing those potential problems as quickly as possible.

I'm sure Toyota understands that the trust of the consumer is of utmost importance to the company's future. Toyota directly employs more than 30,000 people in the United States, and when you add in suppliers and dealerships that swells to more than 170,000. With its response to the issue at hand, it is evident to me that this is a company that is serious about the satisfaction and well being of its customers.

It is my hope that the ones doing the "piling on" in these Toyota events will give the Toyota Company the same opportunity to deal with their issues that they afford other automobile manufacturers that experience recalls. I sincerely trust Toyota to work through these issues just as I sincerely trust Toyota will soon be giving many Mississippians the opportunity to build vehicles at Blue Springs with true "Mississippi Pride."

Vernon R. "Randy" Kelley III, is Executive Director of Three Rivers Planning and Development District, headquartered in Pontotoc.

The Washington Post—February 24, 2010

U.S. Owes Toyota Fair, Careful Treatment on Safety Issues

by Haley Barbour

When I announced 3 years ago that Toyota would open a U.S. vehicle assembly plant in Blue Springs, Miss., I said Toyota was the world's premier automobile manufacturer. I still believe that.

Make no mistake, the safety and reliability concerns identified in some Toyota automobiles—although they occur very infrequently—are serious. It seems to me, however, that the company is doing everything it should as quickly as possible to make things right. This includes not just a full recall but also temporarily halting production in five plants to focus on the problem and repairing recalled vehicles. The company has taken significant steps to improve quality and reliability worldwide, and to increase the transparency of its communications with government officials and customers.

But as two House committees and one in the Senate prepare for hearings on Toyota's safety issues, I worry that there has been a rush to judgment. The way that Congress and the Obama Administration respond to this controversy will have real economic consequences.

We cannot lose sight of the company's importance to America's economy—and should not ignore its continued commitment to doing things the right way. Although Toyota was founded in Japan more than 70 years ago, after five decades of doing business in the United States it is as much an "American" car company as any other.

In Mississippi, the automaker is investing $1.3 billion to build a Prius assembly plant that will provide good jobs to more than 2,000 new Toyota team workers plus some 2,500 supplier jobs. Though the economic downturn has delayed the start of production, Toyota is honoring its financial commitments to the state—including a promised annual donation of $5 million for the next 10 years to help fund local education programs. That's the kind of company Toyota is.

Across America, Toyota—together with its 1,500 dealers and 500 suppliers—has helped create more than 200,000 jobs. It operates major design, research and manufacturing operations in 10 states. Nearly half of the vehicles it sells in the States are built here. And over the past 22 years, 16 million Toyota vehicles have been made in America.

The company's direct investment in the United States exceeds $18 billion, but it's not just American workers who profit. Eighty percent of Toyota vehicles sold in this country over the past 20 years are still on the road.

That's why I hope Congress will resist the temptation to attack Toyota simply to advance the interests of its American competitors. Toyota should not be blamed implicitly for the problems of Detroit's automakers. Moreover, the decision to bail out bankrupt General Motors and Chrysler with $60 billion from U.S. taxpayers has put Washington in an uncomfortable position. I know Transportation Secretary Ray LaHood to be an honorable man, but can these hearings be seen as impartial, focused on enforcing the rules and policing corporate behavior, when the Federal Government has stakes in two major car companies?

Lawmakers must tread carefully lest they give Chrysler, in which the government has a 10 percent stake, or General Motors, in which the government now owns a majority stake, an unfair advantage.

Washington's primary role should be to work with Toyota to protect consumers and assist in getting problems fixed as quickly as possible. Its other responsibility is to be vigilant in pursuing fairness—Toyota cannot be unjustly punished or have its business recovery impeded by attempts to gain advantages for companies owned by the government.

America's openness and its reputation for fairness are what have made our economy so attractive to foreign investment—investment that will surely aid in our recovery. If Congress and the media treat Toyota differently, foreign businesses might think again before investing in Mississippi or any other state. During these hearings, excessive bashing of Toyota is likely to be interpreted as a signal that the United States is turning protectionist during these tough economic times. That would not be good for the American economy, companies located here or their workers.—*The writer, a Republican, is Governor of Mississippi.*

Senator WICKER. And in conclusion, then, let me say, Mr. Chairman, to ensure that this partnership continues to flourish, we must work together now to prevent these kinds of safety issues in the future. We must work diligently to ensure that vehicles are safe and that the public is protected. At the same time, we need to be mindful that there are thousands of American jobs at stake.

I believe this hearing is only a first step in a process that must involve careful analysis from all parties and a collective commitment to work together to find an appropriate solution.

So, thank you, to our witnesses; thank you, Mr. Chairman. And I look forward to a productive hearing.

The CHAIRMAN. Thank you, Senator Wicker.

Senator Udall, to be followed by Senator Johanns.

STATEMENT OF HON. TOM UDALL, U.S. SENATOR FROM NEW MEXICO

Senator UDALL. Once again, Chairman Rockefeller, you are focusing this committee on consumer protection, and I thank you for that. It's absolutely critical.

This hearing's about helping ensure the safety of American drivers. It's about uncovering why hundreds of instances of sudden acceleration occurred for so long, and killed, injured, or inconvenienced so many, without an adequate response from Toyota or government safety officials.

For years, Toyota has enjoyed a stellar reputation here in America and around the world. I own a Toyota Prius, and have driven it for years, and with pleasure and no safety problems. But, the reality is, too many Toyota vehicles driven over the past 10 years haven't been safe. As a result, dozens of people have died; hundreds have been hurt; thousands have been inconvenienced; and hard-working employees at Toyota dealerships in my home State of

New Mexico and across the country now face an uncertain future in an already uncertain economy.

And while all of this was happening, Toyota continued to put company profits above the safety of the American people, the American people who bought their vehicles, who depended on their product, and who expected Toyota to inform them immediately if something had gone wrong. Toyota didn't just fail in this regard, they did it knowingly and without remorse. Just last summer, they were bragging about over $255 million in savings through recalls avoided.

But, Toyota isn't only to blame. The Federal regulating agency, NHTSA, is also to blame. Since 2003, they have conducted more than 10 investigations into issues related to sudden uncontrolled acceleration. These investigations resulted in a less-than-adequate floor-mat recall in 2007. Only after the release of the terrifying 9–1–1 call of August 2009, that Senator Boxer mentioned, and that crash with the California Highway Patrol officer, did it seem that NHTSA stepped up and required action by Toyota. That crash finally resulted in a complete recall of vehicles, and development of a comprehensive solution to the pedal entrapment issue.

Although the Toyota safety issues have been in the headlines for months and hearings were held in the House last week, many questions remain, and I, for one, would like to know why the safety issues with Toyota endured, unchecked, for so long, what steps Toyota is taking to ensure the safety of those that rely on their vehicles for their livelihood, and finally, what steps NHTSA is going to take to ensure this never happens again.

It's wonderful to see you here, Secretary LaHood and Administrator Strickland, and I know that you will both work very hard to stay on top of this.

Thank you, Mr. Chairman.

The CHAIRMAN. Thank you, Senator Udall.

Senator Johanns, to be followed by Senator Begich.

STATEMENT OF HON. MIKE JOHANNS,
U.S. SENATOR FROM NEBRASKA

Senator JOHANNS. Mr. Chairman, thank you.

Probably everything that I wanted to say has been said, so I will be brief and avoid being repetitious.

But, I do want to reflect on something, if I could. It wasn't all that long ago that, Mr. Secretary, I was in your position as a member of the Cabinet. And during those years one of my responsibilities as Secretary of Agriculture was food safety, in the areas of meat and poultry. And food safety issues arose from time to time. And I always considered those to be the greatest risk and greatest challenge that we faced—and the greatest responsibility. Each time that I dealt with a food safety issue over those 3 years, I have to tell you that what I wondered about was, What else is out there? You can't know what you don't know.

Now, as we conduct this hearing, I suspect it's going to be very easy for us to dig into the documents, look back at the history of what has happened here. It'll be relatively easy to connect the dots, in hindsight. But, what that is not going to tell us is what else is out there, what other companies, maybe, have done—just as Sen-

ator Udall mentioned—have bragged about how they somehow evaded being caught up in a recall or something of that nature.

So, as you testify, I hope you will spend some time talking to us about what you are doing to assure us that there isn't anything else out there, that our vehicles are safe, and that, when it is brought to the attention of this Department that there is a problem, that there is good follow up on that problem.

I also want to just mention something else, and I will be just very, very blunt about this. This really irritated me, all the time I was the Secretary of Agriculture. And there is a connection. I firmly believe that there is a role for the Japanese government, here, to step up and to make sure that what they are sending to our borders is safe. They have a responsibility.

And here's what I would say about that. I worked with the Japanese for years on BSE issues related to livestock. We found one animal. There's never been a case of BSE in the United States. And yet, to this day, their border is largely closed to our product.

As I was preparing for this hearing, I wondered what the response would be in Japan if I suggested that—because people have died because of the way they have conducted themselves—until the Japanese government can assure us that all of the defects are out of these vehicles, we're just not going to accept any vehicles from Japan. And yet, that's what they did with one of our industries.

So, I start this hearing very, very frustrated with everything that has happened. I don't think our consumers have been treated right, not only by what has happened here regarding the U.S. Government, but what has happened regarding a government that has been an ally through the years, but, quite honestly, has not treated us fairly in trade issues.

Thank you, Mr. Chairman.

The CHAIRMAN. Thank you, sir. Thank you very much.

Senator Begich.

STATEMENT OF HON. MARK BEGICH,
U.S. SENATOR FROM ALASKA

Senator BEGICH. Thank you, Mr. Chairman. Thank you for holding the hearing.

Let me first say, Secretary LaHood and Administrator Strickland—I know, Secretary, you're very blunt and you're always to the point——

It is on. Is that better?

Well, that's what I get. Maybe there's a defect in this.

[Laughter.]

Senator BEGICH. Let me just say that—thank you—and I know you're always very direct, so I'm looking forward to your question—or, your answers to the questions, and what's going to happen.

To Administrator Strickland, being on the job in a short time, you now have a big task ahead of you. And I think, for me, my big issue—not to echo what everyone said here—is going to be, What systematic changes are necessary for us to ensure that the car safety and other safety efforts you move forward on are there, and that you have the resources to do it. It's a systematic issue that I'm going to be looking for. What do we do to improve the system? Because we can always look back, make the list. You know, we're—

you'll have the investigation, they'll be responsible for their actions, in whatever form it takes. But, what's forward, and how we change the system, or improve it, or maybe there are just tweaks here—I'm not sure. That's what I'm looking for. Systematic changes.

In that context, I will say that, in Alaska it's a little unique, because when folks in rural Alaska buy a vehicle for use in their community, they barge it up. So, now, if they own a Toyota—I own a Toyota Highlander, hybrid; very proud of the fact. I drove from Alaska to Washington, D.C., in that vehicle, for 19 days, 5,000 miles, and I'm here in one piece, and that's great. It's a good car. I'm very happy about it.

But, folks in rural Alaska, when they ship that up in a barge, now they get a recall notice, how do they get that fixed? And I don't know the answer to that, to be honest with you. And there will be some in our State. Probably very few—but, still, the point is, there'll be other States where the dealer may be miles and miles away. How do they make that connection? At least in most States they can drive to that location. In our State, they will have to literally figure out how to get it taken care of, and I don't know what the answer is to that. So, I'll be looking to that, and, you know, specifically today may not be the appropriate place to answer that, but maybe looking into how we make that logistical opportunity happen.

But, again, I wish you the best with the testimony today. But, I do look for the systematic things that we need to do, and where, maybe, there was a problem in delivery of the information to the public, as well as to the company, to make sure they're upholding the best quality vehicle possible when they sell it here in this country.

So, let me end there. And again, thank you both for being here, and I'll look forward to your testimony.

The CHAIRMAN. Thank you, Senator Begich.

Secretary LaHood, Administrator Strickland, thank you for your patience. You got all the statements this morning, and that means, by definition, in the afternoon there'll be fewer statements. So they set the tone for what we want to ask, and now I look forward to hearing you, sir. And you're accompanied by David Strickland, who's the Administrator of the National Highway Traffic Safety Administration.

Please proceed.

STATEMENT OF HON. RAYMOND LAHOOD, SECRETARY, U.S. DEPARTMENT OF TRANSPORTATION

Secretary LAHOOD. Mr. Chairman, first of all, thank you for your leadership on safety. And also, thank you for the courtesy that you have extended to us in arranging this meeting today that's convenient for both your committee and those of us at DOT.

Ever since I was sworn in as the Secretary of Transportation 13 months ago, I have said that safety is the Department's number-one priority. I believe that we've demonstrated that commitment, time and time and time again. When the terrible crash of Washington Metro system claimed nine lives and injured dozens of others last summer, we quickly introduced legislation to give us Federal safety oversight of the transit system, something we currently

don't have. When the Colgan Air Flight 3407 crashed in Buffalo, we learned right away what many of the problems were, and we did not wait a year for the NTSB to conclude its investigation before we acted. We began working with the aviation industry immediately to enhance airline safety and pilot training, holding 12 safety summits around the country. This spring, the FAA will issue a new rule to combat pilot fatigue, and it has already begun to overhaul pilot certification qualification.

One of the hallmarks of my time as Transportation Secretary has been our work on distracted driving. For all of you with cell phones and BlackBerrys and other electronic devices, I'm on a rampage about people talking and texting while driving a car, bus, train, or plane. It's a menace to society, and we certainly have exercised our authority to ban truck drivers from texting while driving.

Now for Toyota. The Toyota recall situation is very serious, and we are treating it seriously. The three recalls involving Toyota are among the largest in automobile history, affecting more than 6 million people in this country.

And I'd like to say a word directly to consumers. First, if you notice that your gas pedal or your brake is not responding as it normally would, contact your Toyota dealer right away.

The recent recalls involve three issues:

One, accelerator pedal entrapment by floor mats, which can lead to uncontrolled acceleration at very high speeds. It's important to take your floor mats out of the driver's side of the vehicle until your car has been repaired for this problem by a Toyota dealer.

Second, accelerator sticking or returning slowly after being depressed. If the pedal is harder to depress or slower to return after releasing, this could be the precursor to what is known as "sticky pedal." If your pedal has these symptoms, contact your Toyota dealer immediately. If your gas pedal becomes stuck for any reason, steadily apply the brake, put the car in neutral, bring it to a stop in a safe place, and call your dealer.

Finally, the Toyota Prius for model year 2010, and the Lexus HS250, if you experience a change in your car's braking performance, contact your Toyota dealer.

Now, I want everyone to know that the National Highway Traffic Safety Administration has the most active defect investigation program in the world. Known as NHTSA, its job is to investigate complaints and to look for defects. It receives more than 30,000 complaints from consumers every year, and reviews every one of those complaints quickly. We don't ignore any of them. We examine them all, we look at all of them very carefully.

Over the last 3 years, NHTSA defect and compliance investigations have resulted in 524 recalls involving 23.5 million vehicles. Twenty percent of those involve foreign vehicles, while 80 percent were domestic.

Of the 100 investigations NHTSA opens in an average year, there are currently 44 open defect investigations, five of which involve Toyota. Every step of the way, NHTSA officials have pushed Toyota to take corrective action so that consumers would be safe.

Unhappy with Toyota's responsiveness to our safety concerns, the Acting Deputy Administrator of NHTSA, Ron Medford, and two associates flew to Japan in December 2009 to clarify for Toyota man-

agement that the company's legal obligations are to find and remedy safety defects in vehicles sold here.

In January, our new Administrator, David Strickland, who is with me today, and Ron Medford, now our Deputy Administrator, told the President of Toyota North America in no uncertain terms that we expect prompt action. Following the disclosure of the sticky pedal problem, Toyota publicly announced that recall. Two days later, I personally talked to Mr. Toyoda, prior to him coming to the United States, and emphasized this is very serious. Potentially fatal defects are on the road, and NHTSA has pressed hard to expedite these safety fixes.

If NHTSA had opened a formal investigation and Toyota had resisted a recall, this would have consumed an enormous amount of time and resources, in effect extending the period in which owners of affected vehicles were at risk. By engaging Toyota directly, and persuading the company to take action, the agency avoided a lengthy investigation that would have delayed fixes for a year or more.

Last year, I announced that we are investigating whether Toyota acted quickly enough in reporting these safety defects to NHTSA, as well as whether they took all the appropriate actions to protect consumers.

We have asked Toyota to turn over a wide range of documents. This will be one of the most comprehensive reviews of documents, one that will show us when and how they learned about these safety problems. NHTSA will continue to make sure Toyota's doing all it has promised to make its vehicles safe, and we will continue to investigate all possible causes of unintended acceleration.

While the recalls are important steps in that direction, we don't maintain that they answer every question about that issue. Some people believe that electromagnetic interference has a dangerous effect on these vehicles, and although we're not aware of any incidents proven to be caused by such interference, NHTSA is now doing a thorough review of that subject to ensure safety, because we've heard from enough Members of Congress that they think that this is a problem. So, we're going to look into and review the electronics on these cars. If NHTSA finds a problem, we'll make sure that it's resolved.

Recently I met with the President of Toyota. I told him that safety is our top priority at DOT, and it must be for Toyota, as well. He assured me that Toyota takes U.S. safety concerns very seriously and they're working hard to address all safety issues.

Finally, want to remind everyone there is a reason we investigate safety defects, and there's a reason we push automakers to do the right thing. I listened to the 9–1–1 tape of the Saylor family's harrowing last moments. I actually met with the family last week, when they were here in Washington, and offered the sympathy of our administration to them, and our commitment that this will not happen to another family. It was a terrible tragedy, and I hope that no other family has to endure this.

Again, Mr. Chairman, thank you for the opportunity to appear. And now we are happy to answer your questions.

[The prepared statement of Secretary LaHood follows:]

PREPARED STATEMENT OF HON. RAY LAHOOD, SECRETARY,
U.S. DEPARTMENT OF TRANSPORTATION

Chairman Rockefeller, Ranking Minority Member Hutchison, and members of the Committee:

Thank you for the opportunity to appear before you today to discuss the important issue of Toyota's recent safety recalls and the broader issue of sudden unintended acceleration. With me today is David Strickland, Administrator of the National Highway Traffic Safety Administration (NHTSA).

Transportation safety is the Department's highest priority. We understand the level of concern about the safety of Toyota vehicles, particularly with regard to unintended acceleration. I would like to explain the recent recalls, the role that NHTSA played in ensuring the recalls occurred, and the actions NHTSA is taking to identify any additional safety defects that might cause unintended acceleration.

The recent Toyota recalls related to unintended acceleration involve two issues: first, accelerator pedal entrapment by floor mats, which can lead to uncontrolled acceleration at very high speeds; and second, accelerator pedals sticking or returning slowly after being depressed, which occurs at a variety of throttle positions but, to the best of our knowledge, is more likely to occur at low throttle positions more readily controlled by the vehicle's brakes.

Before I discuss the details of these two recalls and NHTSA's investigations, I want to clarify what owners of vehicles affected by these recalls should do. To avoid pedal entrapment, remove all floor mats from the driver's side of your vehicle until you receive the repair for this problem from a Toyota dealer. If you do not remove the mat, make sure that it is always securely anchored in place on the retaining hooks and that no other mats are ever stacked on top of it. If your vehicle is covered by the "sticky pedal" recall, pay special attention to your gas pedal. If the pedal is harder to depress or slower to return after releasing it, this could be a precursor to a sticky pedal. If your pedal shows those symptoms you should contact a Toyota dealer immediately. If your accelerator becomes stuck for any reason, steadily apply the brake, put the car in neutral, bring it to a stop in a safe place, and call your dealer.

Pedal Entrapment

Of the two big recalls, the far more serious problem, in our view, is pedal entrapment by floor mats. We are aware of five deaths that have occurred due to this problem, including a tragedy near San Diego last August that claimed four lives. We have the greatest sympathy for the loved ones of those members of the Saylor and Lastrella families who died in that crash.

Pedal entrapment involves a situation in which the driver intends to accelerate quickly (such as when passing another car or entering a freeway) and depresses the accelerator pedal toward the floor of the vehicle. When pushed far enough the pedal becomes entrapped by the floor mat in full open throttle position. Once the pedal is entrapped, the vehicle will continue to accelerate well in excess of the driver's intent unless the driver can overcome that situation. Given the very high speeds involved and the firmness with which the mat is holding the pedal at full throttle, these are the most dangerous situations we are aware of that come under the broad heading of unintended acceleration. It is very important to note that, even on the recalled vehicles, entrapment by the mat can occur only if the floor mat is out of position because it is not secured, one floor mat is stacked on top of another floor mat, or a floor mat is used that is not intended for use on the vehicle and is inappropriate due to its shape or dimensions.

NHTSA first became aware of this phenomenon in Toyota's Lexus ES350 in 2007 and quickly opened an investigation in March of that year. NHTSA acted based on five complaints from vehicle owners. No related fatalities had been reported at the time the investigation began, but there had been three crashes allegedly related to pedal entrapment by the floor mat. At the time, the problem seemed most likely to occur in Lexus ES350 vehicles where a thick, all-weather floor mat offered as an option by Toyota was used. The shape of these floor mats and a raised portion forming a ridge made them particularly likely to entrap the pedal if not properly secured. So far as NHTSA knew at that time, the accelerator pedals themselves were functioning as designed and the problem centered on the way the pedal could be entrapped by these floor mats under certain conditions.

NHTSA escalated the investigation to an engineering analysis 5 months later, in August 2007. Shortly before that, a fatal crash involving a Camry occurred that was apparently caused by entrapment. In September 2007, Toyota announced a recall of the all-weather mats in Lexus and Camry vehicles. The remedy was to have the dealers remove the mats and provide a re-designed mat that was shaped in a way

that addressed the entrapment risk even if the re-designed mat was improperly anchored.

At the time of the 2007 recall, NHTSA also issued a safety advisory, directed especially to owners of the recalled vehicles but also to all drivers, warning of the serious dangers of not properly anchoring mats or stacking mats on top of each other. At that time NHTSA believed that the recall and removal of the most problematic mats, the improved design of the replacement mats, and education of the public and dealers about the proper use of mats would substantially eliminate the known risk related to pedal entrapment.

NHTSA continued to monitor the situation and became aware of a post-recall crash involving one of the recalled mats that the owner had not removed. Fortunately, that was not a fatal crash but did result in serious injury. In light of that crash and indications that consumer response to this recall was too low, NHTSA urged Toyota to re-notify vehicle owners, which Toyota did in January 2009.

Eight months later, when the San Diego fatal crash occurred on August 28, 2009, NHTSA immediately began to investigate the circumstances of the crash. NHTSA investigators and the San Diego County Sheriff's Department examined the wreckage of the vehicle and concluded that the likely cause was excessive speed due to entrapment of the accelerator pedal by the floor mat. The vehicle was a Toyota Lexus ES350 on loan from a Toyota dealer for the day. The floor mat in the vehicle was designed for a Toyota Lexus RX SUV and was much longer than the mat that would have been proper for the Lexus ES350. At the time NHTSA investigators viewed the wreckage, the accelerator pedal was still fused to the floor mat, apparently melted in that position by the heat of the fire that followed the crash. Combining that observation with the circumstances known to have occurred immediately prior to the crash, including extremely high speeds and the driver's inability to control the speed, NHTSA concluded that the excessive speed was caused by pedal entrapment. Supporting this conclusion was the fact that another customer of the dealership had used the same vehicle just 3 days earlier and complained of unintended, high-speed acceleration caused by the pedal having been trapped by the mat until he was able to stop the vehicle and free the pedal.

The San Diego tragedy made clear that the entrapment problem could occur in unexpected ways and that recalling the worst performing mats and educating drivers and dealers about not using unsecured, improper, or stacked mats was not going to adequately address the risk. Apparently not even all Toyota dealers were mindful of the need to ensure proper mats and mat anchorage to avoid entrapment.

As a consequence, NHTSA began to explore additional remedial options. The agency continued to review all relevant data to identify any reports that might be linked to similar entrapment in other Toyota vehicles. NHTSA became focused on the pedal design of a number of Toyota vehicles, not because of any known malfunction in their operation but because their shape tended to make entrapment more likely when floor mats are out of position or stacked. NHTSA prepared to open an investigation on the pedal design. At the same time, the agency informed Toyota that the company needed to address this risk promptly as a vehicle defect issue, and requested that Toyota conduct a recall. Toyota responded to NHTSA by announcing a recall to replace or re-shape the pedals in 3.8 million vehicles and sent its official notice of the recall to NHTSA on October 5, 2009.

NHTSA pressed the company to include as part of its recall the addition of a feature called brake override (which some call "smart pedal") technology on models that have keyless ignition systems. With brake override, the vehicle control system gives priority to the signal from the brake pedal and returns the engine to idle when it detects the brake being applied while the accelerator is applied. NHTSA discovered in its investigation of pedal entrapment incidents that in some situations drivers of vehicles with keyless ignition systems did not know that, in Toyota vehicles, they could shut off their engines when in motion only by depressing the dashboard ignition button and holding it for 3 seconds. The owners were familiar with shutting off the vehicle when it was stopped, which requires holding the button for just 1 second or less. NHTSA thought it was especially important to ensure that in those vehicles with keyless ignition the driver had the benefit of brake override. Many other manufacturers use this technology and Toyota uses it in newly produced vehicles. The recall Toyota announced in October adhered to NHTSA's request.

NHTSA continued to monitor incoming reports involving relevant incidents. In January, NHTSA told Toyota that its review of other Toyota vehicles indicated that they needed to be included in the pedal entrapment recall. Toyota responded by adding 1.1 million vehicles to the pedal entrapment recall on January 27, 2010.

Under the law, manufacturers have an obligation to notify NHTSA within 5 days of determining that a defect or noncompliance exists. When manufacturers voluntarily initiate recalls without waiting for NHTSA to order a recall, the process pro-

tects the public most quickly. NHTSA can order manufacturers to do recalls but only after initiating a formal investigation, completing its investigation, and following administrative procedures that include a public hearing and opportunities for the manufacturer to file detailed responses. Even after the NHTSA Administrator issues an order directing a recall, the manufacturer can avoid doing the recall until NHTSA proves its case in court. In such a case, the agency has the burden of proving by a preponderance of the evidence that a vehicle defect exists and that it creates an unreasonable risk to safety. As a result, recalls occur most quickly when a manufacturer announces the recall without waiting for NHTSA to open and complete an investigation. That is what happened here—because of the pressure NHTSA applied.

On February 16, NHTSA sent Toyota a Timeliness Query, which is a detailed request for information about when Toyota learned about the defect addressed by this recall. The information Toyota will provide in response to this request will help NHTSA determine whether Toyota's initiation of the recall met its obligation to notify NHTSA quickly. If NHTSA determines that Toyota did not meet that obligation, NHTSA may seek civil penalties from Toyota for that failure. Those penalties could be as high as $16,375,000 for a related series of violations.

CTS Pedals Sticking

I want to turn now to the "sticky pedal" recall that was initiated in January of this year. NHTSA is not currently aware of any injuries or deaths definitively linked to this problem. Unlike the pedal entrapment recall, which concerns the shape of the pedal that makes it more susceptible to entrapment by an external object (the floor mat), this recall involves the internal working of the pedal assembly. Another distinguishing factor is that the pedal entrapment situations involve instances of full acceleration that are initially intended by the driver, while this problem, to the best of our knowledge, generally involves occurrences at lower power levels where the car continues to accelerate because the pedal does not return upward, or returns slowly, when the driver lessens pressure on the pedal.

The affected pedals are manufactured by CTS Corporation, which is based in Elkhart, Indiana. Some Toyota vehicle owners have complained of certain symptoms in vehicles equipped with those pedals. Those symptoms include a feeling that it is harder than normal to depress the pedal or that, when depressed, it is slower to return. In some circumstances, the situation can involve the pedal not returning at all from the position to which it was depressed. At this time, we understand that this problem is mechanical in nature and does not involve a flaw in the electronic signal being sent from the pedal sensor to the throttle.

In November 2009, NHTSA received several Toyota field reports concerning incidents in which pedals were slow to return or sticking in a number of different Toyota models from various model years. The reports did not indicate a root cause of the symptoms drivers were experiencing. NHTSA reviewed those reports as part of its screening for possible defect trends. Before NHTSA had decided whether or not to open an investigation, Toyota contacted the agency on January 16 about the specific problem it had identified with the CTS pedal. NHTSA told the company it needed a full explanation immediately. Toyota met with NHTSA on January 19 and demonstrated what it thought to be the mechanical problem with the CTS pedals. Based on the information presented by Toyota about the nature of the problem and Toyota's experience with it, NHTSA told the company it expected very prompt action. Two days later, on January 21, Toyota announced the recall, covering some 2.3 million vehicles (many of which are also covered by the pedal entrapment recall and will receive both remedies). Toyota has had the supplier produce a new pedal with a different design that the company believes addresses the issue of excessive friction. The company has also devised an interim remedy to eliminate the safety risk by altering the pedal while new ones are being manufactured. Toyota informed NHTSA that it ceased production of new vehicles in the models affected by this recall so that it could begin to supply the new pedals being produced for the assembly line to dealers for installation in existing vehicles.

On February 16, NHTSA sent Toyota a Timeliness Query about this recall. NHTSA has also begun an investigation to determine whether these particular CTS pedals have been installed in vehicles other than those recalled by Toyota, including those made by other manufacturers. NHTSA will soon receive relevant information from CTS and evaluate it.

Other Instances of Unintended or Excessive Acceleration

NHTSA receives more than 30,000 complaints from consumers every year concerning perceived safety problems with their vehicles. NHTSA reviews every complaint promptly and, if it appears to contain any evidence related to a safety defect

trend, the reviewers begin to track that trend for possible investigation. Among those complaints in recent years have been many allegations of unintended or excessive acceleration on vehicles made by Toyota. Of course, during that same period NHTSA has received thousands of complaints containing such allegations concerning the vehicles made by most major vehicle manufacturers.

The agency has also received several petitions requesting that NHTSA investigate unintended acceleration in various Toyota vehicles. When a member of the public petitions NHTSA to investigate a possible defect, NHTSA examines all information submitted by the petitioner as well as all other information relevant to the particular problem cited by the petitioner. Even where NHTSA denies a defect petition, it does so only after conducting so thorough an examination of the issue that it has effectively done a preliminary investigation. Generally, NHTSA will visit the petitioners, interview them about their experiences, examine their vehicles and vehicle history, drive the vehicles, and search the NHTSA databases for complaints similar to the experiences petitioners had. In some situations NHTSA will conduct more extensive testing of a vehicle of the same make and model as that of the petitioner.

The information NHTSA has received from consumers concerning unintended or excessive acceleration in vehicles can be divided into general categories that include: engine surging that lasts only a second or two; unintended acceleration from a stopped position or very low speed that results in quick movement over a short distance and sometimes results in crashing into an object; and events that begin at high speeds because the driver intended to accelerate quickly and continue for a sustained period of many seconds or minutes beyond what the driver intended. The possible causes of these events that NHTSA has been able to identify include mechanical problems with the accelerator; obstruction of the accelerator by another object; or human error (pressing the wrong pedal).

NHTSA has carefully reviewed all of the information provided by Toyota consumers in complaints filed with the agency to try to find causes for what they were experiencing. NHTSA also reviews Early Warning Reporting information submitted by the manufacturer and other sources of information, including insurance company submissions. For the high-speed events that last for many seconds or minutes, the only cause NHTSA has been able to establish thus far is entrapment of the pedal by a floor mat. The only exception to this has may have been a recent event in New Jersey that apparently did not involve floor mat entrapment but apparently did involve a stuck CTS pedal. Fortunately, the driver was able to bring the vehicle under control and drive it to a dealership. As discussed, the pedal entrapment issue in the recalled vehicles will presumably be resolved by the recall announced in October. The problem experienced in New Jersey will presumably be addressed by the recall of the CTS pedals announced in January.

NHTSA does not contend that the two recalls will fully resolve all concerns about unintended acceleration in Toyota vehicles. However, with one exception, NHTSA has not been able to establish a vehicle-based cause for unintended acceleration events in Toyota vehicles not covered by those two recalls. The exception was a recall of the model year 2004 Sienna vans in 2009 due to a defective trim panel that could, if loosened during servicing, entrap the accelerator at full throttle. That recall also arose from a NHTSA investigation.

NHTSA initiated a Recall Query on February 16 to ascertain whether Toyota has been completely forthcoming with the agency concerning all possible defects in its vehicles that may be causing unintended acceleration. NHTSA will closely review the documents Toyota submits to determine whether the company has additional information not yet shared with the agency that may cast light on possible defects that cause the problem.

Some consumers and others believe that Toyota's electronic throttle control (ETC) systems, and perhaps such systems in other manufacturers* vehicles, are susceptible to inherent design flaws or electro-magnetic interference (EMI) that can theoretically cause unintended acceleration by resulting in incorrect signals to the engine. These types of electronic systems are commonly used by all major vehicle manufacturers. To date, we have not identified any particular crash or unsafe occurrence that can clearly be attributed to such a flaw or the EMI phenomenon in Toyota's vehicles. NHTSA opened an investigation on Toyota's ETC system in 2004, focused on short duration events, and could not find any safety defects in that system at the time. NHTSA looked at short duration events where no brake application was alleged in this investigation so as to screen out events that could have been caused by driver error, to ensure the agency could find a vehicle-based defect if it existed. In 2008, in wrapping up the floor mat investigation, NHTSA went on to look for additional possible causes of unintended acceleration in the Lexus ES350. That work included some limited electronic and magnetic testing but did not reveal a flaw in the ETC system. Since 1980, NHTSA has conducted 141 investigations on throt-

tle control issues in vehicles made by various manufacturers, some of which involved electronic throttles and some the more traditional mechanical throttle systems.

However, to be absolutely sure that the agency is aware of all potential defects, NHTSA is conducting a review of the general subject of possible design flaws in ETC systems and the possible effects of EMI effects on those systems. We have begun by talking to Toyota and other major manufacturers about the design of their systems and how, through failure modes and effects analysis and other standard techniques, they have taken the possible effects of EMI into account in designing those systems. We have just recently received information about another theory concerning a possible design flaw in the Toyota ETC system. We will explore all relevant information in this examination. To be clear, this is a review of the technological issues, not a defect investigation. However, if any of this activity gives us any reason to believe that a defect may exist in Toyota or other vehicles related to design flaws in or EMI effects on ETC systems, we will open a defect investigation. When we have completed these discussions we will decide whether to conduct any additional research projects that might shed further light on the effectiveness of manufacturers* safety control strategies concerning their ETC systems, including the possible role of EMI effects on various electronic.

Other Pending Toyota Investigations

NHTSA has a total of 44 pending defect investigations concerning various manufacturers and a wide range of issues. Of those, five concern Toyota. One of the Toyota investigations is the Recall Query on sudden acceleration discussed above. Two others have gained wide attention and are summarized here.

NHTSA opened an investigation on February 4, 2010, concerning a braking problem on the model year 2010 Prius. The problem involves a momentary loss of braking when the vehicle hits a pothole, bump, or other uneven surface. NHTSA had received more than 100 complaints about the problem, including four alleged crashes involving two injuries. Five days after NHTSA opened its investigation, on February 9, Toyota announced a recall designed to address this problem. NHTSA will closely monitor its implementation. The recall involves over 148,000 vehicles sold in this country, including the model year 2010 Prius and the 2010 Lexus HS250H. While awaiting an appointment to have their vehicles remedied, owners who experience any braking problems should immediately contact their dealers, and all drivers of these cars should allow extra stopping distance until the problem is fixed.

On February 18, NHTSA opened an investigation concerning approximately 487,000 model year 2009 and 2010 Toyota Corolla and Matrix vehicles. The issue concerns the steering becoming unresponsive or loose at highway speeds. NHTSA had received 168 complaints alleging eight crashes (none fatal) at the time this investigation was opened.

As a final note, I would like to make clear that NHTSA has a very aggressive enforcement program that searches constantly for safety defects and noncompliance with the Federal Motor Vehicle Safety Standards. In just the last 3 years, NHTSA investigations have resulted in 524 recalls in which 23.5 million vehicles were recalled so that safety problems could be fixed. In addition, several million items of motor vehicle equipment (including imported tires, child seats, and motorcycle helmets) were recalled to correct safety problems.

In summary, NHTSA has acted to ensure Toyota recalls on the issues related to unintended acceleration on which we have had evidence indicating the presence of a vehicle defect, *i.e.,* pedal entrapment and sticky accelerators. We stand ready to ensure prompt action on any additional defects that we have reason to believe are present.

Thank you and I look forward to answering your questions.

The CHAIRMAN. Thank you, Mr. Secretary.

When the American consumers and regulators bring up a serious issue, like this sudden acceleration issue, Toyota executives in America don't seem to have any authority to take any action on their own. It all has to go back to Japan. Now, that may be a matter of corporate culture, Japanese culture, I'm not sure, but it's the fact. And it was pretty obvious in the House hearing last week, where the president and CEO of Toyota North America, Mr. Jim Lentz, said he didn't have the power to order recalls in the United

States, only Japan did. In fact, he told the Committee that, inside Toyota, information—quote, "Information only goes one way."

This seems to have been a problem in NHTSA's safety investigations, too. Toyota has not been responsive to their inquiries, and it doesn't seem to take consumer protection, as a mission for NHTSA, seriously. That is our impression in talking with your people. In fact, Secretary LaHood, last week you yourself testified that Toyota was safety deaf and didn't respond to your concerns until you personally called Mr. Toyoda in Japan. And that, I assume, is correct.

Secretary LAHOOD. Yes, that is correct.

The CHAIRMAN. And it's also true that Mr. Ronald Medford, as you said, was Acting Administrator at the time, had to get on an airplane and fly all the way to Japan, with some others, to try to get Toyota to take these issues seriously. To get them to take it seriously. In my opinion, there needs to be someone here in the United States who can be held responsible when American consumers are injured or killed due to safety problems in Toyota vehicles. Do you agree with that?

Secretary LAHOOD. Yes, sir.

The CHAIRMAN. I understand that Toyota is now saying they're going to review their corporate structure and make changes that give their divisions more authority. Do you think this type of change will be helpful and will cause what we just talked about to happen?

Secretary LAHOOD. I think it's an absolute imperative that they do that, Mr. Chairman.

The CHAIRMAN. NHTSA officials recently described to me how another Japanese automobile company, Nissan, authorizes recalls. And I'm wondering if this is a model.

Nissan has a three-person group that makes the final decision about recalls in the United States, and one of the three persons is always a U.S.-based safety executive. Secretary LaHood, I think this type of decisionmaking structure might help a foreign company be more responsive to safety issues in the United States. What do you think, sir?

Secretary LAHOOD. I agree with you.

The CHAIRMAN. Mr. Secretary, more than 2,000 American consumers have told your agency, NHTSA, that they are experiencing sudden unintended accelerations in their Toyota and Lexus vehicles, a terrifying experience. And they have reported property damage, inquiries, at least 34 deaths caused by sudden acceleration. That's correct, is it?

Secretary LAHOOD. Yes, sir.

The CHAIRMAN. And if we're being honest here today, we still don't totally understand why this is happening. Over the last few years, Toyota has offered several different explanations. First they said it was the floor mats. And more recently they have blamed it on sticky accelerator pedals. And it seems to me that, until very recently, NHTSA basically accepted these explanations. But, here's the problem. There are still many cases where Toyotas have suddenly discovered an acceleration—drivers have accelerated very rapidly, and the recalled mats and pedals were not involved. So, we

know there's a problem, and we still don't know what's causing the problem.

But, there does seem to be a fairly easy way to give drivers the ability to regain control of the vehicles during a sudden acceleration episode, and that's called "brake override system." It trumps. It means the brake always beats the accelerator. You can have the accelerator on, you could be driving forward, but the brake stops it cold.

Secretary LaHood, this brake override safety feature would help Toyota driver controllers—control their vehicles during a sudden acceleration episode, would it not?

Secretary LAHOOD. Yes, it would.

The CHAIRMAN. And my understanding is that, while Toyota has just decided to add this feature to its new vehicles, other cars and other car manufacturers adopted this safety feature years ago. Isn't that correct?

Secretary LAHOOD. Yes.

The CHAIRMAN. And it's also my understanding that there are a lot of older Toyotas, where the computer design might have been a little bit more simple, or harder, from Toyota's point of view, that are not being given this brake override system. Is that correct?

Secretary LAHOOD. Well, Mr. Lentz testified that they were going to try and install this brake override system in as many cars as they can. I don't know if it reflects the ones that you're mentioning here, Mr. Chairman.

The CHAIRMAN. Well, it would have to reflect the early ones. I mean, they said that—during the Olympics——

Secretary LAHOOD. It sounded like it was going be in as many cars as they possibly could do.

The CHAIRMAN. Well, then the question is, Does it need to be all of them? And I think it is.

And my understanding is, that brake override feature is not a costly mechanical fix. It's instructions that you program into a car's computer. Is that not correct?

Secretary LAHOOD. Yes.

The CHAIRMAN. So, why doesn't the government make Toyota install this feature in vehicles? And why didn't it do it years ago? Couldn't it have prevented some of the crashes and injuries that Toyota drivers have been reporting to NHTSA over the past few years? And why don't we require every manufacturer selling cars in the United States to install this safety features, in that it doesn't only affect Toyota cars?

Secretary LAHOOD. As a part of our investigation and review, we are looking at the possibility of recommending the brake override system in all manufactured automobiles.

The CHAIRMAN. Mr. Secretary, my time has run out. And I call now upon the Ranking Member of Mark Udall's committee, Senator Wicker.

Oh, he's gone. All right, then, order of questions will be by arrival, so Senator Udall?

Senator UDALL. Thank you, Chairman Rockefeller.

I'm wondering, with the chart that was published today in the *New York Times*—here you have—and I know you all can't see this, but I'm just going to describe it here for a second. In 2004, you

have this huge spike in what are being reported as crashes and complaints; 126 Toyota drivers experienced a crash and later filed a complaint. All other auto companies are on this chart, and they were either flat or going down, in terms of the same kinds of complaint. So, you had this spike in 2004. It took us 5 years to actually do something significant in this case. And you had another spike in 2007, and then here you can see this very, very dramatic spike in 2009.

So, my question to both Secretary LaHood and to Administrator Strickland is, When you look at this problem—and, Secretary LaHood, you have some independence from this, because you've come in, and you're new to this, and you—when you look at this, and you mentioned, in your testimony, all of these complaints that come in—it seems to me you should have something in your database that, when you get a big spike like this—I mean, this just stands out—that it alerts people there's something wrong here, there's something going on, and immediately an activity is started that would have gotten to the bottom of this a lot sooner.

And, Mr. Strickland, let me ask you—there's one big watchdog out there, and that's NHTSA, and you're the Administrator. The other watchdog is this committee, the Commerce Committee. And you served many years in the Commerce Committee. So, all of your experience, going back, what do you see? What was the thing that happened here that we need to get to the bottom of to make sure that this doesn't ever happen again?

Please.

Secretary LAHOOD. Well, Senator, first of all, let me just say, we've contacted the *New York Times.* That article is inaccurate. The story did not mention that NHTSA opened two investigations into pre-2007 Camry models and found no safety defects; pre-2007 Camrys also had different floor pans and pedal design. My point is that they claim, now, they're going to post on their website the accurate information, which they left out of the story, which is very unfortunate, because, you know, people read these things and then they believe what they read.

But, we did take seriously and did extensive reviews on the complaints. We interviewed owners and we looked at these model vehicles, and——

Senator UDALL. Secretary LaHood, do you dispute, in the *New York Times* article, that—they do the analysis of complaints. They say, "Reveals that Toyota had more complaints involving crashes than any other carmaker." I mean, that's——

Secretary LAHOOD. Well, I'll let our Administrator comment. But, I want you to know, the story was not accurate when it reflected that we didn't have investigations. We opened two investigations, as a matter of fact, and the reporter claims he's going to post it on his Website. What good that does, I'm not sure. But——

Senator UDALL. I look forward to seeing that——

[Laughter.]

Senator UDALL.—because this chart is pretty doggone revealing, in terms of the spikes and then how long it took to get actual action. Please, go ahead, Mr. Administrator.

Mr. STRICKLAND. No, Mr. Udall, I think, actually, that article actually reflects the experiences that NHTSA investigators had dur-

ing that time. Since 2000, there have been 10 open investigations dealing with Toyota issues of sudden acceleration. Our early warning data and our complaint database actually triggered the right reaction from our investigators, and we took a look into these things.

The question is whether or not Toyota had an atypical experience during this period. My understanding, as well, while there was a marked increase, I think if you look at the entire market size and fleet size of Toyota, they have the largest fleet during that time period, as well. If you look at it on a per-capita basis, I think our investigations and the data show that, while they had more sudden acceleration incidents, their actual comparison to the rest of the fleet was actually unremarkable. They had the same percentage of sudden acceleration issues as other manufacturers. They just had more of them because they have more cars.

But, in terms of NHTSA's reaction, it was absolutely appropriate during that period. We saw a difference in the data coming in. The early warning data came in differently, the complaints came up, and we opened investigations.

Senator UDALL. My time's up, or, almost up.

Chairman Rockefeller, I just want to say to you, you have taken this committee in the consumer protection area a number of times in your short tenure as our chairman. And so, I applaud you doing this, and I hope that you continue to do this, because I think the American public knows, when they see these kinds of articles, that there are big consumer protection issues out there. And I look forward to staying involved with you in the oversight of those issues.

Thank you very much.

The CHAIRMAN. Thank you. Thank you, Senator Udall, very much.

Senator Dorgan.

Senator DORGAN. Mr. Chairman, thank you very much.

This afternoon, we're going to hear from Toyota, but this morning is about the agency.

And, Mr. Secretary, you and all of us on this dais are temporary occupants of these seats, and others will take these seats at some point in the future. And I want to ask about the agency—not who's sitting in the seat at the moment—the agency, and the credibility of the agency, because I think it's important.

My understanding is that NHTSA has a budget of about $145 million, compared to $875 million for security for the embassy in Iraq. The security for one embassy in one country exceeds, by multiples, the amount of money we spend in NHTSA evaluating safety and related issues.

Now, I have a sheet here. And I want to refer to something that Senator Boxer said, because I want to ask whether you have investigated this. You just responded to Senator Udall by saying that investigations had been made and no evidence was found. And I have that list. July 2003, an investigation opened, no data to support; 2004, no data to support further investigation; 2005 no data to support further investigation; 2006, no data to support further investigation.

Senator Boxer, in her opening statement, described something that made me wonder about this "no data" and further investiga-

tion on this issue. CBS did an investigation, and said that the person at NHTSA—Mr. Santucci—whose job was to conduct defects investigation, he negotiated a job with Toyota, and then went to work with Toyota—apparently negotiated while he was at NHTSA, went to work with Toyota immediately thereafter. And it says, "Toyota records show the two helped negotiated with their former NHTSA colleagues to limit probes in Toyotas surging out of control." He, when asked about it by CBS, says he didn't agree that he negotiated, but apparently the internal documents at Toyota obtained by CBS used the term "negotiated."

So, here's the question. If someone left NHTSA to go to work for the company, and they are limited, then, the investigations, which then results in looking at these investigations, and it says, "no data to support further investigation," have you gone back and investigated inside the agency what has happened here? And is this a case where, for several years, the agency was confronted with information suggesting—I mean, knowing that fatalities were occurring, and they did investigate, and then, "no data to support," the investigation is closed—one, two, three, four times? Have you done an internal investigation to find out whether this agency has done what it should have done on behalf of the American people?

Secretary LAHOOD. Yes, sir. We went back and looked at those two employees. And the law says that they can go to work for a company, but they cannot represent themselves back to the Department on issues that they were responsible for. And everything that we can tell at this point is, they did work for Toyota, and they did talk to people at DOT, but not in an area where they were responsible. So, we've looked at that. And some people believe that, you know, it's not accurate, and so——

Senator DORGAN. You're saying it's just appearance?

Secretary LAHOOD. I'm saying that from our review of it, it does not appear that they were engaged in activities that they were prohibited by law from engaging in.

Now, I also said to another committee, Senator Dorgan, that I think this law needs to be tightened up. I do. Look, I work for an administration that has set the highest ethical standards for its people, and I think this needs to be tightened up. But, we found no violation for these two employees.

Senator DORGAN. All right. Aside from this issue that Senator Boxer raised in her opening statement, aside from this, if you take a look at the question of when information was given to NHTSA and then investigations begun, no data, no data, no data; finally, down the road here, it says, "recall of 55,000 vehicles because of floor mats." And then, you come down further, again and again and again and again. Meanwhile, some people are dying. And it seems to me, as Senator Udall just seemed to suggest, I'm not sure anybody understands yet what is the problem. It's just——

Secretary LAHOOD. Well, we know there are——

Senator DORGAN. Do you understand what the problem is with the——

Secretary LAHOOD. Yes, sir. I mean, we know, from our investigations, that the floor mat is a problem, and that's why these cars are up for recall. We know that the sticky pedal is a problem. We also believe, based on what people have told us, that perhaps the

electronics could be the problem, too, and we're going to do a review of that.

Senator DORGAN. But, isn't it evident that, if the floor mats are in the trunk because the manufacturer said you ought to put the floor mats in the trunk, and you have sudden acceleration surges with the floor mats in the trunk, there's something else going on?

Secretary LAHOOD. Yes, sir. That's why we're looking into the electronics. But, the floor mats are a problem, Senator. And the sticky pedal is a problem. Could there be another problem? Some people believe there is, and it's our obligation to check it out.

Senator DORGAN. But, Senator Rockefeller asked the important question, as well. If the brakes won't override the accelerator, and you've moved the accelerator to an electronic accelerator, and the brakes don't override, why is the recall not requiring to have that fixed on the vehicles? Because it seems to me that's the only way you're going to prevent future fatalities.

Secretary LAHOOD. Well, we agree with the idea that there are enough people who believe that the electronics are a problem, and that we are going to do a complete review of that.

Senator DORGAN. All right.

Well, Mr. Chairman——

Again, this didn't happen on your watch, I understand that. You're having to respond to it in an aggressive way. But, I think there are real credibility problems. Senator Udall asked those questions about the *New York Times,* CBS and others. I think they've raised questions that raise questions of credibility of NHTSA, going back. And I know that what you want to do is fix all of that and run an agency that people can be proud of and in which people can have some trust.

Secretary LAHOOD. Senator, on my watch, when people think there's a problem, we're going to address it. We're not going to take a back seat to anybody when it comes to safety. You look at my 13 months in office. Everything that I've talked about, lived, and breathed at DOT has to do with safety. It's just what we have to do. It's what people expect of us. And when people say there's an electronics problem, I'm going to pay attention to that.

And we are paying attention to it now.

The CHAIRMAN. Thank you, Senator Dorgan.

Senator Snowe, to be followed by Senator Wicker, because you're ranking to Senator Pryor.

Senator SNOWE. Thank you, Mr. Chairman.

Mr. Secretary, I know you are looking at it now. But, the point is, we set in place legislation, that became law years ago—as a result of the Firestone tire recall issue—putting in place the investigative authority that's so essential for NHTSA to do its job.

And I don't know on what basis you could rule out electronics. I know that we're all urging it to be looked at. It's not about us urging it. It's the fact that you can't rule it out, because you don't know. That's the point here. I mean, even Toyota doesn't know, at least based on their public statements last week that were, as I said earlier, conflicting, both with Mr. Lentz and Mr. Toyoda. One said he couldn't rule it out, and one said they're absolutely confident. So, how do we know?

And if you look back at prior investigations, I'd be interested to know—because you have to look at those investigations to find out exactly what went wrong. State Farm said there was a trend in acceleration. Six people died that year, in 2004. So, did NHTSA look at it as a trend? What did they do? Did they base it on the information they got from Toyota? Did we subscribe to Toyota's explanation of what went wrong in 2004 and in 2007?

Secretary LAHOOD. Well, Senator, our Administrator had sent a letter asking for all of the possible information that we can gather from Toyota to make sure that they gave us everything they were supposed to give us to begin with. And so, that request has been made.

I agree with you, we need to look back and make sure we had everything. Based on what we had at the time, we felt that the remedies that we were recommending were the right remedies. But, when we look back and find that there's additional information, we may—obviously have reached a different conclusion.

Senator SNOWE. Well, as I understand it, NHTSA never used its subpoena authority. So, did——

Secretary LAHOOD. We——

Senator SNOWE.—they get all the proprietary data from Toyota to make a decision, in terms of what the problem was? The point is, we don't know. You can't conclude, one way or the other.

Secretary LAHOOD. I can——

Senator SNOWE. That's the point.

Secretary LAHOOD. I can't conclude that we received everything—until we receive the request that we just sent to Toyota.

Senator SNOWE. But, these previous investigations, in 2004 and 2007, were they reliant on Toyota's explanation and the partial information they submitted——

Secretary LAHOOD. What we have to rely on, Senator, are complaints we get from people, what information we get from the industry, what information we get from the car manufacturer.

Senator SNOWE. Well, but an independent investigation didn't occur—is that correct?—with respect to——

Secretary LAHOOD. Well, our people do these investigations, we have——

Senator SNOWE. You have an independent——

Secretary LAHOOD.—experts on our staff that do that.

Senator SNOWE. We have been told that you don't have computer software experts. The question is, on the issue, and looking at it in totality, was it independently verified? That's the issue here. You know, State Farm, the Nation's largest auto insurer, comes to NHTSA, as they had already done that with Firestone—this wasn't, you know, many years later; it was on the heels of Firestone. So, we've got to find out what went wrong. We don't want to be sitting here with a future Secretary saying, "Well, you know, we're going to look at it now." We have got to know. NHTSA didn't——

Secretary LAHOOD. We agree with you.

Senator SNOWE.—come forward with resources. They've got unobligated appropriations, funds that were never used. Isn't there a way of solving this? We have got to know. It's got to be independ-

ently verified. Yes, you want the information from Toyota, and I'm not clear that we got all the information from Toyota.

Secretary LAHOOD. I'm not clear we did, either. That's why we've made a huge, huge voluminous request for a lot of information from——

Senator SNOWE. So, on what basis did NHTSA make the decisions, back in 2004, when it concluded its investigation after 4 months, and then after 7 months, in 2007? Whose information did they use to make that decision?

Secretary LAHOOD. The information that we received from the car manufacturer, from complaints that we had from consumers, and our expert people looked at all of that.

Senator SNOWE. Well, was it a pre-negotiated recall, in 2007? I mean, on the floor mats.

Secretary LAHOOD. The way it works, Senator, is, we look at all the information, we make a judgment call if a recall needs to be made, and then the manufacturer decides if they want to do it. If they don't, then we require them to do it.

Senator SNOWE. Well, how does NHTSA regard the information that comes from insurance companies like State Farm? I mean, so how do they look at that——

Secretary LAHOOD. We work closely with all insurance companies, and we regard their information as very valuable.

Senator SNOWE. Well, it's just amazing to me that there's no continuity. This is a matter of life and death. That's what I don't understand. I mean, this came on the heels of Firestone. And obviously that memory was not ensconced in NHTSA at the time. This tire recall issue. And then you have these deaths. I mean, if you look at the years in which these deaths occurred, at least in the—submitted to NHTSA—they occurred—in 2004 there were 6 deaths, and in 2007 there were 7 deaths attributed to unintended acceleration. And I don't see that NHTSA did any of the work necessary to have satisfied an independent analysis, doing everything—moving heaven and earth—to get to the bottom of this. That's what's disconcerting here. Yes, we're looking at it now, but where were you then? And we'd better learn exactly what happened then to understand how this doesn't repeat itself.

Secretary LAHOOD. Well——

Senator SNOWE. Because NHTSA didn't come forward and ask for all these resources to do a very aggressive investigation.

Secretary LAHOOD. Well, Senator, on my watch, I guarantee you, it'll be done thoroughly, it'll be done as independently as possible, with every piece of information we can get. We will not rest until these cars are safe.

Senator SNOWE. May I ask one other question? Is it unusual for NHTSA officials to go to Japan? Is this——

Secretary LAHOOD. Yes.

Senator SNOWE. Was this the first time? So——

Secretary LAHOOD. Yes.

Senator SNOWE.—it was unusual.

Secretary LAHOOD. Absolutely. I have said, to two other committees, I believe the Toyota business model is broken. I told Mr. Toyoda that. When they have good, expert people, professional people in North America making recommendations, and then they

don't listen to them, their business model is broken. I think Mr. Toyoda got that message, not only from me, but from others. And I think you'll see some changes in the way they do business.

Senator SNOWE. Thank you.

The CHAIRMAN. I'm also told that Mr. Medford and his team that went over there were treated rather dismissively, and actually they used stronger language than that. So, these are not common occurrences.

Senator Wicker, I call on you because you have been chosen by your——

Senator WICKER. Well, thank you——

The CHAIRMAN.—party to—because Kay Bailey Hutchison isn't here. I need to explain that to keep my Democrats from killing me.

[Laughter.]

Senator WICKER. Thank you very much, and I'm mindful that Senator Boxer is under a tight schedule, and I promise to be brief.

Let me ask you, Mr. Secretary, about these two studies: the Exponent study, commissioned in 2009 by Toyota, and the study done by Professor Gilbert of Southern Illinois University.

As I understand it, Exponent is an organization that is widely known in this field, concerning analyses of defects, and that, as a matter of fact, NHTSA has used them in the past. They conducted an analysis of the electronic throttle system. These tests are ongoing, but Toyota received an interim report confirming Toyota's contention that the unintended acceleration events cannot be caused by the ETC system, because there are fail-safes that would prevent it.

I want to ask your opinion about that study as compared to the Gilbert study. This study was commissioned by persons who are interested in bringing a lawsuit with regard to these accidents. And Professor Gilbert determined that the system did not properly detect electronic malfunctions. He was able to induce unintended acceleration in a Toyota that did not trigger the fail-safe mode.

Toyota, on the other hand, has contended that, in his test, he manipulated the system in a way that cannot ever occur under driving conditions.

So, I'd just like to ask, at this point, realizing that there are analyses ongoing, if you have some advice to the Committee or an opinion for us about these contrasting studies.

Secretary LAHOOD. What we have said, Senator Wicker, is that we're going to look at the studies that were done by the professor at Southern Illinois University in Carbondale, and by the organization that was hired by Toyota. There was a woman, who testified at the Commerce Committee in the House, whose Toyota experienced acceleration—unexplained acceleration. We have purchased that vehicle, and we're going to examine it.

What we're going to do is a thorough review of studies that have been done by the professor at SIU, by other groups. We're going to do our own study. We're going to do a review. We're going to look at the automobile that had unexplained acceleration, and try and figure out if electronics were a part of this.

Senator WICKER. So, at this point, you don't feel comfortable giving us a preliminary criticism or opinion as to either one of these——

Secretary LAHOOD. No sir, not at all.

Senator WICKER. And the study done by your Department will be a completely separate and exhaustive——

Secretary LAHOOD. Absolutely. Looking at data and the studies that have been done, looking at the car that had acceleration which was unexplained, and trying to figure out if the electronics are a problem.

Senator WICKER. Can you tell us, at this point, what you know about this firm, Exponent, and their——

Secretary LAHOOD. All I know about it, Senator Wicker, is what I heard at the hearing. We're going to get a copy of their reports and look at them.

Senator WICKER. I would appreciate it if you would get back to the Committee, on the record, and tell us whether, in fact, the Department and NHTSA have used Exponent——

Mr. STRICKLAND. Yes. On different occasions throughout the years, actually, Exponent had a different name, but NHTSA has used it before.

In terms of this particular report, sir, we are reviewing that report ongoing, and Dr. Gilbert's. It will be involved in our work, but there's also going to be a significant piece of work that's going to be independent, where we're going to basically pool experts from around the country, from various aspects, from academia and manufacturing, for, sort of like, a National Academy of Sciences panel.

Senator WICKER. I understand.

Mr. STRICKLAND. But, in terms of that work—Exponent's work or Dr. Gilbert's work, we're examining it right now.

Senator WICKER. If you could supply, on the record, the number of times that your agency has actually used and relied upon Exponent or its predecessor.

[The information referred to follows:]

On September 26, 2001, NHTSA awarded a delivery order type contract to Failure Analysis Associates (Exponent's predecessor) for "Compliance Tests for FMVSS No. 201, Occupant Protection Interior Impact." NHTSA placed four orders during the period of performance of this contract (September 26, 2001 to September 27, 2007).

Senator WICKER. And then, just briefly, Mr. Secretary, you stated last week that it would be beneficial for NHTSA to receive additional information from manufacturers in foreign countries. Specifically, what types of information do you not currently receive that would be beneficial?

Secretary LAHOOD. Well, we receive information, and certainly we receive information on complaints. But, why don't I, for the record, tell you specifically what we receive, and the areas where I think we're deficient?

[The information referred to follows:]

The Early Warning Reporting (EWR) regulation established pursuant to the TREAD Act requires all vehicle manufacturers and equipment manufacturers (including tires and child restraints) to report information based on notices and claims of deaths occurring in a foreign country if the vehicle involved is identical or substantially similar to a vehicle sold or offered for sale in the U.S.

Manufacturers must also report information on safety recalls and other safety campaigns in a foreign country on a motor vehicle or item of equipment that is identical or substantially similar to a vehicle or item of equipment sold or offered for sale in the U.S. The following are exceptions for reporting foreign recall or safety campaigns:

- The manufacturer is conducting a safety recall or safety campaign on a vehicle for which an identical or substantially similar vehicle is not sold in the U.S.;
- The component or system that gave rise to the foreign recall or other campaign does not perform the same function as the substantially similar component or system in the U.S.;
- The subject of the foreign recall or other campaign is a label affixed to the vehicle, item of equipment or a tire.

Manufacturers are required to submit a list of identical or substantially similar vehicles annually so that the agency can use this information to identify potential defects in vehicles sold or offered for sale in the U.S. Currently, manufacturers are not required to submit this list electronically. The agency is reviewing whether manufacturers should submit this list electronically to provide quicker access and review of the substantially similar vehicle lists.

At this time, the agency believes the information reported by manufacturers for foreign deaths and foreign safety campaigns along with the consumer complaints and other EWR information reported to NHTSA is adequate to identify potential safety defects in the affected vehicles in the U.S. However, the agency continues to review the reporting requirements to determine whether additional requirements or improvements are necessary to identify potential safety concerns more effectively and efficiently and intends to implement those changes as necessary.

Senator WICKER. OK. I appreciate that. Because I know that, in past instances, previous leadership in NHTSA has said, "Don't inundate us with a huge mountain of raw data. It has to be distilled before it reaches us, or it's going to actually be counterproductive and bog down the system."

So, thank you, Mr. Chairman.

The CHAIRMAN. Thank you, Senator Wicker.

Senator Boxer.

Senator BOXER. Thank you. I'm trying to connect some of the dots here, in this puzzle that we're trying to put together, as to who knew what, what happened, why did it happen. And I know you're very involved in this, in helping. And I don't, frankly, hold you responsible for what happened in 2004 or 2007. I'm going to talk to you about going forward.

Now, when we look at an ethics rule, or any law, there's a letter of the law, and there's the spirit of the law. And you may be totally right that this fellow, Santucci, who left NHTSA, went right to work for Toyota, and he—according to the CBS News story—convinced NHTSA—he was part of the team who convinced NHTSA to focus only on the brief-burst acceleration, ruling out the long-duration events that have allegedly led to accidents and deaths. And he, himself, admitted—Mr. Santucci—"You used the word 'negotiate,' we discussed the scope." So, he was involved.

Now, if you looked at the letter of the law, maybe he never worked on sudden-burst acceleration, maybe he worked on something else. Maybe he worked on safety belts or airbags. The fact is, the spirit of the law, in my view, was broken. And I agree with Joan Claybrook's comments to CBS, where she points this out as a critical moment in time. It's cozy, cozy, cozy. And it doesn't just happen here. It happens in a lot of places.

So, I want to ask you, because—I really applaud Senators Rockefeller and Pryor; they have written a letter to the Inspector General, and I ask unanimous consent to put that letter in the record.

The CHAIRMAN. So ordered.

[The information referred to follows:]

COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION,
U.S. Senate, Washington, DC.

Hon. CALVIN L. SCOVELL III,
Inspector General,
Office of the Inspector General,
U.S. Department of Transportation,
Washington, DC.

Dear Inspector General Scovell:

It is our understanding that the Office of Inspector General for the Department of Transportation has initiated an audit of the National Highway Traffic Safety Administration (NHTSA) and its role in the recent wave of recalls issued by Toyota Motor Company. The Commerce Committee has undertaken its own inquiry into this matter, including a review of documents provided by NHTSA and Toyota, and plans to hold a hearing on the recalls. We appreciate your office starting a separate audit. To make sure your review is comprehensive, we ask that the investigation be expanded to encompass the points raised in this letter. We further request that your office keep us apprised of the progress of this investigation.

NHTSA is charged by law with the mission to save lives, prevent injuries and reduce economic costs due to road traffic crashes, through education, research, safety standards and enforcement activity. We are concerned by recent news reports that may lead the public to believe that NHTSA employees and leadership in recent years have not lived up to this mission. These recent reports indicate that NHTSA may have internal deficiencies in investigating certain safety defects, and even worse, the potential to be excessively influenced by the industry they are supposed to oversee on the public's behalf. We expect your investigation to expose such systemic and leadership deficiencies, should they exist, past or present.

In this regard, we ask that your investigation include a full review of NHTSA's ongoing and past actions related to the recent recalls announced by Toyota Motor Company. We also ask that you review NHTSA's actions related to the issue of sudden unintended acceleration and brake failure in all automobiles containing electronic throttle and braking control systems. This review should determine whether NHTSA carried a bias against regulating non-mechanical vehicle components, had been excessively influenced by automobile manufacturers in regulating electronic control mechanisms, and/or lacked the resources to adequately investigate electronic control mechanisms.

As part of this review, we believe the American public should know when the agency received related consumer complaint data, what information was contained in the data, how NHTSA processed the collected data, whether NHTSA followed established consumer protection procedures and requirements of the agency under law, and what more could have been done or can be done to protect consumers. The public also deserves answers to news reports that have raised concerns about the so-called revolving door of employees between the agency and the industry it is supposed to oversee.

Therefore, as part of your investigation, we ask that you review the following specific matters related to NHTSA:

Industry-wide complaints regarding sudden unintended acceleration and brake failure in automobiles containing electronic throttle and braking control systems:

- The nature and number of complaints or reports collected by NHSTA
- When such complaints or reports were received (number by year)
- How such complaints were registered in NHTSA's database
- NHTSA's collection of similar reports from foreign countries

Compliance with the Transportation Recall Enhancement, Accountability, and Documentation (TREAD) Act and other NHTSA reporting requirements:

- The process by which manufacturers reported data related to unintended acceleration and brake failure
- How NHTSA categorized, processed, and investigated reported data and defect petitions related to unintended acceleration and brake failure
- Actions taken by NHTSA related to received reports of unintended acceleration and brake failure
- Actions taken by manufacturers to address recommendations from NHTSA

Government Ethics at NHTSA:

- Whether NHTSA officials excluded relevant data from its investigations and reports
- Whether NHTSA officials ignored internal data in favor of data provided by automobile manufacturers
- Whether NHTSA inaccurately categorized reported data in its database
- Whether former NHTSA officials employed or under contract by automobile manufacturers are in positions to exert influence on NHTSA decisions regarding investigations

We realize that completing this review may take a number of months, and as such, request that your office provide us with regular updates. Furthermore, please be advised that the Senate Committee on Commerce, Science, and Transportation, may further request testimony and preliminary reports from you in the coming weeks.

Sincerely,

John D. Rockefeller IV,
Chairman,
Senate Committee on Commerce, Science, and Transportation.

Mark L. Pryor,
Chairman,
Subcommittee on Consumer Protection, Product Safety, and Insurance.

Senator BOXER. And one of the issues they raise is this issue. Going forward, without waiting for the IG—because it just seems to me, on its face—remember, the outcome of this was applauded by Toyota, who put, in their own document—and I have—I ask unanimous consent to place it in the record; I have it here somewhere—their own document that bragged about the fact that they saved so much money on this.

[The information referred to follows:]

Toyota Washington, DC

Yoshi Inaba

July 6, 2009

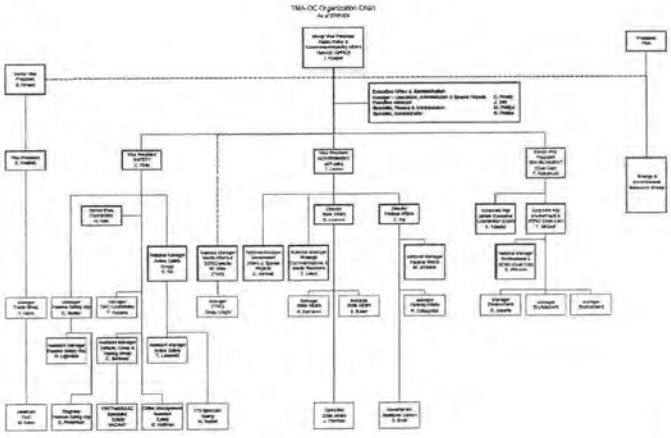
Washington Office

Agenda

- Overview
- Key Issues
- Discussion

2

Washington Office



3

Washington Office

Mission:

Support Toyota Business

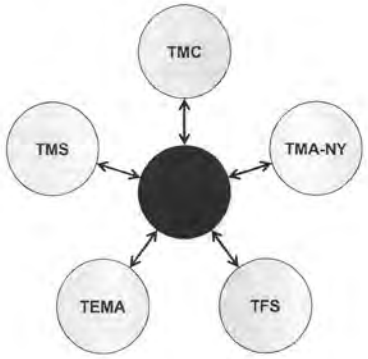
Goal	Role
• Promote Toyota's Agenda	Provide Information & analysis
• Protect our interests	Make recommendations
• Maintain receptive environment to grow our business	Shape policies & regulations for One voice decisions

4

Washington Office

Work with TMC and affiliates

- **Promote Toyota's interests**
- **Inform, Advise, Coordinate**
- **Formulate one voice policy positions**



5

Washington Office

External Resources

- trade associations
- think tanks
- political organizations
- consultants & lawyers

The Brookings Institution

AUTO ALLIANCE
DRIVING INNOVATION

6

Washington Office

Wins for Toyota & Industry

- One National Program
- "Card Check" - legislation delayed
- Scrappage bill passed
- No FFV Mandate (yet)
- Vehicles not in Climate legislation
- Favorable recall outcomes
- Secured safety rulemaking favorable to Toyota

8

Key Safety Issues

Impact on "Quality"

- Number of UIO (units in operation) increasing
- NHTSA is testing more vehicles under NCAP

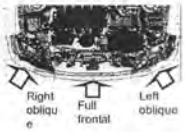
safercar.gov

- Nov 2000 "TREAD Act" requires new, more intensive, and regular reporting
  - A 5-day notification is required when recall determinations are made
  - New strong civil and criminal penalties were implemented
    - e.g. Ford/Firestone/rollover issue
- NHTSA is more sensitive to public/congressional criticism

Resulting in more Investigations, and more forced recalls

14

Key Safety Issues



- **FMVSS 305 Compliance/Hybrid Sales**
- **New NCAP Test Protocol**

safercar.gov

- **"Sudden Acceleration" on ES/Camry, Tacoma, LS, etc.**
- **Cargo Carrying Capacity/FMVSS 110 Compliance**

- **Prius Headlamps Investigation** - Class Action
- **"Quiet Cars" (Hybrids, EVs, FCHVs)**

- **Kids in Cars**

15

Senator BOXER. And this is the car that killed my constituent. This is the car that spun out of control, and that highway patrolman, Mark Saylor, and his wife, died, because, I believe there was pressure put on NHTSA from people who had a too cozy relationship. I think it's part of the problem.

Now, could I prove it? Maybe, if I had a lot of time, I could. But, it doesn't look good. It smells bad, and it's not right, and they applauded their victories.

Here it is, "Wins for Toyota." Look at this. This is their presentation. It says, "Wins for Toyota Safety Group." EM—FMVSS 110, NCIR, labeled—labeling recall. No civil penalties, saved $20 million in buybacks."

And here's the one, "Negotiated equipment recall on Lexus ES"—that's the car that killed Officer Saylor and his family—"Saved $100 million, with no defect found."

This is an outrage. And so, would you work with us now on tightening up this law. Will you work with us——

Secretary LAHOOD. Absolutely.

Senator BOXER. I think that's very, very key.

Now, as I understand it, Toyota is now installing a brake override technology. Imagine all of us—probably almost all of us here drive. You're driving your car, and you step on the brake, and nothing happens. The car goes faster and faster and faster. So, Toyota is installing a brake override technology as a fix for seven existing vehicles. Do you think we should mandate the use of brake override technology in all new vehicles? Should the brake override technology be installed on more vehicles, not just those seven models?

Secretary LAHOOD. We are looking at that, Senator, and particularly given the fact that Mr. Lentz has said that they will put those in all of the Toyota cars that they can in America. We're looking at it. We think it is a good safety device, and we're trying to figure out if we should be recommending that.

Senator BOXER. OK. My last question.

The 2006 Camry model is not on Toyota's current recall list. Why are there models, such as the 2006 Camry, which have been involved in deadly sudden-acceleration accidents, not included on their current list of recalls?

Secretary LAHOOD. Yes. I'll get back to you, on the record, if I can, Senator.

[The information referred to follows:]

Toyota is conducting three recalls to address unintended acceleration in its vehicles. Two of these (09V–388 and 10V–023) correct problems with the accelerator pedal and floor pan designs that can increase the risk of the accelerator pedal becoming trapped by an improperly installed or inappropriate floor mat. The third recall (10V–017) addresses a defect condition in an internal friction lever of an accelerator pedal assembly supplied by CTS Corporation. The 2006 Camry vehicles are not included in these recalls because they do not contain the defect conditions identified in these recalls. We are currently reexamining unintended acceleration incidents involving the 2006 Camry and other Toyota vehicles to determine if there are other defects causing unintended acceleration.

Senator BOXER. OK. Because I don't think their recall list is comprehensive enough, just from what I'm reading. But, I'm going to turn to you, because I do trust your judgment on this.

Thank you——

Secretary LAHOOD. Thank you.

Senator BOXER.—very much, Mr. Chairman.

The CHAIRMAN. Thank you, Senator Boxer.

Senator Klobuchar.

Senator KLOBUCHAR. Thank you very much.

I'm just going to go through a series of potential solutions here, because I also don't want to go back over the past. The way I look at it, six times investigations were opened, six times closed without action. Thirty-four people died. I think we can do better.

So, the first would be this resource issue. In 1980, there were 119 people who worked for NHTSA in enforcement. Today there are 57. Yet, in 30 years since 1980, we've seen nearly double the amount of cars on the road, from 146 million vehicles in 1980 to 256 million vehicles today. Has this diminished staffing level made a difference? Do you think we should improve it?

Secretary LAHOOD. The President recommended 66 new positions for NHTSA in the 2011 budget. We applaud the President for recognizing we need more resources.

Senator KLOBUCHAR. So, do you think that would be helpful here? Because——

Secretary LAHOOD. Absolutely.

Senator KLOBUCHAR.—I know we're going to hear from——

Secretary LAHOOD. More resources——

Senator KLOBUCHAR.—someone this afternoon——

Secretary LAHOOD. Absolutely.

Senator KLOBUCHAR. OK.

Second, regulatory or statutory reform. As I understand it, manufacturers can voluntarily initiate recalls without waiting for

NHTSA to order a recall, or NHTSA can order manufacturers to initiate a recall; but, to do that, you have to go through a bunch of hoops, public hearings, completing the investigation, giving the manufacturer time, defending a recall in Federal court, it goes on and on. What, if anything, could be done to speed up the process? Is there something that we can do to make it easier?

Secretary LAHOOD. Well, we do have to do these investigations before we can require a recall. But, the manufacturers have been pretty cooperative. GM just announced a recall today on some automobiles, but, I guess what I would say, Senator, is, we'll look at that. For now, what I'm saying is, for the most part the manufacturers are cooperative on this.

Senator KLOBUCHAR. OK. But, we have an issue here where, you know, they were basically showing off for saving $100 million by winning this victory by just saying it was the floor mats. And one of the things that I've learned is, you can assess fines for this kind of behavior, but those penalties could be as high as, like, $16 million for a related series of violations. It sounds like a lot of money, but when Toyota is bragging about saving $100 million by basically negotiating a resolution to a safety defect that isn't a recall, is that enough money? Should there be more of ability to assess fines? And would this be a useful tool?

Secretary LAHOOD. I think it would be a useful tool. And I would also say that, because of our insistence in going to Japan, my talking to Mr. Toyoda, we cut short their ability to stall this out by them recognizing they had a safety problem, and they decided to recall.

Senator KLOBUCHAR. Right. And I do appreciate that you have gotten involved in this and you're taking responsibility. But, remember, there is this long time period——

Secretary LAHOOD. Understood.

Senator KLOBUCHAR.—that I don't want to go through again——

Secretary LAHOOD. Understood.

Senator KLOBUCHAR.—where clearly there with an issue. As the *New York Times* has noted, you know, complaints get filed, they promise answers, regulators complain, and you just don't get that answer. I likened it to a hockey puck going back and forth on the ice.

The issue about the revolving door, I wrote a letter to Mr. Strickland about this, and I know you just pursued this with Senator Boxer. Do you have any statistics or information on the number of former NHTSA staff who now work for other car manufacturers? Will you get that? Is that a——

Secretary LAHOOD. Yes, you know, I'll get back to you on the record for that.

[The information referred to follows:]

The following former NHTSA employees are currently employees of the indicated automobile manufacturers:

Sam Campbell—formerly engineer in Office of Vehicle Safety Compliance, departed NHTSA May 15, 2009; currently—engineer with BMW;

Theresa Lacuesta—formerly engineer in Office of Vehicle Safety Compliance, departed NHTSA November 9, 2007; currently—engineer with Toyota North America Inc.;

Amanda Prescott—formerly engineer in Office of Vehicle Safety Compliance, departed NHTSA June 27, 2006; currently—engineer with Ford Motor Company;

George Feygin—formerly attorney-advisor in Office of the Chief Counsel, departed NHTSA May 27, 2006; currently—attorney with Nissan North America Inc.;

Christopher Santucci—formerly safety engineer in Office of Defects Investigation, departed NHTSA September 12, 2003; currently—safety manager with Toyota North America Inc.;

Ralph Hitchcock—formerly Office Director in Office of Applied Vehicles, departed NHTSA August 3, 1997; currently—engineer with American Honda Motor Company;

Christopher Tinto—formerly safety defects engineer in Office of Defects Investigation, departed NHTSA October 14, 1994; currently Vice President of Regulatory Affairs with Toyota North America Inc.

Senator KLOBUCHAR. And you've suggested there might be some ways to tighten the rules, to bring back that public trust. So, what are those ideas, Secretary LaHood?

Secretary LAHOOD. I think we should have the highest standard possible, which I think would be—prohibit NHTSA employees from going to work for automobile manufacturers for a period of time. That's the same standard that's set for Members of Congress to go out and, you know, earn money in Washington, or whatever. For this administration, it's 2 years for a Cabinet Secretary. I think it probably should be longer.

Senator KLOBUCHAR. So, you're saying it's not just that they wouldn't be working and interacting with the agency on a specific issue, they just wouldn't go work for the——

Secretary LAHOOD. That's correct.

Senator KLOBUCHAR.—people they were regulating. That sounds like a good idea.

You know, the other thing I'm trying to figure out is this interaction between the agency—there has to be one—and the industry, as you go back and forth. And I know, when you get these complaints, you scan your own data bases to figure out if there's a match or if you've seen a number of complaints. Clearly we were seeing some spike. I don't want to get into the fight about what the *New York Times* said, or not. But, there was some spike in these in 2004, 2005 onward.

NHTSA scans its own data bases. Who scans the corporation's databases to check if there are potentially matching complaints? Do you have——

Secretary LAHOOD. We work with them on that, and, you know, we try and review all of the possible research and data that we possibly can.

Mr. STRICKLAND. And, Senator Klobuchar, just to add on, that Toyota has a statutory requirement, under the TREAD Act, to report to our early warning system. So, we actually receive their field reports, their technical service bulletins. All that information comes in, on a quarterly basis, to NHTSA, so we have that information to match up with the complaint data base, as well.

Senator KLOBUCHAR. OK. And again, I've got the guy I mentioned, Joe Pepski. I talked to him directly. I mean, he felt like he was basically being told he wasn't telling the truth. He knew what happened. He's never driven that car since. He's afraid to drive it.

Then we had another woman, a nurse named Mary Pries, of Morrison, Minnesota. Same thing happened. She barely survived. She had the presence of mind to take her car and drive it on a county

road where there was no traffic, and she was able to finally put it in neutral, or something, and stop it from accelerating. And the problem, from a trust standpoint, with government, is, these people came forward, and they went to the agency, and they filed these complaints. And all these other complaints were going on, and they would read it on the Internet, but they didn't know all the details. But, those details were somehow in the computer system.

So, what I'm trying to do—because I truly believe the employees at NHTSA are trying to do the right thing—is to figure out what tools we can give you to make it so this doesn't happen again and so that when my constituents file these complaints, at least there's some feeling that they weren't going nuts when this happened to them, that this really did happen to them, and that they did the right thing in reporting it, and that they're part of the solution.

Secretary LAHOOD. Thank you for your leadership, Senator, we——

Senator KLOBUCHAR. Thank you.

Secretary LAHOOD.—appreciate it.

Senator KLOBUCHAR. Thank you, Secretary LaHood. Thank you, Administrator.

The CHAIRMAN. Thank you, Senator.

Senator Pryor.

Senator PRYOR. Thank you, Mr. Chairman. And, Mr. Chairman, I have a packet of documents I'd like to hand out to the Committee, and I also have two charts there, that are also in the packet of documents, if that's OK.

Administrator Strickland, I hate to see the Secretary have all the fun.

[Laughter.]

Senator PRYOR. So, I'm going to ask you a few questions, if you don't mind.

And, first, I want to ask, just, about the resource issue. We've had a few Senators today suggest that you need more resources, and I know that's in the President's budget, but have you made a decision on what—how you're going to fill those slots? In other words, it sounds like you may need some more expertise in some of these, say, software/electronics-type area. Do you know what you're going to do?

Mr. STRICKLAND. We have 66 positions provided for in the President's budget, if it is approved.

In terms of our expertise, we have several pipelines for that. We have five electrical engineers on staff at NHTSA. We have 125 engineers, total. We also have resources that we leverage at the Vehicle Research and Test Center in East Liberty, Ohio, where we have an electronics engineer, which is a software engineer, in addition to an electrics engineer, as well. We are in the process of hiring another electrical engineer.

But, in terms of the 66, I'm definitely having my staff go through, do a full assessment of the ODI department, and we're definitely going to deploy those resources, as needed, to make sure we buttress a stronger NHTSA.

Senator PRYOR. Great.

On this first chart, it's the Camry, Solara, and the ES300. And that "UIA" stands for unintended acceleration. Vehicle owner ques-

tionnaire, vehicles for the model year. I know it's kind of code, up top.

But, basically, what you see is, in model year 2002, they add this electronic throttle control, the ETC. They add the electronic throttle control. You can see what the numbers do. And, you know, there may be other factors in that, but I'm glad you're looking at it. And as you all look at it, I would just hope that you would focus on the electronic throttle control. I know there are other parts of the electronic system that make sense, and software and all that. But, I certainly hope you'll detail some of your people to look at that ETC, the electronic throttle control.

Mr. STRICKLAND. Senator Pryor, it is a priority. The Secretary's already laid out the plan for NHTSA, in terms of how we're going to do an incredibly—we're probably going to have the most comprehensive review of electronic throttle control/EMI reviews in the automotive industry. We're going to not only look at Toyota, we'll be looking at every manufacturer, because this is a system that's gone through the entire United States fleet.

Senator PRYOR. Yes. I'm glad to hear you say that.

On the second chart, these are State Farm numbers, and again it's unintended acceleration claims. And you see the—the numbers are different. You see a spike each time they add the electronic throttle control. And that's two different models. One's a Camry, and one's a Corolla. You see a spike. But, also when you look at these charts together, it raises the question, Does NHTSA have comprehensive data from Toyota on everything that's going on with this unintended acceleration? In other words, you know, some of these numbers are from State Farm, some are from customer questionnaires. Do you have the sort of universal data that you need, or has that been requested?

Mr. STRICKLAND. About 3 weeks ago, NHTSA issued three queries to Toyota for everything regarding what it knew about the floor mats, what it knew about sticky pedal, and what it knew about the brakes. And part of it is an overall query for all sudden-acceleration incidents in Toyotas, which will be an incredibly large and rich amount of data for the agency to go through to figure this out.

But, in addition to that, we took a look at the data when we saw the design changes back in 2002 and 2004, when we saw the complaint data coming in, when we got the early warning data come in. NHTSA opened investigations. The standard that we have to follow in order for us to maintain our case in court is, we have to find a vehicle defect that creates an unreasonable risk to safety. If we cannot find that defect, we cannot go forward. We will lose the case in court.

So, the investigations that opened and closed, as everyone's been talking about at this hearing, those incidents of where the investigators did a full investigation, top to bottom, regardless of any types of rationale or cause for sudden acceleration, and they were not able to find a defect.

We took a look at the electronic throttle control system in 2004, did a larger inquiry in 2007, and weren't able to find a defect. We never stopped looking, but—because we recognize the data and the trends, that's the reason why we're going to do the broader inquiry.

Senator PRYOR. Right. And the last question I have for you is that some of the Senators have alluded to press reports, whether it be *New York Times,* CBS, ABC, whoever. You know, I don't remember who else reported on this. But, there's an allegation, or at least, maybe, an inference, that there's a relationship between NHTSA and the manufacturers that's too cozy. Now, I don't know if that's true or not. But the question I would have for you is—you're the new administrator there; I mean, obviously, most of this stuff happened long before you got there, even in a previous administration. Do you have concerns that the relationship between NHTSA and the manufacturers is too cozy? And I understand you need a close working relationship, and I understand that; that's very important to do your job. And to keep, you know, the roads safer and keep our vehicles safer. But, do you have that concern, that the relationship is too close?

Mr. STRICKLAND. My responsibility as the Administrator is to run the agency with the highest level of ethics possible. I don't want to have anybody roaming my halls at NHTSA, other than my employees or designated appointments where they provide us information that we need.

I want to respond to this Toyota document, the report to Mr. Inaba. There is a lot of things. I will happily respond in more detail on the record.

[The information referred to follows:]

We do not think that NHTSA's relationship with the manufacturers is cozy, but rather it is professional. NHTSA makes decisions about vehicle safety based on an independent analysis of all available data. During the past 3 years, NHTSA's investigations have resulted in 524 recalls in which 23.5 million vehicles were recalled. We believe that the number of recalled vehicles is indicative of NHTSA's aggressive and professional approach to vehicle safety, regardless of the manufacturer being investigated.

With regard to Toyota's internal document dated July 6, 2009, Toyota claimed defect, rulemaking and NCAP "wins." NHTSA disagrees with statements in this document. For example:

- Contrary to its claim, Toyota did conduct a safety recall of over 196,000 Siennas. In Toyota's letter to vehicle owners, it states that "this notice is being sent to you in voluntary accordance with the requirement of the National Traffic and Motor Vehicle Safety Act. Toyota has decided to conduct a safety recall. . . ."
- With regard to the Camry/ES floor mat problems, Toyota conducted a recall of floor mats. After a thorough investigation that began and ended as an equipment investigation, ODI believed that a recall of the floor mats was the appropriate resolution because the elimination of these floor mats and their replacement with floor mats that were not likely to be entrapped even if not properly secured seemed very likely to address the most serious risks of entrapment.
- In 2008, NHTSA decided to postpone the implementation of the new Government 5-Star safety ratings program to provide manufacturers and consumers an additional year to become familiar with the new ratings system, which contains the most significant changes to ratings program since the program began in 1979. We note that NHTSA did not meet with Toyota regarding the new ratings system.
- Although the delayed compliance date for FMVSS 206 door locks accommodated the manufacturers' design and production cycle, the delay also allowed the agency more time to analyze the petitions for reconsideration regarding other technical issues. We note that Toyota did not submit a petition for reconsideration requesting delay of this rule.

We also note that the internal Toyota document noted more aggressive NHTSA management and "more investigation and more forced recalls" as key safety issues for Toyota.

Mr. STRICKLAND. But, the claims that Toyota made about their negotiations or influences are false. I—that document—the things that they're claiming in that document is like me claiming that I was responsible for the sun rising this morning. Absolutely false. And NHTSA's people did independent work, independent investigations, and that document absolutely has no foundation.

Senator PRYOR. Thank you.

Thank you, Mr. Chairman.

The CHAIRMAN. Thank you, Senator Pryor.

And Senator Johanns?

Senator JOHANNS. Thank you, Mr. Chairman.

Mr. Administrator, let me ask you some specific questions about the vehicles that you investigated. And again, I think you said, quote, "full investigation, top to bottom," unquote.

So, where did these—where were these vehicles manufactured? Were they manufactured here in the United States or in some other location?

Mr. STRICKLAND. In terms of Toyota, or any manufacturer that we investigate for a defect?

Senator JOHANNS. No, these specific vehicles. These specific Toyota vehicles.

Mr. STRICKLAND. I don't know specifically where—I mean, there are a significant number of Camrys that are manufactured here in the United States—I think actually most of them—but I need to get back to you on the record on the actual country of manufacture or assemblage.

[The information referred to follows:]

The investigations have included Toyota vehicles manufactured in the United States, Canada, Mexico and Japan (see below).

Make	Model	Model Years	ODI Inv	Country
Lexus	GS400	1997–2000	DP03–003	Japan
	LS400	1997–2000	DP03–003	Japan
	ES300	2002–2003	DPO4–003 PE04–021 DP09–001	Japan
	ES330	2004–2005	DP05–002	Japan
	ES350	2007	PE07–016 EA07–010 DP09–001	Japan
Toyota	Camry	2002–2003	PE04–021	Japan
			DP05–002 DPO6–003	United States
		2004–2005	DP05-002	Japan
			DP06–003	United States
		2007	EA07–010	Japan
				United States
	Camry Solara	2002–2003	PE04-021 DP05–002 DP06-003	Canada
		2004-2005	DP05–002 DP06-003	United States

Make	Model	Model Years	ODI Inv	Country
	Sienna	2004	PE08–025 EA08–014	United States
	Tacoma	2006–2007	DPO8–001	Mexico United States

Senator JOHANNS. OK. Would you do that for me?

Mr. STRICKLAND. Yes, sir.

Senator JOHANNS. OK. And make sure you supply it to the other members of the Committee.

Is that important in your investigation? I mean, if you see a pattern, that all the vehicles are coming from one location, wouldn't you go, "Whoa, the light bulb just went on"?

Mr. STRICKLAND. This actually is the same issue, I think you're alluding to, as what was happening in Ford Firestone, where there was one particular plant in Ohio that was producing the defective Bridgestone tires, which had the treadwear separation issue. We take all data into account, not only the systems that are used, but where the place of manufacture was. If there is a trend line, we'll find it. For example, the sticky pedal recall was a CTS that has been linked to a CTS pedal that is made in Indiana. They used two manufacturers for pedals. The other is Denso, in Japan. My understanding was, we did not see the same type of issues in the Denso pedal as in the CTS pedal.

So, NHTSA absolutely positively takes into account all possible manufacturing inputs and quarterly stats, whatever the problem is.

Senator JOHANNS. OK.

Now, tell me—this full investigation, top to bottom—tell me what that would entail. Walk me through what you're—what you mean by that kind of investigation. Do you look at the car itself?

Mr. STRICKLAND. In some situations, there are several steps in the investigative process, opening with a preliminary evaluation, all the way through an engineering analysis element. So, it's several steps.

But, in a typical investigatory process, we will send an investigator to the complainant to actually review their car. We'll go through the typical list of systems which may influence, say, for sudden acceleration. If it's electronic, we'll take a look at those particular assemblages. We'll take a look at the mats; we'll take a look at whether there's an engine surge because of other systems, like the compressor system or the air conditioner. And then go through to eliminate any and all possible causes. And if we find a defect, that's where we take action at that point and find out if it's an unreasonable risk. And then we go further, with a recall request.

Senator JOHANNS. OK. But, when you send them to look at these things, do they fly out there with their computers and whatever else? I mean, what are you saying, when they look at it? Are they——

Mr. STRICKLAND. It depends on the type of car and the complaint and the year whether—how we're going to take a look at these particular things. In 2004 and in 2007, there was a comprehensive—the 2004 was a smaller look. 2007 was a larger look, on electronic throttle control systems.

But, in any other case, if the investigator goes through the tick list and finds a defect that the investigators either already been made aware of, from a prior recall, or finds a new defect, that's what they will flag. At the end of the day, in terms of how the investigator goes through this process, the process is to find the defect. And we go through that. If we don't find a defect, that's when we have a closing resume.

Senator JOHANNS. Mr. Administrator, here's my concern. And I think you know what I'm getting to here. There's an investigation, and then there's an investigation. And when you say "full investigation, top to bottom," the image you create for me is that there are computers hooked up to this car, and they're testing this, that, and the next thing, the car's taken apart. I could go to the shop floor and there are parts on the—that's not happening, is it?

Mr. STRICKLAND. I think the consumer probably wouldn't be very happy if my investigator took apart their car. But I would state this. In situations where there is a need to take a look at the onboard diagnostics, I believe that our investigators bring those tools with them. They also take a look at the actual assemblages. They also drive the car to see if they can replicate the fault. That's what I mean by a top-to-bottom investigation.

If there's something that warrants something broader, NHTSA will do that, as we did in 2004 and in 2007, and what NHTSA will be doing in undertaking the full review for EMI in the days going forward.

Senator JOHANNS. Well, let's just confine ourselves to the instances where something tragic happens, somebody died, and—I'd like to know what the investigation was. I'm not asking you to tear open all of the files of your agency, but what I am trying to get to—because we could add 50 more people, we could add 500 more people, but if the investigation isn't getting us there, to what's going on here, it won't make any difference.

The second thing, because I'm out of time already, that I'd ask you to focus on is this. I do want to know where this all comes from. I'm as free trade as anybody here. But, I will tell you, the American consumer is getting tired of this kind of thing, if, in fact, the problem is that we are getting substandard products from some other part of the world.

What I'm also extremely tired of is the treatment we get versus how we handle these things. Our borders get shut, their cars keep coming.

And I just want to dig a little deeper here. Maybe there's nothing to what I'm saying. And I'm not going to be bothered at all to acknowledge that. But, I'll tell you, I've worked with this country before, and I think they have some responsibility here. So——

Secretary LAHOOD. Senator, let me just say, the comments that you made in your opening statement struck me. I'm going to Japan. I've talked to the Japanese Ambassador to the United States on a couple occasions about this. I wish I would have had the insight that you—what you've said has struck a chord with me, and I think it's something that we need to raise—I'm going to raise it with the Japanese Ambassador to the United States, and I'm going to raise it when I go to Japan. I think it's a point well made, and one that we should be making when it comes to automobiles.

Senator JOHANNS. I—Mr. Secretary, we're out of time here, and I appreciate it—but, I hope you do, because what they have done to us, in an area that I'm concerned about, in my personal opinion, outrageous. And yet, they want us to continue to buy their products, which, again, I'm a free trade sort of guy. Fair trade. And I hope you will bring it up.

Secretary LAHOOD. I will.

Senator JOHANNS. Thank you.

Secretary LAHOOD. Absolutely.

The CHAIRMAN. Thank you, Senator.

Senator Ensign.

STATEMENT OF HON. JOHN ENSIGN,
U.S. SENATOR FROM NEVADA

Senator ENSIGN. Thank you.

Mr. Administrator, I have a few questions for you. One is that—because I talked to some of the dealers in Southern Nevada and—about these particular issues. One of the things they did is, they offered a particular service—the Toyota dealers there, just voluntarily—a free car wash to anybody who has a Toyota. And as they were bringing cars in for a wash, they were doing some inspections. And one of the things they found was that cars had four floor mats stacked on top of each other.

The one real tragic accident, that we've heard a lot about today, was a car that didn't have its own floor mat in it, it had a different car's floor mat. I have a Toyota product, and its floor mats have hooks on it. From what I understand, that mat in the accident was not installed properly. Is that really the car manufacturer's fault, or is that the dealer's fault? It would seem to me that the dealer has some culpability there.

The reason I'm bringing this up is, having that Toyota product—I have a light-colored carpet. I got tired of it getting dirty within a couple of weeks, so I went down to a local parts manufacturer and bought some rubber mats. Well, when I was talking to the dealer the other day, the dealer said, "You'd better check that to make sure, you know, that it is safe."

Does NHTSA look at things like that? In other words, when you go to buy something like that, it says on there that it is good for certain cars. The reason you buy extra market products like that is because it's a lot cheaper than going down and spending several hundred dollars for floor mats from Toyota. That's the reason I did it. And I'm sure that there are a lot of other people out there that do that. Does NHTSA look at things like that?

Mr. STRICKLAND. Yes, we do. Not only do we have the responsibility for motor vehicles, but motor vehicle equipment, as well, which would include things like aftermarket products, such as the mats.

Senator ENSIGN. So, in this case, aftermarkets don't have those hooks on it. And yet, it's still OK for Toyotas?

Mr. STRICKLAND. The mat that was recalled was an aftermarket mat, the Weathertech mat, if I'm not mistaken, in 2007. The issue that we always have to look at, at NHTSA, is not only from a manufacturing standpoint; we also have to look at it in terms of the use and abuse, and the foreseeability of use and abuse. And in terms

of the mat, originally the thought was that if we replaced those mats, that was a complete solution for this particular issue of floor mat entrapment.

The 2009 accident, as tragic as it was, illustrated to NHTSA at the time was that it is clearly foreseeable that, not only would a consumer make a mistake like that, but the car dealer itself could make a mistake like that.

I think the Saylor car actually did not have the right mat. It was a mat that belonged to a Lexus truck that was placed in the car, which caused the problem. So, it isn't even an issue of a manufacturing defect for a particular mat. It's the fact that you needed a vehicle-based solution to recognize the fact that the pedal can't be so long. So, even if you have a human error come in, that the consumer will be safe, even if that error was made.

Senator ENSIGN. From what I understand, almost all car manufacturers have had accelerator problems reported to you. I think that a lot of Americans feel that if there is one death, you all should do a recall. But, that's not how it's done. You have to make sure that there really is a problem with the manufacturer. Is that correct?

Mr. STRICKLAND. There isn't a threshold numerical component to this. If there is a defect that creates an unreasonable risk to safety, even if it's in a small percentage of a certain production of car——

Senator ENSIGN. Right.

Mr. STRICKLAND.—we will do the recall. In terms of how we execute it, you know, NHTSA's mission is saving lives and preventing accidents and injuries, and not only from the—as you said, Senator Ensign, issue on the numbers of people who are involved in accidents because of vehicle defect; NHTSA's vision is for all 37,261 deaths that happened last year. And on that point, I'm incredibly proud of this agency. In 2005, there was 43,510 deaths. In 2008, that went down to 37,261. That is a quantum change in lives saved. And this is an agency that is on its mission every day to make sure we get that number lower, whether it's on the behavioral side or if it's on the vehicle defect side.

Senator ENSIGN. One last point to make is that I hope you look at some of the independent studies that were done and who funds them. From what I understand, the study that was done at Southern Illinois was funded by trial lawyers. There may be an ax to grind there, that they may be trying to do something there. I would just hope that, regardless who has funded the study, that you would look at it with a skeptical eye, and you would look at the good science, and whether that could be replicated by other folks, and not just take them at their word that the study was done right.

Mr. STRICKLAND. Mr. Ensign, we'll look at all data points, and we'll evaluate it independently.

The CHAIRMAN. Thank you, Senator.

Senator Klobuchar has a clarification to make.

Senator KLOBUCHAR. I do, thank you.

I wanted to clarify, the woman—the nurse I talked about—her name is Mary Pries Morrison. She's not of Morrison, Minnesota, although it is a town. She's of Lindstrom, Minnesota. And it matters, because she's been working very hard to get her money back for the car. She's the one that—the 9–1–1 operator told her, as she

was desperately calling, after going 80 miles an hour for 6 miles, told her to shift into park and take the key out, and it worked. And when the sheriff got there, she had actually—her brakes were smoking so hard that she had melted her hubcaps.

So, that is an example of a case that we have in Minnesota.

Thank you for allowing me to clarify it.

The CHAIRMAN. Thank you, Senator.

And could I ask one question? Senator McCaskill may be on her way. Let me just sort of put something forward. Let me just talk it, and then you can answer it.

You had your first complaint into NHTSA—and it's in your data base—back in—about unexpected acceleration—- back in 2003. Now, some people have said you can't be responsible for the past, and it's true. But, we're looking at a history here, a characterization, both past and forward. And it's very clear that, the sudden unintended acceleration in Toyota vehicles, that NHTSA's database worked. It was clear. There were a lot of people that complained, and they're all in the database. What didn't work, to this observer, is what NHTSA failed to do, because it failed to determine the cause of sudden unintended acceleration in Toyota vehicles. So, I think its investigations have failed.

Now, why do I say this? What reason could there be? We've—our committee staff have reviewed thousands and thousands of pages of NHTSA documentation, other documentation, and I think it fairly clearly shows that NHTSA employees are reluctant to do investigations of the vehicle electronics because it's much more difficult to detect.

You had one investigation, which was limited to floor mats, even though there were clearly incidents unrelated to floor mats. And so, I just make this point, and then I ask that you'd react to it. I think that NHTSA investigators, taking the whole period of time, would rather focus on floor mats than microchips because they understand floor mats. They're more comfortable with floor mats. They don't understand microchips. You're going to change that, but this is what the situation has been.

So, I feel that very strongly, and I feel that has been sort of a major letdown on NHTSA's part, looking back and up to the present.

So, how do you react? When are you going—to make sure that the microchip solution to unintended acceleration works?

Secretary LAHOOD. Well, my response, Mr. Chairman, is that we are going to do a complete review. I'll be happy to share the copy of the letter that we have sent to Toyota, asking for every possible piece of information that we can get, to make sure we haven't missed anything, or that they didn't disclose some things that we should have looked at. And——

The CHAIRMAN. But, you don't disagree with me about my so-called stipulation?

Secretary LAHOOD. What I would say is that I don't know if NHTSA turned a blind eye because they didn't understand chips or the electronics. I know this. We're going to get to the bottom of the electronics. That's what I commit to you.

The CHAIRMAN. And that's what I want to hear, but I'm just telling you that you got your first complaints about this in 2003, and

the record clearly shows that your folks stayed away—not your folks, but the prior person's folks—stayed away from microchips——

Secretary LAHOOD. And if the information from Toyota that we get—information that we haven't received—no, we're going to be pretty darn mad about that. But, it will help us in the future.

The CHAIRMAN. Mr. Secretary and Mr. Administrator, I totally thank you for being here.

We have one more witness, for the next 12 minutes, but then that witness will be back again this afternoon.

I thank you for taking the time——

Secretary LAHOOD. Thank you, sir.

The CHAIRMAN. I appreciate your——

Mr. STRICKLAND. Thank you, Mr. Chairman.

The CHAIRMAN.—strong attitude.

Now I'd ask Clarence Ditlow to come forward, please.

[Pause.]

The CHAIRMAN. Clarence Ditlow. Now, we have to sort of hustle here, because we have a vote coming up pretty quickly. If we could have silence in the hearing room, please, people could take their seats.

Mr. Clarence Ditlow is Executive Director of the Center for Auto Safety, has been observing auto safety for, what, 25, 30 years? Longer than that. All right.

Let me ask the first question.

And before I do that, incidentally, any folks, including Senator Hutchison, who had a statement, and any other folks who didn't have a chance to give that statement this morning, that will be included in the record.

Mr. Ditlow, I am very troubled that NHTSA and the public must rely so heavily on manufacturers for data that, ultimately, will probably hurt, if they shared all of it, the company's reputation and profits. Manufacturers have an incentive to only give the minimum amount of information to NHTSA. That would be my strong conclusion.

In other contexts, companies are required—not asked to, but required—to certify that the information they provided the government is accurate and complete, or face criminal and civil penalties. Am I right?

STATEMENT OF CLARENCE M. DITLOW,
EXECUTIVE DIRECTOR, CENTER FOR AUTO SAFETY

Mr. DITLOW. Yes, sir.

The CHAIRMAN. Would it make sense to ask—no, scratch that—to require manufacturers to make a similar certification when they provide information to NHTSA?

Mr. DITLOW. Senator Rockefeller, that's one of our first——

The CHAIRMAN. Is your thing on?

Mr. DITLOW. Sorry.

The CHAIRMAN. OK.

Mr. DITLOW. OK, now it's on. OK.

Senator Rockefeller, that's one of our first recommendations. Every single response by an automobile manufacturer ought to be submitted with an affidavit that is sworn under penalty of perjury.

The only—that's the only way that you're going to be sure that, when they're submitting information, that they don't err on the side of the manufacturer, but they err on the side of full disclosure.

The CHAIRMAN. All right. I'm compelled to turn to Senator McCaskill.

Mr. DITLOW. Senator Rockefeller, may I give a few points in response to——

The CHAIRMAN. You can talk.

Mr. DITLOW. OK. Thank you.

The CHAIRMAN. But, I've got to get her in. And incidentally, you're going to be here this afternoon, on the Toyota panel.

Mr. DITLOW. Yes.

The CHAIRMAN. The members should know that.

Mr. DITLOW. OK.

The—all I wanted to do now was to address a few of the points that were raised by Secretary LaHood and Administrator Strickland.

First of all, I want to say that I have the utmost respect for both the Secretary and the Administrator, but they are behind the eight ball. They came in, essentially, after the October recall, and they've been doing everything they can to catch up. But, they have a lot of work to do.

And just looking at some of the things, we talked about—you talked about the agency getting complaints on its own, and from the manufacturer. But, in those early investigations, which did not lead to a single vehicle recall, there were complaints that were excluded on long- duration events, where consumers said the brakes did not override the full acceleration. So, you narrowed it down. You didn't get the full picture.

And we saw the submissions, today, on the number of complaints when electronic throttle controls were introduced. The Center took a look at the Toyota Camry. There have been twice as many fatal crashes and deaths in the 2002 to 2006 Camry, which has not been recalled, as in the recalled 2007 to 2010 Camry. So if you can't answer questions like that, you haven't done your job.

The fundamental issue in the complaints comes out of the 1989 study that DOT did, where they said that, "If we can't find a mechanical failure, something that causes the throttle to open, or the cruise control, then it must be driver error." They've excluded out complaints. But that study was done on 1983 to 1986 vehicles, a quarter of a century ago. Technology today, in today's car, is far beyond that. We didn't have electronic throttle controls. We didn't have 20 to 30 microprocessors in vehicles. You can't use the 1989 study to measure 2010 vehicles. So, I would just toss it out the door.

And the other thing I want to point out, in terms of the agency's examination, is, they did one modern test on a 2007 Lexus ES 350 to determine, quote, "whether it was floor mats or electronic controls that caused unintended acceleration." They said it was floor mats. We filed a FOIA and asked them for all their test data, all their test procedure, on electromagnetic interference or any computer malfunctions that they did during this test of that Lexus. They came back and said, "We have no data, we have no test procedure." So, it wasn't a valid test. This is what we're up against in

moving forward, an agency that really hasn't done a thorough examination.

And then we have the issue of the former employees coming in. And I will add one more. Erica Jones, the former chief counsel, when they came in and negotiated the safety improvement campaign, she was there, as part of the Team Toyota, lobbying the former agency that she worked for.

So, they know the system, they know how to beat it, and we need to get a lot more resources for the agency.

And I pose a question for Secretary LaHood. Where are those 66 positions going? How many are going into enforcement, where we really need it?

Thank you.

The CHAIRMAN. I would just say that, in the panel this afternoon, I think that Toyota's going to get some very tough questioning from members here. But, the purpose of that, one, is to solve the problem—that's by far, the most important purpose; but also, they need that to reestablish the level of trust they once had, and then suddenly lost when some of these figures came out. That's what oversight is for. That's what our job is. And that's what NHTSA's job is. And, you know, so far the difference is not startling.

I call on Senator McCaskill because she didn't have a chance to ask a question.

STATEMENT OF HON. CLAIRE MCCASKILL,
U.S. SENATOR FROM MISSOURI

Senator MCCASKILL. Thank you very much, Mr. Chairman.

Mr. Ditlow, does your organization make any attempt to track lawsuits that are filed against automakers, and make note of the results of those lawsuits?

Mr. DITLOW. It's very difficult for us to track the lawsuits, because there's no central filing mechanism. We have to rely on filings with the government. But, we certainly come across some individual lawsuits, like the Alberto case in Michigan, where there was no floor mat in the vehicle. And we called that to the agency's attention. And—so, that's part of the agency's files.

Senator MCCASKILL. Well, part of the issue here—and I hope I have a chance to, this afternoon, question the Toyota officials about it—is a culture about secrets, a culture about making sure that no one knows anything bad. And, frankly, in this instance, maybe that culture is more to blame for this problem than anyone heretofore has actually acknowledged. I want to first say that I think there are fine cars this company has built, and our, obviously, hard-working people in America that are selling them and buying them. But, I look at some of the cases out there, and what I'm really concerned about now is that we have some homicides, and vehicular homicide cases, where people have gone to jail when they have said, "I put on the brake, it didn't work. I—it just kept going." And I'm interested on a case where there was a driver of a runaway Camry that signed a confidentiality agreement, and received a settlement from Toyota, following accelerating out of control for 20 miles before killing the driver of another car in San Jose, California. He was initially charged with manslaughter for causing the crash, but charges were then dropped. It seems to me that the law-

yers of this country, in many instances, are doing the work that the regulatory agencies refuse to do, or won't do, or bureaucracies somehow keep them from doing, and that is, they are pounding on the doors of justice and saying, "Let us in. We've got evidence."

And it seems to me your organization, now, with Internet technology, a lot of these lawsuits are very easy to find. It might be a way that consumer groups such as yours—I know other consumer groups have certainly utilized this—can begin to track some of these lawsuits and get a leg up, in terms of bringing evidence to the regulators that could help prevent this in the future.

Mr. DITLOW. Senator McCaskill, you're absolutely right. And these confidentiality agreements that are signed should be prohibited in areas of public health and safety, because they would cover up a defect that could lead to a recall that could prevent hundreds of deaths and injuries.

And I must add that the secrecy at the Department of Transportation is as bad as the secrecy in some of the lawsuits, because there are hundreds of early warning inquiries that have been done by NHTSA since 2003. Yet, none of those are made public. When you look at early warning, NHTSA spent $20 million. Now, when it comes to Toyota's sudden acceleration, either early warning found it early on and NHTSA didn't act on it, or early warning itself is flop because it should have detected it.

But, we can't tell you, as a public watchdog, which way it is, because the government won't give us access to the investigations done under early warning. But, they're there.

Senator MCCASKILL. Well, I think the transparency part's important, and I know that economic considerations go into the secrecy culture, because they want to protect their product from their competitors until the appropriate moment, because of the competitive market of automobiles, and—in the world. But, in this instance, I think we need to take a hard look at all the cases where there have been sealed and private agreements, particularly after litigation has begun.

Mr. Chairman, thank you.

The CHAIRMAN. Thank you.

And before we all rush off to vote, I just want to make a point. Comes out of what you said. During the hearing this afternoon with Toyota, we have two people from Japan that we've brought over. One is in charge of safety, one is in charge of another—they're both on the board of directors, so they're top people. They can give their testimony in English, but they can't answer questions, necessarily, so they will have a translator. Because we take these matters seriously in this committee, we will have a Japanese—or, a person who can speak Japanese—translator—sitting right here, to listen to how the translation is given in respect to how the questions are asked. And I think that's a little bit what you're talking about.

Having so said, this hearing is adjourned.

[Whereupon, at 12:20 p.m., the hearing was recessed.]

TOYOTA'S RECALLS AND THE GOVERNMENT'S RESPONSE— AFTERNOON SESSION

TUESDAY, MARCH 2, 2010

U.S. SENATE,
COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION,
Washington, DC.

The Committee met, pursuant to notice, at 2:34 p.m. in room SR–253, Russell Senate Office Building, Hon. John D. Rockefeller IV, Chairman of the Committee, presiding.

OPENING STATEMENT OF HON. JOHN D. ROCKEFELLER IV, U.S. SENATOR FROM WEST VIRGINIA

The CHAIRMAN. This hearing will come to order. People will be seated.

I welcome our panelists.

And what happens here is that I usually make an opening statement. There were three—two members, two Senators, who didn't make opening statements this morning, so they will, then, make their statements, and then we will go to the panel.

I want to welcome our panel and thank my colleagues for dedicating so much of their day to this extraordinarily important issue.

As I said this morning, we have two goals today: first, to figure out exactly what happened, so those who made the wrong decisions can be held accountable; and second, to determine what actions need to be taken, both to fix ongoing safety issues, and to make sure this never happens again.

We learned a lot this morning from Secretary LaHood—Secretary of Transportation—and Administrator Strickland and Clarence Ditlow about the government's role in Toyota's recent recalls, and why these problems were not identified sooner.

We have an obligation on this committee to make sure that the American people know the full story. That's what we do; we do oversight so the American people can understand what goes on and what is the root of the problem and what is being done to solve the problem. And both Federal regulators and Toyota must learn the lessons of these failures, and make sure they are never repeated.

This afternoon we will hear from Toyota executives about how these problems occurred and why the company did not respond more quickly.

I want to say again, in the presence of the second panel, what I said this morning at the first panel. Toyota is an extraordinarily

important company to America, as well as to my home State of West Virginia, and to our national economy, as well.

I worked very hard to bring a Toyota engine and transmission plant to Buffalo, West Virginia, because I knew Toyota was a company that believed in perfection and reliability, a company that believed a winning business plan was one where growth and profit came from only putting the quality of its products and the safety of its consumers first. It saddens me deeply that, it seems somewhere along the way, public safety decreased in value as profit margins soared.

The Commerce Committee has been examining the recent Toyota recalls and asking whether the company was losing its focus on quality and safety; indeed, the president of the company indicated that. What we have found is that Toyota had plenty of warning signs that something was changing.

In September 2006, for example, the President of Toyota North America, Jim Press, expressed concern, in a presentation to Toyota's top executives in Japan, that Toyota quality was slipping and that the company, he said, was facing growing problems with NHTSA, the U.S. safety regulator.

But, it doesn't seem like the message was heard in Japan. A year-and-a-half later, Chris Tinto, Toyota's top safety official in Washington, tried to warn his superiors in Japan that quality problems were growing, and his—in his words, "We have a less defensible product." It's not typical of the Toyota that I know.

I ask unanimous consent to insert Mr. Press's and Mr. Tinto's PowerPoint presentations in the hearing record, and it is so ordered.

[The information referred to follows:]

[redacted]

A New Era for Toyota and TMA in North America

September 20, 2006

Jim Press, President

Toyota Motor North America (TMA)

Documents Numbered
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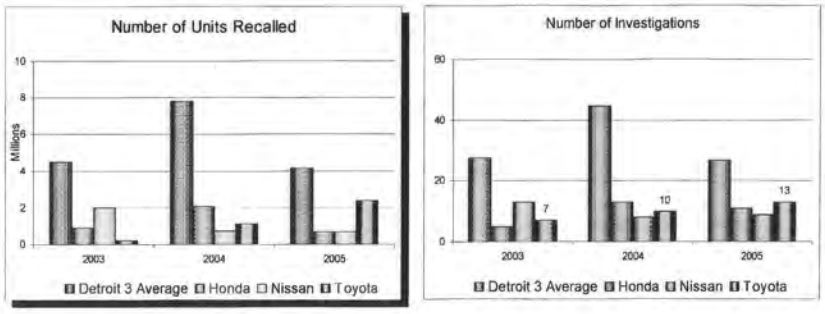
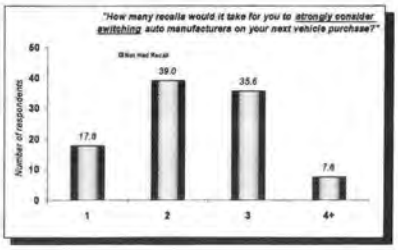
Recall Activity Increases



Source: National Highway Transportation and Safety Administration (NHTSA)
TMS Technical & Regulatory Affairs - Safety

Recalls Impact Customer Loyalty



Source: Polk Center for Automotive Studies

Toyota Motor Sales, U.S.A., Inc.

Quality Coverage in U.S. Media

- Topic came to media attention following Japan investigation

"Recalls Dent Toyota's Image"
July 31, Detroit News

"Toyota recalls prove auto juggernaut is fallible, but fixable"
August 28, Detroit News

"Toyota's shiny image has dents"
August 26, Associated Press

"Recalls leave Toyota at 'tipping point'"
August 19, San Antonio Express News

Investors Question Long-term Impact

Avalon shows dent in Toyota quality

Fixes sought for 'problematic vehicle'

Quality glitches

Automotive News, May 1, 2006

Credibility is slipping with NHTSA

CNNMoney.com

Toyota's totally bizarre recall

Why would Toyota issue a recall designed to make vehicles less safe?

detnews.com

Toyota to recall Tundra air bags

To comply with U.S. child safety rule, front passenger switch will be disabled, not replaced.

David Shepardson / Detroit News Washington Bureau

WASHINGTON -- Toyota Motor Corp. will spend millions to deactivate front-seat passenger air bag cut-off switches in nearly 160,000 Tundra pickups to avoid having to install a costlier child safety seat anchoring system.

Strengthen NHTSA Relationship

- Strengthen relationship with NHTSA and related organizations
- Request TMC to support with timely, reasonable requests to investigations
- Consider image impact of technical responses

Support NA Messaging

- Better information on progress of quality countermeasures
- Improved communication with TMC to create timely messages on quality issue for NA audience

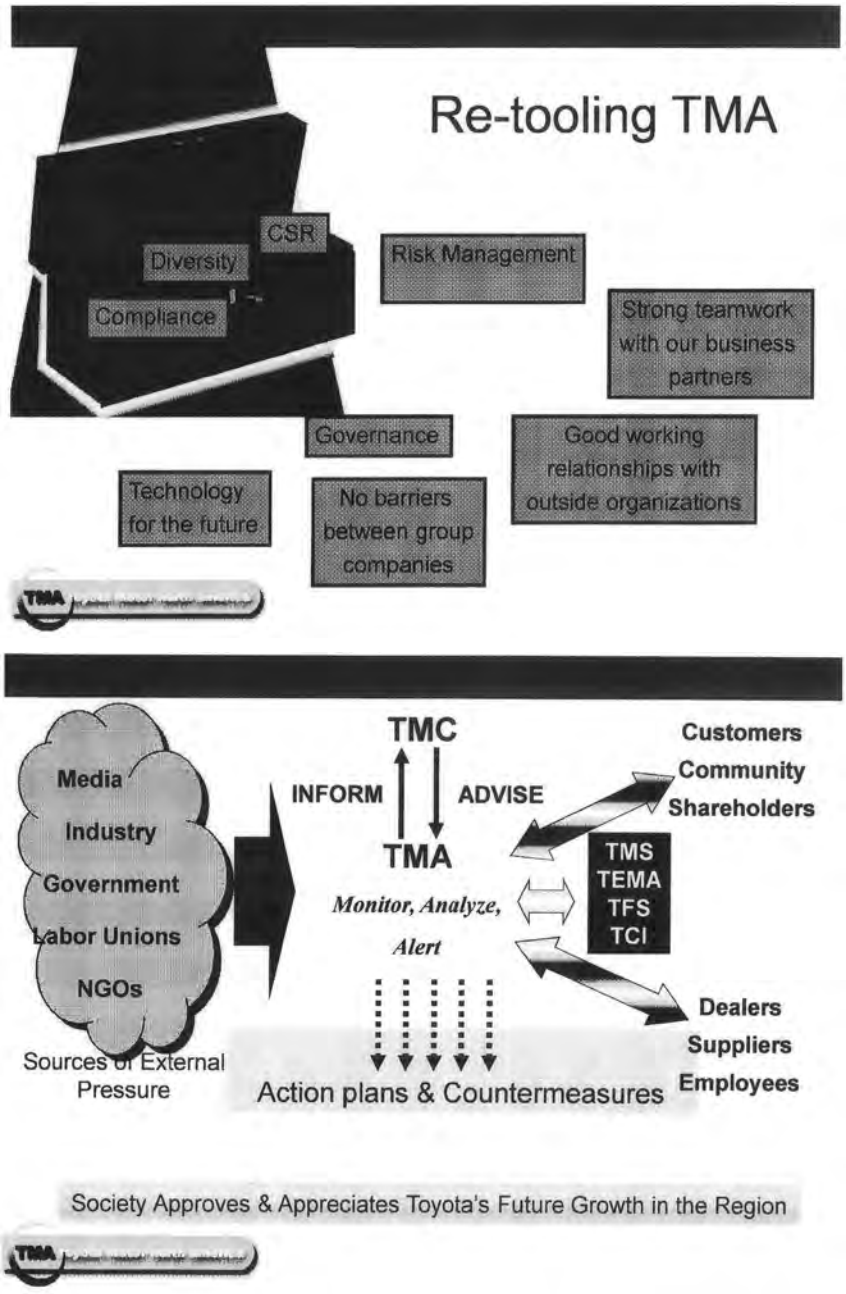
Continue One-voice Quality Messages

- Continue speaking out frankly on our countermeasures
- Promote safety theme in corporate advertising and philanthropic activities
- Timely monitoring of media and web interactions to catch new threats early

WSJ Front-page Ad

Request to TMC

1. Schedule of localization announcements, including:
   - ✓ Announce U.S. plant decision soon after November 7, 2006 elections.
2. Keep TMA informed of quality countermeasure status to support NA message creation
   - ✓ Establish visualized process to strengthen communications among TMA/TMS/TEMA and TMC


Re-tooling TMA
CSR
Diversity
Compliance
Risk Management
Strong teamwork with our business partners
Governance
Good working relationships with outside organizations
Technology for the future
No barriers between group companies
TMA
Media
Industry
Government
Labor Unions
NGOs
Sources of External Pressure
TMC
INFORM
ADVISE
TMA
Monitor, Analyze, Alert
Customers
Community
Shareholders
TMS
TEMA
TFS
TCI
Dealers
Suppliers
Employees
Action plans & Countermeasures
Society Approves & Appreciates Toyota's Future Growth in the Region
TMA

Request to TMC

1. Schedule of localization announcements, including:
   - ✓ Announce U.S. plant decision soon after November 7, 2006 elections.
2. Keep TMA informed of quality countermeasure status to support NA message creation
   - ✓ Establish visualized process to strengthen communications among TMA/TMS/TEMA and TMC

Documents Numbered
00023019 through 00023023
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Slide Notes

Slide 20:

[redacted]

Now, I would like to move on to the second critical vulnerability: our quality image.

Slide 21:

The public's perception of quality is currently focused on safety recalls.

As you can see in the charts, Toyota's numbers are on a steady rise, in both recalls and NHTSA investigations, while the Detroit 3's average is actually trending downward.

In both indicators, while we still trail the Detroit 3, we exceed both Honda & Nissan.

Slide 22:

As more of our customers experience recalls, customer loyalty will suffer, according to a survey commissioned by TMS. More than 30% said 'having a recall on their current vehicle, would make them seriously consider not buying from the same automotive brand again.'

More than 50% of the respondents who had never had a recall would strongly consider switching manufacturers if their vehicle was recalled twice and 90% would consider switching by the third recall.

Slide Notes

Slide 23:

The Kumamoto case in Japan was covered in early July news reports in the U.S. It triggered a number of investigative reporters to focus on our U.S. quality in general and specifically on recalls.

Slide 24:

Our institutional investors are looking at the long-term impact of rising concerns about Toyota quality. The Kumamoto case is of minimal concern in the U.S.

After the Automotive News story on Avalon, TMA Investor Relations staff received the first round of questions about long-term brand implications, particularly in marketing.

Toyota's response to the problem is still unclear.

Slide 25:

Our ability to manage the tide of safety investigations rests largely on our ability to work well with NHTSA.

Over the last few years, we have seen our relationship begin to slip slightly with NHTSA. The reasons are complex. They include a combination of increased recalls, more investigations, and tougher negotiations between Toyota and the agency.

Not all of the recall increase can be blamed on slipping Toyota quality. The Congressional TREAD Act now requires faster and broader reporting and filing of recalls - all resulting in more pressure on the OEMs. In addition, the current NHTSA management is much more aggressive than in the past.

NHTSA is also much more sensitive to public and Congressional criticism and pressure.

Slide Notes

There is a "new dynamic" in the US. As your face to NHTSA, we ask TMC to trust our judgment when we need your urgent help in getting issues resolved. We need faster information flow, and more technical support when hot issues arise.

Slide 26:

We propose a three-part countermeasure to the quality perception issue at this time.

First, we need to safeguard what is left of our good working relationship with NHTSA. Working together with TMC, our technical responses to investigation-related requests from NHTSA should be vetted internally with respect to their potential public relations impact, as well as their technical appropriateness. This is an essential step to rebuilding their confidence in Toyota.

Slide 27:

Second, we ask TMC's Technical side to keep us better informed on the progress of TMC's quality countermeasures.

Even after an engineering solution for a recall is determined, we may still have a serious public affairs problem if we cannot manage the relationship with NHTSA and the American public.

We need better ways to exchange information with TMC if TMA is to manage the public's perceptions of our quality.

Slide Notes

Slide 28:

Finally, we continue our daily work of promoting safe driving, and other positive aspects of our safety and quality story. In the past month, TMA spokespeople have followed Mr. Watanabe's lead in addressing the quality issue head-on.

We are also continuing our cycle of corporate ads on the safety issue, including a series of teen driving safety ads appearing on the front page of the Wall Street Journal. And we our PR team is meeting regularly to catch hot issues.

Slide 29:

As presented earlier, 2007 could become a pivotal year in terms of risks to our business. As TMC's public affairs face to North America TMA has two requests.

First, work with us to set a schedule of local investment announcements, covering the next 3-5 years

Second, TMA appreciates TMC's leadership and quick action on the quality issue. Our Regulatory and Public Affairs leaders need to know the current status of TMC's countermeasures, so we can develop appropriate messages and protect Toyota's reputation.

Transparency is the key to regaining trust.

Slide 30:

Slide Notes

To support the role we have defined, we are re-tooling TMA to be a stronger advocate, image keeper and strategic advisor for TMC and the North American operating companies. Our objective is to make North American society better able to accept and appreciate our future growth in the region. We want to become the neighbors they want to have and be known as respected citizens in North American society.

We will do this by building on the key qualities that have made Toyota great.

We plan to complete this re-tooling by the end of the year. I look forward to hearing your thoughts and direction.

Slide 31:

TMA will continue to be the listener, the monitoring system and the early warning system about the North American social and political environment. This is a new era in our organizational life. We will be focusing on our customers at TMC, TMS, TEMA and our other stakeholders, and working as a team to improve the business climate for Toyota in the NAFTA region.

Thank you.

Slide 32:

I am happy to take your questions.

January 2008 Draft Presentation Prepared by Chris Tinto, Vice President, Technical and Regulatory Affairs - Safety, Toyota Motor North America

[redacted]

Our main areas of focus:

- **Monitor and Affect Vehicle Safety Regulation & Legislation**
- **Vehicle Defects Investigation, Non-Compliance, Recalls and 3rd Party Crash Testing**
- **Intelligent Transportation System (ITS)/Vehicle Infrastructure Integration (VII) activities**
- **Manage/Coordinate/Expand TMC Safety Research w/Outside Entities**

For Regulation & Legislation, main government organizations of focus

National Highway Traffic Safety Administration (NHTSA)
- FMVSS, vehicle compliance and defects/recalls
- NCAP testing

Congress
- Vehicle Safety Legislation

Federal Communications Commission (FCC)
Research, Innovation and Technology Administration (RITA)
Federal Highway Administration (FWHA)
- ITS/VII activities

2

Industry Voluntary Standards
- **Vehicle Crash Compatibility**

Rulemaking
- **New Side Impact Final Rule (FMVSS 214)**

- **Rollover**
  - Occupant 'Containment'
  - FMVSS 216 Roof Crush

- **Child Passenger Safety**
  - 'Kids in Cars' Bill (Congressional)
  - Child Restraint Systems (CRS)

- **NCAP (New Car Assessment Program)**
  - 'Stars on Cars'
  - Upgrade of NCAP program

3

US Government focus is shifting from passive (crash) safety, towards "active safety", including ITS/VII

- Recognition of potential benefits growing - ESC Final Rule (~5-10,000 lives/yr)
- Includes Pre-collision systems, lane keep assist, blind spot warning, etc.
- Vehicle-to-vehicle and vehicle-to-infrastructure communications

Big interest in Drunk Driving Prevention

- 17,000 people per year are killed in Drunk Driving related accidents
- 'In-vehicle alcohol interlock' technology is target solution

Defects and Compliance Investigations / Recalls

- # of UIO and overall sales is increasing rapidly (i.e. increased exposure)
- NHTSA is testing more vehicles
- NHTSA's new, more aggressive management includes more attorneys at the agency, with little/no engineering background

Current 'OPEN' Investigations

- '04-'06 Sienna Hatch Struts - EA Investigation
  - NHTSA will request a recall in January
- '03-'04 Pontiac Vibe glass Shattering – PE Investigation
  - Very high number of claims, Working with GM/NUMMI on response
- '05-'07 Tacoma Throttle Surge - Compliance Investigation
  - Nashville News reporter, NHTSA 124 IR letter

[redacted]

As a result of Toyota's rapid expansion in the US, expectations are rapidly rising from NHTSA, Alliance (OEMs), and the Public for more participation and involvement

Toyota is recognized as the most successful car company

Toyota's leadership in the safety area is not only welcomed, it is expected

Expectations include:

- **Technical Presentations** (Gov't Public Hearings, NGO Conferences, NHTSA Technical meetings)
- **Participation/Leadership** at Alliance WGs/NHTSA/TWG
- **Contributions in NHTSA/Alliance Research**
- **NGO/Research Sponsorships**

6

[redacted]

Proactive participation and leadership in regulatory areas

- Regular Technical Meetings with NHTSA, docket comments
- Cooperative efforts with other OEMs (e.g. GM/CAT) on drunk driving, compatibility, ITS
- Chair of Alliance Safety Policy Committee (SPC)
  - Participation on 60+ technical WGs in Alliance
- Chair - Alcohol interlock specifications WG
- Public safety presentations
- Board memberships (ACTS, Children's Hospital, Wayne State)

Represent Toyota on Key ITS/VII initiatives

- Executive Leadership Team (ELT)
- VII Consortium, National VII Coalition
- ITS America

7

Sponsorships of Crash Safety Research/Conferences/NGOs

- Wake Forest CIREN center, VT, UVA, STAPP, AAAM, OSU, Mothers Against Drunk Driving (MADD)

Enhancing Affiliate Communication

- TEMA/TMA Safety Meetings, Anzen-Kento-Kai meetings @ TMC

Safety/Quality/Compliance issues

- Close relationship with staff and management at NHTSA
  - Early/timely information
  - Strong negotiations with agency on difficult issues
- Attend all NHTSA Compliance testing
- Close relationship with 3rd party testing organizations e.g. Insurance Institute for Highway Safety (IIHS)
  - Provide vehicles voluntarily for top scores
  - Tundra "Top Best Pick" – 1st and only PU truck to be awarded TSP

TMA

8

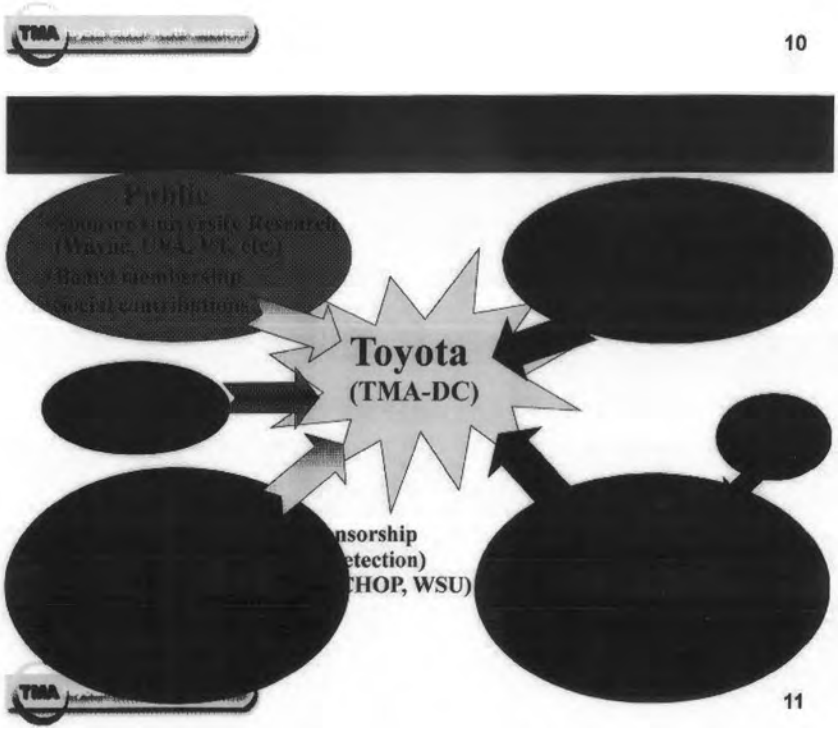
- **The regulatory environment** for safety continues to change rapidly and present challenges
  - NHTSA/US Government is growing more aggressive on active safety
  - Expectations on Toyota continue to grow
- **Toyota (TMA) is an proactive participant** in US rulemaking and ITS initiatives
  - Challenges remain
- **On Quality Issues**
  - Some of the quality issues we are experiencing are showing up in defect investigations (rear gas struts, ball joints, etc)
  - NHTSA's management is aggressive, and not technical
  - Although we rigorously defend our products through good negotiation and analysis, we have a less defensible product
  - TMA has been quite successful in meditating difficult issues (ex: ES 350/Camry floor mat recall), but it is becoming increasingly challenging
  - Toyota must remain vigilant to guard its quality reputation

TMA

9

[redacted]

- BACKGROUND SLIDES



Slide Notes

Slide 1:

Monitor and Affect Regulatory and Legislative Movement

NHTSA., OMB, Congress, etc.

Act Through Alliance, Toyota independently

Technical Meetings with Automakers

Comments, Private mtgs, Industry

Vehicle Defect/Non Compliance Issues

NCAP consumer information/IIHS/3rd party testing

Attend tests, Provide data and analysis

Negotiation with stakeholders/Gov't/test labs

Manage/Coordination TMC safety research w/ Outside entities

Universities/Labs, etc.

Monitor market trends related to safety

Competitors, media, NGOs

Support PR activity to enhance Toyota's image w/Gov't/public

Work with TMS PR

Improved understanding amongst affiliates/technical briefings

Media interviews/background

Slide 2:

Monitor and Affect Regulatory and Legislative Movement

NHTSA., OMB, Congress, etc.

Act Through Alliance, Toyota independently

Technical Meetings with Automakers

Comments, Private mtgs, Industry

Vehicle Defect/Non Compliance Issues

Slide Notes

NCAP consumer information/IIHS/3rd party testing

Attend tests, Provide data and analysis

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Manage/Coordination TMC safety research w/ Outside entities

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Support PR activity to enhance Toyota's image w/Gov't/public

Work with TMS PR

Improved understanding amongst affiliates/technical briefings

Media interviews/background

Slide 3:

Ok – now I will update you on progress of the 4 areas we listed as High priority.

First, Compatibility - - - Toyota's Position was that was in the mid term, we should develop and propose a test method and criteria to evaluate both geometry and stiffness matching.

However, due to pressures from Congress and NHTSA, we must also propose a proper test method for the short term solution. NHTSA has been pushing OEMs for an easy test they can use in their NCAP program.

For our activities - For mid term solutions, we met with NHTSA and explained our ongoing research. TMA presented our full scale test results, and appealed for the necessity of not only a geometry improvement but also stiffness improvement. NHTSA researchers agreed, and are awaiting the output from Toyota and GM joint research.

NEXT

Slide Notes

Slide 4:

However, NHTSA is currently focusing more on Active Safety vs. Passive safety - Administrator's interests

Recognition of potential benefits growing

ESC Final Rule (est. 5-10,000 lives saved per year)

NHTSA also recognizes it cant keep up with advances in technology - looking to industry for help

Situation - NHTSA struggling with new technology evaluation procedure

Struggling with effectiveness measures

ACAT R&D project/SIM development

NHTSA struggling with safety benefit assessment

Asking OEMs to devise method

NCAP upgrade (public hearing to include Active safety ratings)

Alliance studying GM proposal for Volpe 37 car crash patterns to approximate effectiveness

TMC Action – continue SIM /Act work, input into alliance WG proposals

Slide 5:

'07-'08 ES350?Camry AWFM - Closed w/ Limited equipment recall

ES350/Camry Mat Recall; Resolved – limited recall; No 'Vehicle Defect'; Equipment Recall Only

Highlander Hybrid Steering, RX330 Brake Lamp Stop Switch - Closed - No recall

Pending for '08CY

'04-'06 Sienna Hatch Struts - OPEN Investigation

Demoed at NHTSA courtyard;

'05-'07 Tacoma Throttle Surge Allegations Compliance Investigation

NHTSA 124 IR letter, Toyota internal investigation

Met with Representative Bart Gordon's (D-TN) office

Slide Notes

'03-'04 Pontiac Vibe glass shattering OPEN investigation

Working with GM/NUMMI

Vehicle Compliance

Testing – Camry/Prius rear; Camry/Prius/Yaris front; Yaris side; Camry/FJ/Yaris head impact

'Trained' NHTSA labs on 305 electrolyte spillage and electric shock prevention

Tacoma compliance IR outstanding

Vehicle recalls lowest in years

Improvements in quality and safety deemed a success

Detroit Free Press 01/05/2008

Author: Justin Hyde

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WASHINGTON – In 2007, U.S. automakers issued the lowest number of safety-related recalls on their cars and trucks in at least four years, another sign that new vehicle quality continues to improve.

Automakers say the drop in recalls stems from their efforts to flag and correct problems before a vehicle rolls off the assembly line.

Slide 6:

As a result of Toyota's rapid expansion in the US, expectations are rising from NHTSA, Alliance, etc. for more participation/involvement

Toyota recognized as the most successful car company

Toyota is the only Japanese OEM with the right to vote in the Alliance

Toyota's leadership in the safety area is not only welcomed, it is expected by both the agency and the Alliance

Expectations include:

Technical Presentations

Public Hearings, Conferences, Technical meetings

Participation/Leadership at Alliance Working Groups/ NHTSA

Slide Notes

Contribution on Research Activities/Testing

Sponsorships

Slide 9:

Our ability to manage the tide of safety investigations rests largely on our ability to work well with NHTSA.

Over the last few years, we have seen our relationship begin to slip slightly with NHTSA. The reasons are complex. They include a combination of increased recalls, more investigations, and tougher negotiations between Toyota and the agency.

Not all of the recall increase can be blamed on slipping Toyota quality. The Congressional TREAD Act now requires faster and broader reporting and filing of recalls - all resulting in more pressure on the OEMs. In addition, the current NHTSA management is much more aggressive than in the past.

NHTSA is also much more sensitive to public and Congressional criticism and pressure.

There is a "new dynamic" in the US. As your face to NHTSA, we ask TMC to trust our judgment when we need your urgent help in getting issues resolved. We need faster information flow, and more technical support when hot issues arise.

Slide 11:

US Situation
Pressure Increasing on Toyota

I will explain this graph in detail during this presentaiotn – but this illustrates the sources of the increasing pressure on Toyota from the outside in the technical area from NHTSA for ..., NGOs for..., Public for ... and Allaince...all of which are demanding more active participation from Toyota

The CHAIRMAN. If Toyota wants to remain successful and regain consumer confidence—and I believe that will happen—it can happen; I believe it will happen—it needs to find this balance between quality and profits once again.

Toyota's consumers and its incredible employees deserve, themselves, nothing less. They drive Toyota cars, they're proud to work for the company, and they are, in this case, American citizens, and they deserve the full safety of the car.

And, again, the American people deserve a top-to-bottom review; the honest picture of what happened and what we are going to do moving forward.

This morning, we began an important conversation about the kind of legislation we may need to strengthen our system and prevent something like this from happening again. That legislative work will continue, as will our review of documents and oversight in the weeks to come.

The public's trust has been compromised, and the system has broken down. For the safety of millions of Americans on the road, and for the security of thousands of Toyota workers in America, let's get this right.

Thank you, to all of our witnesses, for participating and for working with our committee. I look forward to hearing from each and every one of you.

Let me just add this: We have a system in this country, where we—where our committees have oversight. We take that very, very seriously, and we need to take it even more seriously, because not all administrations are doing what—you know, Presidential administrations—are doing all that they could. NHTSA is not doing all that it should. So, we step in to try to hold a measure of clarity to all of this.

Now, with your permission, I want to call on Senator Cantwell. And I don't see Senator Lautenberg, so Senator Cantwell.

STATEMENT OF HON. MARIA CANTWELL,
U.S. SENATOR FROM WASHINGTON

Senator CANTWELL. Thank you, Mr. Chairman, and thank you for holding this important hearing today.

Toyota has built a reputation in America for its quality, safety, and reliability. Toyota introduced into our manufacturing lexicon, "lean manufacturing, kaizen, muda, root-cause analysis," and the ability of each line worker to pull on the andon cord and stop the assembly line, if they see problems.

When Toyota became aware of the 2004 NHTSA data that indicated a possible problem with sudden unintended acceleration of some of its vehicles, someone in the management should have pulled the andon cord.

Part of our collective disappointment with Toyota's response to date is that we expected more from them, given the principles under which they operate.

No doubt, entrapped floor mats do explain a percentage of the reports of unintended acceleration, but I do believe we need to explore other causes, such as electronic throttle control and electronic—and the engine control model software. A recent article in *Discovery.com* sums it up: It takes dozens of microprocessors running 100 million lines of code to get a premium car out of a driveway. And this software is only going to get more complex. Small errors in how software performs can lead to big system problems. I think of these unexplained occurrences of unintended acceleration as being part of an extreme tail of a bell-curve. It's an occurrence—a rare occurrence, but when it does happen, it can have catastrophic consequences.

I'm glad that Secretary LaHood is looking at electronic throttle controls and engine control models across the industry. I am concerned that unless all of these critical variables associated with one

of these reports of unintended consequences can be identified and then reproduced, there may not be definitive answers.

Toyota's solution is to have a brake override. It is not really a solution as much it is a fail-safe strategy.

So, Mr. Chairman, I hope that we can come up with answers today to these important questions. Beyond these concerns, I am going to be questioning our witnesses about the electronic data records, because one of the issues here is having people who've been involved in these incidents be able to have the information that gives them certainty about what's happened in these incidents.

I thank the Chairman for allowing opening statements.

The CHAIRMAN. Thank you, Senator Cantwell.

Now Senator Lautenberg.

STATEMENT OF HON. FRANK R. LAUTENBERG, U.S. SENATOR FROM NEW JERSEY

Senator LAUTENBERG. Thanks, Mr. Chairman.

Last year, when Congress and the President stepped in to help the American auto industry, there were many who said that GM, Chrysler, Ford deserved to fail. We heard cries that the Big Three were bloated, they didn't understand the American consumer, and they didn't know how to innovate. And we especially heard that they needed to be more like their foreign counterpart, Toyota. We're not hearing that anymore. And questions are raised that have a sinister appearance. Did Toyota gain market share by shortcuts on safety, by trying to minimize expenses that were to be made to make sure that everything was operating appropriately?

Toyota became the number one car company in the world because of its relentless, marketed reputation for safety. We hadn't seen that. And I'm deeply concerned that this reputation was built on a house of cards. If we learned anything from the crisis that's gripping Toyota, it is this: that if a company puts profits above all else, especially safety, consumers are the one who pay the price.

We saw in Toyota that single-minded drive for profit, when last year it bragged about internal documents that gave it a regulatory win. Toyota bragged of a win when it saved $100 million by avoiding a full recall of the 2007 Camrys and other car models. It bragged of a win when it saved millions of dollars by avoiding an investigation into the Tacoma pickup while delaying safety changes to other models. And it bragged of a win when it avoided another investigation into the Sierra minivan. With every one of these Toyota wins, Americans have been the ones who've lost.

And I come from the business world, and I know the importance of revenues to a company, and I understand what it means to work hard to make a corporate profit. I also know that striving for profits should never be so critical that it eliminates corporate responsibility. Toyota's quest for profit hasn't just placed the black cloud over this car company, it's led to death, injury, and fear among drivers all across the United States.

Matter of fact, I had someone walk up to me last night—a woman who had just ordered a Toyota—and she asked me if I thought it was safe. Well, I couldn't really answer the question. I

assume that that's—that this was an aberration; I certainly hope so.

Toyota drivers, and all Americans, are owed a complete and candid explanation about what is wrong with these vehicles. And it's clear we're still not close to getting these answers. In fact, a few days ago, a Toyota executive used language that sounded like it came right out of a crisis management playbook, explaining the company's problem. It said it had grown too big, too fast. It had misplaced its priorities, and now it will put consumers first. Nothing more than words, and they ring hollow. We need to see action and a real response, not just slick excuses created by public relations strategies.

Just as Toyota has to get to the bottom of this crisis, the National Highway Traffic Safety Administration has to do everything in its power to protect Toyota buyers and every single driver on American roads. In recent months, the agency has taken responsible steps to untangle this mess, but it's critical that NHTSA be given the resources it needs to keep our roads safe and hold our car companies accountable.

Mr. Chairman, I'm running—one page longer, if I might, or otherwise, I'll just cutoff.

The CHAIRMAN. Please go ahead.

Senator LAUTENBERG. At the same time, NHTSA must continue to stay on top of Toyota, make sure that consumer complaints are taken seriously, responded to swiftly. And I know that NHTSA and Toyota are in talks to confront the problem. But, let's get one thing straight: When it comes to safety, there's no room for negotiation.

It's my hope that Toyota, the company that has a lot of good things to say—to be said about it—there is—my hope that Toyota will start to address this crisis fully and forthrightly so that Americans will have the confidence that they're safe when they get behind the wheel of a Toyota.

Thank you very much.

The CHAIRMAN. Thank you, Senator Lautenberg.

I want to introduce our panel. The first speaker will be Mr. Takeshi Uchiyamada, who is the Executive Vice President of Toyota Motor Corporation; second, Mr. Shinichi Sasaki, who is Executive Vice President, also, of the Toyota Motor Corporation; and the third person from Toyota is Mr. Yoshimi Inaba, who is President and Chief Executive Officer, Toyota Motor North America; and then, also, Mr. Clarence Ditlow, Executive Director, Center for Auto Safety.

Mr. Uchiyamada, we would like to start with you, sir.

STATEMENT OF TAKESHI UCHIYAMADA, EXECUTIVE VICE PRESIDENT, TOYOTA MOTOR CORPORATION

Mr. UCHIYAMADA. Chairman Rockefeller and members of the Committee, thank you for inviting me to address you today.

My name is Takeshi Uchiyamada, an Executive Vice President of Toyota Motor Corporation, and I am the Chief Engineer of the growth of our company.

I was fortunate to be the Chief Engineer of the first-generation Prius. I helped run and develop the first mass-produced hybrid in

the world. And this hybrid led other automakers to realize the importance of environmentally-friendly technology.

As Toyota's president, Akio Toyoda, testified to Congress last week, Toyota's priority has traditionally been the following: first, safety; second, quality; third, volume. Our goal in developing safety-related technology isn't only to comply with regulations and standards and to strive for good safety ratings, but also to improve consumer safety in the real world. While concerns have been raised about our electronic throttle control system, this system, used by all major automakers, actually represents a great safety advancement, enabling superior traction control and electronic stability control, among other things. Because the ETCS controls the engine's throttle system, Toyota places the greatest importance on ensuring that the reliability of the system is absolute, by undertaking rigorous design and testing processes.

Three things ensure this absolute reliability. The first is the fail-safe mechanisms we built into the design; second, is its tolerance to extreme environmental conditions; and third is its resistance to software problems.

The fail-safe systems in Toyota's ETCS are robust. Our design includes two separate central processors. The main, or control, CPU calculates and executes the operating command for all engine systems. The sub-CPU monitors throttle control input, throttle control output, and main CPU processes. A watchdog signal passed between the two CPUs many times per second to confirm that the processors are working correctly. If the two CPUs are not in agreement, or either the main or sub-CPU doesn't receive the watchdog signal, the engine management system will alert the driver and go into a fail-safe mode operation. The ETCS is also designed and tested to make sure it withstands all of the foreseeable environments, in terms on temperature, moisture, vibration, and electromagnetic interference, or EMI.

We have testing data that confirms its reliability from all the markets in which we operate worldwide. OEMI—there is no regulation in the U.S., but we test the ETCS to withstand double the European regulation OEMI. In none of these cases has the ETCS failed.

In addition, we test the software in the system extensively, both in the design phase and after it is developed, to ensure that there is no possibility of sudden unintended acceleration.

I want to be absolutely clear. As a result of our extensive testing, we do not believe sudden unintended acceleration, because of defect in our ETCS, has ever happened. However, we will continue to search for any event in which such a failure could occur.

In order to further validate the safety of our ETCS, we have asked Exponent, a world-class engineering and scientific consulting firm, to conduct its own independent, comprehensive evaluation. We are also addressing the issue of unintended acceleration through new technologies, including event-data recorders and brake-override systems.

In conclusion, our Prius has changed the global auto industry with its environmental performance. Now we will strive to continue to be the leader in the area of safety. I'll help drive our team's ef-

fort to meet this challenge, ensure our drivers' safety, regain—and regain their trust and confidence.

Thank you.

[The prepared statement of Mr. Uchiyamada follows:]

PREPARED STATEMENT OF TAKESHI UCHIYAMADA, EXECUTIVE VICE PRESIDENT, TOYOTA MOTOR CORPORATION

Chairman Rockefeller, Ranking Member Hutchison, members of the Committee, thank you for inviting me to address you today. My name is Takeshi Uchiyamada. I am an Executive Vice President of the Toyota Motor Corporation, and I am the Chief Engineer for the global company.

Since I was a child, I have been interested in technology and science. Stories about great inventors such as Edison, Bell and Ford fascinated me, and I dreamed of developing a car that everyone around the world would love. From the time I joined Toyota, I have been engaged in developing vehicles and engineering technology with my wonderful and experienced colleagues.

I was fortunate to be the chief engineer of the first generation Prius. I helped plan and develop the first mass-produced hybrid in the world, and this hybrid led other automakers to realize the importance of environmentally friendly technology. What impressed me most is the fact that consumers had greater environmental awareness than we did as automakers. Our customers helped make hybrid cars popular and used widely around the world today.

Today, I would like to focus my comments on Toyota's approach to safety, our views on engine throttle control systems—or ETCS—and how we are applying advanced technology to further address the issue of unintended acceleration.

As Toyota's President Akio Toyoda testified to Congress last week, Toyota's priority has traditionally been the following: First; Safety, Second; Quality, Third; Volume. Our goal in developing safety-related technology is not only to comply with regulations and standards, and to strive for good safety ratings, but also to improve consumer safety in the real world. While concerns have been raised about our electronic throttle control system, this system—used by all major automakers—actually represents a great safety advancement, enabling superior traction control and electronic stability control, among other things.

Because the ETCS controls the engine throttle system, Toyota places the greatest importance on ensuring that the reliability of this system is absolute by undertaking rigorous design and testing processes. Three things ensure this absolute reliability. The first is the fail-safe mechanisms we build into the design. Second is its tolerance to extreme environmental conditions. And third is its resistance to software problems.

The fail-safe systems in Toyota's ETCS are robust. Our design includes two separate central processors—a main central processing unit, or "CPU", and a sub CPU. The two CPUs are both inside the engine control module and they both get the same throttle-related inputs in parallel from the engine sensor network.

The main, or "control" CPU calculates and executes the operating commands for all engine systems. The sub CPU monitors throttle control inputs, throttle control outputs, and main CPU processes. A "watchdog signal" passes between the two CPUs many times per second to confirm that the processors are working correctly. If the two CPUs are not in agreement, or either the main or sub CPU does not receive the "watch dog signal", the engine management system will alert the driver and go into a fail-safe mode operation.

The ETCS is also designed and tested to make sure it withstands all of the foreseeable environments in terms of temperature, moisture, vibration, and electromagnetic interference (EMI). We have testing data that confirms its reliability from all the markets in which we operate worldwide. On EMI, there is no regulation in the U.S., but we test the ETCS to withstand double the European regulation for EMI. In none of these cases has the ETCS failed.

In addition, we test the software in this system extensively both in the design phase and after it is developed to ensure that there is no possibility of "sudden unintended acceleration."

I want to be absolutely clear: As a result of our extensive testing, we do not believe sudden unintended acceleration because of a defect in our ETCS has ever happened. However, will continue to search for any event in which such a failure could occur.

In order to further validate the safety of our ETCS, we have asked Exponent, a world-class engineering and scientific consulting firm, to conduct its own independent, comprehensive evaluation.

We are also addressing the issue of unintended acceleration through new technologies, including event data recorders and brake override systems.

In conclusion, our Prius has changed the global auto industry with its environmental performance. Now, we will strive to continue to be the leader in the area of safety. I will help drive our team's efforts to meet this challenge, ensure our drivers' safety and regain their trust and confidence.

Thank you.

The CHAIRMAN. Thank you very much, Mr. Uchiyamada.

And now I'd like to turn to Mr. Sasaki.

STATEMENT OF SHINICHI SASAKI, EXECUTIVE VICE PRESIDENT, TOYOTA MOTOR CORPORATION

Mr. SASAKI. Chairman Rockefeller and members of the Committee, thank you for inviting me to address you today.

My name is Shinichi Sasaki, and I am an Executive Vice President of Toyota Motor Corporation, where I am responsible for quality assurance and customer service.

In my testimony, I will outline the significant ways in which Toyota is changing its approach to customer safety in light of the lessons we have learned from our recent recalls. As we look to the future, we need to ensure that we listen more closely to our customers' voices and address them more quickly and aggressively. To accomplish this, we are fundamentally overhauling Toyota's quality-assurance process, under the personal direction of our President, Akio Toyoda. This overhaul would cover the entire quality assurance process, from vehicle planning and design to manufacturing, sales, and service.

In the design stage, we previously had been focused on technical and regulatory considerations. However, we need do more consider customer expectations and real-world usage of our vehicles, even the regular use. We also will reduce the number of things we ask our customers to do correctly. While quick and accurate recall decisions are important, so, too, are the steps we can take to prevent such events during our quality assurance process. Therefore, we will intensify our focus on safety design and the principle of preventing any harm during the full vehicle life.

With regard to customer service, we will build a better network to collect customer information in a more timely manner at the site. In the tradition of Genchi Genbutsu, or "go and see," in the United States we will establish additional technical branches in several cities. This will reinforce our local customer service and allow us to deploy SWAT teams of technicians to make onsite inspections of reported instance of unintended acceleration as quickly as possible. To make this activity more useful, we will not only use EDR data, but improve our vehicle diagnostic tools.

With regard to recalls, in order to help us make timely and appropriate decisions, we will share global field information by allowing each regional staff to access to our quality network globally.

For the future, our U.S. staff will have a clear decisionmaking role. Ultimately, our goal is for the United States to have an even greater voice in decisions on vehicles and other safety and satisfaction issues.

The quality and safety of our vehicle are Toyota's lifeline. I will do my utmost to make sure that our vehicles remain among the safest and most reliable in the world, by leading and training all

Toyota quality and safety personnel in United States and all other areas.

Chairman Rockefeller, members of the Committee, these important actions reflect Toyota's unwavering commitment to restoring the reputation for quality that our company has built in the United States over more than half a century. We look forward to working with NHTSA and with Congress to advance our shared goal of improved road safety for the drivers and the general public.

Thank you.

[The prepared statement of Mr. Sasaki follows:]

PREPARED STATEMENT OF SHINICHI SASAKI, EXECUTIVE VICE PRESIDENT, TOYOTA MOTOR CORPORATION

Chairman Rockefeller, Ranking Member Hutchison, members of the Committee, thank you for inviting me to address you today. My name is Shinichi Sasaki and I am an Executive Vice President of Toyota Motor Corporation, where I am responsible for quality assurance and customer service.

In my testimony, I will outline the significant ways in which Toyota is changing its approach to customer safety in light of the lessons we have learned from our recent recalls.

We are redoubling our commitment to always put our customers—and their safety—first. We are also giving our people in North America a greater role in the quality assurance process, including recalls. And we are communicating more openly and more transparently with U.S. safety regulators and consumers.

Toyota has rigorously tested the solutions for our recent recalls and we are confident that with the repairs our dealerships are making, Toyota vehicles are among the safest on the road today. However, as we look to the future, we need to ensure that we listen more closely to our customers' voices, consider their concerns seriously and sincerely, and address them more quickly and aggressively.

To accomplish this, we are fundamentally overhauling Toyota's quality assurance process, under the personal direction of our President, Akio Toyoda. This overhaul will cover the entire quality assurance process—from vehicle planning and design to manufacturing, sales and service.

In the design stage, we previously had been focused on technical and regulatory considerations. However, we need to do more to consider customer expectations and real world usage of our vehicles, even irregular use. We need to focus even more on customer behavior, and reduce the number of things we ask our customers to do correctly. While quick and accurate recall decisions are important, so too are the steps we can take to prevent such events during our quality assurance process. Therefore, we will intensify our focus on "safety design" and the principle of "preventing any harm during the full vehicle life."

With regard to customer service, we will build a better network to collect consumer information in a more timely manner at the site, in the tradition of Genchi Genbutsu—or "go and see." In the United States, we will establish additional technical branches in several cities. This will reinforce our local customer service and allow us to deploy "SWAT teams" of technicians to make on-site inspections of reported incidents of unintended acceleration as quickly as possible. To make this activity more useful, we will not only use EDR data but improve our vehicle diagnostic tools. All of this will put us in a better position to address quality issues more promptly and accurately.

With regard to recalls, in order to help us make timely and appropriate decisions, we will share global field information by allowing each regional staff to access to our quality network globally. Although each country's staff was previously well involved in field data collection and analysis, as well as the process for considering possible action, their authority for decisionmaking was neither clear nor formalized. For the future, our U.S. staff will have a clear decision-making role. Ultimately, our goal is for the United States to have an even greater voice in decisions on recalls and other safety and satisfaction issues.

The quality and safety of our vehicles are Toyota's lifeline. I will do my utmost to make sure that our vehicles remain among the safest and most reliable in the world by leading and training all Toyota quality and safety personnel in the United States and all other areas.

Chairman Rockefeller, Ranking Member Hutchison, members of the Committee, these important actions reflect Toyota's unwavering commitment to restoring the

reputation for quality that our company has built in the United States over more than half a century.

We look forward to working with NHTSA, and with Congress, to advance our shared goal of improved road safety for drivers and the general public.

Thank you.

The CHAIRMAN. Thank you very much, Mr. Sasaki.

And now I'd like to call on Mr. Inaba, President and Chief Executive Officer of Toyota Motor Company of North America.

Please.

STATEMENT OF YOSHIMI INABA, PRESIDENT AND COO, TOYOTA MOTOR NORTH AMERICA (TMA); AND CHAIRMAN/CEO, TOYOTA MOTOR SALES

Mr. INABA. Chairman Rockefeller, members of the Committee, thank you for inviting me to testify today. My name is Yoshimi Inaba. I am the President of—and COO of Toyota Motor North America.

In my testimony, I'll address the decisive steps Toyota is taking to restore the trust of the tens of millions of American who purchase and drive our vehicles.

For 50 years, Toyota has provided Americans with cars and trucks that are safe and reliable. For the past 25 years, we have built many of those vehicles here in the United States. Our 200,000 Toyota team members at plants, dealerships, and suppliers in this country are united in their determination to provide even safer high-quality vehicles in the future.

I am honored to be joined here today by several members of the Toyota family in the United States. Their dedication to our values has helped establish Toyota's record for quality and dependability.

In recent months, we have not lived up to the high standard our customers and the public have come to expect from Toyota, despite all of our good-faith efforts. As our president, Akio Toyoda, told Members of Congress last week, we sincerely regret our shortcomings have resulted in the issues associated with our recent recalls.

I can assure you that we have learned from this experience. Here are the actions that we are taking:

First, Toyota engineers have developed effective and durable solutions for the vehicles we have recalled. Our U.S. dealers have repaired more than 1 million vehicles to date and continue to make extraordinary efforts to complete these recalls quickly and conveniently. They are literally working round the clock.

Second, we are making fundamental changes in the way our company operates, in order to ensure that Toyota sets an even higher standard for vehicle safety and reliability, responsiveness to customers, and transparency with regulators. At a global level, we have established a special committee for global quality, led by Toyota's president, to thoroughly review our operations.

In addition, we are assembling a blue-ribbon panel of distinguished independent experts to confirm that the enhanced quality controls we are putting into place conform to best industry practice. I am pleased to say that former Transportation Secretary Robert—Rodney Slater will help lead this panel.

We are also putting a system in place to better share important quality and safety information across our global operations and to work more closely with the government agencies, including NHTSA in the United States.

At the regional level, we will ensure that our customers' voices will be heard and acted upon in a timely manner. In the United States, we will deploy SWAT teams of technicians to make onsite inspections of unintended acceleration reports as quickly as possible. Our North American operations will have more autonomy and decisionmaking power with regard to recall and other safety issues.

In addition, we will establish a new automotive center for quality excellence in the U.S., where a team of our top engineers will focus on strengthening our quality control throughout the region.

At the customer level, we are taking significant steps to bolster confidence in the safety and reliability of our vehicles. Toyota will be one of the first full-line automakers to make brake override systems standard on all our new models sold in North America, including hybrids, which have a system that achieves a similar result. We also are installing brake override on seven existing models.

In addition, we have commissioned a comprehensive, independent evaluation of our electric throttle control system by a world-class engineering and scientific consulting firm. We are confident that the system is safe, but we recognize that the public seeks additional reassurance, and we will make the findings of this independent analysis public.

Chairman Rockefeller and members of the Committee, Toyota continues to produce many of the best vehicles in the world. We are proud of our heritage, and deeply appreciate the loyalty of Toyota drivers, so many of whom continue to tell us how much they love our cars.

For the future, we will revitalize the simple principle that has guided Toyota since 1937: to build the highest quality, safest, and most reliable automobiles in the world.

Thank you so much.

[The prepared statement of Mr. Inaba follows:]

PREPARED STATEMENT OF YOSHIMI INABA, PRESIDENT AND COO, TOYOTA MOTOR NORTH AMERICA (TMA); AND CHAIRMAN/CEO, TOYOTA MOTOR SALES

Chairman Rockefeller, Ranking Member Hutchison, members of the Committee, thank you for inviting me to testify today. My name is Yoshimi Inaba, and I am the President and COO of Toyota Motor North America and Chairman and CEO of Toyota Motor Sales, U.S.A., Inc.

In my testimony, I will address the decisive steps Toyota is taking—now and for the future—to restore the trust of the tens of millions of Americans who purchase and drive our vehicles. For 50 years, Toyota has provided Americans with cars and trucks that are safe and reliable. For the past 25 years, we have built many of those vehicles here in the United States. Our 200,000 Toyota team members at plants, dealerships and suppliers in this country are united in their determination to provide even safer, high quality vehicles in the future. I am honored to be joined here today by several members of the Toyota family in the United States. Their dedication to our values has helped establish Toyota's record for quality and dependability. And, we are redoubling our commitment to always put our customers—and their safety—first.

In recent months, we have not lived up to the high standards our customers and the public have come to expect from Toyota, despite all of our good faith efforts. It

is clear to us that we did not listen as carefully as we should—or respond as quickly as we must—to our customers' concerns. As our President Akio Toyoda told members of Congress last week, we sincerely regret that our shortcomings have resulted in the issues associated with our recent recalls.

I can assure you that we have learned from this experience. Here are the actions that we are taking:

First, Toyota engineers have developed effective and durable solutions for the vehicles we have recalled. Our U.S. dealers have repaired more than one million vehicles to date and continue to make extraordinary efforts to complete these recalls quickly and conveniently. They are literally working around the clock. To make the process as trouble-free as possible for customers, Toyota last week extended additional, complimentary services to owners concerned about driving their vehicle before the repair is completed.

Second, we are making fundamental changes in the way our company operates in order to ensure that Toyota sets an even higher standard for vehicle safety and reliability, responsiveness to customers and transparency with regulators.

At a global level, we have established a Special Committee for Global Quality, led by Toyota's President. It will thoroughly review our operations and make changes to ensure problems of this magnitude do not happen again. In the interest of openness, we are assembling a blue ribbon panel of distinguished, independent experts to confirm that the enhanced quality controls we are putting into place conform to best industry practices. I am pleased to say that former Transportation Secretary Rodney Slater will help lead this panel . We are also putting a system in place to better share important quality and safety information across our global operations and to work more closely and transparently with government agencies, including NHTSA in the United States.

At a regional level, we will ensure that our customers' voices will be heard and acted upon in a timely manner. In the United States, we will investigate consumer complaints more aggressively by deploying "SWAT teams" of technicians to make on-site inspections of unintended acceleration reports as quickly as possible. We are establishing the new position of Regional Product Safety Executive, and our North American operations will have more autonomy and decision-making power with regard to recall and other safety issues. In addition, we will establish a new Automotive Center of Quality Excellence in the U.S., where a team of our top engineers will focus on strengthening our quality control throughout the region.

At the customer level, we are taking significant steps to bolster confidence in the safety and reliability of our vehicles. Toyota will be one of the first full-line automakers to make brake-override systems standard on all our new models sold in North America, including hybrids which have a system that achieves a similar result. We also are installing brake override on seven existing models. This advanced system automatically cuts engine power when the accelerator and brake pedals are both depressed. In addition, we have commissioned a comprehensive, independent evaluation of our electronic throttle control system by a world-class engineering and scientific consulting firm. In our own extensive testing, we have never found a defect that has caused unintended acceleration. We are confident in the system but we recognize that the public seeks additional reassurance and we will make the findings of this independent analysis public.

Chairman Rockefeller, Ranking Member Hutchison, members of the Committee, Toyota continues to produce many of the best vehicles in the world. We are proud of our heritage and deeply appreciate the loyalty of Toyota drivers, so many of whom continue to tell us how much they love our cars.

In renewing our commitment to customer safety as our top priority, we will revitalize the simple principle that has guided Toyota since 1937—to build the highest quality, safest and most reliable automobiles in the world.

Thank you.

The CHAIRMAN. Thank you, Mr. Inaba.

And now, Mr. Ditlow.

STATEMENT OF CLARENCE M. DITLOW, EXECUTIVE DIRECTOR, CENTER FOR AUTO SAFETY

Mr. DITLOW. Thank you, Senator Rockefeller, members of the Committee.

I won't go over my earlier points from this morning——

The CHAIRMAN. Can't hear you very well.

Mr. DITLOW. Sorry.

Thank you, Senator Rockefeller and members of the Committee.

I won't go over my earlier points from this morning. I'll focus—I want to go to some policy issues.

First of all, strong regulations and effective enforcement protect not only the consumer from death and injuries in crashes, but they also protect the manufacturer's reputation by ensuring the safety and reliability of the vehicles that they sell. No one wins by cutting corners on safety, whether it's the consumer, the manufacturer, or the Department of Transportation.

Unfortunately, the Department of Transportation has not kept up with modern automobiles. The standard should lead technology, not lag behind technology. Toyota itself, during the last 10 years, has lost sight of where it was. In the 1980s, when the Camry was first introduced as one of the best vehicles in America, it had problems, but Toyota stepped up within a year, found the problems, fixed the problems, notified the consumer, and took care of the consumer. Toyota needs to go back to what it does best, which is building safe, reliable vehicles, and responding to the consumer.

But, out of all of this, Toyota and NHTSA need to move forward. First and foremost for Toyota, it needs to install the brake override on all vehicles with the electronic throttle control. To restore consumer faith in the openness of Toyota, it needs to release all the information that it submits to the government in the acceleration investigations. It needs to conduct a public engineering study into electronic controls that has experts with no ties to the automobile industry.

NHTSA itself needs to immediately set a standard for accelerators, and not the old mechanical standard that dates from 1973. It needs the brake—it needs to set a standard for electronic brake overrides for all manufacturers. It needs to upgrade the event data recorder rule. We have to have event data recorders on all vehicles. They need to be standardized, and there need to be readouts.

Finally, one of the things to come out of this is, we don't do adequate crash investigations in this country to protect—to find out what the problem is, to predict defects, to catch them before they become major crises like Toyota acceleration and Ford Explorer.

If we had a national accident sampling system at the full original design level of 19,000 crash investigations per year, we could have predicted defects like this. We would have found them earlier. We wouldn't have them buildup over 10 years before we get a recall and before manufacturers like Toyota suffer in their reputation.

Let's build a system that works, as we move forward, because it gets back to that final thing: cutting corners on safety is no bargain for anyone—the consumer, the manufacturer, or the government.

Thank you.

[The prepared statement of Mr. Ditlow follows:]

PREPARED STATEMENT OF CLARENCE M. DITLOW, EXECUTIVE DIRECTOR, CENTER FOR AUTO SAFETY

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.

The Toyota Unintended acceleration crisis which has claimed at least 56 lives was a long time building. Draconian cuts in NHTSA's enforcement budget and staffing, failure to follow up on early research into electronic controls and adopting safety standards based on the research, lax enforcement, flawed research on electronic controls, manufacturers exploiting weaknesses in NHTSA's regulatory programs, inadequate crash data collection programs and failures to implement the Early Warning Reporting System mandated in the TREAD Act all played significant roles. Even worse for consumers is that more Toyota's remain to be recalled.

Unrecalled Camrys Lead Deaths: The only Toyota Camrys being recalled are the 2007–10 model years. The Toyota that leads the known death list in unintended acceleration is the 2005 Camry—there are 5 known crashes with 7 deaths. There are 7 other crashes with 8 deaths in 2002–04 and 06 Camrys not subject to the recall according to public records obtained by the Los Angeles Times. Unrecalled 2002–06 Camrys with electronic throttle control total 12 crashes with 15 deaths compared to 6 crashes with 7 deaths for 2007–10 Camrys. The unrecalled 2002–06 Camrys have twice as many fatal crashes and deaths as the recalled 2007–10 Camrys based on public records of know 2002–10 Camrys linked to unintended acceleration.

Name	Date	State	Model Year
Barbara Schwarz	September 20, 2007	Yukon OK	2005
Anne Ezal	February 25, 2007	Pismo Beach CA	2005
Guadalupe Alberto	April 19, 2008	Flint MI	2005
Ella Mae & Lon Braswell	June 5, 2005	Athens GA	2005
Adegoke & Adeolu Aladegbemi	March 1, 2009	Marietta GA	2005
Noriko Uno	August 28, 2009	Upland CA	2006
NHTSA Withheld Name	March 14, 2004	HI	2002
Juanita Grossman	March 16, 2004	Evansville IN	2003
Blossom Malick	March 15, 2004	Delray Beach FL	2003
Ethyl Marlene Foster	March 14, 2004	Phoenix OR	2004
George & Maureen Yago	January 22, 2004	Las Vegas NV	2002
Maria Cafua	September 4, 2003	Wilmington MA	2002

NHTSA Investigations: 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 show significant weakness in the NHTSA enforcement program which:

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
PE08–025/EA08–014	2004 Sienna	Safety Improvement Campaign

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. But for the crash being caught on a 911 tape, the recent recalls would not have occurred because the crash would have gone unnoticed like so many before it.

Early Warning Reporting System Failure: When the TREAD Act was passed in 2000, Congress required NHTSA to set up an Early Warning Reporting System (EWR, named ARTREMIS by NHTSA) to prevent another Ford-Firestone crisis that led to TREAD. Obviously, it didn't work because we now have a Toyota unintended acceleration crisis. The DOT Inspector General has twice criticized EWR which costs $9.4 million to set up through 2004 and an estimated $11.5 million in operating and maintenance costs from 2005 through 2009. According to the IG:

> Although ARTEMIS became fully operational in July 2004, it does not have the advanced analytical capabilities originally envisioned to help point analysts to

> potential safety defects. For example, the system cannot automatically notify analysts if consumer-reported complaints and manufacturer-reported warranty claims are both increasing due to vehicle steering problems. According to NHTSA officials, delays in acquiring these capabilities will prevent NHTSA from obtaining full value from the EWR information manufacturers report. While ARTEMIS will automatically point analysts to deaths that manufacturers report so that trends in small numbers of fatalities can be detected, ARTEMIS will not, as currently developed, link deaths to an alleged defect or identify relationships between the categories of EWR information. In short, ARTEMIS cannot perform more advanced trend and predictive analyses that were originally envisioned as being needed to identify defects warranting investigation. . . .
>
> [T]he public will have access to only a portion of the EWR information being reported by manufacturers prior to NHTSA formally opening a defect investigation. Since only NHTSA will have access to the majority of the EWR information, it is critical that it establish procedures to ensure Congressional concerns expressed in September 2000 about NHTSA's ability to use the data it possessed to spot trends related to failures in Firestone tires have been addressed. Consequently, much will be riding on the ability of NHTSA's eight analysts, who are responsible for reviewing the large volume of EWR information and drawing conclusions about potential safety defects. This will be especially true until such time as more advanced analytical capabilities are acquired to complement ARTEMIS.

We don't know whether there are data in EWR on Toyota unintended acceleration and what use NHTSA made of it. Unless a defect investigation in the form of a PE or an EA is opened, the public does not have access to NHTSA's analysis of EWR data. One thing is clear—*NHTSA has opened hundreds of investigations under EWR which are not made public like other defect investigations*. We have gotten access to only one EWR investigation so far—Ford Explorer deaths labeled as DI06-Explorer. While NHTSA may refer to these as inquiries, CAS applies the duck test—if they look like a duck, waddle like a duck and quack like a duck, they are a duck. NHTSA's secretiveness in concealing EWR investigations is unreal but for the fact it used to conceal PE investigations. The agency just doesn't like the public to see what it's doing behind closed doors.

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. We limited our requests to just lists of EWR investigations to see if any inquiries were made to Toyota that would have given an early inquiry into Toyota acceleration but no response yet. There are only two answers to the EWR Toyota unintended acceleration defect—either (1) EWR worked and gave NHTSA a heads up which NHTSA failed to act on or (2) EWR is a $20 million flop in failing to detect the biggest defect that came down the pike since Firestone tires on Ford Explorers. In order to assess NHTSA performance, EWR investigations must be made public.

NHTSA Electronics Capability: Sudden unintended acceleration has always been recognized as a serious safety hazard. Early unintended acceleration recalls involved mechanical failures that were easy to detect and remedy. With the advent of electronic ignition systems and cruise control systems in the late 1970s and early 1980s unintended acceleration complaints without clear mechanical failures began to appear. NHTSA opened more and more unintended acceleration investigation. Some resulted in recalls for electronic control failures. The first two Toyota unintended acceleration recalls were for replacement of the cruise control computer which could cause unintended acceleration on startup.[1]

1. 1989 Sudden Acceleration Study Led to Invalid Rejection of Toyota Complaints: As investigations mounted into unintended acceleration in a wide range of vehicles, in January 1989 DOT's Transportation System Center (TSC) conducted a review of unintended acceleration in which it concluded that absent evidence of throttle sticking or cruise control malfunction, driver error must have caused the unintended acceleration.[2] *The studies by the Institute for Telecommunications Sciences in 1975 and 1976 and their detailed analytical methods were neither cited nor used. TSC also did not look at electronic throttle control or computer software malfunctions. The vehicles examined in the study were 1983–86 models, none of which had electronic*

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[1] (86V–132, 90V–040). CAS filed a defect petition (DP86–08) on vehicles recalled in 1990 which was denied as there wasn't a "reasonable possibility" of a recall. More complaints led to PE90–021 and a recall.

[2] "An Examination of Unintended acceleration," HS–807–367, Jan. 1989—Main Report, App. A-D.

throttle controls or advanced microprocessors systems found in 2002–10 Toyota vehicles.

Based on TSC's finding that brakes could stop a vehicle suddenly accelerating from startup, NHTSA ruled out complaints that the brakes failed or could not stop a unintended acceleration from startup as driver error. A classic example of NHTSA's use of the TSC study is its denial of a defect petition (DP03–003) into unintended acceleration in 1997–00 Lexus LS and GS model which had mechanical accelerator cables:[3]

> "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 unintended 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."

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.[4]

2. Phantom VRTC EMI Interference Test on 2007 Lexus ES350: 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*.

This should have been the definitive test of whether it's floor mats or electronic controls. In DP09–001, NHTSA said: "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.[5]

Safety Improvement Campaigns & Equipment Recalls: To make matters worse, in EA07–010, Toyota agreed to only do an equipment recall of 55,000 all weather floor mats, 07E–082. 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. The equipment recall saved Toyota $100 million in recall costs according to Toyota's own estimate.

The only other investigation that resulted in an action was PE08–025/EA08–014 which resulted in a Safety Improvement Campaign which is not even recognized under the Motor Vehicle Safety Act. After a private meeting between NHTSA and Toyota including three former NHTSA employees representing Toyota (Erica Jones,

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[3] Defect Petition DP03–003 Denial.

[4] NHTSA Memo to File by S Yon Restricting Scope of PE04–021 Investigation, March 23, 2004.

[5] CAS Letter to NHTSA Administrator David Strickland—2/2/10.

Chris Tinto and Chris Santucci),[6] *Toyota Vice President Chris Tinto agreed to only a Safety Improvement Campaign as follows*:

> Thank you for taking the time to meet with me and my staff on October 14. Toyota has taken your message seriously and is extending this offer to conduct a field action in order to address the concern raised in EA08–014, an investigation into the Toyota Sienna. . . . Toyota has not determined that the condition at issue in EA08–014 is a "safety-related defect" within the meaning of the Federal vehicle safety laws, and—a summarized below—it continues to believe that no such defect exists.

How anyone can say unintended acceleration is not a safety defect.

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. NHTSA defends Safety Improvement Campaigns as the only thing they can get the manufacturer to do because the manufacturers otherwise just say no. This is a self-fulfilling prophecy.

The latest manufacturer to join the "just say no" group is Honda on February 26 which refused to do a safety recall on 2005 Honda Odyssey minvans for tailgate lift struts that fail because NHTSA had let Toyota get away with Safety Improvement Campaign on its minivan. The Honda refusal is all the more troubling because NHTSA had conveyed a rare Safety Panel that approved sending a letter to Honda requesting the company to do a voluntary recall. When Honda just said no, the agency blinked and agreed to the non-statutory recall.

Toyota Knew and Exploited NHTSA's Regulatory Weaknesses: From 2001 to the October 2009 floor mat recall (09V–388) generated by the August 2009 San Diego crash, all NHTSA's enforcement effort got was an ineffective equipment recall that saved Toyota $100 million and a Safety Campaign that's not enforceable under the law. Why? First, Toyota knew the investigatory system and exploited it. Only some acceleration complaints were submitted. It knew the agency had limited resources and would agreed to do remedies less than a full vehicle recall because the agency needed to 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.

1. Lax Enforcement Program: Toyota was well aware of the fact that from 2004 to 2008, the agency stopped imposing civil penalties for failing to do timely recalls and only imposed $150,000 in penalties since then even though Congress increased the maximum penalty from $800,000 to $15 million inflation adjusted to $16.4 million in the 2000 TREAD Act. In August 2004, NHTSA imposed a $1 million fine, about 7 percent of the maximum against GM in a W/S wiper recall. In the 1970s NHTSA used to routinely obtain fines from $100,000 to $400,000 which represented up to 50 percent of the maximum fine instead of 7 percent.

2. Inflated Influenced Recall Statistics: NHTSA tries to make its recall record look good by referring to 524 recalls involving 23.5 million vehicles obtained as a result of its investigations. These numbers are not what they seem to be. First, 9.3 million came from Ford Cruise Control Deactivation Switch Fire recalls where the agency first launched an investigation in 1998 and got a small recall in 1999. After parked Fords starting catching on fire in garages and burning houses down, NHTSA belatedly opened more investigation and obtained more recalls. But not until October 2009 did NHTSA obtain the last of the Ford Cruise Control Deactivation Switch Fire recalls, some 11 years after its first investigation. Rather than being a regulatory success, this is a regulatory failure.

The number of recalls is unduly inflated by very small vehicle recalls influenced by a single equipment recall. For example, Dometic made defective refrigerators for recreational vehicles and trailers which resulted in a single equipment recall but 77 vehicle recalls in 2008. Similarly, Ricon made defective wheelchair lifts that resulted in two equipment recalls but nearly 100 vehicle recalls of just a few vehicles each. In each case, the real influenced recall was the equipment recall and the vehicle recall inflated the numbers cited by NHTSA. The 524 recalls should be more less than 300 recalls when the incidental small vehicle recalls are excluded..

3. Reduced Budget and Programs: In 1980, there were 146 million vehicles on the road. Today there are 256 million. In 1980, there 119 people in enforcement, today there are only 57. In 1980, NHTSA had 2 cents per vehicle for enforcement, today

[6] S. McHenry Memo to EA08–014 File, October 15, 2008.

it has less than a penny. The agency doesn't have its own test facility and must rent space from Honda in East Liberty OH. Any way one looks at it, the agency is underfunded. In terms of safety, the best way to look at it is motor vehicles are responsible for 95 percent of the Nation's transportation deaths but only 1 percent of the Transportation budget.

4. Crash Investigations: The National Accident Sampling System (NASS) is another system that could have helped detect Toyota unintended acceleration earlier. The current budget is just over $12 million and investigates only 4,000 crashes per year. This compares with a budget of around $10 million per year in the early 1980s providing about 10,000 cases. The original design would have produced nearly 19,000 cases per year which, at current costs, would require a budget of around $60 million.

Had NASS been operating at its original design size, the agency could have spotted the problem with Firestone tires on Ford Explorers much earlier. The savings in life and limb from that discovery, even a few months earlier, alone would have been sufficient to cover the extra cost of NASS at its full design size. Explorers were introduced in 1990 and the defective Firestone tires were on some of the earliest models. If the excessive Explorer rollovers resulting from failures of Firestone tires could have been spotted by the mid-1990s, it could have saved hundreds of lives and at least one billion dollars for Ford & Firestone.

Conclusion: Toyota and NHTSA need to move forward. First and foremost, Toyota needs to install electronic brake override systems in all vehicles with electronic throttle control. Toyota must also agree to releasing all information submitted to NHTSA during the investigations and agreed to conduct a fully public engineering investigation of its electronic controls with independent scientists and engineers with no ties to the auto industry.

NHTSA needs to issue safety standards that:

- A new accelerator standard requiring fail-safe protection that updates the existing 1973 standard, which was written before the advent of electronically controlled accelerators.
- A standard requiring electronic brake override in all automobiles.
- A standard providing electronic magnetic interference protection.
- A standard mandating installation of Event Data Recorders, standard read outs for them and the collection of more information including on rollover crashes.

NHTSA needs to make public all its EWR investigations. Full minutes of all meetings with auto industry officials must be made public to prevent secret deals in all types of investigations. All submissions by manufacturers in investigations must be sworn under penalty of perjury. Elimination of non-statutory recalls such as Safety Improvement Campaigns and regional recalls where only some vehicles in some states get recalled. The whole enforcement program needs to be reinvigorated beginning with assessment of penalties at the top of the scale rather than the bottom. When people are killed by vehicle defects, fines should not be measured in a few dollars, if not a few cents per vehicle.

The CHAIRMAN. Thank you, Mr. Ditlow.

I will ask the first question. And then Senator Wicker, from Mississippi, who said he'll back in time, is acting today as the Ranking Member, and he will ask the second question. We will go on from there.

Mr. Sasaki, last week, Mr. Lentz, the President of Toyota Motor Sales USA, testified that he had no authority to recall Toyota vehicles sold in the United States when those vehicles have safety problems. Now I believe either Mr. Inaba or Mr. Uchiyamada indicated that that's going to change, but I want to probe that. Is that an accurate statement, as of now?

Translator for Mr. SASAKI. Let me answer. It is true that North American member was not officially included in our recall decision-making process. And we believe that we were taken into consideration the opinions of those members in North America sufficiently. However, we realize that, as you pointed out, our old system may have caused some concern or suspicion on the part of the United States or North American marketplace. Therefore, in order to im-

prove this, we have decided to include someone who is very well familiar with the North American market situation to become a panel member, a very important panel member that would be involved in the recall decisionmaking process. And this inclusion is an official one.

The CHAIRMAN. And will—when will that system start?

Translator for Mr. SASAKI. Our North American entity has already selected candidates for this particular position. So, although I hope that we wouldn't have to come to that in near future, however, should we have to come to this, then this new system will be deployed immediately.

The CHAIRMAN. Let me ask—we have two members—Mr. Sasaki, you and Mr. Uchiyamada, who are full board members—and actually, special board members of the Toyota Motor Corporation. So, I just—I can't help but wonder when this shift began to take place. It came as a surprise to me, but it evidently has taken place for some time now, enough to affect quality, and your president has so indicated. Was that a board decision? Was that just something that evolved? How did that come to pass, that there was the—a little bit less adherence to quality and safety, which is what I always associate Toyota with, and the desire to become the largest company in the country? That's a—that is a shift that was caused by something, some decision to take place, and I'm curious.

Mr. INABA. May I step in?

Translator for Mr. SASAKI. Allow me to answer. As our President indicated in the House hearing last week, we really did not keep pace with our business expansion, our reinforcement of the human resources of the quality assurance.

How this issue came about is because there were many vehicle—excuse me—many voices were sent to us from the customers, but we really did not listen to every one of them very carefully, one by one. We should have really listened to them carefully and rendered some technical analysis so that it would be connected to our following product improvement. However, the quality of this work or the efficiency of our work or speed with which we worked had become sluggish, or sort failed gradually, and this has come to a much larger issue. And we have taken this very seriously and reflected upon it very seriously. And then, as we said earlier, we have changed our system, and we are to improve our system very drastically and very greatly, and we are working on it very hard right now.

The CHAIRMAN. Mr. Uchiyamada, we have a rule here that each questioner can only ask 5 minutes of questions, and my time has run out. I will come back.

Mr. Wicker—Senator Wicker is not here now, so I'll call on Senator Cantwell.

Senator CANTWELL. Thank you, Mr. Chairman.

I think I'll direct my questions to Mr. Inaba, but if someone else knows the answer, that's great, as well.

But, Mr. Inaba, under what circumstances does Toyota make available the contents of its electronic data recorder?

Mr. INABA. I'll be glad to answer it, but Mr. Uchiyamada is a specialist or——

Translator for Mr. UCHIYAMADA. At this time, all the Toyota vehicles have the electronic data recorder, or it is set in such a way that the event electronic data will remain. And it is not the case whether this is disclosed or not disclosed; however, because there is a special interface that we use, it is—it just turns out in such a way that only Toyota read it out.

Senator CANTWELL. I——

Translator for Mr. UCHIYAMADA. May I continue?

Senator CANTWELL. Yes, go ahead.

Translator for Mr. UCHIYAMADA. We believe that such data should become more public, and therefore, we are trying to make this data available to other entities than ourselves. And indeed, we are trying to provide 100 such data recorders by early April, and 150 units of such recorders by the end of April in North America.

Senator CANTWELL. Can I——

Mr. UCHIYAMADA. Ah, sorry.

Senator CANTWELL. If I could, because we only have 5 minutes. So——

I'm asking this because one of my constituents' son died in a single-vehicle crash, driving one of the recalled 2007 Toyota Tundras. His parents have the truck's EDR, and have requested the company to give them access to the software to read its contents. Toyota has turned them down. In my State, there is a law pending, in the Washington legislature, as a result of Toyota's refusal.

So, I want to know, is it possible that you will provide—can you provide that information to Mr. Eves' family, so that they can have this data and information?

Mr. INABA. We'll be glad to do so. And this is our also desire to find out what has happened. I'm very, very sorry about what has happened to that family, but we will be—as Mr. Uchiyamada said, that, you know, 100 units are going to be made available by 1st of January, or beginning of January.

And also, just for your information, that we are delivering first three units to NHTSA tomorrow. And also, at the same time, we are dispatching our engineers to train how to use it. So, we are doing this just tomorrow.

Senator CANTWELL. Does Toyota collect and store all the information?

I should say thank you for that. We will look forward to getting that information as soon as possible.

Does Toyota collect and store all the information from EDRs it decodes? And what does the company do with the information?

Translator for Mr. INABA. I am not 100 percent sure. However, so far in the United States, when the data or information was requested by entities such as NHTSA, police, or courts, we would submit that data to them. And I would assume that they are the one who is keeping them.

Senator CANTWELL. But, isn't all this valuable information in preventing accidents in the future and collecting it and seeing trends and seeing information?

Translator for Mr. INABA. I think you're completely right. I think we should utilize those data more actively to elucidate the cause of accidents in other matters.

Senator CANTWELL. And is there some reason that it is not standardized, as it is among U.S. manufacturers, why that data device isn't an open interface that is readable by other individuals? Is there some reason why U.S. manufacturers do that, and Toyota doesn't?

Translator for Mr. INABA. I understand that, at this time, some makers make it open and there are others who don't make them open, so it is not really a uniform state.

Senator CANTWELL. I see my time has expired, Mr. Chairman, but I think this is an issue for us to continue on and look at and investigate.

The CHAIRMAN. Senator Cantwell, I have decided that, because of translation, each member will have 7 minutes, rather than 5.

Senator CANTWELL. OK.

The CHAIRMAN. So, you have another 2.

Senator CANTWELL. OK. OK.

Well, if I could, then, along that line of questioning. Obviously, this is a big contention among the victims of people of these accidents, that they can't get access to this information. There's only one electronic data recorder. And so, I know you think maybe making a move to 100 is a big step, but when other manufacturers have this as information—and then I would assume that that data and information, analyzed by lots of different people, could yield important information. So, besides the 100 devices, when will you try to make it an open interface?

Mr. INABA. Let me address that. I think, by middle of 2011, we're working with vendors, and therefore, it is going to be commercially available ahead of regulation—ahead of time of regulation.

Translator for Mr. UCHIYAMADA. As Mr. Inaba mentioned, we would like to make this interface open, or public, so that it can contribute to the—finding out the cause of the accidents. And not just waiting for that to happen; as I said, we would like to bring more data readers to the United States so that this will also help to make this information available.

Senator CANTWELL. And NHTSA has—would also have this information, and make it available, if necessary? And NHTSA would have this information and could make it available, if necessary?

Translator for Mr. UCHIYAMADA. That is correct. We will be handing over our recorders—readers, rather, to NHTSA.

Senator CANTWELL. Thank you, Mr. Chairman.

The CHAIRMAN. Thank you, Senator Cantwell.

Senator Wicker.

STATEMENT OF HON. ROGER F. WICKER,
U.S. SENATOR FROM MISSISSIPPI

Senator WICKER. Thank you very much.

And let me say—I was out of the room when this hearing began, this afternoon—it's just—it's wonderful to see Senator Lautenberg back and looking so good. He's had his first treatment, and he tells us that it's good for weight loss. But, Frank, you're looking——

Senator LAUTENBERG. You should try it.

Senator WICKER. I don't want to try it.

[Laughter.]

Senator WICKER. But, it's—well, I think I speak for everyone, it's wonderful to see you back and looking so great.

Let me ask my question about three analyses of the electronics. You have the December 2009—and I'll ask this of Mr. Ditlow and whichever representative from Toyota would like to volunteer to answer this question—you've got the one in 2009, commissioned by Toyota to an outside firm, Exponent. And it's my understanding that there has been an interim report confirming Toyota's contention that the unintended acceleration events could not be caused by the ETC system because the fail-safes are successful in preventing it.

Now, you have another study called the Gilbert study. This is a study paid for by, basically, plaintiffs' lawyers and people interested in bringing a lawsuit against Toyota, which they have a perfect right to do. Professor Gilbert is a professor at Southern Illinois University, and he did a study that determined that the system did not properly detect electronic malfunctions. And, of course, we understand that Toyota disputes these results, saying that Professor Gilbert's tests required a manipulation of the system that cannot actually happen on the road during driving conditions.

And then, let me ask about the 2007 study, done by NHTSA on the Lexus, where, basically, they concluded that there was no defect in the electronics system. And I understand, Mr. Ditlow, that you have been critical of that 2007 study. I'll let you speak for yourself.

But, I'd like to ask Toyota and Mr. Ditlow about those three analyses, and ask, When this sort of thing is done, are they peer-reviewed? Who takes an outside, objective look at it? The people who have a claim against Toyota have a perfect right to hire an attorney and hire someone to make an assessment. Toyota has a perfect right to pay Exponent to do an assessment. And the NHTSA assessment, I guess that was done internally, perhaps. They contracted that out.

But, is there an accepted peer-review process to look at the methodology and tell us whether it was skewed one way or the other, whether the table was tilted in one direction or another, or whether it was absolutely called by the numbers?

So, I'll let Mr. Ditlow go first, and then Toyota——

Mr. DITLOW. Senator——

Senator WICKER.—can volunteer.

Mr. DITLOW.—there certainly is a known peer-review process to review any scientific test and study. None of the three studies that you cite have yet been peer-reviewed. And our—taking the early——

Senator WICKER. Even the 2007——

Mr. DITLOW. No. As a——

Senator WICKER.—study?

Mr. DITLOW.—matter of fact, there's nothing to peer-review, because the government has no data from that test on the electronics. It has no test procedure that it did. So, if you called in a panel of scientists to look at the information on the testing, there is no information to look at.

I know that this is difficult to fathom, but I called up the—we filed a Freedom of Information Act request, didn't get any data,

didn't get any procedure. I called up the government, and I said, "Are you sure? You know, speaking as an engineer, you have to have data, you have to have a procedure." And they said, "No, we have nothing other than the conclusions. It is what it is." So, you can't peer-review something that you don't have.

But, certainly, as to the Southern Illinois University study, certainly as to whatever Exponent is going to do, it could and should be peer-reviewed.

Senator WICKER. I see. OK. And who will speak for Toyota?

Mr. INABA. Let me start first, and then my colleague will supplement that.

Senator WICKER. That will be fine.

Mr. INABA. First of all, to that question that—I have said in my testimony that we have asked The Honorable Rodney Slater, who is the ex-Secretary of Transportation, as our outside adviser, who set up a panel. And we will also ask him, specifically, that he can set up a different—from Exponent—laboratory or whatever he chooses appropriate, so that they can test again our ETS system. Of course, as far as Exponent is concerned, it is also very well reputated, you know, consulting firm, and when the final report is available, we will certainly make it public.

Translator for Mr. UCHIYAMADA. I would like to talk about the Exponent case, and also Dr. Gilbert's report.

We have asked Exponent to conduct this investigation and evaluate this. We have really asked them to do it completely independently; we have not interfered with them at all with regards to the method they might apply.

So—I'm sorry—so, I think we can call it a pure third-party evaluation.

With regards to Dr. Gilbert's experimentation, we have tried to recreate that, based on our, sort of, estimate, and we were able to reproduce his result; however, this we could do only in the laboratory, and we believe it is extremely unlikely or very difficult to reproduce in the real world.

We also used other car manufacturers' vehicles to do this experiment, and we were able to create the same result, using other vehicle makes.

Senator WICKER. Well, thank you, Mr. Chairman. And it's just amazing how quickly 7 minutes rolls past. Let me just suggest to you——

The CHAIRMAN. Seven minutes and 40 seconds.

Senator WICKER. That's right.

[Laughter.]

The CHAIRMAN. 43.

Senator WICKER. Let me suggest, in the next 10 seconds, that there is an entity called the National Academy of Sciences that does independent peer reviews. And I've found, in my experience, 14 years in the House and Senate, that they can be relied upon to call it by the numbers. And I would simply suggest, to this panel and to colleagues, that it might be worthwhile to ask NAS if they're interested in performing an outside, independent, peer review of all three of these analyses so that the Committee can benefit from it.

Thank you, sir.

The CHAIRMAN. Thank you.

Senator Dorgan.

Senator DORGAN. Mr. Chairman, thank you very much.

STATEMENT OF HON. BYRON L. DORGAN,
U.S. SENATOR FROM NORTH DAKOTA

I've been sitting here thinking about—I—about 4 months ago, I responded to a want ad and purchased a 2003 Camry for my daughter, who's an upperclassman in college. And I did that because the want ad seemed appealing to me, and I knew that Toyota was a car with quality and reliability. And I have to tell you that, as I've read and studied what has gone on in this issue, I am enormously troubled by Toyota's response, going back some 7 or 8 years, to this issue of acceleration—unintended acceleration. I just think the customer, and certainly, the Federal agencies, would expect more of, and expect better of, your company.

Now, I want to ask several questions.

First, Mr. Ditlow, you said, in your testimony, that of the 2002 to 2010 Camrys linked to unintended acceleration, the unrecalled Camrys have twice as many fatal crashes and deaths as those who have been recalled.

Mr. DITLOW. That's correct, Senator.

Senator DORGAN. Are you confident with those numbers?

Mr. DITLOW. Yes, I am. I expect that the numbers will increase as more investigation is done. We have two other cases right now that we're looking into.

Senator DORGAN. All right.

And, Mr. Inaba, let me ask you, then—if Mr. Ditlow is correct, that of the fatal crashes of Camrys between 2002 and 2010 linked to unintended acceleration, if there are twice as many that are not recalled as there are that have been recalled, doesn't that raise real questions about whether the recall is extensive—or as extensive as it should have been?

Mr. INABA. Senator, I am not personally aware of that information, and therefore, I would ask Mr. Ditlow to give us some information and look into it, and maybe get back to you later on.

Senator DORGAN. If the information is accurate, as Mr. Ditlow presents it, would you reach the same conclusion I have reached, that recalling a body of automobiles that has only half the rate of fatalities of unintended acceleration is hardly the answer? You would want to recall particularly those that have twice the rate.

Mr. INABA. I should not speculate, but that shouldn't be the case.

Senator DORGAN. All right.

Let me ask you, Mr. Inaba, and whomever else wishes. And then I ask about this accelerator, so I want to have the time.

You have indicated in your testimony—Mr. Uchiyamada, you said, "As a result of our extensive testing, we do not believe sudden unintended acceleration results because of a defect in our ETCS. In fact, we don't believe it's ever happened."

And then, Mr. Inaba, you have said, "We are taking significant steps to bolster confidence," and then, down later in that paragraph, "We have never found a defect that has caused unintended acceleration."

I think what I hear you saying is that you're doing things here to bolster confidence, but you don't believe there was a defect that

caused the unintended acceleration. Is that what you are saying to us?

Translator for Mr. UCHIYAMADA. It also depends on the result of the tests. However, we have sold, so far, over 40 million vehicles that has ETC on them, and there was not a single case where we could identify that an ETC defect was the cause of unwanted or unintended acceleration.

Senator DORGAN. So, your position is, you don't, at this point, think there's a defect in the accelerator or the throttle sensors that has caused sudden acceleration, if that's the case. I just want to try to understand what you're saying to us.

And then I want to ask this question, finally. Mr. Wicker mentioned the study by Professor Gilbert of Southern Illinois University. I don't know the veracity of that study; I mean, it's very technical, I'm sure. But, I want to show a chart that I believe—this is a chart—a photograph that is on your own website, and it shows some technical data with respect to sensors.

The first image shows how the sensors in the accelerator pedal send signals to the engine computer. And Professor Gilbert apparently wrote that this model has the potential for the engine computer not to recognize a short circuit in the pedal sensor. And I think you've indicated that you're not—you don't necessarily agree with that conclusion.

But, then there's another sensor on the throttle valve, inside the engine, and that is the second chart. And Toyota uses—and by the way, this is a different sensor—Toyota uses sensors that correspond to the second picture. Most automotive users—most automakers, rather, use the type of sensors on the second. Both—for both the accelerator pedal and the engine throttle, Toyota, alone, I believe, uses the better sensor on the engine throttle control, but the less reliable sensor on the accelerator pedal.

And so, I guess my question is, Why does Toyota use a different and, at least concluded by some, a less reliable sensor on the pedal assembly than most other manufacturers use? Is it a cost issue, or what has pushed Toyota into that judgment? Who could answer that question?

Translator for Mr. UCHIYAMADA. We do not—we never use a sensor less reliable because of the cost.

We put together a system under which the two sensors do not really give out the same values at the same time. By so doing, we could examine the validity of the signaling system.

Senator DORGAN. All right. I'd like to inquire, with a written question, a bit more about that subject.

And let me, again, just make this point, if I can. I think what you are saying to the Committee is, you are doing a lot to try to establish reliability once again. I don't think there's any question that everybody in this room has read the ratings, over many, many years. Toyota has been a brand that has inspired confidence and reliability and dependability and quality and so on. But, I do think that even those of us who have purchased that vehicle have some great concern about what we have learned in the recent months about the company's response to the questions of sudden acceleration. And I am especially interested and also concerned that you're saying to us that the sudden acceleration issue is not, in your judg-

ment, resulting from a defect in the electronic system of a throttle or an accelerator pedal. I mean, it seems to me to be at odds with what many others believe to be the case.

And so, you're doing a lot of things with respect to recall. You've got—I know you've got good men and women who are working 24 hours a day, trying to call vehicles into dealerships and so on. But, is it because you think there is no defect, just because you're trying to instill some greater notion of reliability?

Translator for Mr. UCHIYAMADA. As I said, there is not a single case that ETC's failure lead to unwanted, unintended acceleration at this point. However, we would like to do the following to ensure the safety of our product:

First point is, it could be possibly National Academy of Sciences utilizing a third-party organization to do another evaluation.

For example, right now when you look at the notations the vehicle speed control of a NHTSA database—of course, this is something that we should probably work with a third party—but, as far as we could see it, more than half of those complaints related to non-acceleration.

Mr. UCHIYAMADA. [Japanese.]

The CHAIRMAN. After your translation, we have to go on to the next question.

Translator for Mr. UCHIYAMADA. So, we would like to continue our effort to elucidate these things one by one. Another thing we might be asking is asking NHTSA to give us the VIN number of a certain event. We are deploying our SWAT team and sending a SWAT team to the site of the UA. When that is reported, we would like to utilize the event data recorder data. We want to, you know, do various things, and we really want to work on this.

Mr. INABA. We are very eager to find out.

The CHAIRMAN. Thank you very much, Senator Dorgan.

Senator Klobuchar.

STATEMENT OF HON. AMY KLOBUCHAR,
U.S. SENATOR FROM MINNESOTA

Senator KLOBUCHAR. Thank you very much, Mr. Chairman.

As you can imagine, you have a lot of loyal customers in Minnesota, and a group that hasn't been mentioned today, a lot of loyal auto dealers who have been, of course, hurt by this, as well, and are doing everything to meet the requirements of the recalls, and want to do that.

Do you know, Mr. Inaba, how many vehicles have been recalled so far and how many remain to be fixed?

Mr. INABA. Well, talking about two recalls that—related to this unintended acceleration, we have about—in total, 5.3 million customers, and we have them—more than 1 million. We are rigorously doing as quickly and as conveniently as possible, with the dealers really fully backing us up. And I really respect that—you know, the effort they are doing.

Senator KLOBUCHAR. And do you know how many remain to be done?

Mr. INABA. Oh. So, obviously, there are about 4 million. And we'd like to do it as quickly as possible.

Senator KLOBUCHAR. OK. Thank you.

And then I—my major focus this morning was—as worthy as a discussion is about what you're going to do to fix these cars, which incredibly important, how you're going to deal, legally, with some of the victims and their families and things like that—but, my focus is on our own government and their relationship with Toyota and other industry players, and how we do a better job of regulating, so that when we go forward, we're going to be able to do a better job.

And so, I was obviously concerned by this PowerPoint presentation that was—came out in the last week. And I just—where it talks about "wins" for Toyota. And I understand businesses have to do well and get wins and move ahead. But, to me it seems like these were wins for Toyota but, arguably, losses for American customers. And this was the document that was presented to you by Toyota's Washington, D.C., office? Is that correct?

Mr. INABA. That is correct.

Senator KLOBUCHAR. And what does it mean when they talk about "wins for Toyota," here?

Mr. INABA. Well, first of all, this is only after few days after my arrival to the United States, and then this is the very first orientation material by our Washington office. And to be honest, I do not recall the meeting or the data in any depth. And I reread it again, and I'm very embarrassed. First of all, this—tone of this information is so inconsistent with our company guiding principles and also my beliefs. And, of course, you can, you know, expect that, you know, first time, president coming to the office and they try to impress me.

Senator KLOBUCHAR. And——

Mr. INABA. And, let me—may I?

And I think this is somewhere—you know, a small sample, a big universe. I want to believe that. But, at the same time, this is my job. If there's any element of this thinking around any organization somewhere, my job is to really rectify it and make sure that this not going to happen anymore.

Senator KLOBUCHAR. And I don't know if you've talked to anyone since, but you know what they mean when they say, "negotiated equipment recall on Camry, yes, regarding SA," which is, of course, the sudden acceleration, "which saved $100 million-plus, with no defect found." What do you think they meant, when they said, "no defect found"? Was that note that the—NHTSA hadn't found a defect?

Mr. INABA. I don't know. I mean, I don't know the basis of calculation of $100 million or so. Or I—using the word "negotiation" is the wrong one, in my opinion. It should be a discussion. And therefore, I think there is an element that I have to really go into and then rectify it.

Senator KLOBUCHAR. And do you know if the people involved, with whom Toyota was negotiating—one of my concerns is, right now there are some NHTSA employees that are in Toyota's Washington office. Were any of those employees involved in this—former employees involved in this negotiation?

Mr. INABA. Well, they are the—I must say, a window person to day-to-day basis and discuss issues with NHTSA; that's correct. And two of them came from NHTSA—one fifteen years ago, and

second one is 6 years ago. I know them personally by now, and they are of very high integrity. I really respect their expertise, and we value them—not their influence, but their expertise. And I think also they came from a very union staff. And it's hard to sort of imagine that they can exercise any strong influence rather than expert. And I really value their work they're doing.

Senator KLOBUCHAR. And I understand that under the current rules, this wasn't, arguably, a violation—it was, like, a 1-year ban—but they were involved in these negotiations, then.

Mr. INABA. Discussion.

Senator KLOBUCHAR. Discussions. OK.

Mr. Ditlow, I went through with—earlier, with Secretary LaHood and Administrator Strickland, some ideas for how we can fix this, going forward. And I just want to throw them out there again, because that's what I'm most interested in. When I'm talking about "fixing," it is fixing the relationship between the government regulators, who are—our public, and my two customers, and many more in Minnesota, who had these acceleration events, and one was so bad for 6 miles that it burned her hubcaps—the brakes did. And fortunately, both of them survived. The things I threw out there was the resource issue, the procedural tools for NHTSA, so that they, maybe, can move things quicker when they want to do their own recalls. The fines which are, in this case, maybe as much as—the cap may be something like $16 million, compared to the $100 million saved—that's right up here on the chart—seems to be not a good balance. And the fourth thing I raised was this—doing something differently with the rules so that people won't be negotiating that used to work at NHTSA.

Could you talk about what's your favorite of those choices, and if you think they all would be helpful?

Mr. DITLOW. We have a—in terms of favorite, could you repeat——

Senator KLOBUCHAR. I'm just asking what you——

Mr. DITLOW. Yes.

Senator KLOBUCHAR.—think should be our highest priority, as we go forward, to try to change the situation.

Mr. DITLOW. Well, in the near term, the highest priority has to be to get electronic brake overrides in not only the recalled Toyota vehicles, but——

Senator KLOBUCHAR. I totally understand that that's our——

Mr. DITLOW. Yes.

Senator KLOBUCHAR.—first priority. I am talking about the government agencies——

Mr. DITLOW. Yes.

Senator KLOBUCHAR.—who to—seems to me, need to do their job differently so that people who file complaints feel like they're going to get an answer, and feel like they're going to get an answer when there's a rash of complaints that's consistent with what's going on here.

Mr. DITLOW. Well, the government has to totally revamp its investigatory system. It has to recognize that it is, in fact, the cop on the beat; it's not Mr. Nice Guy. They need to go back and look at what the agency was doing in the 1970s, where the only thing that we had were safety recalls. We didn't have safety improve-

ment campaigns. We didn't have regional recalls which excluded some parts of the country. The agency needs to, when it does an investigation, look to obtaining a full recall of the vehicles, not something that will save the manufacturer some money and get a quick out.

But, the other thing is, the agency doesn't have the resources to do it. They simply move on from one investigation to another. There's always another one that's in the back of their mind. But, they need to do a good job on the one that's before them before they move on to the next one.

Senator KLOBUCHAR. OK. Thank you——

The CHAIRMAN. Thank you——

Senator KLOBUCHAR.—very much.

The CHAIRMAN. Thank you, Senator.

And Senator LeMieux.

STATEMENT OF HON. GEORGE S. LEMIEUX, U.S. SENATOR FROM FLORIDA

Senator LEMIEUX. Thank you, Mr. Chairman. Thank you for holding this hearing.

I want to thank Mr. Uchiyamada, Mr. Inaba, Mr. Sasaki, and Mr. Ditlow for being here today.

It occurs to me, in listening to the testimony, that when we're talking, as my colleague did, about pedal sensors and engine computers and microprocessors, that these cars are very complicated. And gone are the days when we, as consumers, could understand how these vehicles operate. And as these cars become more complicated, I believe the burden is more on the manufacturer to make sure that things operate properly. This is not my old 1966 Mustang that I could work on under the hood and maybe figure something out; these are extremely complicated vehicles.

My wife and I have one of your cars. She drives an SUV and puts our three small kids in the back. So, when I learned of this, I did probably what most families do, and I went home and had a conversation with my wife about what she should do if her car accelerated out of control, whether it was a floor mat or some other problem. That's not a good conversation for us to be having, in terms of your company. And I want to echo what my colleague, Senator Cantwell, said, part of our disappointment is because of the reputation you have for being such an excellent purveyor of quality cars.

Many of these issues have already been discussed. I understand what you're doing now, and I applaud you for doing it, with the independent evaluation, and I applaud you for the efforts that you're taking. My concern is how long you've known about this problem, and the efforts that you took in the past.

We have been given—and I believe that the Chairman has entered this into the record—a PowerPoint presentation that was given, on September 20, 2006, by Mr. Jim Press, who was the President of Toyota Motor North America. I guess that was your predecessor, Mr. Inaba. Is that correct?

Mr. INABA. Yes, correct.

Senator LEMIEUX. And this document looks like it was a slideshow presentation. Could someone from Toyota provide infor-

mation to us as to where this presentation was given and to whom it was given?

Mr. INABA. I do not personally know that document. But, we will certainly get back to you with more information about that.

[The information referred to is in the appendix.]

Senator LEMIEUX. Is there anybody from Toyota who's familiar with this document who's here today?

Mr. INABA. Not from the three of us.

Senator LEMIEUX. OK. Well, let me read to you—because I'm reviewing these documents, Mr. Chairman, as they've been presented to us. This is a slideshow presentation about a new era for Toyota and TMA in North America. And it goes through several issues, including safety issues. And there are notations, in back here, which are notes to this slide presentation. And on the document that has as its ending Bates number 25, there is reference to slide number 25, and it says the following: "Our ability to manage the tide of safety investigations rests largely on our ability to work well with NHTSA. Over the last few years, we have seen our relationship begin to slip slightly with NHTSA. The reasons are complex. They include a combination of increased recalls, more investigation, and tougher negotiations between Toyota and the agency. Not all of the recall increase can be blamed on slipping Toyota quality." And it goes on from there.

None of you have—I guess, have seen this document, but this is from the former President of Toyota Motors North America, or at least it contains information that he, I guess, presented or had presented to him. And I'm worried about some of these phrases, about "managing the tide of safety investigations." I'm concerned about "not all of the recall increase can be blamed on slipping Toyota quality."

And to the point that was made before, this looks like more of an effort to get in front of, in a public-relations way, a problem, in order to instill confidence in the consumer, and to deal with the government regulatory agency, than it does trying to solve a problem.

And from the documents that I've reviewed, you've known about an acceleration problem, whether it's been caused by electronics, which you don't believe it has been, or whether it's been caused by floor mats, which, I guess, you believe it does, and you've taken measures on that—you've known about this problem for some time. And I have a concern that the efforts that you took in the past were not appropriate and you did not go far enough in the years prior to what you are doing today.

Do you care to comment on that statement?

Translator for Mr. SASAKI. Around 2006, the number of recalls in North America increased. And with regards to this, I do not have any data on me, personally, right now. So, I would like to submit to the Committee, later, more accurate numbers.

[The information referred to is in the appendix.]

Translator for Mr. SASAKI. It is certainly an embarrassing thing for a automotive manufacturer to create a—or produce a vehicle that had—have to be recalled later. However, when we realized that recall is needed, then that—the work of recall should be done properly. So, this may sound a little bit contradictory or complex

or a bit strange, but the number of recalls were increasing, and that meant that, on the one hand, we were doing our job properly.

With regards to our relationship with NHTSA, it is really unfortunate that some of you may have a concern, or some people might suspect it is—it was unhealthy. I would like to clarify—clear that, going forward, and build a healthy relationship with NHTSA.

In the past 10 years, Toyota has conducted, in total, 66 vehicle recalls in North America, of which 57 were on a voluntary basis. In other words, we were not given any instruction from NHTSA to do these recalls, however we did do that. Unfortunately, the remaining nine cases, our response was not good enough, and it ended up in the instructed recall by NHTSA. But, we are not trying to work on the relationship with NHTSA so that if we can persuade them, we can avoid recalls or anything like that, and our past record testifies to that. And this is a piece of information I would like you to understand.

The CHAIRMAN. Thank you, Senator LeMieux.

Senator LEMIEUX. Thank you.

The CHAIRMAN. Senator Lautenberg.

Senator LAUTENBERG. I wanted to ask Mr. Inaba a question. There was an internal document that was dated July 2009, and it described what the author considered to be a win for Toyota. One of these wins for Toyota's self-described safety group was $100-million saving from avoiding a safety recall in 2007.

Mr. Inaba, your name is on the cover page of the document, and you have stated that it is a presentation that was made to you, thus the—you're endorsing—you're endorsing.

Mr. INABA. Yes, sir.

Senator LAUTENBERG. Did this presentation raise a red flag that your company was prioritizing profit over safety?

Mr. INABA. It has never been the case, and it will never be the case. I think——

Senator LAUTENBERG. But, it was described as a "win."

Mr. INABA.—safety——

Senator LAUTENBERG. So, I think a win is a victory, obviously.

Mr. INABA. Well, let me address—safety is an utmost importance of our company, which is a guiding principle. And that is why I found—I reread that only recently, and then found a little embarrassing. And it is so inconsistent with our guiding principle and personal belief. Therefore, although they tried to impress me with the bigger numbers of money that they said they saved, but I would like to really—in my position, to rectify if there is any element of that thought in our organization.

Senator LAUTENBERG. Is anyone at Toyota responsible—been made responsible for this presentation or related safety lapses at Toyota—been reprimanded for their lapse?

Mr. INABA. May I——

[Pause.]

Mr. INABA. OK. Sorry, I just wanted to understand your English correctly.

I have told the Washington office, since I found it later on, that this is not our, you know, company, sort of, policy, that cost comes first, you know, than the safety. And I reaffirmed them that safety

comes first. And this is, you know, the top priority of our company. That's all, and there's no——

Senator LAUTENBERG. But, there—that—there—it was not suggested that anybody was—in the company was responsible for—you're an engineer, as I remember, or one of you is an engineer. Is it possible that there is no assignment of responsibility for this lapse? Does it—didn't it fall on some department, some unit in the company that permitted this to happen?

Mr. INABA. May I ask—permitted this kind of presentation happen? Is that what you——

Senator LAUTENBERG. No, that the acceleration happened. The sudden acceleration happened, that the accidents happened, that the injuries happened. Does it say, "Look, you, so-and-so, your department, your responsibility—and that we're deadly serious about this at Toyota, and if you make that kind of mistake, your career is essentially over," or whatever, however——

Mr. INABA. Oh, OK.

Senator LAUTENBERG.—you manage.

Mr. INABA. Now—and let me just address this first. Of course, you know, we take any accident, or especially a fatal accident, very seriously. But, the same time, I don't believe there is a—any sort of rule or system that we would punish any individuals when it happens and we know—even if we know root cause of that.

Senator LAUTENBERG. Toyota's progress was remarkable; they went from 10-percent market share in 1999 to 13 percent of the market share in 2008. GM fell from 17 percent to 12 percent in the same period of time. Ford fell from 13 percent to 8 percent in the same period of time.

Now, what I'm trying to understand is what was—why was Toyota able to move so deftly, so quickly into the marketplace and overcome the established auto industry that existed in this country?

Mr. INABA. I'm from sales and marketing, so I have to respond to your question.

We believe that the quality of the vehicles are the one that, over years—we have been in this country 50 years, and it is not so much one incident or anything, but sort of continuous sort of reassurance to the customer that our product is reliable and safe and durable, is the one that really brought us up to here.

Of course, we are very embarrassed, we are very troubled by this recent incidents, so that we would have to go back to basics, to really reaffirm our customers that our product is one of the safest and most reliable. And this is the only way. I mean, we have not spent any more incentives than the industry average or anything. So, I think, really, this—building a trust among the customers is the key to our past success. We would like to continue doing so into the future.

Senator LAUTENBERG. You know, there's an insinuation here, because you describe a $100-million savings—that's earnings, basically—from avoiding a safety recall in 2007. Now, that doesn't sound like Toyota was satisfied with its identification as reliable, safe—your word—there. Because it looked like there was a move to make profits by, maybe, taking shortcuts. I mentioned this earlier. It's a little inconsistent, with all due respect, Mr. Inaba, that

when you talk about market share growing as it was—and I believe in a competitive marketplace, but when it's that drastic, and included in there is 100 million bucks we made by not paying a fine or not doing what we should have.

Mr. INABA. First of all, again, cost is not the issue in—when it comes to recall or safety issues. And in Japan, we deliberately separated from a recall decision to a management decision, and therefore, it is decided on the fairly lower level of the management structure. And we have been doing it, and we are still doing it. And therefore, to make sure that cost is not the issue when it comes to recalls.

This is a really strong point that we have been making, and therefore, as you pointed out, this expression is so inconsistent from our past and current and the future guiding principle of our company, and I'd like to correct that.

The CHAIRMAN. Senator Lautenberg——

Senator LAUTENBERG. Mr. Chairman, thank you very much.

The CHAIRMAN. Thank you very much.

Senator LAUTENBERG. And we appreciate the witnesses coming here. But, I'm not sure that we're always talking about the same thing.

Thank you very much.

The CHAIRMAN. It is a possibility.

Senator Udall.

STATEMENT OF HON. TOM UDALL,
U.S. SENATOR FROM NEW MEXICO

Senator UDALL. Thank you, Chairman Rockefeller.

I want to follow up, also, on what Senator Lautenberg was asking about, and specifically about the internal company document, dated July 9th, which you've been discussing with him. And the term that's used in there, "saving the company $100 million"—and I know you don't like that term—did the company, as a result of not doing a vehicle recall—did you, in fact, save $100 million? What was the amount of money that was saved, as you went down one path. We know that the path you went down—the entrapment problems with the pedal and the fatalities continued. So, you went down that path. If you'd gone down the other path of a vehicle recall, that obviously would have been much more costly. So, what actually did you save, in terms of your course that you took?

Mr. INABA. With all my honesty, that—I do not even know what the basis of that calculation. I am not interested in going in there. The only problem is that saving out of recall is inconsistent with our principle. So, that's what I want to say.

Senator UDALL. But, sir, this is your document. This is a Toyota document, and it used the terms that you "saved" that amount of money. So, clearly, they at least got some of the statistics and the dollar amount from Toyota information that was given to them. Is that correct?

Mr. INABA. No. We don't have any systems or rules or traditions of collecting those saving amount in the United States or even in Japan.

Senator UDALL. Do any of the other executives want to comment on this?

Translator for Mr. SASAKI. I might be just repeating what Inaba said. We, at the Toyota Motor Company, the recall decisionmaking process is the following: It is really purely the decision on the part of the individuals who are very familiar with the market situation, and also someone who is very familiar with the technical content of this matter. And this would be reported to the managing officer, and he or she would approve of it, and then it would it be implemented.

In other words, this whole process will complete within this function of quality assurance and customer services. Therefore, there is never a discussion that would include the money amount—how much we would save or not save—if we have done this or not have done that.

And so, it is really—the discussion takes place outside of the earnings or savings or whatsoever. And I really would like you to understand our process.

Senator UDALL. So, all of you, do you dispute and reject the $100-million figure? Do you deny that the $100-million figure even exists, and it's something that is just out there and being discussed in the press, but it isn't—doesn't have anything to do with Toyota? Is that what you're saying today?

Mr. INABA. Senator, I can only say that I don't know the basis of that $100 million, so I cannot comment any further than that.

Senator UDALL. Well, you—well, give me a figure, then. If you—so you're saying you don't know where the $100 million came from, correct? And so, you're disputing that $100 million. That's just—it's not your—it's not the way you would approach it. OK? So, tell me if—what the company did is, you had a floor mat recall, OK? A floor mat recall. That recall did not result in safer vehicles. And indeed, it—you had pedal entrapment, and you had additional fatalities, OK? That's what you did. If you had had a full vehicle recall, how much would that have cost your company?

Mr. INABA. I am not able to answer that question.

Senator UDALL. Could you answer that for the record——

Mr. INABA. Yes.

Senator UDALL.—after you——

Mr. INABA. Yes.

Senator UDALL.—at some point?

Mr. INABA. Also, you know—prior, you know, questions, I would like to get back to you.

Senator UDALL. OK.

Mr. INABA. The basis of that calculation.

Senator UDALL. OK. Now, in following up a little bit, my staff and I met, and we very much appreciated meeting, with the Toyota people that came to our office and discussed with us the matter before the hearing. And they indicated, in addition to the floor mats being replaced and the accelerator being reshaped, the dealerships are also upgrading the software on the recalled vehicles to include a brake override, which Mr. Ditlow mentioned, when the accelerator and brake are applied at the same time. And this override is considered, by most vehicle manufacturers, as an essential safety device. My question, to whoever has the expertise here, is this software upgrade being provided, automatically at the next service ap-

pointment, to all existing Toyota vehicles whose computers can support the upgrade, even those not subject to the recall?

Translator for Mr. SASAKI. There may be a slight miscommunication, so I would like to correct that. Brake override system is not quite that general yet. I believe, currently, about 20 percent of the vehicles in North America are equipped with a brake override system.

We—at Toyota, this brake override system is a very effective manner to address a certain portion of the sudden acceleration, so we would like to implement this system to the vehicles produced in North America, one by one.

And this is scheduled to complete toward the end of year 2010.

With regards to the existing vehicle, the customers who are particularly concerned about this floor mat issue, we have selected seven models that has a very high level of complaints to be the subject of this software upgrade. So, if the customer brings their vehicle to the dealership, we will provide the software upgrade.

Once we complete all these upgrade work, Toyota vehicle would become just as safe, or safer, than other vehicles, and I'm very convinced of that.

Senator UDALL. Thank you—I see my time's exhausted—thank you very much. I appreciate very much the witnesses being here today.

The CHAIRMAN. Thank you, Senator Udall.

Senator Begich.

STATEMENT OF HON. MARK BEGICH,
U.S. SENATOR FROM ALASKA

Senator BEGICH. Again, thank you, Mr. Chairman, for holding this.

And "keneechiwa." Thank you very much for being here today.

I'll be parochial for my first question, and then I have some broader questions to follow up on many questions that folks have here.

I represent the State of Alaska, and many of our residents live in very rural parts of the state, where there are no roads, except when they get there in their community.

How will you address the servicing that they will need when they have to barge these vehicles to their home, where they purchase them from a dealer hundreds of miles away. How will you deal with those folks?

Mr. INABA. Well, first of all, we will ask our dealers to take care of the customers as much as they can. So, it is—in principle, that—how they treat the customers, and I hope they will treat the proper way.

And also that if there's any sort of situation where customer cannot bring the cars to the dealership or the—or, at the same time, he has any concerns, I think we allow the dealers—pay the cost, if necessary——

Senator BEGICH. Very——

Mr. INABA.—and then we will reimburse it.

Senator BEGICH. Very good. That's important. We are—and I'm a driver of a Toyota. I own a Highlander hybrid. I drove it from Alaska to here—19 days, 5,000 miles, and it did a good job.

Now, to the broader questions that some have asked here, the—I had not seen the presentation that Senator LeMieux had talked about. Will you respond to him, in detail on the record at a later time, his concerns about that document that he presented in the slide show?

Mr. INABA. Yes.

Senator BEGICH. Very good.

Mr. INABA. Yes.

Senator BEGICH. Let me ask you, if I can, a couple—so I understand the process. I understand you have a team, lower than senior management, that makes a decision on recalls. When that is brought to that team for decision, is there anyone that can overrule that team, outside of that group?

Mr. INABA. Mr. Sasaki will be a better——

Senator BEGICH. Very good, thank you.

Translator for Mr. SASAKI. The process in which the recall decision is made is—as I said earlier, it's purely—reflects the market conditions and technical cause of that problem. However, this process is very strictly prescribed within our company. So, if a decision was made outside of that very strict rules, then that could be reviewed by the officers who is in charge of looking at that operation.

Also, we do have auditors. And so, given a certain period of time, there will be a number of audits conducted. And so, the auditors would be also looking over it.

Senator BEGICH. Very good.

Can I have, maybe—again, at a later time—for the record, you probably have a written policy on this. Can you submit that to the Committee for review?

Mr. INABA. Yes.

[The information referred to is in the appendix.]

Senator BEGICH. Also, can you submit maybe—and I'll use it—a period of time since 2006, because that's some of the discussion here—of recalls that have been brought through the chain, and then, at any point, where they might have been stopped or not moved forward? Could you provide that to the Committee, based on this process that I now understand?

Mr. INABA. We'll try to do so, yes.

[The information referred to is in the appendix.]

Senator BEGICH. Thank you very much.

Let me also ask—a question I asked earlier today, in the early session was—as you can see, the Federal Government here is very interested in safety and security of vehicles and how they operate. What on the—what in the Japanese government is going on in regards to what they see we're doing here? Is there a corresponding action?

Who would like to answer that? I'll leave it to you to decide who will answer these.

Translator for Mr. SASAKI. The recall system in Japan was actually put together after learning from the U.S. system. Therefore, the system in Japan is very similar to that in this country.

Senator BEGICH. But, is the Government of Japan taking any action in regards to this, what we're doing here? Of is there any action they're doing to follow up on the products that are being exported?

Translator for Mr. SASAKI. Actually, it is the Ministry of International Trade and Industry that has that jurisdiction or authority to make sure those exported vehicles would be taken care of or looked after well.

Senator BEGICH. OK. I'll do this one more time, and it just may not be able to be answered at this point.

Are they doing anything, based on what's happening right now in this country, with these recalls? In other words, are they adding extra scrutiny to your company?

Translator for Mr. SASAKI. Yes, we have received a number of hearings from the government, and they are watching the—how this recalls in the United States came about, and how this actual implementation of the recall—or execution of the recall is being carried out. They are following this very closely.

Senator BEGICH. Very good.

I know I have—I'm out of time, I think, but let me ask just one last question. And it's kind of a statement with a question.

You understand that the reputation of the company and the trust of the company by the consumer has been damaged, and that the way that's regained is by the work you do, especially now, in the recall, but also into the future. That's a clear understanding.

At what point does the senior management involve themselves or see reports on a regular basis on the amount of recalls or incidences that are being driven from the lower ranks of the employee group, indicating there are problems? Does the senior management see that all the way to the bottom and up, and how often do you see that?

Mr. INABA. Well, personal experience is that I have been involved since the end of September, and I will do—pay very close attention about what's going on with any technical issues that arises. And therefore, it will be a lot more attention paid from now on, because this loss of trust is more costly than anything else to Toyota. And so, that—we do utmost to restore it. That's my commitment, and also other members of——

Senator BEGICH. Very good.

Thank you very much, for your testimony.

Again, thank you, Mr. Chairman, for holding the hearing.

The CHAIRMAN. Thank you Senator Begich.

And now Senator Nelson.

STATEMENT OF HON. BILL NELSON,
U.S. SENATOR FROM FLORIDA

Senator NELSON. Mr. Ditlow.

Mr. DITLOW. Yes, Senator.

Senator NELSON. There's a deadline coming for mandatory use of electronic data recorders, is that right?

Mr. DITLOW. There's a deadline coming on the standardization. There's no requirement that it be installed.

Senator NELSON. If there's a deadline for standardization, why does—what is your opinion that Toyota still uses proprietary software to read out the contents, if it's going to be standardized?

Mr. DITLOW. The data that are going to be recorded will be standardized. There is no standardization on the readout, in making it commercially available. So, it's a failing in the rule that's

about to be issued, or that has been issued and is about to be made final.

Senator NELSON. And you think that needs to be corrected.

Mr. DITLOW. Oh, yes. I mean, we need two things: We need to mandate them in all vehicles, and we need that the readout be standardized so that anyone can read it.

Senator NELSON. Is an EDR part of the airbag assembly?

Mr. DITLOW. There is, in fact, a data recorder that's associated with the airbag. The EDR is a more advanced version and is capable of measuring and recording more features than the airbag recorder.

Senator NELSON. Well, then I would like to ask Toyota, Does Toyota's EDR record—and for how long does the EDR record record—how long does the electronic data recorder record the data, before and after a crash, for an airbag?

Translator for Mr. UCHIYAMADA. The current EDR records the 5 minutes prior to the crash and 2 minutes—I'm sorry—5 seconds prior to the crash and 2 seconds after the crash. In other words, the current system is to record the data related to the deployment of the airbag. And so, whether the airbag is deployed or the brake is pressed very hardly, over the secondary level or above. So that's 5——

VOICE. 2G

Translator for Mr. UCHIYAMADA. 2G—more than 2G. So, it's 5 seconds prior and 2 seconds afterwards.

Senator NELSON. Who made the decision in Toyota to have only one laptop in the U.S. with the required software to read out an electronic data recorder?

Translator for Mr. UCHIYAMADA. I do not know, at this time, who has decided—who rendered that decision. However, if that is needed, I would look into it and then submit the name later.

Currently, we are using just one laptop to do that, because we have been able to submit all the required data by using this one piece of laptop. So, I think that's how we have been doing it.

Senator NELSON. Does Toyota collect and store all the information from the electronic data recorders it decodes?

Translator for Mr. UCHIYAMADA. Right now, the event data readout will be done when the customer requests it or a police or a court or agencies like NHTSA—those public entities issues us a warrant to do that, then we would do so. I mean, these are under several State laws.

And then we are trying to do our utmost so that these work can be carried out more speedy manner. We will have 100 units available at the early April, and by the end of April we will have 150 such units available in North America. Indeed, we are going to hand over three such readers to NHTSA tomorrow.

Senator NELSON. OK. That's valuable information, but that's not the answer to the question. The question was, Does Toyota collect and store all the information from the electronic data recorders it decodes?

Translator for Mr. UCHIYAMADA. It is true that the Toyota reads them out, but I am not sure, as I said here today, whether Toyota keeps such records. And I will look into it, Senator, and I will get back to the Committee.

[The information referred to is in the appendix.]

Senator NELSON. OK. Tell me, why did Toyota officials in Japan not take seriously the messages about safety concerns that Toyota's North American officials had conveyed to Japan?

Translator for Mr. SASAKI. It is quite unfortunate that you have come to form that notion, and I wonder if that was—that happened because in the past, with regards to the field-action decisionmaking that relates to the safety, a member of our North American team was not formally involved. And therefore, we have rectified this immediately, and now we would include someone who is most knowledgeable of the North American market situation to become one of the very important panel member that would render the decision regarding the field action.

Senator NELSON. So, you think that headquarters in Japan took seriously the messages of safety concerns from North America, is that correct?

Translator for Mr. SASAKI. Yes, that is correct. But, although you say the Japanese headquarters, in actuality that when the decision was rendered, the person in charge of that was sent to United States and look at the situation under our "go and see" principle, and that's how our decisions had been rendered. Therefore, it is not the case, in the past, that, without knowing the situation in North American marketplace, that the decisions were made in Japan.

Senator NELSON. Mr. Chairman, thank you.

It's sad, for the loss of life, but it's also sad, as I said in my opening comments, about all these Toyota dealers who now, in the middle of an economic recession, are getting hit with a double whammy because people have lost confidence in Toyota. And now, all of these small businesses are getting hurt all the more because people are not coming in to buy cars in their Toyota dealerships.

Thank you, Mr. Chairman, for the generosity of your time.

The CHAIRMAN. As always. Thank you very much, Senator Nelson.

I will ask a final question and then will make a closing statement.

I have here a sheet, from Toyota, called the "Toyota management team." And it's interesting, because the President and Member of the Board is obviously Akio Toyoda. There are five executive vice presidents, there are innumerable senior managing directors, and there are directors—members of the board, just two. And of the five executive vice presidents—members of the board—directly under the president, Akio Toyoda, two of them are on our panel today—Mr. Sasaki and Mr. Uchiyamada. And that's why I think there is some—you feel—or we feel—we both feel some frustration in trying to communicate our effort to get to the bottom of some of our questions. It's the question of accountability. Who is accountable? Who makes decisions? Many questions have come back that, "We are doing recalls," as if that were a problem-solver. And it is not necessarily a problem-solver. "We will get back to you on that." That is not a direct answer. I think there is more knowledge at the table than has disclosed itself. I don't say that rudely, I just say that in, perhaps, a typical American-Japanese inability to communicate as effectively as we should on a particularly important issue, both to

us, in terms of safety, and you, in terms of safety and some loss of confidence in your product.

But, you know, all the way since—Senator Nelson said this—since at least 2002—it was a long time ago—thousands of Toyota and Lexus owners in the United States have complained to Toyota that they experienced sudden unintended acceleration. So, they have been doing that ever since. Thousands and thousands of them. These Toyota owners told Toyota the brakes would not overpower the surging vehicle. A number of them have even had smoking brakes and melted hubcaps to prove it. I believe Senator Klobuchar made that point.

However, Toyota, in this person's judgment, did not listen to its customers, and it sent out letters like this, which, obviously, nobody can read, but I can, and I'll quote from it. It's rather cold. It's rather cold. The key paragraph says, "In order for this accident to have occurred as a result of unintended acceleration, there would have to be a simultaneous failure of two totally independent systems, namely the brake and throttle systems. Our inspections confirm that these systems were purely functional." And therefore, it simply sort of tossed off the agony of this owner.

Now, the evidence, that everyone has now seen, points to the exact opposite conclusion, and we've been trying to get at that, which is that brakes could not control the surging vehicle. So, now we're talking about electronic systems, brake overrides.

You've mentioned the outside consultant called Exponent, but this report tested only six vehicles. That's not good enough. Not good enough.

So, let me give you an example of one person who I think makes the point. Last August, a Bill Shephard, of Monrovia, California—I do not know the man, but my staff has talked to both him and the master mechanic that I'm about to explain—this person experienced an instant of sudden unintended acceleration in his 2004 Camry. That was a long time ago. He was pulling into his garage at the time, and then just, I guess, pulled back into the living room or something.

At first, the master mechanic at Mr. Shephard's local repair shop told him, as, in a sense, you have indicated to us, that it was impossible—his words—that the Camry's electronic system caused the problem. He said it was impossible. But, Mr. Shephard was a stubborn man, and he insisted that this mechanic keep running tests, because he felt that there was some other reason for his surge, which he did not like and which was threatening. And about a week later, it turns out, the mechanic ran a test, after running tests a lot—not just once, not just twice, but for a period of about a week—he ran a test, after a week, in which the accelerator pedal position sensor indeed failed. And so, lo and behold, it was not—it just changed—it changed everything. It changed everything. In other words, there was a problem in the electronic throttle system.

Now, Mr. Shephard reported this finding to both Toyota—this is back in 2004—to both Toyota and to NHTSA. And to my tremendous sorrow, I have to tell you that neither NHTSA nor Toyota has ever given a response to Mr. Shephard.

So, symbolically and really, I ask you today—we have talked to both him and to his master mechanic at length—I ask you today,

will you be in touch with this man? We will give you his address. Because we didn't have a chance today to get into how you've handled complaints. That's so key. To what level do they rise? What does the board know about them? Does the board meet as all the people I suggested, or is there an executive committee, which is hinted at, in the organizational table? How do these things come to the attention? That was my frustration in my first round of questions, when I tried to found out, "When were these decisions changed, if they were changed?" which they were, because your president has admitted to that. Safety took a second seat to profits.

In Japanese culture, in Japanese corporations, things do not happen by chance; they happen by decision. And I failed to get an answer about that, and I regret that. But, you made the statement, in a sense, that recalls equal doing the job properly, taking care of the situation, that it would suggest—is suggested—is that a public relations effort, or is that really solving the problem? There was no answer forthcoming.

One of you indicated that 20 percent of the outstanding Toyotas in America have brake override systems now. But, then you mentioned that, by the year 2010, perhaps the end of it, you will have—it will be completed. What will be completed?

And I ask you this question: Obviously, the brake override system is the solution. So, you have a problem. You have the Toyotas that you make from this point forward in your ten plants here, and you have the Toyotas that have already been made, going back to the 2002, or before. If you solve, by putting in a brake override system, the Toyotas that are made from this point forward, or starting, let's say, a year ago, that's good. But, why is a new Toyota and a new Toyota owner less important than an older Toyota and a previous—or older-Toyota owner? Their lives are the same, their value is the same, the human being—are equal in their capacity to be protected.

And so, I will just ask this question: Is it not fair to suggest that Toyota should make an override system for all Toyotas? The older ones, where the electronics were less complicated and the computer system was less complicated, as well as the new ones, where things are more complicated. And then you might say to me, "Well, that is very expensive." And then I might say to you that, spread out over the entire fleet, the expense will be less, substantially. And I also might say that maybe the expense doesn't matter, because these are human beings and they are loyal customers, as shown by the fact they still have the Toyotas they bought years ago.

And further, I might ask you this question: Supposing I was—I bought a Toyota back in—a Camry back in 2004, and it was an older system, and I had a surge problem—an unexpected surge problem. I was deeply distressed by it; I was afraid to drive the car, because of my children, because of myself, because of whoever. And so, I traded that automobile. I sold that automobile to somebody else. Well, that brings up a whole new question. Is it proper to say that—once the car is out of the hands of the original purchaser, but now in the hands of another American owner, it still has this defect, or potential defect in it. Why would one trade or sell a defective—potentially defective—and I go back to the Shephard case, where he worked at and worked at it and worked at it and he

found out, yes, there was a defect—why would somebody be traded or sold a defective car? Is that moral? Is that ethical? Is that proper? Is that good business practice for Toyota?

Now, I've asked you many questions, and I apologize for that, but I've said what I wanted to say, that what I think we wanted to get, and that we've gotten some hint of that, but not explicitly, real answers to real problems, not just, "We're doing a recall," and therefore, will solve the problem. But, we're going to make sure that every Toyota car on the road in the United States of America is safe and has a brake override.

Now, I'll just stop there, and you can answer in any way that you wish.

Translator for Mr. UCHIYAMADA. Allow me to speak first.

Well, thank you very much, Chairman, for giving us many pieces of comments.

We understand fully that there is a big room for improvement upon ourselves in the way in which we have dealt with, so far, in the past, in—as a global Toyota Corporation.

Allow me to repeat this. When we manufacture our vehicles, our priorities are, number one, safety; number two, quality; and then, number three, delivery. This importance order has never been changed.

Having said that, we are fully aware of the fact that perhaps we haven't lived up to the expectations on the part of our customers, vis-à-vis our product, when we consider the amount of recalls that we had to execute, and we are feeling that we have to do something about it right away.

In the development side, I will be standing on the front line and working very hard so that people will once again have the image of Toyota that we were able to instill into people in the past.

The CHAIRMAN. I would respond to that—and I will close here shortly—by saying that the complaints began to come in, in 2002, by the thousands. So, to say that you will respond immediately and that you are—you regret, for your customers—I understand that. What I do not understand is the lack of response earlier. It seems to me that it would have been so much in the custom of the Toyota company that I have known over the years. But, you talk about, "We will do something immediately."

Let me just say this. Will you contact Mr. Shephard? We'll give you his address and number.

Mr. INABA. Yes, sir. I will do so.

The CHAIRMAN. And the mechanic.

Mr. INABA. Yes.

The CHAIRMAN. The Japanese transport minister, Seiji Maehara, appearing at a nationwide broadcast news show on Sunday, complained that Toyota's, quote, "corporate culture," close quote, reflected a reluctance to be forthright on recalls. "The company is not taking the problem as serious as it should," he said, saying the company quality chief, Shinichi Sasaki, came to explain the problems to the ministry only after being asked to do so.

I do not require a response on that.

And I will go to my closing statement, if that is all right.

This has been useful, but not as useful as it should have been. And I regret that, because I know what kind of company you are,

and can be again. And maybe it's simply a—as when I was a student in Japan, Japanese and Americans sometimes have different ways of talking to each other, and what appear to be clear questions on the part of Americans are—may not be seen that way by the Japanese. But, on the other hand, we're now talking about a professional problem—a professional problem which has affected Toyota in tens of billions of dollars of lost net worth, and affected a lot of people in this country in ways which they have experienced, or they have yet to experience, unless the brake control is made universal.

So, let me just do my closing statement.

I want to thank all of our witnesses today for your cooperation in making sure the Committee got all the information it was looking for. I would have to do a little caveat to that, I guess.

We have had a very full and long day, and with the ongoing work of this Committee, which will take place, two things are already very clear to me:

First, Toyota needs to restore its customers' confidence and trust, and seriously recommit itself to quality and to open communication. And carmakers should be required to provide the hardware that dealers need to read electronic data recorders.

My second point was that the U.S. Government has to do a much better job of keeping the American people safe. Please understand. We had an all-morning hearing with NHTSA, and it was not one that was pleasant for them. Mr. Ditlow is here, and can testify to that.

And I thank you, sir, for all that you would have said, could have said, and did say.

I—in my case, I firmly believe that this is going to require strong legislative action. To name just a few examples I have in mind, it is clear that we need to revisit the TREAD Act. We must seriously consider a rulemaking mandating brake override. And carmakers should be required to provide the hardware that dealers need to read electronic data recorders.

And fourth, we should also require senior executives to certify the information their companies provide to NHTSA, that it is 100 percent correct and accurate. That is usual and customary, and it must take place.

I have other ideas. Those are just mine. I know my colleagues do, too. If we are really serious about making sure this does not happen again, we need to work aggressively and together on this effort, and that is what I intend to do with my colleagues.

As I said earlier, I have over 1,000 workers in my State who depend on—who work at Toyota, who have won the highest awards, in most years—I think, 5 consecutive years, maybe 6 consecutive years—for being the most productive. I want them to be protected as they drive their Toyota cars, and I want them to be employed, because people have confidence in you and, therefore, are buying your product. We have to get back to that—not, obviously, just for West Virginia's sake, but for the—your sake and the country's sake.

I have every confidence that you can earn back the trust of your consumers, and that you can earn back the trust of the American people. Every single Toyota owner deserves a full accounting of

what happened, and why, and a clear indication of what we, here today, are going to do to make sure that safety is never second place.

Having said that, I, again, thank you. We tried to make the questioning not histrionic, but professional, fact-based, and we've each tried to communicate with each other as well as we could. And I do appreciate the fact that at least two of you have flown all the way from Japan for this hearing.

So, I'm grateful. I'm looking forward to a strong and complicated future, but I'm always an optimist.

This hearing is adjourned.

[Whereupon, at 5:08 p.m., the hearing was adjourned.]

A P P E N D I X

PREPARED STATEMENT OF HON. KAY BAILEY HUTCHISON, U.S. SENATOR FROM TEXAS

Thank you, Mr. Chairman, for holding this hearing to address many important questions surrounding Toyota's recent recalls and related safety issues, along with the Federal Government's role in ensuring the safety of the cars on America's roads.

Transportation safety is one of this committee's most important responsibilities, and I hope today we will begin to understand why it took so long for Toyota and NHTSA to take decisive action to address the serious safety problems associated with sudden, unintended acceleration. We are just beginning to understand the complicated series of events that has led to the recall of more than 8 million vehicles in the United States and Europe.

We owe it to the 39 individuals who have lost their lives, and the thousands who have experienced unintended acceleration, to get to the bottom of this issue. We also owe it to Toyota and its thousands of American employees to conduct a thorough and fair inquiry.

To date, Toyota has identified certain all-weather floor mats, which may entrap a depressed accelerator pedal, as well as so-called "sticky" accelerator pedals, as sources of unintended or unwanted acceleration. But because Toyota and NHTSA were slow to react to consumer complaints, many remain concerned about the safety of Toyota vehicles.

Among the many questions the Committee and the American public have are whether the true cause of unintended acceleration has been identified and whether the corrective actions underway are sufficient. There are concerns about whether NHTSA has the appropriate expertise to diagnose complex problems with today's sophisticated vehicles. Also, is the information NHTSA receives through Early Warning Reports, specifically mandated by the TREAD Act to give NHTSA more information with which to quickly identify potential safety hazards, sufficiently robust?

Most importantly, we need to know how to prevent this situation from recurring, and how Congress can assist. Only then will drivers feel confident about buying and driving Toyota products and only then will Toyota recover its good name.

I have been encouraged, Mr. Chairman, by the recent statements of Toyota's President, acknowledging that the company must reaffirm its commitment to safety and quality. I am confident the roughly 1,700 employees at Toyota's production facility in San Antonio, Texas, and the more than 9,000 employees of Toyota's dealers in Texas would echo that commitment. I hope today's hearing will be another step in the process of making those commitments a reality.

Mr. Chairman, thank you again for holding this important hearing. I look forward to the witnesses' testimony.

February 15, 2010

Hon. JOHN D. ROCKEFELLER IV, West Virginia,
Chairman, Commerce, Science, and Transportation Committee,
Washington, DC.

Dear Senator Rockefeller:

I applaud the Senate Committee on Commerce, Science, and Transportation forthcoming hearings on Toyota's recently announced safety recalls.

Thus, today I write to you as a seasoned thirty-year college professor and widely-recognized automotive and highway safety expert. (For example, I'm cited on page 69 of GAO–09–56, a report to the Chairman, Committee on Commerce, Science, and Transportation, U.S. Senate, which is directly relevant to the issue before the Subcommittee, *http://gao.gov/new.items/d0956.pdf.*)

This GAO Highway Safety report is titled *"Foresight Issues Challenge DOT's Efforts to Access and Respond to New-Technology-Based Trends."*

Please review my attached testimony.

I am willing to testify before your committee. My contribution would be an asset.

Sincerely

THOMAS M. KOWALICK,
Professor of Holocaust Studies,
Sandhills Community College.

PREPARED STATEMENT OF THOMAS M. KOWALICK

49 CFR 563: Event Data Recorders

Petition for Reconsideration NHTSA–2008–0004–0007

Providing Consumer Protection

Thank you Mr. Chairman. I welcome the opportunity to submit a statement and/or testify before your committee. My name is Thomas M. Kowalick and I am a Professor of Holocaust Studies at Sandhills Community College, Pinehurst, North Carolina since 1982.[1] I am also President of Click Incorporated—Transportation Safety Technologies of Southern Pines, North Carolina since 1997. Besides that, I serve as Chairman of the Institute of Electrical and Electronics Standards Association (IEEE/SA) project IEEE 1616 which created the world's first and only motor vehicle event data recorder standard, commonly termed "automotive black boxes" by the general public.[2] I have published extensively on the topic of motor vehicle event data recorders as the author of *Fatal Exit: the Automotive Black Box Debate* and five additional books in print to date and I'm working on number 6.[3] These books cover the history, research, development, standardization, legislation, regulation, legal, and privacy and consumer protection issues connected with implementing motor vehicle event data recorders. Most recently I contributed to the *2009 McGraw Hill Encyclopedia of Science and Technology*.[4] I also served on a National Academies of Science study about EDRs[5] and I'm cited on page 69 of GAO–09–56, a report to the Chairman, Committee on Commerce, Science, and Transportation, U.S. Senate which is directly relevant to the issues before the Committee. This GAO Highway Safety report is titled *"Foresight Issues Challenge DDT's Efforts to Access and Respond to New-Technology-Based Trends."* Thus, in summary, I am widely recognized as an expert regarding Event Data Recorders (EDRs) since 1997.

To start, motor vehicle safety is a shared responsibility among government, consumers and vehicle manufacturers. "Safety" is an area in which manufacturers compete and seek competitive advantage. Then automakers leverage their safety performance and equipment in efforts to distinguish their products from competitors. Consumers purchase these products and only hope that they work as marketed for themselves and their families. Consumers should trust the automakers to manufacture vehicles correctly and fix them it they malfunction. Consumers should trust the Agency charged with enhancing vehicle and highway safety to intervene when the problem is so severe that injuries and fatalities are commonplace. Consumers should

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[1] *www.sandhills.edu.*
[2] *http://standards.ieee.org/announcements/pr_1616.html.*
[3] *http://www.wiley.com/WileyCDA/WileyTitle/productCd-0471698075.html.*
[4] *http://www.accessscience.com/abstractaspx?id=YB090097&referURL=http%3a%2f%2fwww.accessscience.com%2fcontent.aspx%3fsearchStr%3dkowalick%26id%3dYB090097.*
[5] *http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp_w75.pdf.*

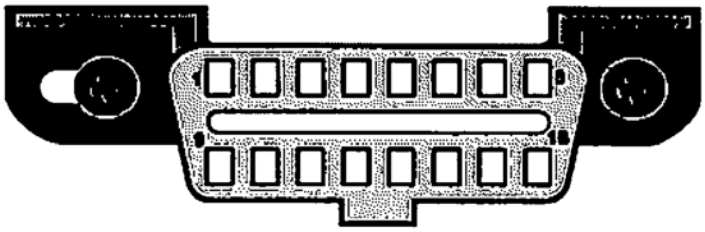
trust government to provide consumer protection and assurances that it will never happen again. At this point in time public opinion polls indicate "trust" is lacking. People want more—they want a better understanding of automotive electronics that affect safety and they want protection from misuse of in-vehicle electronic technologies. For the truth is that the average consumer understands that it is difficult, if not impossible to prevail in any dispute with an automaker other than by costly litigation. Consumers also understand that automakers spend plenty of money to influence legislation. Last year, auto industry lobbying was 65.5 million dollars, according to the nonpartisan Washington-based Center for Responsive Politics.[6] Millions of consumers are following these hearings. They may be wondering who speaks for them? Today I will do my best to explain the consumer protection urgency of getting the National Highway Traffic Safety Administration (NHTSA) to respond positively to my Petition for Reconsideration of 49 CFR 563: Event Data Recorders. The right to petition is one of the fundamental freedoms of all Americans, and is documented in the First Amendment to the Constitution of the United States.

Some background: The past four decades witnessed an exponential increase in the number and sophistication of electronic systems in vehicles.

A vast increase in automotive electronic systems, coupled with related memory storage technologies, has created an array of new safety engineering opportunities and subsequent consumer acceptance challenges.

Consumers continue to be interested in safety advancements but remain concerned about issues of privacy, tampering and misuse of vehicle crash data.[7]

Virtually every passenger car and light truck manufactured in or imported to the North American market since model year 1996 includes an Environmental Protection Agency (EPA) mandated diagnostic link connector to allow access to engine and emissions diagnostic data.



This onboard diagnostic link connector (OBDII) is regulated by the Code of Federal Regulations (CFR) (40 CFR 86.094–17(h) and revisions for subsequent model years. It is standardized by the Society of Automotive Engineers Vehicle Electrical Engineering Systems Diagnostic Standards Committee. The physical configuration of the output plug is specified under SAE J1962 and through the International Standards Organization under ISO 15031–3 and is increasingly used as an access point to other in-vehicle electronics systems, sub-systems, computers, sensors, actuators and an array of control modules including the air bag control module.

The onboard diagnostic link connector is also used as a serial port to retrieve data elements from on-board systems, sub-systems, modules, devices and functions that collect and store data elements related to a vehicle crash such as a Restraint Control Module (RCM) and Event Data Recorder (EDR). This connector used to download crash data is wide open—not physically protected from misuse.

The EPA communications protocol utilizes a Controller Area Network (CAN) to provide a standardized interface between the diagnostic link connector and the tools used by service technicians and vehicle emission stations.

CAN uses a serial bus for networking computer modules as well as sensors. The standardized interface allows technicians to use a single communications protocol to download data to pinpoint problems and potential problems related to vehicle emissions. Full implementation of the CAN protocol is required by 2008. Because it is

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[6] *http://detnews.com/article/20100213/131Z/2130352/Automakers-cut-spending-on-lobbying.*

[7] *http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp__w75.pdf.* See 6.3.5

a universal system, the use of the diagnostic link connector and the CAN serial bus alleviates the problem that the data would only be accessible through the use of multiple interfaces and different kinds of software, if at all.

While standardizing the means and protocols for data extraction is generally considered a positive advancement in surface transportation by helping to assure that systems perform properly over the useful life of vehicles, it has also created the possibility of extracting data from motor vehicles that can be used in civil and criminal legal proceedings.

As example, the National Highway Traffic Safety Administration (NHTSA) cites an Event Data Recorder (EDR) as a device voluntarily installed in a motor vehicle to record technical vehicle and occupant information for a brief period of time (seconds, not minutes) before, during and after a crash. EDRs collect vehicle crash information. These devices are common in most recent vehicles and in 15 percent of all vehicles (est. 60 million vehicles have EDRs).[8] Some systems collect only vehicle acceleration/deceleration data, while others collect these data plus a host of complementary data, such as driver inputs (*e.g.,* braking and steering) and vehicle systems status.

The way in which this is accomplished may be described in the following simplified manner. The EDR monitors several of the vehicle's systems, such as speed, brakes, and several safety systems. It continuously records and erases information on these systems so that a record of the most recent 8-second period is always available. If an 'event" occurs, *i.e.,* if a crash pre-determined threshold of severity occurs, then the EDR moves the last 8 seconds of pre-crash information into its long-term memory. In addition, it and puts into its long-term memory up to 6 seconds of data relating after the start of the crash, such as the timing and manner of the air bags.

Thus, In general, EDRs are devices that record safety information about motor vehicles involved in crashes. For instance, EDRs may record: (1) pre-crash vehicle dynamics and system status, (2) driver inputs, (3) vehicle crash signature, (4) restraint usage/deployment status, and (5) post-crash data such the activation of an automatic collision notification (ACN) system.

EDRs can be simple or complex in design, scope, and reach.

They can make a major impact on highway safety, assisting in real-world data collection to better define the auto safety problem, aiding in law enforcement, and understanding the specific aspects of a crash. It is generally agreed that the more we know about motor vehicle crashes—the better opportunity to enhance vehicle and highway safety. Manufacturers have been voluntarily installing EDRs as standard equipment in increasingly larger numbers of light vehicles in recent years. They are now being installed in the vast majority of new vehicles.

The information collected by EDRs aids investigations of the causes of crashes and injuries, and makes it possible to better define and address safety problems. The information can be used to improve motor vehicle safety systems and standards.

As the use and capabilities of EDRs increase, opportunities for additional safety benefits, especially with regard to emergency medical treatment, may become available. EDRs installed in light vehicles record a minimum set of specified data elements useful for crash investigations, analysis of the performance of safety equipment, *e.g.,* advanced restraint systems, and automatic collision notification systems.

Vehicle manufacturers have made EDR capability an additional function of the vehicle's air bag control systems. The air bag control systems were necessarily processing a great deal of vehicle information, and EDR capability were added to the vehicle by designing the air bag control system to capture, in the event of a crash, relevant data in memory.

EDRs have become increasingly more advanced with respect to the amount and type of data recorded. Since 1998, the EDR function in light vehicles (under GVWR 10,000 lbs) is typically housed in a control module, such as the sensing and diagnostic module (SDM), the engine control module (ECU) or the stability control or 4-wheel steering modules. These modules are located in various places in the vehicle, such as under a front seat, in the center console or under the dash. Current EDR designs were developed independently by each automaker to meet their own vehicle-specific needs.

In current EDRs, there is no common format for EDR data. Both the data elements and the definition of these data elements vary from EDR to EDR. Both GM and Ford, for example, record vehicle impact response vs. time—*i.e.,* a crash pulse. GM however stores the crash response as a velocity-time history recorded every 10 milliseconds while Ford stores the crash response as an acceleration-time history recorded every 0.8 millisecond, *e.g.,* stored in the Ford Windstar RCM. Even for a

[8] USDOT/NHTSA Final Regulatory Evaluation, Office of Regulatory Analysis and Evaluation, National Center for Statistics and Analysis, 2006).

given automaker, there may not be standardized format. The GM SDM, for example, has evolved through several generations.

Until recently, there has been no industry-standard or recommended practice governing EDR format, method of retrieval, or procedures for archival. The preferred method is to connect to the onboard diagnostic connector located in the occupant compartment under the instrument panel.

Despite the obvious safety benefits that might accrue, however, the use of EDRs has not been without controversy. EDRs were designed to help automakers build safer vehicles. But manufacturers have used the data to defend against product liability, police investigators have also increasingly been using the data to charge drivers with speeding violations and serious crimes. And insurance companies want the data to dispute unwarranted claims and tie policy rates to driving behavior.

Privacy advocates and consumer groups oppose allowing data collected for safety purposes to be used for other purposes, especially when most drivers are unaware that their cars have boxes or mechanisms that can be used as evidence against them. They also question whether the data is accurate, since few tests have been conducted to establish its reliability.

A number of research studies have concluded that although the EDR data (and the recorder itself) may be "owned" by the automobile's owner or lessee, that data may almost certainly be used as evidence against the owner (or other driver) in either a civil or criminal case. Furthermore, nothing within the Federal rules of evidence or the Fifth Amendment's protection against self-incrimination would exclude the use of data recorded by EDRs. Similarly, owners might be prohibited from tampering with the data via Federal or state legislation.

While the statutory authority to require EDRs may exist, the public may not want open, unrestricted access to a device installed in their automobiles that may appear to impede their personal privacy interests, thus public acceptability of EDRs is an important issue paralleling the legal issues of EDRs. For example, a class action suit, filed in New Jersey, alleged that General Motors never told owners of their vehicles that EDRs were installed.[9]

The public is largely unaware of EDR systems, how they operate, and who has access to the driving information they read.

At present, vehicle crash data is controlled by law enforcement, automakers, state and Federal Government agencies, automotive repair facilities and automotive insurance companies.

Thirteen states have enacted laws since 2004. These states followed the example taken by California lawmakers in 2003, and have enacted laws that specify how motor vehicle event data recorders ("EDRs" or auto "black boxes") are to be regulated in their respective jurisdictions. No states have passed legislation preventing tampering. The states may begin initiatives in the absence of sufficient Federal regulation or legislation.[10]

NHTSA's EDR research website lists the following potential users and consumers of EDR data: insurance companies, vehicle manufacturers, government, law enforcement, plaintiffs, defense attorneys, judges, juries, courts, prosecutors, human factors research, state insurance commissioners, parents' groups, fleets and drivers, medical injury guideline data usage, vehicle owner and transportation researchers and academics, with the auto industry as one of the major future consumers of EDR data.

This large, broad and unregulated list of people and entities with the potential ability to get access to private information from an EDR without the driver's consent is alarming and disturbing to many consumers.

The data an EDR records can be decisive in a criminal or civil case.[11]

Further, a driver's insurance coverage might someday depend on information collected from an EDR. Important rights could be at stake.

Since vehicles have a universal serial bus diagnostic link connector port to accommodate connecting peripheral devices such as electronic scan tools capable of re-engineering and altering odometers this has given rise to vehicle tampering.

Under current practice, anyone with access to a vehicle may plug a portable san tool device with a flash memory card (via an interface) into the diagnostic link connector port and copy (or tamper with) information in the vehicle Controller Area Network (CAN) and download data to a portable flash card or similar type memory devices.

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[9] "GM sued over automobile 'black boxes'" *USA Today,* 12/01/2000. *http://www.usatoday.com/life/cyber/tech/cti865.htm.*

[10] *http://www.ncsl.org/default.aspx?tabid=13461.*

[11] *http://www.4dca.org/Mar percent202005/03–30–05/4D03–2043.pdf.*

Since portable flash memory cards are usually very small, removing the flash memory card from the diagnostic link connector port and taking information out of the vehicle is relatively easy.

The loss of proprietary and confidential information such as proprietary product information, trade secrets and vehicle crash data can be very costly with regard to lost revenue and corporate liability, thus most automakers take significant security precautions to protect against the theft of corporate information. Some companies take extreme and costly measures to keep vehicle information from being downloaded without proper authorization. Rental car companies and automotive lease dealers are at great risk of suffering economically via widespread vehicle tampering.

A simple search on the Internet provides alarming results. On one site *http://www.ec21.com/* a search for "crash data" found 29 products from 23 companies advertised with capabilities to alter or omit crash data or by plugging an inexpensive software/hardware device in the OBD port.

Other after-market products are currently available such as the Uif Technology Co., Ltd., (Shenzhen, China) "Mileage Correction Kit" which is marketed as "a compact interface that will allow you to easily read/write/modify the mileage/km of your car without the need to remove the dash. It connects to the on-board diagnostics port located in your car."

This is not simply an American problem. It is estimated that every year, more than 89,000 vehicles with tampered odometers reach the Canadian marketplace at a cost to Canadians of more than $3.56 million according to estimates by a United States of America based company called CarFax.

A 2002 U.S. National Highway Traffic Safety Administration study shows that each year more than 450,000 Americans will inadvertently buy a used vehicle with the mileage gauges rolled back. That makes tampering with odometers a $1.1-billion-a-year industry in the United States of America alone.

The final EDR rulemaking (8/26/06) states (in part) the following:

> We have considered the comments recommending that we address potential tampering of EDRs. We currently do not have information that leads us to believe that tampering with EDRs is a problem that necessitates us to develop requirements in this area. We may revisit this issue if we find that tampering becomes a problem.

Tampering means to modify, remove, render inoperative, and cause to be removed, or make less operative any device or element design installed on a motor vehicle or motor vehicle power-train, chassis or body components which results in altering Federal motor vehicle safety standards (FMVSS).

Once it gets data, I believe that the Agency has taken adequate steps to ensure individual privacy vis-a-vis its use of EDR data. However, the Agency can do more to assure that the data collected is not tampered with and is thus scientifically valid. To end up with "Garbage In—Garbage Out" scenario after a decade of R&D would negate the mission of NHTSA.

The Agency states in the final rulemaking that "We understand that EDRs can generate concerns related to how EDR data are currently used or will be used by entities other than NHTSA."

Unless the Agency moves quickly to protect EDR crash data it may become virtually useless. Once crash data is primarily used in civil and criminal cases a strong public response would motivate automakers to remove the technologies—thus increasing the possibilities of injuries and fatalities and negating the primary mission of NHTSA—to serve the greater good.

Automotive insurance companies must also assure that the real-time crash data has not be tampered or altered.

Therefore, a more practical and convenient means of preventing casual and unauthorized downloading of information is needed to protect the privacy of vehicle owners and motorists.

A consumer revolt against the installation of EDRs could negatively impact sales and/or lead many manufacturers to offer owners the option to turn off their EDRs or even to stop installation of them altogether.

EDRs as defined by 49 CFR 563 are not designed to resist tampering and if such tampering occurs there is no penalty. Thus, a giant privacy void exists as a central element of consumer protection and consumer acceptance.

IEEE 1616: Standard for Motor Vehicle Event Data Recorder (MVEDR) section 1.3 Data Privacy and Security Recommendations cite (in part) the following:

> In recent years, advances in technology have made possible the detailed information about individuals to be compiled and shared. This has produced many

> benefits for society as whole and individual consumers. At the same time, as personal information becomes more accessible precautions must be taken to protect against the misuse of information. MVEDR data aggregated across many events has significant scientific value. Occasional errors in data recording, communication, or retrieval will undoubtedly occur. However, uncontrolled release of any data, especially erroneous data for any specific event, has the potential to compromise that directly affected individual's need for confidentiality. Moreover, aggregate MVEDR data may contain an occasional statistical anomaly. While scientifically undesirable, minor errors are not catastrophic to the overall value of the data. However, individual or personal data containing statistically insignificant errors or omissions may wrongly attribute, falsely indicate fraud, or erroneously convict/exonerate a particular person."

Thus, there is a recognized need to provide both a means of consumer protection for permitting EPA mandated OBD data related to engine and emissions diagnostic data to be downloaded by service technicians and vehicle inspection stations and automobile inspection stations while at the same securing crash data for vehicle owners, thereby protecting privacy and avoiding tampering in an inexpensive and useful manner.

Vehicle owners are any individual, business, institution, government agency, organization, or corporation that holds the title to a motor vehicle.

The Agency received sufficient evident to understand that EDR crash data can be tampered with via the vehicle diagnostic link connector. See NHTSA–2008–0004–0013 at *www.regulations.gov* for an expert witness evaluation of 49 CFR 563.

The National Cooperative Highway Research Program (NCHRP)/Transportation Research Board/National Academies Project 17–24 Final report: Use of Event Data Recorder (EDR) Technology for Highway Crash Data Analysis notes (in part) :

> Although no cases have yet addressed the issue of EDR tampering, court rulings in cases involving similar devices in trains and trucks indicate that deliberate erasure or tampering with EDR data will move courts to invoke so-called evidence spoliation remedies. In other words, the deliberate destruction of such evidence may lead to sanctions against the despoiling party and judges may permit juries to draw certain negative inferences from such behavior.

While the Agency may not have "anti-tampering" provisions written into the EDR final rulemaking, the Safety Act does include a provision known as the "rendering inoperative" provision which is set forth in section 108(a)(2)(A) of the Safety Act (15 U.S.C. 1397(a)(2)(A)). That section prohibits manufacturers, distributors, dealers, and repair shops from knowingly "rendering inoperative," in whole or in part, any device or element of design installed on or in a vehicle in compliance with an applicable safety standard.

To overcome the shortcomings my pending Petition for Reconsideration of 49 CFR 563: Event Data Recorders recommending a simple mechanical lockout for a diagnostic link connector port would mitigate or obviate the aforementioned problems. Specifically, NHTSA–2008–0004–0007 seeks to: (1) maintain data privacy, (2) prevent data tampering, (3) avoid odometer fraud, (4) limit access to sensitive data, (5) stop in-vehicle systems engineering, (6) secure in-vehicle networks, (7) enhance overall safety and (8) encourage consumer acceptance.

Several Letters of Support are available for review at *www.regulations.gov* search NHTSA–2008–0004. [12]

The Change Required in 49 CFR 563: Event Data Recorders [13]

Congress Shall Require That NHTSA Add the Following

§ *563.13 Motor Vehicle Event Data Recorder Connector Lockout Apparatus (MVEDRCLA).*

Each manufacturer of a motor vehicle equipped with an EDR shall ensure by licensing agreement or other means that a motor vehicle event data recorder connector lockout apparatus (MVEDRCLA) as standardized by the Institute of Electrical and Electronics Engineers Standards Association (IEEE 1616) is commercially available for securing access to the data stored in the EDR that are required by this part. The MVEDRCLA shall be commercially available not later than 90 days after the first sale of the motor vehicle for purposes other than resale.[14]

The Institute of Electrical and Electronics Engineers Standard:

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[12] See NHTSA–2008–0004–0011 and NHTSA–2008–0004–0012 at *www.regulations.gov*.

[13] See NHTSA–2008–0001 at *www.regulations.gov*.

[14] See NHTSA–2008–0014.1 at *www.regulations.gov*.

IEEE 1616a™ Standard for Motor Vehicle Event Data Recorders (MVEDRS)—Amendment 1: Motor Vehicle Event Data Recorder Connector Lockout Apparatus (MVEDRCLA).

Scope: Motor Vehicle Event Data Recorders (MVEDRs) collect, record, store and export data related to pre-defined events in usage history. This amendment defines a lockout protocol for MVEDR output data accessibility by securing the vehicle output diagnostic link connector (DLC). This standard does not prescribe data security within the vehicle electronic control units (ECUs) or within the intra-vehicle communication and/or diagnostic networks but instead defines ways and means to permit uniform, but controlled access of electronic scan tools to the DLC for legitimate vehicle emissions status, maintenance and/or repair. This standard also defines a means of maintaining data security on the vehicle via a motor vehicle DLC connector lockout apparatus (MVEDRCLA). The MVEDRCLA is applicable to vehicles and their respective event data recorders for all types of motor vehicles licensed to operate on public highways.

Purpose: Many light-duty vehicles, and increasing numbers of heavy commercial vehicles, are equipped with some form of a MVEDR. These systems are diverse in function, and proprietary in nature, however, the SAE J1962 (ISO/DIS 15031–3) vehicle diagnostic link connector (DLC) has a common design and pinout, and is thus universally used to access event data recorder information. Data access via the DLC can be accomplished by using scan tools or microcomputers and network interfaces. This same DLC and network interface is also used for re-calibrating electronic control units on a vehicle. Such ECU applications can include restraint controls, engine controls, stability controls, braking controls, etc. This amendment defines a protocol to protect against misuse of electronic tools which use the DLC to erase, modify or tamper with electronic controller or odometer readings, or to improperly download data. Implementation of MVEDRCLA provides an opportunity to voluntarily achieve DLC security by standardizing a MVEDRCLA which will act to prevent vehicle tampering, which can include odometer fraud, illegal calibrations leading to emissions violations and theft of personal data. Adoption of this standard will therefore make the common MVEDR/DLC data more secure and credible while still permitting accessibility to legitimate end users.

Bottom Line: If vehicle and highway safety is to be advanced in our Nation then crash data available from EDRs must be tamper-proof.

Respectfully Submitted,

THOMAS M. KOWALICK.

Attachments

1. Petition for Reconsideration submitted 25 February 2008
2. Letter of Support dated 17 November 2009

Online Resources

Press release IEEE p1616 at *http://standards.ieee.org/announcements/pr_1616.html*

Press release IEEE 1616 at *http://grouper.ieee.org/groups/1616a/PR.html*

Fatal Exit: The Automotive Black Box Debate at *http://books.google.com/books?id=VkooLFWnUmYC&dq=fatal+exit&printsec=frontcover&source=bn&hl=en&ei=Cd1pS8zwllaWtgftiZHSBg&sa=X&oi=book_result&ct=result&resnum=4&ved=0CBAQ6AEwAw#v=onepage&q=appeal&f=true*

GAO–09–056 at *http://gao.gov/new.items/d0956.pdf*

NHTSA Dockets at *www.regulations.gov* see NHTSA–2008–0004–0007 for Kowalick Petition.

49 CFR 563: Event Data Recorders at *www.regulations.gov* See NHTSA–2008–0004–0001

CC: Chairman, The Honorable Senator John D. Rockefeller IV, West Virginia
Ranking Member, The Honorable Senator Kay Bailey Hutchison, Texas
The Honorable Senator Daniel K. Inouye, Hawaii
The Honorable Senator John F. Kerry, Massachusetts
The Honorable Senator Byron L. Dorgan, North Dakota
The Honorable Senator Barbara Boxer, California
The Honorable Senator Bill Nelson, Florida
The Honorable Senator Maria Cantwell, Washington
The Honorable Senator Frank R. Lautenberg, New Jersey
The Honorable Senator Mark Pryor, Arkansas
The Honorable Senator Claire McCaskill, Missouri
The Honorable Senator Amy Klobuchar, Minnesota
The Honorable Senator Tom Udall, New Mexico
The Honorable Senator Mark Warner, Virginia

The Honorable Senator Mark Begich, Alaska
The Honorable Senator Olympia Snowe, Maine
The Honorable Senator John Ensign, Nevada
The Honorable Senator Jim DeMint, South Carolina
The Honorable Senator John Thune, South Dakota
The Honorable Senator Roger Wicker, Mississippi

February 25, 2008

Hon. NICOLE R. NASON,
Administrator,
National Highway Traffic Safety Administration,
Washington, DC.

Dear Nicole R. Nason:

[Docket No. NHTSA–2008–00041 RIN 21'27–AK 12 or subsequently NHTSA–2006–25666.

RE: Petition for Reconsideration to 49 CFR Part 563 Event Data Recorders—Response to Petitions for Reconsideration as published in the *Federal Register*/Vol. 73, No. 9/Monday, January 14, 2008/Rules and Regulations.

Specifically, I Petition for Remand due to factual errors in the Agency response to the following section:

> H. Public Privacy and Consumer
> Notification of EDRs
>
> 1. Whether NHTSA Should Require a Mechanical Lockout on EDRs.
>
> Mr. Thomas Kowalick petitioned NHTSA to require a mechanical lockout on the on-board diagnostic (OBD2) port[28] for the sole use/control of the owner or operator of the vehicle equipped with an EDR. Mr. Kowalick argued that it is possible to protect consumer privacy rights by use of a mechanical lockout system on this port, which is used to download EDR data. In a March 1, 2007 meeting with NHTSA, Mr. Kowalick expressed an additional concern that aftermarket devices are being developed to erase or tamper with EDR data.[29] *He noted that the preamble to the final rule stated that if tampering became apparent, NHTSA would reconsider its position on this issue*.
>
> *Agency response*: We are denying this petition. Mr. Kowalick provided information that devices may exist to erase or tamper with EDR data, but he did not provide information that they were actually being used. There are several other ways that EDR tampering will be prevented. First, the EDR download port is installed inside the vehicle, on which the door locks act as a first line of defense to prevent access to the data port. Second, if the vehicle glazing is missing, either due to an accident or forceful entry (assuming a person wants to tamper with someone else's EDR data), the vehicle key is needed to power the vehicle to access the EDR data through the diagnostic port. And third, the final rule requires that event data from crashes in which an air bag has been deployed must be locked and cannot be overwritten. *As stated in the final rule, the agency may revisit the issue if EDR tampering indeed becomes a problem*.

I petition NHTSA for remand based on evidence of tampering. Thus, I am providing information to persuade NHTSA that conditions have changed meaningfully since the Agency's original determination—specifically with current tampering of EDR data and odometer readings.

Definition of Tampering

"Tampering" means to modify, remove, render inoperative, cause to be removed, or make less operative any device or element design installed on a motor vehicle or motor vehicle power-train, chassis or body components which results in altering Federal motor vehicle safety standards (FMVSS).

Providing the Agency Evidence of Tampering Devices

Docket NHTSA–2006–25666–457 clearly establishes that numerous devices exist to reset air bags, erase crash data and/or modify odometer readings. In that docket

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[28] See 61 FR 40940. Thc OBD2 port standard specifies the type of diagnostic connector and its output pin locations used for monitoring vehicle parameters measured by the on-board computer(s) such as emissions controls. It is typically located on the driver's side of the passenger compartment near the center console.

[29] Docket No. NHTSA–2006–25666–457.

I cited 29 products from 23 companies advertised with capabilities to alter or omit crash data by plugging an inexpensive software/hardware device into the vehicle OBD port.

Providing the Agency Evidence of Tampering Services

Here are four (4) examples as advertised online (last visited 2/27/08):

http://www.talktomycar.co.uk/index.htm

http://www.airbagcrash.com/

http://www.tachosoft.com/__airbag.htm

http://www.autodiag.ru/airbagaudivwen.html

NHTSA Initiatives Call for Increased Measures but Fail to Provide an Effective Counter-Measure

The Agency maintains an Office of Odometer Fraud Investigation with a website at *http://www.nhtsa.dot.gov/portal/site/nhtsa/menuitem.893c19c9fb974f825c420087dba046a0/*

This site provides the following assessment:

> Odometer tampering continues to be a serious crime and consumer fraud issue. In 2002, NHTSA determined this crime allows more than 450,000 vehicles to be sold each year with false odometer readings, milking American car buyers out of more than $1 billion annually. From 2002 to 2005, we have seen a definite escalation of odometer fraud. New car prices, coupled with the increased demand for late-model, low-mileage used cars, has made odometer fraud more profitable than ever. Strong enforcement of the Federal and state odometer laws, *i.e.,* prosecutions with stiff sentences, appears to be the most effective deterrent.

The Nature of Odometer Fraud According to the U.S. Department of Justice (USDOJ)

Odometer fraud is a pernicious crime that robs thousands of dollars from each victim it touches. See, *e.g., United States* v. *Whitlow, 979 F.2d 1008, 1012 (5th Cir. 1992)* (under sentencing guidelines, court affirmed estimate that consumers lost $4,000 per vehicle). The television news magazine 60 Minutes once characterized it as the largest consumer fraud in America. Victims of this fraud are commonly the least able to afford it, since buyers of used cars include large numbers of low income people. In addition, consumers generally arc unaware of being victimized.

Odometer-tampering involves several interrelated activities. Late-model, high-mileage vehicles are purchased at a low price. The vehicles are "reconditioned" or "detailed" to remove many outward appearances of long use. Finally, odometers are reset, typically removing more than 40,000 miles.

In addition to the cosmetic "reconditioning" of the car, the odometer tamperer "reconditions" paperwork. Automobile titles include a declaration of mileage statement to be completed when ownership is transferred. To hide the actual mileage that is declared on the title when the car is sold to an odometer tamperer, the tamperer must take steps to conceal this information. These steps vary from simple alteration of mileage figures, to creating transfers to fictitious "straw" dealerships to make it unclear who was responsible for the odometer rollback and title alteration. Alternatively, the odometer tamperers frequently destroy original title documents indicating high-mileage, and obtain duplicate certificates of title from state motor vehicle departments, upon which the false, lower mileage figures are entered.

Whatever method is used, the result is the same. The odometer tamperer possesses an altered, forged, or replacement title document (which is a security under Federal law) containing a false low-mileage reading. This title is used to sell the car, for several thousand dollars above its actual value, to a purchaser who is deceived regarding the vehicle's remaining useful life by the altered odometer, by the vehicle's outward appearance, and by the counterfeit, low-mileage title and odometer statement.[1]

Rationale for this Petition for Reconsideration stressing that the Agency has the authority and responsibility to act in a timely manner to correct clearly erroneous errors:

> 1. The Agency already acknowledges tampering devices exist to erase crash data and alter odometers, and promises *if tampering became apparent it would reconsider its position on this issue*. This petition provides evidence of tampering.

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[1] See *http://www.usdoj.gov/civil/ocl/monograph/odom.htm* (Last visited 2/25/2008)

2. The Agency's EDR rulemaking *is inadequate to protect owner/operators* of an estimated sixty (60) million vehicles that currently utilize event data recorder (EDR) technologies as proven by the fact that EDR data is widely used in civil and criminal cases.[2] Even though the majority of vehicle owners are unaware of the presence of these "black boxes" in their vehicle, criminal prosecutors and personal injury attorneys are obtaining the data contained in these "black boxes" from owners' vehicles and using the data contained within to charge drivers with crimes or hold them liable for damages in personal injury lawsuits. Numerous unsuspecting vehicle operators have been convicted, sentenced and jailed based, in part, on the black box data extracted from their vehicles.[3]

3. Door locks *do not serve as an adequate defense to prevent access* to the diagnostic link connector (DLC) data port. Following a crash numerous personnel including first responders, law enforcement and other third parties such as vehicle towing and insurance adjusters have access to the interior of the vehicle and thus to the diagnostic link connector (DLC) port. Therefore, an open port is always subject to tampering. (see figure 1).

4. Furthermore, *a vehicle key is NOT NEEDED to access the EDR data* since the Agency is fully aware that there arc alternative methods to provide power via the fuse box.[4] The Agency also understands future vehicles will include keyless ignitions.

5. Finally, although the Agency cites that event data from crashes in which an air bag has been deployed must be locked and cannot be overwritten *the Agency failed to define the term "lock."*[5] which permits a high likelihood of confusion and misunderstanding.

In conclusion, although NASS investigation teams may be properly collecting EDR crash data the Agency cannot determine—one way or the other—if or when motor vehicle event data recorders or odometers are tampered with by other parties, therefore, calling into question the validity of the data gathered or a rationale for lack of data (once erased). To remedy this situation the Agency should quickly correct clearly erroneous factual errors and mandate a mechanical lockout on the diagnostic link connector (DLC) for vehicles that include EDRs or provide access to odometer settings via the DLC. This is an immediate and urgent issue. A simple OEM or aftermarket lockout product is readily feasible. Vehicle OEMs would welcome this means of protecting data and preventing re-engineering. The estimated cost per vehicle would be approximately two dollars. This would be a small price for providing consumer protection toward assuring consumer acceptance of these emerging life saving technologies. I welcome the opportunity to provide additional information to

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[2] EDR case law online at *http://www.collisionsafety.net/cdrcaselaw.htm* (Last visited 2/25/2008).

[3] See *http://lemonfax.com/industry_secrets.html* (Last visited 2/25/2008).

[4] The Agency participated in a National Academies of Science/Transportation Research Board (NSA/TRB) National Cooperative Highway Research *Project 17–24 Use of Event Data Recorder (EDR) Technology for Highway Crash Analysis* study in which a section (4) was devoted to EDR Data Retrieval Methods and Issues: Section 4.2.2 specifically outlines NHTSA experience with EDR Data Retrieval; and Section 4.2.3 specifically details Interviews with NASS Field Accident Investigators. Thus, the Agency is well versed on alternative methods of accessing data without a vehicle key. The full report is available online at: *www-nrd.nhtsa.dot.gov/edr-site/uploads/TRB_NCHRP_Project_17-24.pdf*—Other EDR Downloading Concerns. Assuming that the accident investigation teams are able to download the EDR from the OBD–II port, they need to obtain the vehicles keys to operate the ignition. Contrary to overall NHTSA findings, the Ocean County team reported that obtaining the vehicles keys was not a problem, making this method of download a simple process when OBD–II download functions correctly. GM Experience with EDR Data Retrieval: The research team followed up these interviews with a phone interview with a subject EDR expert at GM (Floyd, 2003). GM reports significantly higher success rates at downloading their EDRs through the OBD–II connector. GM uses a technique of externally powering the airbag control module through the fuse box when the car has lost power or no key is available. GM reports that this technique works unless there is significant intrusion or unless the ODD–II connection has been grounded. It should be noted that this technique is not however part of the currently recommended practice when using the Vetronix CDR tool. Using techniques such as these, however, GM estimates that their EDRs can be downloaded through the OBD–II connector 80 percent of the time. Only an estimated 20 percent of the attempted downloads require direct connection with cables. In an estimated 5 percent of all cases, no data can be recovered for reasons including water immersion, fire, or severe crash damage.

[5] During this same EDR rulemaking in response to a petition from AORC the Agency stated "If we allowed the EDR to be erased by external means, it could encourage development of tools to erase EDR data potentially beneficial to our programs, and would make it difficult to ensure that this feature was not being misused. Although the final rule did not define the term "locked." we consider it to mean to protect EDR data from changes or deletion. This would include by external means." (note—these tools are being used!)

the Agency on this issue. I also volunteer to provide a demonstration of how to secure the ODB DLC port without interfering with scheduled maintenance, inspection or repair of the vehicle as required. *Thus, based on the evidence presented to the Agency there are no substantive reasons for denial of this timely petition*.

Sincerely,

THOMAS M. KOWALICK.

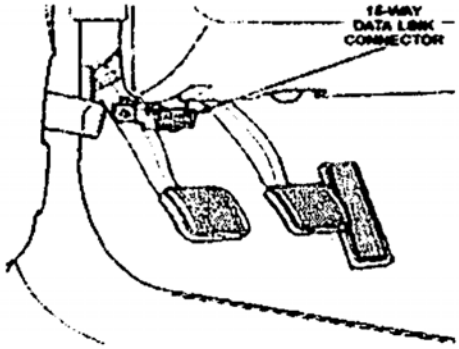

Figure 1

AUTOMOTIVE SYSTEMS ANALYSIS, INC.
Reston, VA, 17 November 2009

Mr. STEPHEN R. KRATZKE, Esq.,
Associate Administrator of Rulemaking,
National Highway Traffic Safety Administration
Washington, DC.

Subject: Letter of support for Professor Thomas M. Kowalick's Petition for Reconsideration of 49 CFR 563.

Dear Mr. Kratzke:

I, William Rosenbluth, wish to submit a letter of support of Mr. Thomas M. Kowalick's Petition for Reconsideration regarding 49 CFR 563; Event Data Recorders.

I have been performing retrieval and analysis of passenger vehicle EDR data for approximately 15 years. I am the author of two books published on that subject, *Investigation and Interpretation of Black Box Data in Automobiles*, jointly published by the American Society of Testing and Materials (ASTM) and the Society of Automotive Engineers (SAE) in June 2001 and *Black Box Data from Accident Vehicles, Methods of Retrieval, Translation and Interpretation*, published by ASTM in November 2009.

I support Mr. Kowalick's Petition for Reconsideration because I perceive that the Agency has published ambiguous security criteria for "locked data," while Mr Kowalick's anti-tampering device unambiguously accomplishes security for "locked data". My perception of the Agency's security criteria for "locked data" is discussed below:

1. The definition of "locked data" in the Final Rule, published in the Federal Register: August 28, 2006 contains the notice that:

> We have considered the comments recommending that we address potential tampering with EDRs. We currently do not have information that leads us to believe that tampering with EDRs is a problem that necessitates us to develop requirements in this area. We may revisit this issue if we find that EDR tampering becomes a problem. However, we do believe one aspect of EDR design will discourage tampering. We are requiring that the captured file be locked for crashes that involve air bags. The locked file will be preserved and the file can-

not be overwritten. (SOURCE: FR Vol 71, No. 166/Monday, August 28, 2006/ Rules and Regulations, Page 51023.).

The exact definition of "locked file" or "locked data" was not further specified. Current usage defines "locked data" as specific event-data, once written, that cannot be overwritten by a next event. The current means of indicating that data is locked is a byte flag in non-volatile memory indicating that a portion of non-volatile memory is "locked" and cannot be overwritten by a next event.

2. In current designs, such data is normally resident in Electrically Erasable Programmable Read Only Memory (EEPROM), which is actually a re-writable media. Current and understood technology allows external access to read that EEPROM data via an external data port (typically, the SAE J 1962 port). Data port access to post crash-event EEPROM data is typically protected via SAE J 2190 mode 27 security measures. Data in EEPROM is retained even when battery power is removed.

3. However, as with any software protection, if there are ways to read EEPROM "locked data" from an external port, there are ways to write, alter or overwrite that "locked data" from an external port (as long as the media in question (EEPROM) is re-writable). Additionally, there are ways to write, alter or overwrite data in EEPROM media via direct internal EEPROM umbilical connections, thus avoiding data port security measures.

4. It thus appears that, based on the FR Vol 71, No. 166/Monday, August 28, 2006/Rules and Regulations, Page 51023 criteria, traditional EEPROM technology, as used in current day EDRs, satisfies this criteria. However, data saved in traditional EEPROM technology is actually quite changeable with appropriate external software commands.

5. The Agency appears to have disallowed Mr. Kowalick's original petition, as documented in the Federal Register: January 14, 2008 (Volume 73, Number 9)], [Rules and Regulations], [Page 2168–2184], based on its perception that "locked data" was not changeable. Specifically, in its determination, the Agency considered on page 2178:

1. Whether NHTSA Should Require a Mechanical Lockout on EDRs

Mr. Thomas Kowalick petitioned NHTSA to require a mechanical lockout on the on-board diagnostic (OBD2) port for the sole use control of the owner or operator of the vehicle equipped with an EDR. Mr. Kowalick argued that it is possible to protect consumer privacy rights by use of a mechanical lockout system on this port, which is used to download EDR data. In a March 1, 2007 meeting with NHTSA, Mr. Kowalick expressed an additional concern that aftermarket devices are being developed to erase or tamper with EDR data. He noted that the preamble to the final rule stated that if tampering became apparent, NHTSA would reconsider its position on this issue."

The Agency responded that: We are denying this petition. Mr. Kowalick provided information that devices may exist to erase or tamper with EDR data, but he did not provide information that they were actually being used. There are several other ways that EDR tampering will be prevented. First, the EDR download port is installed inside the vehicle, on which the door locks act as a first line of defense to prevent access to the data port. Second, if the vehicle glazing is missing, either due to an accident or forceful entry (assuming a person wants to tamper with someone else's EDR data), the vehicle key is needed to power the vehicle to access the EDR data through the diagnostic port. And third, the final rule requires that event data from crashes in which an air bag has been deployed must be locked and cannot be overwritten. As stated in the final rule, the agency may revisit the issue if EDR tampering indeed becomes a problem.

6. The Agency, in its answer to Mr. Kowalick, apparently feels that "locked data" cannot be overwritten. However, current technology and current designs only prevent "locked data" from being overwritten by a successive crash event.

7. Conversely, in the same *Federal Register*: January 14, 2008, Volume 73, Number 9, Page 2172, in response to an AORC petition, the Agency additionally defined (clarified) its perception of "locked data" as defined below.

Agency response: We are denying this petition. We do not believe that reuse of the EDR is a sufficient reason to allow its erasure by external means. If we allowed the EDR to be erased by external means, it could encourage development of tools to erase EDR data potentially beneficial to our programs, and would make it difficult to ensure that this feature was not being misused. Although

the final rule did not define the term "locked," we consider it to mean to protect EDR data from changes or deletion. This would include by external means.

This is the first Agency definition (clarification) that "locked data" should be immune from alteration by any external means. However it does not specify the "locked data" has to be saved in non-rewritable media, nor does it specify the degree of security needed to assert that the "locked data" is immune from alteration by any external means.

8. The current reality is that such event-data (as is chosen to be saved) is typically saved in EEPROM. EEPROM is a rewritable media. At this time, notwithstanding data port security measures, there are many publicly advertised tools that have the ability to clear "locked data" from crash records in Event Data Recorders (typically SRS ECUs), using only the external data port. Representative publicly advertised tools arc shown in Appendix A.

9. One alternative method of achieving absolute "locked data" security, using current technology, is to use Electrically Programmable Read Only Memory (EPROM), versus EEPROM, as the media in which to store "locked data". EPROM is written once, and is not electrically changeable thereafter. That change would absolutely comply with the Agency's later definition (clarification) in response to AORC, however, that change would preclude the storage of multiple below-threshold (*i.e.,* near-deploy) events in a common media. Thus, to save event-data for both non-deploy and deploy level events (as is done today) , it would require multiple event-data buffer memory types (*e.g.,* EPROM and EEPROM). That would require programming design innovation and hardware design innovation above and beyond current EDR design practices. Such design innovations would add to the cost, complexity and design lead time for future EDRs.

10. Conversely, if the Agency wishes to avoid such design innovation, the Agency must revisit the method of preventing unauthorized and possibly nefarious tools from accessing and possibly altering the supposedly "locked data."

The most practical way to do that is to use a device that physically assures diagnostic port integrity. That was the nub of Mr. Kowalick's original Petition and his Petition for Reconsideration.

11. For the above reasons, I believe that the Agency must state its unambiguous intent regarding "locked data" and its direction to achieve "locked data" by either via incorporation of design and technology innovation in the EDR ECU itself or by a mechanical security device as would be achieved by allowing Mr. Kowalick's Petition for Reconsideration of 49 CFR 563: Event Data Recorders.

Respectfully submitted,

WILLIAM ROSENBLUTH.

APPENDIX A

Publicly advertised tools that have the ability to clear "locked data" from crash records in Event Data Recorders (typically SRS ECUs),

1. *http://www.uuctech.com/Products/VW-AUDI-Airbag-Reset.html*
2. *http://www.tradekey.com/product__view/id/811757.htm*
3. *http://www.codecard.lt/carprog/carprog-airbag-with-all-software-39-s-and-adapters-needed-for-airbag-repair-and-programming/prod__345.html*
4. *http://www.adkautoscan.com/Production/R101.htm*
5. *http://autocheery.en.made-in-china.com/product/reOQqGocbJiB/China-Honda-SRS-OBD2-Airbag-Resetter-for-Honda-with-TMS320-.html*
6. *http://www.mtaplus.cz/navody/vwgroup__airbagreseter.pdf*
7. *http://www.codecard.lt/ford-airbag-reset-tool-please-find-it-as-carprog-software-/prod*
8. *http://www.codecard.lt/carprog/software/carprog-airbag/s5–5-gm-airbag-reset-tool-by-obdii/prod__88.html*

Author Information: Thomas M. Kowalick, is widely recognized as a leading researcher on EDR technologies. He is president of Click, Inc.—Transportation Safety Technologies, a member of the Author's Guild, and is a professor in Pinehurst, North Carolina. Kowalick served as Co-Chair of the Institute of Electrical and Electronics Engineers (IEEE) global project 16160 to create the world's first automotive black box standard, contributed to the development of the National Highway Traffic Safety Administration (NHTSA) website for EDR research, and as a panel member on the National Academies of Sciences project studying EDRs. He is the author of *FATAL EXIT: The Automotive Black Box Debate* (John Wiley) and five other books specifically covering EDR history, standardization, legislation, regulation, legal

issues and consumer protection. Kowalick is also author of the EDR segment in the forthcoming *McGraw Hill 2009 Yearbook of Science & Technology*. He holds three foundation patents for EDR technologies and his company manufactures CRASHGUARD® an new automotive aftermarket product to help prevent EDR tampering and odometer fraud.

Further information please contact *info@blackbox-edr.com* or *info@www.crashguard.com*

KING & SPALDING LLP
Washington, DC, March 18, 2010

Hon. JOHN D. ROCKEFELLER IV,
Committee on Commerce, Science, and Transportation,
U.S. Senate,
Washington, DC.

Dear Chairman Rockefeller:

I am writing on behalf of Toyota Motor North America, Inc. ("TMA" or "Toyota") to you as Chairman of the Committee on Commerce, Science, and Transportation ("the Committee"). The hearing addressed a number of issues related to unintended acceleration in various Toyota models. Toyota welcomes the opportunity to clarify the matters you and other Senators of the Committee have raised, and has asked me to provide the following responses.

Question 1. Please describe all technical and substantive differences between the electronic sensors Toyota places on its pedals versus the electronic sensors on its engine throttle control.

Answer. Features of electronic sensors are different between the pedal and the engine throttle control. For those on the pedals, voltage sensors in which both sensors increase at the same rate are used; while for those on the engine throttle control, voltage sensors in which both sensors increase at different rates are used.

Question 2. In accordance with the charts shown during the bearing in which Toyota on its website describes the different voltage levels for the pedal versus the engine throttle assembly, please answer the following questions:

a. Why does Toyota use different sensors with different voltage level increases for its pedals versus engine throttle control?

i. Is one technology safer than the other?

Answer. There is no difference in safety between the two sensors. They are an integral part of the overall system strategy that provides a reliable operation with a robust fault detection and fail-safe features.

b. Why does Toyota use voltage sensors on its pedals in which both sensors increase at the same rate?

i. Why did Toyota make that decision when the rest of the auto industry on its pedals uses voltage sensors that increase at different rates?

Answer. Toyota is not the only manufacturer that uses sensors that increase at the same rate. The strategy used by Toyota provides a better angle resolution.

c. Why does Toyota use voltage sensors on its engine throttle assembly that increase at different rates?

Answer. Toyota has used voltage sensors on its engine throttle assembly that increase at different rates since the initial implementation of the ETCS system. Toyota is not aware of any problems with these sensors in the market.

d. How much does the sensor on the pedal assembly cost for 2004–2008 Camrys? (Please give an answer for each year).

Answer. Sensors are not purchased as separate items. They are part of the pedal assembly.

e. How much would it have cost to place on the pedal assembly sensors that increase at different voltage rates for 2004–2008 Camrys? (Please give an answer for each year).

Answer. Sensors are not purchased as separate items. They are part of the pedal assembly.

Question 3. In the beginning of the last decade, many automobile manufacturers transitioned from "drive by cable" throttle control systems to "drive by wire" electronic throttle control system driven by software with electronic sensors and mechanisms. Like many electronic devices, they moved quickly to the marketplace without much testing and did not come without their flaws and glitches. Toyota introduced their first system in 2002 in their popular Camry model. Since 2002, NHTSA has conducted eight investigations regarding SUA in Toyota and Lexus Vehicles. Soft-

ware has undergone many upgrades and revisions in recent years, and today's software is easy to update with added programs.

a. Can you please explain the role of computers and software in the control systems for your vehicles?

Answer. Computers and software are used in the modem vehicles to provide a safe, reliable, fuel efficient operation with minimal pollution. They help the vehicle operate at its most efficient performance. They also provide advanced safety features like stability and traction control, and help provide a fault detection and fail-safe strategy to the vehicles. With these systems, in the event of a fault detection, the driver is notified; vehicle acceleration is curtailed at the same time, allowing the driver to move the vehicle to a safe location away from the traffic.

b. Has Toyota identified any flaws with ETC systems in the research and development stage or the current marketplace?

Answer. Toyota has not identified any flaws in its ETCS-i system in the development stage or in the market.

c. Does Toyota believe this software or electronic throttle control systems to be a cause of unintended acceleration in Toyotas?

Answer. Toyota's design process is exhaustive and robust. Toyota does not believe there are any problems with the electronics of its vehicles. Toyota has built-in redundancies to the system and fail safe modes that allow Toyota to say with confidence that the ETCS-i is not the cause of unintended or unwanted acceleration. The ETCS-i system is designed to cause the engine power to shut off or operate at reduced power in the event of a system failure.

Toyota recently commissioned Exponent, a well-respected engineering and scientific consulting firm, to study Toyota and Lexus vehicles and components for concerns related to unwanted acceleration. Exponent was not restricted by scope or by budget considerations in this review. Although its work is still ongoing, to date Exponent has found that the ETCS-i systems have performed as designed, and have not exhibited any acceleration or precursor to acceleration, despite concerted efforts to induce unwanted acceleration. In all cases tested by Exponent so far, the vehicle either behaved normally or entered the fail-safe mode described above.

d. What will Toyota do if either Toyota or NHTSA discover that there is a defect with the Electronic Throttle Control System (ETCS)?

Answer. Toyota is confident that no problems exist with the ETCS in Toyota's vehicles. Toyota does not believe unintended acceleration is caused by a defect in the ETCS-i system. Toyota will be vigilant in addressing consumer complaints, and if it finds any additional problems with its vehicles, it will address them promptly, in full cooperation with NHTSA and in full compliance with related laws and regulations.

Question 4. Many other manufacturers of other high-tech systems, such as those making products for NASA and the DOD, conduct strenuous verification and validation tests on their equipment by engineers completely independent from software developers and hardware manufacturers with the assumption that there will be faults and failures in the system. They even test these systems under high stress conditions. The purpose is to correct any fixable flaws and to create fail-safe corrective systems in the event of a malfunction.

a. What fail-safe mechanisms does Toyota employ to combat the potential for sudden unintended acceleration?

Answer. Toyota implemented a robust fault detection and fail-safe strategy. The enclosed document lists some of the important fail-safe features. (See Attachment A).

It is important to use the right term in discussing the ETCS-i fail-safes. The correct term is "fail-safe," which means literally that if there is a system error or failure, the system will revert to a safe mode. This is distinct from a "back-up system" or "multiple redundancies." Those terms have meanings that, in the event of an error, preserve safety.

The ETCS-i constantly compares the target at CPUs in the Electronic Control Module ("ECM") and the throttle valve's opening angle many times per second. If there is any discrepancy between the two, electrical power is cut to the throttle control motor and a powerful spring closes the throttle valve within 1 second to what is basically idle position (or what is referred to as "limp home" mode).

The accelerator pedal position is monitored by two separate Accelerator Pedal Position Sensors ("APPS"). These sensors read differently from each other but are designed to maintain a different value between them. If by chance or error some outside source-voltage was to contaminate the sensor signal, the Electronic Control Module ("ECM") would recognize the incorrect signal due to a change in the value between the two sensors. If the system recognizes that only one of the sensors is

reading correctly (by comparing signals, checking voltages and differences in voltages between the two sensors), the ETCS-i system will go into a fail-safe that only allows the throttle to open a small fraction of the normal range. The driver will notice a distinct loss in power, with a reduced maximum speed. If the ECM finds that both sensors are inconsistent and out of range, electrical power is cut to the throttle control motor and a powerful spring closes the throttle within one second to what is basically the idle position. The driver would not be able to accelerate; the vehicle will run allowing the vehicle to "limp home"—like driving without pressing on the accelerator pedal.

The throttle valve is monitored by two separate sensors. Any failure of either sensor causes the ECM to turn off the throttle control motor, and the throttle value is then held in a fixed (near idle) position by the return spring. In this mode engine speed is regulated by controlling fuel injection and ignition timing according to the APPS signals. The driver will notice a distinct loss in power, with a reduced maximum speed.

The throttle control motor itself is covered by yet another fail-safe system. If there is a malfunction in the system, the ECM shuts the power to the motor off and the return springs move the throttle to the default position. The ECM will turn the motor off if there is excessive amperage or not enough amperage in the motor circuit.

If the driver is experiencing what he or she believes is an unwanted acceleration event, in addition to the fail-safes above, the driver should be able to control the vehicle with firm and steady application of the brakes. In addition, the vehicle can be put into neutral, and turning off the ignition using the push button operation is explained in the Owner's Manual. There also will be a code stored in the ECM, and a warning light will illuminate on the dashboard if the vehicle goes into a fail-safe mode.

b. Does Toyota's electronic throttle control system (software/hardware) receive analysis and stress testing from independent engineers to verify and validate the safety of the system?

Answer. Toyota's internal testing standards are based on the standards of the Society of Automotive Engineers (SAE) and those of the International Organization for Standardization (ISO), and cover such circumstances under which electronic interference by any extraneous broadcasting radio wave, wireless appliances installed or brought into the vehicles, and/or mobile phones might be anticipated.

On all of the electronic parts and components including the electronic throttle, Toyota always requests its suppliers to test those parts and components on the basis of their internal testing standards and secure the durability of those parts and components, and then Toyota installs those parts and components into its vehicles and evaluates the effects of electronic interference on the functioning of those parts and components. The results of these tests indicate all of the electronic parts and components meet the standards before vehicle production.

Furthermore, in order to address the current concerns on Toyota's ETCS-i system, Toyota has recently commissioned Exponent to conduct independent tests. Exponent is now systematically evaluating the performance of the ETCS-i system in Toyota and Lexus vehicles when subjected to abnormal and fault conditions. In its interim report, previously provided to you, Exponent concluded: "[D]uring extensive testing on multiple vehicles, where different electrical and mechanical [changes] were imposed on the components comprising the ETCS-i system, Exponent did not observe any instances of unintended acceleration or any circumstances that might lead to unintended acceleration. To the contrary, imposing these [changes] resulted in a significant drop in power rather than an increase, In all cases, when a fault was imposed, the vehicle entered a fail-safe mode consistent with descriptions provided in the technical manuals for Toyota and Lexus vehicles."

The testing discussed above confirms that the ETCS-i system is not susceptible to electromagnetic interference. All those tests show there is no problem with the electronic throttle control or other electronic components.

c. What companies does Toyota depend on for such testing? Where do these tests take place?

Answer. Exponent, a leading engineering and scientific consulting firm, is continuing its examination of the ETCS-i system in Toyota and Lexus vehicles. In addition, the newly established North American Quality Advisory Panel will examine the ETCS-i system and have the authority to consult with any expert it chooses.

Question 5. In an internal company document dated July 2009, Toyota boasted about convincing NHTSA that an equipment recall was sufficient to address the pedal entrapment issue instead of a vehicle recall. This resulted in saving the company $100 million. Unfortunately, pedal entrapment problems persisted and more

people died as a result. You pledged during the hearing that you would confirm the actual amount of savings to Toyota from avoiding a full recall in 2007 in favor of a more limited equipment recall for the floormats.

a. How much did Toyota save as a result of that decision?

b. What will Toyota do to make sure that this does not happen again and that consumer safety is always put first before corporate profits?

Answer. Toyota is actively investigating the basis for the $100 million figure in the July 2009 presentation, and will respond to the Committee as soon as possible.

Question 6. New Mexico is a rural state and it may not be convenient or safe for all Toyota owners to drive in for their recall service.

a. What is Toyota doing to facilitate recalls in states where the drive to the dealership is long and potentially dangerous due to the items subject to the safety recall?

Answer. Toyota has several dealerships situated throughout the state that are in close proximity to the majority of its customers and is unaware of any widespread issues in getting to the dealership. Consistent with Toyota's customer-first values, Toyota's dealers are working diligently to take care of Toyota's customers and facilitate the recall process, in many cases working extended hours to complete repairs as quickly as possible. Toyota will support its dealers in their efforts to ensure customers are able to get to the dealership and have their vehicles fixed. If a consumer does not feel comfortable driving to the dealership, Toyota, its dealers, and the customer will coordinate a plan to get the vehicle fixed, that could mean the dealer drives the car to the dealership, a technician visits the home, or a tow truck brings the car to the dealership. Toyota will reimburse its dealers for any action they take to conduct the recall efficiently and conveniently for the customers.

Question 7. The corporate structure of Toyota has all safety decisions being made in Japan. In fact documents requested of local units were sent to Japan before they were sent to NHTSA as requested. This resulted in unnecessary delays in investigations as well as concerns that the information provided was filtered before being delivered to NHTSA for their use.

a. What steps is Toyota taking to improve their ability to respond completely and in a timely manner to NHTSA's requests?

Answer. Toyota is committed to increasing the frequency and transparency of its communications with NHTSA as well as regulators in its other markets. Toyota has proposed quarterly meetings with NHTSA, regardless of whether there are specific issues of concern, to facilitate the flow of communication. In addition, Toyota will be available to NHTSA at any time additional meetings are needed.

b. What steps is Toyota taking to be more proactive in identifying potential issues, notifying NHTSA of the issue in advance of their request, and developing solutions to the safety concern?

Answer. Toyota is conducting a top-to-bottom review of all of its quality control processes worldwide, with the assistance of outside, independent safety experts.

Toyota is improving its ability to investigate complaints in several ways. First, it has created SMART teams that will investigate each unintended acceleration complaint in the U.S. Second, it is increasing the use of onboard event data recorders and producing more EDR read out tools to NHTSA and Toyota's investigators. Third, Toyota is requesting that going forward NHTSA provide Toyota with more information from its complaint data base, such as VIN numbers, which are necessary for investigation.

Toyota has established new processes and organizations within Toyota to improve quality, responsiveness, and communication. The Special Committee for Global Quality will focus on improving quality processes and procedures at Toyota worldwide. It will have a North American representative who is also represented on the North American Quality Taskforce. This taskforce will be advised by an outside organization, the North American Quality Advisory Panel, headed by The Honorable Rodney Slater. The Automotive Center of Quality Excellence is being established in the U.S. where a team of Toyota's quality engineers will study quality and safety issues in the United States. It will report to the Chief Quality Officer of North America.

Toyota plans to dramatically improve the flow of safety and defect information within the company, between regions, and between the U.S. and Japan. It will do this by posting complaint information and other trend information on its internal website—the Toyota Quality Network (TQNet). In addition, a North American quality chief will be represented at the global quality problem review meeting. There will be an appeal process from decisions made at these meetings that did not previously exist.

Question 8. Toyota representatives indicated to my staff that, in addition to the floormats being replaced and the accelerator being reshaped, Toyota dealerships are also upgrading the software on recalled vehicles to include a brake override when the accelerator and brake are both applied. This override is considered by most vehicle manufacturers as an essential safety device.

a. Is this brake override software upgrade provided automatically at the next service appointment for all existing Toyota vehicles whose computers can support it?

Answer. Toyota plans to make the brake override system (BOS) standard on all of its non-hybrid North American Toyota and Lexus models on a going-forward basis. The hybrid vehicles, including the Prius, already have a function that is designed to reduce engine power, and, as a result, has a similar effect to BOS. This would make Toyota one of the first full-line manufacturers to have BOS standard on all its models. According to Edmunds.com, 18 major car manufacturers do not have standard BOS on their existing models.

Toyota is retrofitting seven existing models with BUS: 2007–2010 MY Lexus ES, 2006–2010 MY Lexus IS, 2007–2010 MY Camry, 2005–2010 MY Tacoma, 2005–2010 MY Avalon, 2008–2010 MY Sequoia and 2009–2010 MY Venza. The retrofitting is being performed along with the other vehicle repairs as part of the current recalls, and thus has already begun. To date, Toyota has repaired approximately 1.64 million vehicles, and will continue until completion.

b. Will Toyota install this upgrade automatically even for those vehicles not subject to current recalls?

Answer. Toyota has no current plans to retrofit the brake override system to any other older vehicle models than the above-mentioned 7 vehicle models.

If you have any questions regarding this matter, or need additional information, please call me at 202–626–2901.

Sincerely,

THEODORE M. HESTER

cc: The Honorable Kay Bailey Hutchison
Ranking Member, Senate Committee on Commerce, Science, and Transportation

Diagnostic and FTA

Symptom	Failure Modes			Design	Component Diagnosis (Trouble Codes)	System Diagnosis	System Diagnosis
Throttle opens by itself	Motor Activation Circuit Malfunction			Monitor Motor Current	Motor Current High/Low	Compare current throttle opening angle and target at MAIN-CPU	Compare current throttle opening angle and target at SUB-CPU
	MAIN CPU Opens the Throttle Inappropriately	Throttle Sensor output is too low (Open Circuit)		2nd Sensor available for redundancy	Compare the 2 sensors		
		Accelerator Sensor output is too large (Open Ground)			Compare the 2 sensors		
		MAIN CPU Makes the wrong calculation or misinterprets sensor data	Throttle Valve Opening recognized as too low	SUB CPU monitors MAIN-CPU APPS and TPS send signals to both	Compare sensor value of SUB CPU and MAIN-CPU		
			Acceleration input recognized as too high				
			Incorrect Calculation		Check MAIN-CPU		
	Water temperature sensor malfunction (Open/Short)			Throttle opening is limited to be within idle range	Open/Short Detected		
	Power steering switch on in error, Air Conditioner compressor off when identified as on				None		
Throttle doesn't return to default position	Throttle Valve stuck			Monitor Motor Current	Stuck throttle detected by monitoring current		
	Throttle Motor stuck						
	Accelerator Pedal Sensor stuck			Two return springs for redundancy	Inspect pedal assembly	–	

KING & SPALDING LLP
Washington, DC, April 13, 2010

Hon. JOHN D. ROCKEFELLER IV,
Committee on Commerce, Science, and Transportation,
U.S. Senate,
Washington, DC.

Dear Chairman Rockefeller:

I am writing on behalf of Toyota Motor North America, Inc. ("TMA" or "Toyota") to you as Chairman of the Committee on Commerce, Science, and Transportation ("the Committee"). Toyota welcomes the opportunity to respond to a number of matters raised by members of the Committee during the hearing on March 2, 2010. Toyota has asked me to submit the following information.

First, Senator Cantwell asked that Toyota follow up with the Senator's constituent, Mr. Eves, regarding his requests for access to EDR data. My partner, Dan Donovan, has been updating Senator Cantwell's staff regarding the status of Mr. Eve's requests regarding the EDR data and will continue to provide updates as necessary.

Second, Senator Begich requested a written policy related to recalls. Enclosed please find the Toyota Quality Control Standard—Rule for Implementation of Recall ("Exhibit A"). In addition, Senator Begich asked how many recalls there have been since 2006 and whether any have been stopped or not moved forward. Toyota has issued twenty-eight (28) safety recalls in the United States from 2006 through the end of February 2010. The general process is that when the Customer Quality Engineering (CQE) division determined that there was an "investigated quality problem," it was reported to the department and division general managers. In addition, the group manager of the relevant CQE department proposed an "Investigated Quality Problem Review Meeting" (hereinafter referred to as a "review meeting"). At the review meeting the general manager of the CQE division and the general managers of the related divisions met to discuss and determine whether a recall or any other field action was necessary. If at the review meeting, it was determined that a recall or improvement campaign was necessary, after review by the general manager of the Quality Division, the general manager of CQE reported the results of the meeting to the Managing Officer in charge of quality and sought approval to conduct a recall or improvement campaign. In the past, the Managing Officer approved every request for a recall. Since this standard was designed to insulate a recall judgment from any unnecessary intervention, no one within Toyota could overrule the decision on recalls outside of the group that made the decision.

Third, Senator Nelson asked who decided that Toyota would only have one EDR read-out tool in the United States. The decision to have only one EDR read-out tool in the U.S. was not made by any one person and was not the result of any particular meeting or decision; rather, it is because the EDR read-out tool was still in its prototype stage. The software used to "read out" the EDR data was still in a testing phase and was not yet compatible with all electronic control units (ECUs) in use in Toyota and Lexus vehicles. Because the technology was still in the process of being validated, it was Toyota's policy not to use EDR data in its investigations in the regular course of business unless requested by law enforcement, NHTSA or a court order. In addition, Senator Nelson inquired as to whether Toyota collects and stores the data from the EDRs it decodes. The TMS Legal Department maintains the data that is downloaded from EDRs in paper form and in electronic form on the read-out tool itself as well as on a network drive. These data are maintained indefinitely.

Fourth, Senator LeMieux asked where and to whom a certain presentation by James Press was given. This presentation was made by Mr. James Press, former President and COO of TMA, at a briefing session for TMC's top executives at Toyota Motor Corporation on September 20, 2006. In response to Senator LeMieux's comments about the presentation, Mr. Sasaki promised to provide information regarding the number of safety recalls in the United States. Exhibit B provides the number of safety recalls for Toyota, Lexus and Scion vehicles from the beginning of 2001 through February 2010.

Fifth, Toyota is also submitting additional information to clarify a few points in the record relating to EDR data. Event Data Recorders (EDRs) installed in Toyota vehicles are classified into two different types. As the attached chart shows (Exhibit C), a few Toyota vehicles contain EDRs that record post-crash data only,[1] whereas

[1] Toyota is planning to install the capability to record pre-crash data on these models by the end of 2010.

the majority of Toyota and Lexus vehicles, contain EDRs that record pre- and post-crash data.[2] The amount and types of data recorded have evolved over time, and there may be slight variations from vehicle model to vehicle model depending on, for example, what types of airbags the model is equipped with. In general, for vehicles equipped with EDRs that record pre-crash data, the following pre-crash data is recorded by the most-recent EDR model for up to 5 seconds before the crash: vehicle speed (mph), engine rotation speed (rpm), accelerator pedal position (off/middle/full), and brake switch status (off/on). When a collision is triggered that meets certain criteria, other vehicle status information is generally recorded by the most-recent EDR model, including shift position (which is not recorded in the case of post-crash only EDRs), seatbelt information, driver's seat position, passenger seat occupant detection status., and airbag diagnostic information. Post-crash, the type and amount of data recorded depends on the type of collision. In general, the following types and amounts of data are recorded by the most-recent EDR model: longitudinal change in velocity is recorded every 10 milliseconds for frontal or rear collision from an interval of approximately .15 to .20 seconds post-collision; lateral change in velocity is recorded every 4 milliseconds for a side collision for approximately .07 seconds post-collision; and roll angle and lateral G force every 128 milliseconds for a rollover collision for about 2 seconds following collision. Post-crash airbag deployment information is also recorded.

In the past, given that the EDR read-out tool was only a prototype, Toyota prioritized requests from NHTSA, law enforcement, and court orders. However, going forward, once the additional and commercially ready EDR read-out tools are available in North America and appropriate procedures are put in place, Toyota will provide vehicle owners and their authorized representatives with access to this data. Further, Toyota plans to have a commercially available read-out tool in the future, that will enable vehicle owners and their representative to access this data. Toyota has already provided NHTSA with ten EDR read-out tools.

Finally, Senator Udall asked Toyota to answer the following questions:

"In an internal company document dated July 2009, Toyota boasted about convincing NHTSA that an equipment recall was sufficient to address the pedal entrapment issue instead of a vehicle recall. This resulted in saving the company $100 million. Unfortunately, pedal entrapment problems persisted and more people died as a result. You [Inaba] pledged during the hearing that you would confirm the actual amount of savings to Toyota from avoiding a full recall in 2007 in favor of a more limited equipment recall for the floormats.

(a) How much did Toyota save as a result of that decision?

In the course of the 2007 NHTSA investigation, Toyota articulated its good faith belief that there was no vehicle-based defect in the subject vehicles that would have required a safety recall of the vehicles themselves, so there was no "savings." If the issue that was addressed in 2007 by Toyota's recall of all-weather floormats had instead required a vehicle-based solution for the subject vehicles, one logical response would have been to recall the affected vehicles in order to either replace or alter the throttle pedal assembly, and possibly alter the floor pan configuration in some vehicles, similar to the remedy later implemented in 2009. If generous rounding were used estimating the cost of replacing the throttle pedal assembly at $100 per vehicle, and the number of affected vehicles at 1,000,000, one would derive the $100 million number. In fact, however, the cost of replacing the throttle pedal assembly would have been less, and the number of affected vehicles in the floor mat campaign was closer to 820,000.

(b) What will Toyota do to make sure that this does not happen again and that consumer safety is always put first before corporate profits?

The safety of its customers is Toyota's highest priority. Recall decisions are made based on safety and quality and not on sales or profits. At Toyota, engineers and the quality management team have the final say on whether to initiate a recall. TMC has committed itself to seeking additional input from its various markets regarding product quality issues in the future.

If you have any questions regarding this matter, or need additional information, please call me at 202–626–2901.

Sincerely,

THEODORE M. HESTER

cc: The Honorable Kay Bailey Hutchison
Ranking Member, Senate Committee on Commerce, Science, and Transportation

[2] In general, the EDRs only record data for collisions that meet certain criteria that are tied to the severity of the collision.

EXHIBIT A

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Toyota Quality Control Standards QRF 001

Issued: September 1, 1975
19th Revision: August 22, 2006
Kazuhiro Sato, General Manager Quality Division
Approved

Rule for implementation of Recall etc.

1. Outline of Revision

Under orders of Ministry of Land, Infrastructure and Transport to improve the operation related to defective vehicles, the following items were reviewed and revised.

(1) 4. Understand a quality problem in need of investigation

(2) 5.3 Field monitor after the judgment in the "review meeting" (added item)

(3) 11.(3) Period of record retention for documents for Investigated Quality Problem Review Meeting

2. Drafting

Deliberation group: Expert Commission for quality information and related departments
Responsible person: Mr. Hajime Kitamura, General Manager
Vehicle Dep. No. 1, Customer Quality Engineering Division
Considering Leaders: Mr. Tetsuya Ito, Group Manager and Mr. Shouichi Uchikura, Project Manager External Affairs Group
Vehicle Dep. No. 1, Customer Quality Engineering Division

3. Effective Date

This standard shall be effective as of August 22, 2006.

EXHIBIT A

Confidential Do Not Reproduce

Toyota Quality Control Standard QRF 001

Rule for Implementation of Recall etc.

Issued: September 1, 1975
19th Revision: August 22, 2006

1. Objective

The objective of this rule is to define specific operations and procedures to secure smooth implementation of a recall and an improvement campaign.

2. Scope

This rule shall apply to a recall and an improvement campaign on vehicles (including after market parts) produced and sold by Toyota Motor Corporation (including such vehicles and parts produced by makers to which Toyota Motor Corporation has entrusted the production).

3. Definitions

Terms in these rules are defined as follows:

(1) Safety related quality problem

A problem which occurred in the vehicles/units or parts under proper maintenance and normal operation and is caused by the design or production, and which results in noncompliance with safety or environmental protection provisions in applicable domestic or foreign laws and regulations, or which may cause a personal injury due to a fire, inoperative or other factors.

(2) Investigated Quality Problem

A quality problem which is suspected to be a safety related quality problem.

(3) Recall

Inspection/remedy action for the vehicles which contain safety related quality problem along with the notification of the problem to Ministry of Land Infrastructure and Transportation or other relevant authorities and to the owners. In addition, a report of the implementation status of an inspection/remedy to the relevant authorities. In case of the domestic market, the safety related quality problem which results or may result in noncompliance with the Safety Regulation for Road Vehicle is subject to a recall.

(4) Improvement Campaign

In the domestic market, inspection/remedy action for the vehicles which contain a safety related quality problem but does comply with the Safety Regulation for Road Vehicle along with the notification of the problem so Ministry of Land, Infrastructure and Transport and to the owners.

4. Understand an investigated quality problem

Based upon a result of the investigation and analysis on the obtained quality information, the group manager of each department in Customer Quality Engineering Division shall report to the department and the division general managers an investigated quality problem, which is categorized as "S" or "A" rank prescribed in QRF401 "Rule for Handling of Field Quality Information", of which trend is anticipated and to which a countermeasure has been taken or is planed in the design or the production. In addition, the group manager shall propose holding an "investigated Quality Problem Review Meeting" (hereinafter referred lo as a "review meeting").

5. Review of an investigated quality problem

5.1 Holding the "review meeting"

The general manager of Customer Quality Engineering Division shall convene the general managers of related divisions or their representatives and, if necessary, the speciality divisions to the "review meeting" to discuss the following matters and judge whether a recall or any other field action is necessary:

(1) Confirmation results of the fact of the problem

(2) Analysis results of factors of the problem

(3) Judgment of necessity of a recall or an improvement campaign

(4) Other matters

5.2 Approval of Managing Officer in charge of quality

In all cases where it has been judged in the "review meeting" that it is necessary to conduct a recall or an improvement campaign. after the review by the general manager of Quality Division, the general manager of Customer Quality Engineering Division shall report a result of the "review meeting" to Managing Officer in charge of quality and receive the approval to conduct a recall or an improvement campaign.

A field action other than a recall and an improvement campaign which has been judged in the "review meeting" to be important shall be reported to Managing Office in charge of quality and the general manager shall receive the approval to conduct such field action after the review the general manager of Quality Division.

5.3 Field monitor after the judgment in the "review meeting"

In case that it has been judged in the "review meeting" that a recall, an improvement campaign or any other field action is not necessary, the group manager of each department in Customer Quality Engineering Division shall periodically monitor the occurrence status of the problem and report it to the department and the division general managers. If necessary, the group manager shall propose holding the "review meeting" to discuss again.

6. Preparation for implementation of a recall or an improvement campaign

6.1 Hold a "Recall or Improvement Campaign Preparation Meeting"

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Promptly after receiving the approval of Managing Officer in charge of quality, the general manager of Customer Quality Engineering Division shall convene general managers of related divisions or their representatives to a "Recall or Improvement Campaign Preparation Meeting" (hereinafter referred to as the "preparation meeting") to discuss the following matters. In addition, based of a result of the discussion in the meeting, the general manager shall prepare a "Request for field action on sold vehicles" (Form 1) and issue it after receiving the approval of the general manager of Quality Division.

(1) Range of affected vehicles (including vehicles which parts etc. was investigated in the past.)

(2) Method of a remedy

(3) Method of a remedy work operation

(4) Preparation and control of parts for a remedy

(5) Calculation of costs

(6) Request to dealers (and overseas distributors) and local repair and maintenance shops

(7) Notification to owners

(8) Recovery of the affected service parts in the field

(9) Preparation and submission of a notification of a recall or an improvement campaign.

(10) Publicity

(11) Others

If it is decided that the parts for a remedy need to be prepared in advance, the "preparation meeting" can be held before the approval of Managing Officer

6.2. Preparation for a remedy

Related divisions shall prepare the following items to implement a remedy based on the decision made in the "preparation meeting".

Preparation items	Main divisions in charge
(1) Identification of affected vehicles	Customer Quality Engineering Div.
(2) Identification of owners of affected vehicles	Domestic Service Field Operations Div. Overseas Service Field Operations Div. Customer Quality Engineering Div.
(3) Procedures for work operation and completion inspection	Technical Service Div. Domestic Service Field Operations Div. Overseas Service Field Operations Div. Customer Quality Engineering Div.
(4) Method of parts supply for a remedy	Service Parts Administration Div. Service Parts Logistics Div. Domestic Parts and Accessories Div. Overseas Parts and Accessories Div. Customer Quality Engineering Div. Quality Div. Customer Quality Engineering Div.
(5) Preparation of parts for a remedy	Domestic Parts and Accessories Div. Overseas Parts and Accessories Div. Customer Quality Engineering Div. Service Parts Logistics Div. Production Control Div., Purchasing Div.
(6) Delivery and control of parts for a remedy	Customer Quality Engineering Div. Domestic Parts and Accessories Div. Overseas Parts and Accessories Div. Service Parts Logistics Div.
(7) Calculation of costs	Quality Div.

Preparation items	Main divisions in charge
(8) Request to dealers (and overseas distributors) and local repair and maintenance shops	Domestic Service Field Operations Div. Overseas Service Field Operations Div. Customer Quality Engineering Div.
(9) Notification to owners	Domestic Service Field Operations Div. Overseas Service Field Operations Div.
(10) Publicity	Public Affairs Div., Customer Relations Div. Customer Quality Engineering Div.
(11) Identification of vehicles which have been remedied	Technical Service Div. Domestic Service Field Operations Div. Overseas Service Field Operations Div. Customer Quality Engineering Div.
(12) Report on the completion status of a recall	Domestic Service Field Operations Div. Overseas Service Field Operations Div. Customer Quality Engineering Div.
(13) Others	————

7. Notification of a recall or an improvement campaign

7.1 Preparation of notification documents of a recall

7.1.1 Notification documents for domestic competent authorities

(1) In case of vehicles sold in the domestic market or domestic/overseas markets

The general manager of Customer Quality Engineering Division shall prepare the "Notification of Recall (Form 2) and the following documents which need to be filed with Minister of Land, Infrastructure and Transport and receive the approval of the president for the "Notification of Recall".

a. "Notification of Recall" (Form 2)

(including a diagram showing a remedy part/main specifications of vehicles subject to a recall)

b. "Table of Notification of Recall" (Form 3)

(including a diagram showing a remedy part/main specifications of vehicles subject to a recall)

c. Other documents to be filed

(a) Exterior photograph of the representative model

(b) English version of "Notification of Recall"

(c) Notification letter to owners

(only in case of a recall related to a foreseeable problem)

(d) Others

d. Explanation documents for reference

(a) Chronology until notification of a recall

(b) Occurrence status of problem in the field

(c) Investigation on the cause of the problem

(d) Result of confirmation whether a remedy complies with applicable regulations.

(e) Verification result of a method of knowing the symptom of the problem and how long the vehicle can be operated after the symptom appears.

(f) Range of affected vehicles and its reason

(g) Situation of export of affected vehicles and method of a remedy on those vehicles

(h) Recurrence prevention method (including future quality control method)

(i) Estimated labor time for a remedy per unit

Note: (e) is needed only in case of a recall related io a foreseeable problem.

(2) In case of vehicles sold only in overseas market

The general manager of Customer Quality Engineering Division shall prepare the "Foreign Recall Report" (Form 4) and reference documents which shows a diagram of a remedy part etc. which need to be filed with the chief of Vehicle and Component Approvals Division, Engineering and Safety Department of Road Transport Bureau, Ministry of Infrastructure and Transport.

7.1.2 Notification documents for competent authorities in foreign countries

The general manager of Customer Quality Engineering Division shall have the general manager of Overseas Service Field Operations Division request the overseas distributors to prepare notification documents required under the laws and regulations effective in each country. In case of the United States, Customer Quality Engineering Division shall request the local administration company to prepare the documents.

7.2 Preparation of notification documents of an improvement campaign

The general manager of Customer Quality Engineering Division shall prepare the "Notification of Improvement Campaign" (Form 5) and following documents which need to be filed with the director of Road Transport Bureau, Ministry of Land, Infrastructure and Transport. Details of a. through d. below shall be referred to 7.1.1(1)b, interpreting a recall as an improvement campaign.

a. "Notification of Improvement Campaign" (Form 5)

b. "Table of Notification of Improvement Campaign" (Form 6)

c. Other documents

Note: English version specified in (b) is not necessary

d. Explanation documents for reference

7.3 Notification to competent authorities

7.3.1 Notification to domestic competent authorities

(1) In case of vehicles sold in the domestic market or domestic/overseas markets

In case of a recall, Customer Quality Engineering Division shall file notification documents prepared in accordance with 7.1.1(1) with Minister of Land, Infrastructure and Transport. In case of an improvement campaign, Customer Quality Engineering Division shall file notification documents prepared in accordance with 7.2 with the director of Road Transport Bureau, Ministry of Land, Infrastructure and Transport.

(2) In case of vehicles sold only in overseas market

Customer Quality Engineering Division shall submit a report and other documents prepared in accordance with 7.1.1(2) with the chief of Vehicle and Component Approvals Division, Engineering and Safety Department or Rood Transport Bureau, Ministry of Land, Infrastructure and Transport through Tokyo Engineering Division.

7.3.2 Notification to competent authorities in foreign documents

Overseas distributors shall file the notification documents prepared in accordance with 7.1.2 with the local competent authorities in compliance with the laws and regulations effective in each countries. In case of the United States, the local administration company shall file the documents.

8. Implementation of a recall or an improvement campaign

8.1 Request to dealers, etc.

Based on the request of the general manager of Customer Quality Engineering Division, the general manager of Domestic Service Field Operations Division or Overseas Service Field Operations Division shall request dealers etc. to implement a recall or an improvement campaign.

(1) In case of domestic market

(a) The general manager of Domestic Service Field Operations Division shall request dealers:

(i) to notify owners, either by mail or visit, of the implementation of a recall or an improvement campaign. Dealer shall make effort

to complete notification to owners within 1 month after commencing a remedy.

(ii) to carry out a remedy on the affected vehicles brought to the dealers and attach an identification sticker to each vehicle on which a recall is completed.

(b) The general manager of Domestic Service Field Operations Division shall seek to make a recall or an improvement campaign known to local repair and maintenance shops through Federation of Japan Automobile Maintenance Promotion Societies.

(c) Customer Quality Engineering Division shall request a relevant division to post a summary of a recall or an improvement campaign on the corporate website.

(d) In case that it is difficult to identify specific owners, the general manager of Domestic Service Field Operations Division shall request Japan Advertising & Marketing Division to take appropriate actions to thoroughly inform owners through newspapers and other publicity.

(e) The general manager of Overseas Service Field Operations Division provides the information on the domestic recall for overseas distributors as needed.

(2) In case of overseas market

(a) The general manager of Overseas Service Field Operations Division shall request overseas distributors:

(i) to notify owners of a recall in compliance with the laws and regulations effective in each country.

(ii) to implement a recall in compliance with the laws and regulations effective in each country.

(b) The general manager of Domestic Service Field Operations Division provides the information on the overseas recall for domestic dealers as needed.

9. Monitoring and promoting the implementation status of a recall

9.1 Monitoring the implementation status of a recall

(1) In case of domestic market

(a) Domestic Service Field Orperations Division shall count up all vehicles by 8th of January, April, July and October, which have had a recall remedy at dealers by the end of last month, and then, report it to Customer Quality Engineering Division.

(b) Based on this report, Customer Quality Engineering Division shall prepare the "Recall Implementation Status Report" (Form 7)

(2) In case of overseas market

Overseas Service Field Operations Division shall obtain a report on the total of the number of remedied vehicles from overseas distributors as needed and then report it to Customer Quality Engineering Division.

9.2 Promoting the implementation

Customer Quality Engineering Division, Domestic Service Field Operations Division and Overseas Service Field Operations Division shall confirm the implementation status and request dealers (overseas distributors) to take appropriate measures to improve the completion rate, such as a renotification to the owners whose vehicles have not been brought to the dealer and have not been remedied.

9.3 Survey after the implementation of a remedy

Customer Quality Engineering Division shall conduct a survey on conditions in the market as needed after the implementation of a remedy through Domestic Service Field Operations Division and Overseas Service Field Operations Division.

10. Report on the implementation status of a recall to competent authorities

10.1 Report to domestic competent authorities

Customer Quality Engineering Division shall submit a "Recall Implementation Status Report", which is prepared to be reported to Minister of Land,

Infrastructure and Transport in accordance with 9.1.1(1), to Japan Automobile Manufacturers' Association through Tokyo Engineering Division by 15th of the month. Consequently, Japan Automobile Manufacturers' Association submits such report to Ministry of Land, Infrastructure and Transport by 20th of the month.

10.2 Report to competent authorities in foreign countries

The general manager of Customer Quality Engineering Division shall request overseas distributors through the general manager of Overseas Service Field Operations Division to report the implementation status of a recall to the local competent authorities in compliance with the laws and regulations effective in each countries.

11. Record retention of documents which reline to the notification of a recall etc.

The following documents shall be retained as a written document or an electronic file.

(1) Notification documents of a mean etc.—20 years: Customer Quality Engineering Division

(2) Recall implementation Status Report—10 years: Customer Quality Engineering Division

(3) Documents for Investigated Quality Problem Review Meeting—20 years: Customer Quality Engineering Division

(4) Request for field action on sold vehicles—10 years : Quality Division

12. Operation flow chart

The operation flowchart for the implementation of a recall and an improvement campaign is shown in the "Appendix Diagram".

[Appendix Diagram] The operation flowchart for the implementation of a recall and an improvement campaign.

EXHIBIT A

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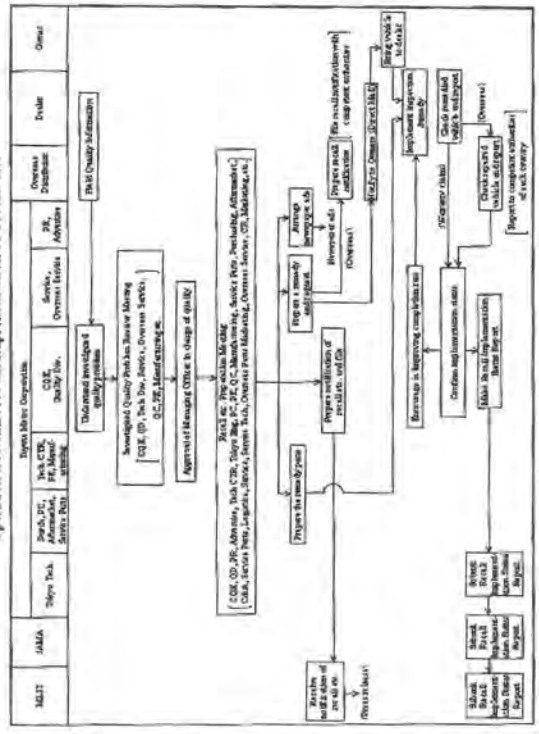
TOYOTA QUALITY CONTROL STANDARD	QRF 001
Rule for Implementation of Recall etc.	Issued: September 1, 1975 19th Revision: August 22, 2006

[Appendix Diagram] The operation flowchart for the implementation of a recall and an improvement campaign



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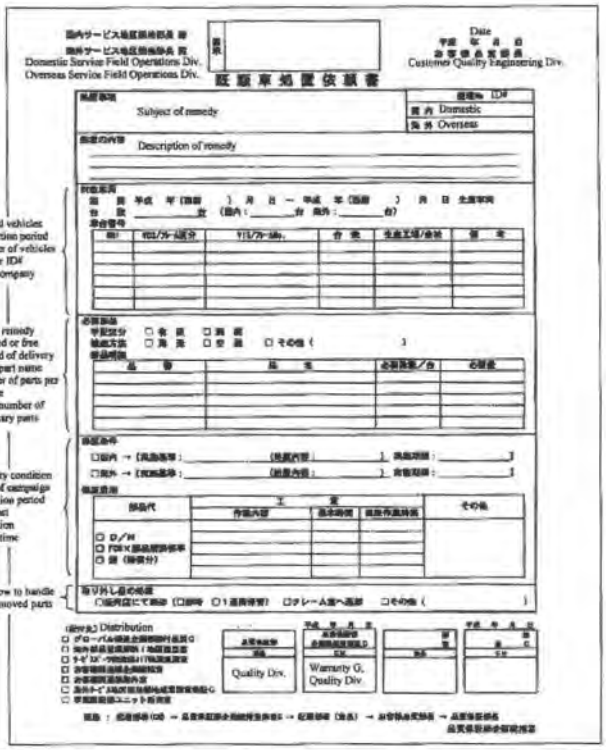
Rule for Implementation of Recall etc.	Issued: September 1, 1975 19th Revision: August 22, 2006

[Form 1] Request for field action on sold vehicles



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TOYOTA QUALITY CONTROL STANDARD	QRF 001
Rule for Implementation of Recall etc.	Issued: September 1, 1975 19th Revision: August 22, 2006

[Form 2] Notification of Recall

リコール届出書

Date
年　月　日

国土交通大臣　殿

Name of person/company who notifies a recall and its address
届出者の氏名　トヨタ自動車株式会社
又は名称　取締役社長　○○○○　印
住　所　愛知県豊田市トヨタ町1番地

リコール届出番号	Recall ID#	リコール開始日	Beginning date of recall 年　月　日
基準不適合状態にあると認める装置，構造又は性能の状況及びその原因	Description of noncompliance with applicable standard and its cause		
改善措置の内容	Method of remedy		
自動車使用者及び自動車分解整備事業者に周知させるための措置	Method of notification to owners and local repair and maintenance shops		

車名	型式	通称名	リコール対象車の車台番号の範囲及び製作期間	リコール対象車の台数	備考
Make	Type	Model	Range of ID# and production period of affected vehicles	Number of affected vehicles	Remarks
			合　計	Total	

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TOYOTA QUALITY CONTROL STANDARD	QRF 001
Rule for Implementation of Recall etc.	Issued: September 1, 1975 19th Revision: August 22, 2006

[Form 3] Table of Notification of Recall

リコール届出一覧表

Date of Notification
リコール届出日：　年　月　日

リコール届出番号	Recall ID#	リコール開始日	Beginning date of recall 年　月　日
届出者の氏名又は名称	Name of person/company who notifies a recall	問い合わせ先：	Where to call
不具合の部位（具体的）	Description of part in question		
基準不適合状態にあると認める場合、装置又は性能の状況及びその原因	Description of noncompliance with applicable standard and its cause		
改善措置の内容	Method of remedy		
不具合情報	Number of vehicles which has had a problem	事故の有無	Whether there is an accident
発見の端緒	How the problem was discovered		
自動車使用者及び自動車分解整備事業者に周知させるための措置	Method of notification to owners and local repair and maintenance shops		

車名	型式	諸元	リコール対象車の車台番号の範囲及び製作期間	リコール対象車の台数	備考
Make	Type	Model	Range of ID# and production period of affected vehicles	Number of affected vehicles	Remarks
	（計　型式）	（計　車種）	（製作期間の全体の範囲） ～	（計　台）	

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(Toyota logo)	TOYOTA QUALITY CONTROL STANDARD	QRF 001
	Rule for Implementation of Recall etc.	Issued: September 1, 1975 19th Revision: August 22, 2006

[Form 4] Foreign Recall Report

海外リコール報告書

Date
年 月 日

国土交通省自動車交通局技術安全部審査課長 殿

Name of person/company who notifies a foreign recall
届出者の氏名 トヨタ自動車株式会社
又は名称
住 所 愛知県豊田市トヨタ町1番地

Beginning date of foreign recall　　Notified foreign authority

[illegible]	[illegible]	海外リコール開始日	年 月 日	[illegible]	
国内向車両が対象とならない理由	Reason that vehicles sold in domestic market are not affected				

車名	型式	通称名	海外リコール対象車の製作期間	海外リコール対象車の台数	不具合の内容	改善の内容
Make	Type	Model	Range of production period of affected vehicles	Number of affected vehicles	Description of problem	Method of remedy

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EXHIBIT A

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TOYOTA QUALITY CONTROL STANDARD	QRF 001
Rule for Implementation of Recall etc.	Issued: September 1, 1975 19th Revision: August 22, 2006

[Form 5] Notification of Improvement Campaign

改善対策届出書

Date
年　月　日

国土交通省自動車交通局長　殿

Name of person/company who notifies an improvement campaign and its address
届出者の氏名　トヨタ自動車株式会社
又は名称　取締役社長　○○○○
住　所　愛知県豊田市トヨタ町１番地

Improvement campaign ID#		Date of notification
改善対策届出番号	改善対策届出日	年　月　日
不具合状態にあると認める構造、装置又は性能の状況及びその原因	Description of problem and its cause	
改善対策の内容	Method of remedy	
自動車変更申請及び自動車分解整備事業者に周知させるための措置	Method of notification to owners and local repair and maintenance shops	

車名 Make	型式 Type	通称名 Model	改善対策対象車の車台番号の範囲及び製作期間 Range of ID# and production period of affected vehicles	改善対策対象車の台数 Number of affected vehicles	備考 Remarks
			合計 Total		

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TOYOTA QUALITY CONTROL STANDARD		QRF 001
Rule for Implementation of Recall etc.	Issued:	September 1, 1975
	19th Revision:	August 22, 2006

[Form6] Table of Notification of Improvement Campaign

[illegible]

Date of notification [illegible]

[illegible]	Campaign ID#	[illegible]	Beginning date of campaign [illegible]
[illegible]	Name of person/company who notifies a campaign	[illegible]	Where to call
[illegible]	Description of part in question		
[illegible]	Description of problem and its cause		
[illegible]	Method of remedy		
[illegible]	Number of vehicles which has had a problem	[illegible]	Whether there is an accident
[illegible]	How the problem was discovered		
[illegible]	Method of notification to owners and local repair and maintenance shops		

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Make	Type	Model	Range of ID# and production period of affected vehicles	Number of affected vehicles	Remarks
	([illegible] [illegible])	([illegible] [illegible])	[illegible] –	([illegible] [illegible])	

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TOYOTA QUALITY CONTROL STANDARD	QRF 001
Rule for Implementation of Recall etc.	Issued: September 1, 1975 19th Revision: August 22, 2006

[Form 7] Recall Implementation Status Report

リコール実施状況報告書

Date
年　月　日

国土交通大臣　　殿

Name of person/company who notifies and its address
届出者の氏名　トヨタ自動車株式会社
又は名称　　取締役社長　○○○○
住　　所　愛知県豊田市トヨタ町1番地

届出者等及び届出年月日	車名	型式	リコール対象車の台数	改善措置実施状況		備考
Recall ID# and date of notification	Make	Model	Number of affected vehicles	Number of remedied vehicles ( )	Completion rate	Remarks
				前回（　月）Previous time		
				( )		

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EXHIBIT B

April 9th, 2010

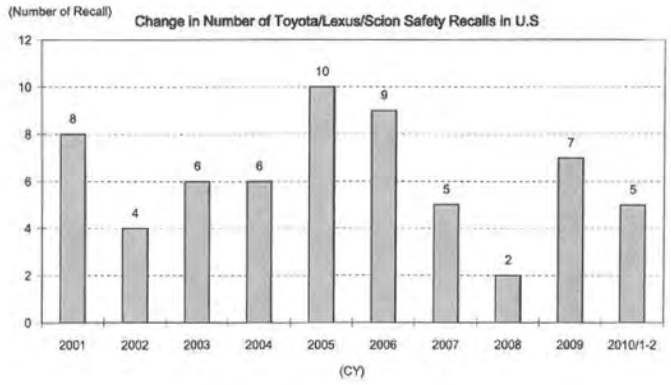
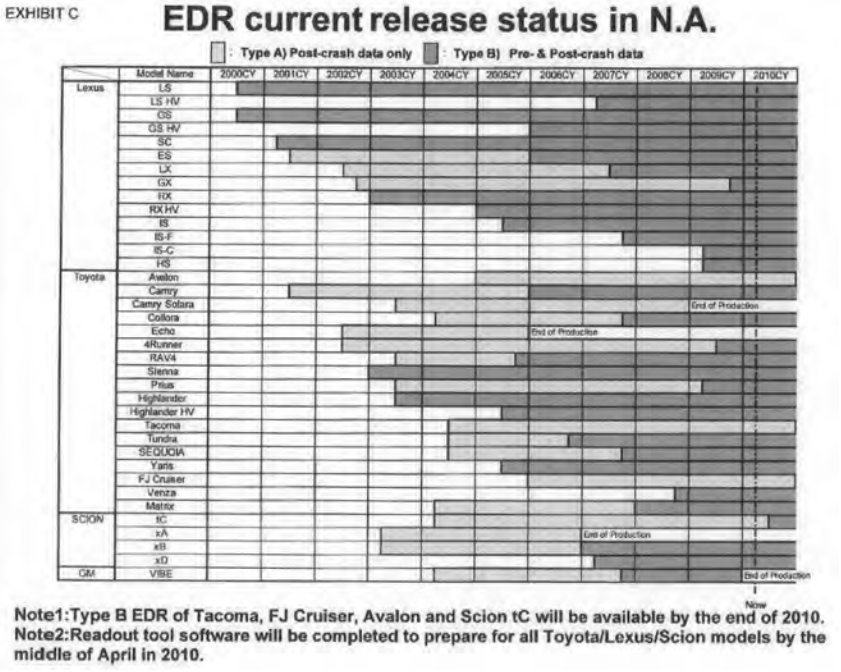


EXHIBIT C



Note1:Type B EDR of Tacoma, FJ Cruiser, Avalon and Scion tC will be available by the end of 2010.
Note2:Readout tool software will be completed to prepare for all Toyota/Lexus/Scion models by the middle of April in 2010.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. FRANK R. LAUTENBERG TO HON. RAY LAHOOD

Question 1. Given the number of safety issues now revealed by the Toyota investigation, will you now revise your definition of Sudden Unintended Acceleration?

Answer. Rather than trying to force investigations into predetermined definitions or categorizations, NHTSA evaluates each safety issue based on the allegations and

the vehicles involved, and then develops an appropriate alleged defect statement for the specific issue at hand. Alleged defect statements are found in the Information request letters NHTSA sends to the manufacturer of the products under investigation. Examples can be found under defect investigations at *www.safercar.gov*. Since defect statements are developed on a case-by-case basis, NHTSA has no formal definition for "Sudden Unintended Acceleration" or any other type of defect allegation, nor do we believe that we have a need for such. By developing defect statements on a case-by-case basis, NHTSA ensures the correct scope for each investigation, neither overly broad (which could make the inquiry overreaching and weaken the agency's ability to compel a recall) nor too narrow.

We believe that the question refers to a definition used by a Toyota employee relates to a March 23, 2004 memo where NHTSA discussed its analysis and removal of certain reports. The 2004 investigation, which involved MY 2002 and 2003 Camry and ES vehicles, was focused on whether the newly introduced electronic throttle control system was the cause of consumer reports that the vehicle self accelerated in close quarter driving situations (*e.g.,* when parking the vehicle) and caused a crash. These were very short duration incidents (1 to 3 seconds) where the driver may not have had time to apply the brake.

After interviews were conducted, NHTSA eliminated from that investigation reports where consumers stated that the vehicle self accelerated (at full throttle level acceleration) and that they had forcefully applied the brake pedal but the vehicle continued to accelerate for a longer period (*e.g.,* 5 seconds or more) or distance (*e.g.,* 50 feet or more), as discussed in the March 23, 2004 memo. Such allegations can only be explained by a simultaneous failure of the throttle and brake systems. When no post-incident evidence of failure is found in either system, the likely explanation is driver error (pedal misapplication). Since the reports did not indicate a vehicle-based defect, they were eliminated from the scope of that investigation. This decision was made solely at the discretion of the NHTSA staff conducting the investigation (and approved at the time by a supervisor) and was in no way influenced by discussion with Toyota staff or anyone outside of NHTSA.

One important point, the term "longer duration" when used in the 2004 investigation did not refer to the types of incidents occurring in the MY 2007 and later Camry and ES350, which was the focus of a 2007 investigation (*i.e.,* those that were related to floor mat/pedal entrapment and lasted for several minutes and miles). NHTSA had not received reports of this type for the MY 2002 to 2006 Camry and ES vehicles so they were not excluded from consideration—rather they did not exist during the 2004 investigations.

Question 2. Toyota was able to mislead NHTSA by labeling a defect on one of its cars as just a "drivability issue." Does NHTSA have a standard definition of what's considered a "drivability issue" versus a "safety issue"? Do other car companies use the term "drivability issue"?

Answer. A safety issue results when there is a potential safety consequence, such as a vehicle crash or loss of control that could potentially cause an injury or death to an occupant or to another person. The term drivability is commonly used in the automotive industry and by the automotive press to refer to the smoothness and evenness a vehicle displays during typical driving and acceleration maneuvers. Many of the reports NHTSA received on the 2002 to 2006 Camry and ES vehicles clearly expressed dissatisfaction with the vehicle's drivability. This is readily apparent from reading the reports. When investigating defects, NHTSA makes an independent assessment of each report, and does not rely on the manufacturer's characterization of the problem or choice of descriptive terms.

Question 3. Now that we know that the safety issues affecting Toyota vehicles are more severe than initially realized, will the agency revisit with Toyota all of the issues that it labeled as just a "drivability issue"?

Answer. NHTSA has committed to taking a new look at the Toyota products, including assessing whether the electronics or software, or some other influence such as electro-magnetic interference, could be the cause of reports of unwanted and uncontrollable acceleration. To the extent that the study we will pursue or the investigation NHTSA opened on February 16, 2010 reveals any safety-related defects linked to the drivability issue, we will take prompt and appropriate action. The initial results of the study are anticipated to be available later this year. Progress on NHTSA's investigation (RQ10–003) can be monitored at *www.safercar.gov*.

Question 4. The President's recent budget request only calls for a $5 million increase to the NHTSA budget. Given the enormous task of investigating safety defects of over 245 million cars and trucks on the Nation's roads, does NHTSA have the resources it needs to carry out its mission?

Answer. With its existing resources, NHTSA's Office of Defects Investigation (ODI) runs the most active defects investigation program in the world. Since its inception, ODI has influenced more than 2,800 vehicle recalls involving more than 278 million vehicles. The agency does not hesitate to reallocate resources within the agency's current budget to meet the needs of defects investigations. Also, the agency obtains resources from outside the agency in specialized fields of expertise to ensure that its analyses are thorough and comprehensive, when such a course of action is necessary.

The President's FY 2011 budget requests 66 additional personnel to help strengthen our ability to address safety issues on the Nation's roadways. If approved and funded by the Congress, the agency plans to use those positions where they are needed to ensure that the agency is meeting its various safety responsibilities, including additional resources to defects investigations.

Question 5. Now that we know of the efforts that Toyota made in concealing the safety defects of its vehicles, what actions will the Department take to determine if other car companies are doing something similar to what Toyota has been doing?

Answer. At this time, NHTSA is not aware of Toyota concealing safety defects. However, NHTSA is addressing three queries to Toyota that may provide information responsive to this question. NHTSA has opened two Timeliness Query investigations (one for the pedal entrapment recall and one for the sticky pedal recall). These investigations are aimed at uncovering what Toyota knew about these two problems that led to the recalls and when Toyota knew it. If we determine that Toyota knew, or should have known, of the existence of a defect that posed an unreasonable risk to safety, the agency will pursue civil penalties against Toyota. Additionally, NHTSA has opened a Recall Query investigation into both recalls that is aimed at uncovering whether the scope of each recall was appropriate or whether the recalls should have been expanded to additional vehicles. The Recall Query investigation is also examining whether the remedies developed by Toyota for both of these recalls are effective.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. MARK PRYOR TO HON. RAY LAHOOD

Question 1. Can you describe how Toyota has been safety deaf?

Answer. Over the past few years, Toyota developed a pattern of behavior of pushing back harder and taking longer than other companies to conduct a recall, including in situations where the consequences of inaction could result in harm to the public. For example, on March 29, 2007, NHTSA opened an investigation on all-weather floor mat interference with and entrapment of accelerator pedals resulting in vehicles traveling at very high speeds for long distances (PE07–016). Throughout the investigation, Toyota's position was that there was nothing wrong with its vehicle or floor mat, and that consumers were to blame. It was difficult to engage in productive discussions with Toyota because the Washington Office of Toyota, with whom the agency communicated, had no authority to make decisions and we believe that the decision-makers in Japan gave little weight to any recommendations or information that the Washington Office passed on to Toyota in Japan. It was not until September 26, 2007 that Toyota sent a letter to NHTSA stating that it would conduct a safety recall. However, despite agreeing to comply with all of the requirements for conducting a safety recall of the floor mats, Toyota continued to insist in its September 2007 letter that the floor mats were not defective.

Question 2. Are there any examples of [Toyota] not complying with safety laws in the United States?

Answer. At this time, NHTSA has not made a determination that Toyota has not complied with safety laws in the United States. However, NHTSA is addressing three queries to Toyota that may provide information responsive to this question. NHTSA has opened two Timeliness Query investigations (one for the pedal entrapment recall and one for the sticky pedal recall). These investigations are aimed at uncovering what Toyota knew about these two problems that led to the recalls and when Toyota knew it. If NHTSA determines that Toyota knew, or should have known, of the existence of a defect that posed an unreasonable risk to safety, the agency will pursue civil penalties against Toyota. Additionally, NHTSA has opened a Recall Query investigation into both recalls that is aimed at uncovering whether the scope of each recall was appropriate or whether the recalls should have been expanded to additional vehicles.

Question 3. Does NHTSA have a bias against non-mechanical control systems in vehicles?

Answer. NHTSA conducts investigations based on the frequency and severity levels of complaints. NHTSA's investigations are data-driven, and do not exclude any type of control system or potential problem area from careful scrutiny. The record shows that since 1989, NHTSA has conducted 80 distinct investigations (of which 11 involved Toyota vehicles) into alleged safety defects that affected the vehicle's throttle control system including but not limited to sudden, unintended, and/or unwanted acceleration. These investigations fall into the categories of sudden acceleration, unintended acceleration, stuck throttle, idle surge, cruise control malfunction, accelerator pedal interference, floor mat interference, linkage problems, throttle binding and loss of throttle control. This problem description covers the vast majority of related issues examined but is not all encompassing. The types of vehicles involved are: passenger cars, SUV's, pick-up trucks, vans, motorcycles, transit buses, school buses, and medium/heavy trucks. The investigations included mechanical/cable (64) throttle, electronic throttle (14), and one floor mat manufacturer. 22 of the 64 mechanical throttle investigations and five of the 14 electronic throttle control investigations resulted in recalls of approximately 6.7 million vehicles.

Question 4. Does NHTSA have adequate expertise in-house to fully understand and regulate electronic control systems?

Answer. NHTSA has a diverse and experienced work force. The President has included an additional 66 positions in his 2011 budget. If these positions are approved and funded by the Congress, the agency will use them in those parts of the organization that most need staff to ensure that we continue to effectively carry out all of our safety responsibilities, including those related to safety defects. In addition to our staff, we hire contractors to support our work when there are areas where we need specialized expertise.

Question 5. Does NHTSA need additional tools and resources?

Answer. If the Congress funds the increased staffing levels called for under the President's budget for FY 2011, we believe the agency will have the tools and resources it needs to carry out its safety responsibilities.

RESPONSE TO WRITTEN QUESTION SUBMITTED BY HON. TOM UDALL TO HON. RAY LAHOOD

Question. Who within DOT should be held accountable and apologize to the American public for the recent failures [related to Toyota sudden acceleration problems]?

Answer. In the last 3 years, NHTSA's defects and compliance investigations have led to more than 500 recalls involving the recall of 23.5 million vehicles. Where NHTSA has evidence of a defect and can make a case that the defect poses an unreasonable safety risk (which is a required showing under the agency's statute), it does not hesitate to push for a recall.

We cannot speak to the contents of internal Toyota documents, but we can state that NHTSA did not permit Toyota to influence its decisions. The recalls that have occurred concerning unintended acceleration in Toyota vehicles are the result of NHTSA's pressure on Toyota to fulfill its responsibilities. NHTSA initiated investigations when specific problems were beginning to appear. When the agency was able to identify a safety defect, the agency pushed for a recall.

NHTSA is now undertaking a full-scale review of unintended acceleration problems in Toyota vehicles. If that review provides information that would warrant additional defect investigations, NHTSA will conduct them immediately.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. JOHN THUNE TO HON. RAY LAHOOD

Question 1. If the Murkowski resolution of disapproval is enacted, does that prevent the Department of Transportation from enacting the CAFE standards as established in the 2007 Energy Bill?

Answer. The model year 2102–2016 CAFE standards were issued by NHTSA on April 1, 2010 as part of a joint final rule with EPA, lithe Murkowski resolution were to be enacted, that rule would likely be challenged. If the rule were then to be overturned, there might not be any car or light truck CAFE standard for at least one model year, model year 2012. NHTSA anticipates there would be legal challenges if it attempted to issue a new final rule re-establishing the CAFE standards for model year 2012, given the statutory requirement to set the CAFE standards for a model year at least 18 months in advance of that model year. The 18-month period for model year 2012 began approximately April 1, 2010. However, depending

of the timing of a court challenge, NHTSA might still have time to promulgate a new rule re-establishing standards for model year 2013 and future years.

Question 1a. From this point, how long would it take NHTSA to decouple the CAFE standards from the joint rulemaking complete regulations for Model Year 2012, as directed by the 2007 Energy Bill?

Answer. As already noted, the CAFE standards for model years 2012–2016 were issued by NHTSA as a joint rulemaking on April 1, 2010. At this point, it is impossible to decouple the CAFE standards from the joint rule.

Question 1b. Is EPA's 250-gram per mile standard partially or even mostly redundant to the fuel economy increases that NHTSA will require?

Answer. No. While the two sets of standards overlap, they are not redundant. The EPA standards would provide additional greenhouse gas benefits.

Question 1c. Given DOT's long-standing authority over vehicular efficiency standards, and Congress' explicit decision to give NHTSA—not EPA—authority to set fuel economy in 1975, should members of this Committee be concerned that your agency is ceding a significant part of its authority to EPA?

Answer. No, NHTSA is not ceding its authority; rather it is closely coordinating efforts with EPA to ensure that the goals of both agencies (energy security and climate change) are met while providing regulatory consistency and certainty for auto manufacturers.

Question 1d. If the joint tailpipe rule is finalized, and EPA is afforded a role in the fuel economy of light-duty vehicles, does that decrease DOT's role in decisions related to CAFE standards going forward?

Answer. No, both agencies have important and independent roles to play carrying out our statutory responsibilities.

Question 2. Under authorities that existed before the *Massachusetts* vs. *EPA* litigation, and still exist to this day, NHTSA was perfectly capable of increasing CAFE standards. In fact, even in the context of the tailpipe rule, NHTSA involvement accounts for 34.1 of the 35.5 miles per gallon mandate. Furthermore, it appears to be the case that EPA could make their 1.4 miles per gallon contribution to these environmental improvements under the separate authority of Title VI of the Clean Air Act. Would you agree with this statement?

Answer. Yes, although that approach would lead to multiple and possibly conflicting regulations (one issued by NHTSA addressing fuel efficiency, another issued by EPA addressing the contributions of automobile air conditioning to greenhouse gas emissions and additional regulations issued by the states).

Question 2a. Instead of implementing "one clear and consistent *set* of standards"—as the letter from NHTSA's Chief Counsel proposes—would it not be better to just have *one,* national standard for automakers to follow?

Answer. No, that would require preemption of the legitimate interests of states as part of our Federal system of government to regulate greenhouse gas emissions. It would also forego regulation of the contributions of automobile air conditioning to greenhouse gas emissions.

Question 2b. How are we supposed to reconcile the claims of your Chief Counsel about the impact of the bipartisan disapproval resolution in the face of countless letters from actual stakeholders that convey identical concerns about what happens if Congress fails to stop EPA?

Answer. DOT and EPA received more than 130,000 public comments on the September 2009 proposed rules, with overwhelming support for the strong national policy.

Question 2c. Is it not true that NHTSA could realize its contribution to the economic and environmental benefits listed in your Chief Counsel's letter—related to fuel savings, greenhouse gas reductions, and lower oil consumption—under existing statutory authorities that pre-date the *Massachusetts* vs. *EPA* litigation?

Answer. Yes, in part because any reduction in fuel consumption necessarily reduces tailpipe emissions of carbon dioxide. However, NHTSA's standards alone could not address the need to reduce the greenhouse gas emissions associated with air conditioning systems.

Question 3. Are you aware of the total economic cost that could result from mobile source *and* stationary source regulation of greenhouse gases under the Clean Air Act? Could you please describe, in detail, any cost projections you are aware of?

Answer. We do not have authority to regulate stationary sources or means of transportation other than motor vehicles and thus do not have cost estimates for regulating them. The agencies project that the industry compliance costs of the National Program for regulating light vehicles in model years 2012–2016 will be slightly less than $52 billion.

For a complete description of the impacts, please see the final rule and its supporting documents issued April 1. They can be found by going to *http://www.nhtsa.dot.gov/portal/fueleconomy.jsp* and clicking on "Final rule" under "Joint Rulemaking to Establish CAFE and GHG Emissions Standards for MY 2012–2016."

Question 3a. Can you describe the impact that the tailpipe rule will have on domestic greenhouse gas emissions? Accounting for new drivers on the road, and a possible increase in miles driven, can you estimate how the tailpipe rule would reduce U.S. emissions? Can you estimate the impact that reduction will have on global greenhouse gas emission levels?

Answer. The NHTSA and EPA rules will conserve about 1.8 billion barrels of oil and reduce nearly a billion tons of greenhouse gas emissions over the lives of the vehicles covered. For a complete description of the impacts and the estimates you are requesting, please see the final rule and its supporting documents issued April 1.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. MARK PRYOR TO HON. DAVID STRICKLAND

Question 1. If there is a malfunction problem in the Electronic Throttle Control (ETC) system, what are potential solutions to correcting or managing this problem?

Answer. The potential solutions to correcting a malfunction in the ETC will depend on the problem that has been identified. In general, if there is a hardware problem in a vehicle component, that component could be replaced with a redesigned part or modified. If there is a software problem, it might be possible to reprogram the affected control unit. We are evaluating the Toyota ETC system to look for potential electronic causes of unintended acceleration.

Question 2. How promising are "brake-override" systems in allowing a driver to regain control of a vehicle in the event of a Full Open Throttle event?

Answer. We believe that brake override technology is promising and could help drivers regain control of their vehicles in the event of a full open throttle event.

Question 3. How easily can manufacturers equip vehicles already on the road with "brake-override" systems?

Answer. We believe the degree of difficulty varies among vehicle manufacturers as well as among different vehicle models by the same manufacturer. Some vehicle models may not have the necessary electronic components to install a brake override system. In other cases, the control algorithms needed for a brake override system may not have been developed for a vehicle already on the road.

Question 4. Are there needed improvements to the Early Warning Reporting database?

Answer. ODI is continually making improvements to the EWR data and to our analytical methods used to identify vehicles, tires or child safety seats for further screening for potential defects. Within the past few years, the agency issued revised final rules in May 2007 and September 2009 to make EWR reporting more efficient and focused. Currently, the agency is considering adding a requirement that manufacturers submit information on new and emerging technologies in vehicles. This would help ensure that the component codes in EWR are current so that the agency can easily identify potential safety concerns with these new and emerging technologies.

ODI continually evaluates its analytical methods and improves them to help identify outliers and trends that are potentially related to safety defects. One of the methods 'improves itself' each quarter; the Bayesian Filter evaluates field reports using a computer program with probability formulas that considers how similar each field report is to ones that were previously identified as likely or not likely to indicate a safety-related defect. Each quarter, new field reports are added to help continuously train this filter.

Given the level of interest in the EWR data as a result of the Toyota issue, the agency is considering again what, if any, additional improvements in the EWR system might be helpful to the agency in identifying defect trends.

Question 5. Does NHTSA have adequate authority to investigate and subpoena foreign manufacturers such as Toyota, which designs and tests most of their vehicles in Japan?

Answer. NHTSA has adequate authority to investigate foreign manufacturers such as Toyota, which has a substantial presence in the United States. We note that Toyota has responded to our inquiries, including providing information from Japan.

Question 6. Are the penalties under the TREAD Act adequate?

Answer. We are currently reviewing all of our statutory authorities, including the adequacy of our civil penalty authority. We would we pleased to discuss this issue as well as others related to our statutory authority once we have completed our review.

Question 7. Has Toyota fully complied with the TREAD Act reporting requirements for accidents that may be related to defects, safety campaigns, and recalls in foreign countries?

Answer. The Early Warning Reporting (EWR) regulation established pursuant the TREAD Act does not require manufacturers to report accidents. Rather, the EWR regulations require manufacturers to report information based on claims and notices of deaths and injuries. Toyota has reported 271 deaths and 3,197 injuries in EWR through the fourth quarter of 2009.

The TREAD Act and subsequent NHTSA regulations also require manufacturers to submit information on safety recalls and other safety campaigns in a foreign country on a motor vehicle or item of equipment that is identical or substantially similar to a vehicle or item of equipment sold or offered for sale in the U.S. Toyota has reported 89 foreign campaigns, of which 2 are related to sudden unintended acceleration. In January 2003, Toyota notified the agency that it was recalling 2002 Toyota Celica vehicles in Canada because the floor mat may entrap the accelerator pedal. In December 2009, Toyota notified the agency that it was recalling Toyota all-weather floor mats sold as optional accessory mats for 2009–2010 Toyota Venza vehicles in Canada because the floor mat may entrap the accelerator pedal.

The following are exceptions to reporting foreign recall or safety campaigns:

1. the manufacturer is conducting a safety recall or safety campaign on an identical or substantially similar vehicle in the U.S.;

2. the component or system that gave rise to the foreign recall or other campaign does not perform the same function as the substantially similar component or system in the U.S.; or

3. the subject of the foreign recall or other campaign is a label affixed to the vehicle, item of equipment or a tire.

At this time, we are unaware of any violations by Toyota of the TREAD Act requirements on reporting of incidents involving deaths or injuries or on reporting foreign safety recalls and other safety campaigns.

Question 8. Do consumers know enough about this opportunity [to submit complaints through the DOT Vehicle Safety Hotline and to submit "Vehicle Owner Questionnaires" (VOQs)]?

Answer. NHTSA currently receives between 30,000 and 40,000 consumer complaints a year on a population of approximately 240,000,000 registered vehicles. NHTSA's Office of Defects Investigation (ODI) currently collects consumer complaints in four primary ways. Consumers can contact NHTSA via the NHTSA Safety Hotline at 888–327–4236, the Internet at *www.safercar.gov,* by sending the agency a hard copy of a Vehicle Owners Questionnaire (VOQ), or by sending a letter to the agency. NHTSA believes that receiving as many consumer complaints as possible makes identifying and investigating potential safety defects happen much earlier in time and helps build a stronger case when a safety defect exists. NHTSA plans to increase public awareness of the NHTSA Auto Safety Hotline and the agency's website at *www.safercar.gov*. NHTSA is developing partnerships to increase the agency's online presence, attending trade shows, increasing media purchases, and taking advantage of earned media opportunities. By increasing public awareness of NHTSA's role as the government agency overseeing motor vehicle safety, NHTSA expects to increase significantly the number of consumer complaints it receives.

Question 9. Have SUA complaints related to Toyota vehicles increased significantly in recent weeks?

Answer. Consumer complaints alleging SUA (as identified by a keyword search designed to identify these incidents) jumped in November 2009 to ten times normal monthly volume. The number of these complaints received in February 2010 jumped by an additional factor of eight to over 1,500. March traffic, while lower, is still heavy. Non-Toyota SUA complaints also jumped in February but remain well below the Toyota figures.

Question 10. Has NHTSA adequately investigated VOQs and Petition Requests for investigation into alleged safety defects related to SUA?

Answer. NHTSA's Office of Defects Investigation has carefully examined VOQs and reviewed Defect Petitions for evidence of vehicle defects causing, or contributing to, incidents of unintended acceleration, and pursued significant safety recalls where

warranted. While we believe our investigations have addressed the complaints and petitions we received, we are taking extra steps to further examine the issue.

Question 11. Are these penalties sufficient?

Answer. As a part of its review of changes to its statutes that may be helpful, the agency is also reviewing the adequacy of the maximum fines manufacturers are subject to for violations of the TREAD Act.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. TOM UDALL TO HON. DAVID STRICKLAND

Question 1. Does NHTSA have adequate resources and technical capacity to fully investigate safety concerns related to the complex electronic systems in today's vehicles? Does NHTSA require more computer scientists, electrical engineers, and other technical experts in new areas to ensure that NHTSA can protect the public from unsafe vehicles? With the FY2011 budget requested staff increases, will NHTSA have adequate resources to fully investigate safety concerns related to the complex electronic systems in today's vehicles? What other resources or authority does NHTSA need to investigate complaints and protect public safety?

Answer. With its existing resources, NHTSA's Office of Defects Investigation (ODI) runs the most active defects investigation program in the world. Since its inception, ODI has influenced more than 2,800 vehicle recalls involving more than 278 million vehicles. During six of the past 7 years, ODI's investigations have resulted in over 100 vehicle recalls per year.

The agency has a diverse and experienced workforce with extensive experience in automobile safety, including experts conducting defects investigations and experts researching and testing vehicle safety at NHTSA's Vehicle Research and Test Center. ODI currently has two electrical engineers on staff, and NHTSA has a total of five electrical engineers. NHTSA is assessing ODI's needs to determine what additional staff with expertise in electronics, computer science, or other areas of specialization are needed. If necessary to support ODI, NHTSA will not hesitate to reallocate resources within the agency's current staffing ceiling. In addition, ODI also obtains resources from outside the agency in specialized fields of expertise to ensure that its analyses are thorough and comprehensive, when such a course of action is necessary.

The President's FY 2011 budget requests 66 additional personnel to help strengthen our ability to address safety issues on the Nation's roadways. If approved and funded by the Congress, the agency will use those positions where they are needed to ensure that the agency is meeting its various safety responsibilities, including additional resources to ODI.

NHTSA's legal and program staffs are reviewing our current statutory authority and will be making recommendations on whether and how it can be improved. We look forward to working with the Committee in evaluating how NHTSA's ability to perform its mission might be strengthened through legislation.

Question 2. How does NHTSA establish thresholds for determining a "safety related defect"?

Answer. NHTSA looks at the following factors for determining a "safety-related defect": (1) the frequency of occurrence and (2) the severity of the consequence when assessing whether a particular defect should be considered a safety-related defect. This is a technique commonly applied in risk analysis methods. Two examples, described below, illustrate how this method is applied in practice.

In 2007, NHTSA investigated reports of unwanted acceleration in 2007 Lexus ES350 vehicles, causing the vehicle to attain high speeds. The circumstances led to potentially high severity incidents, sometimes lasting several minutes and distances measured in miles, where the risk of a crash with injury or fatality was high. Accordingly, NHTSA opened the investigation with only five complaints because of the severity of the incidents being reported. Although an internal Toyota document claimed that Toyota saved $100 million in this investigation, shortly after the date of the document, NHTSA's actions caused Toyota to conduct a recall of 5.3 million vehicles because of this defect, at a cost to Toyota that is presumably well in excess of $100 million.

With regard to the defective Sienna liftgates, Toyota agreed to conduct a recall campaign to repair the liftgate struts in over 195,000 vehicles and sent letters to all vehicle owners stating that "Toyota has decided to conduct a safety recall." NHTSA's investigation of the defective liftgates indicated that the majority of the injuries attributed to this defect involved soft tissue injuries, such as bumps and bruises. However, NHTSA aggressively pursued the issue with Toyota because of

the relatively high number of the reports and the potential for serious injury, even though the risk of serious injury was low.

Question 2a. Just how many people must suffer injuries or death under similar circumstances for NHTSA to require a recall?

Answer. NHTSA has no requirement that an injury or a death must occur before a recall or an investigation is required or initiated. In fact, the majority of defect investigations that NHTSA undertakes are opened without an allegation of injury or fatality, but only the potential for such. Many of the safety recalls that result from these investigations are initiated before injuries or fatalities occur, which is the ideal outcome.

Question 2b. In the future, how will NHTSA ensure that its investigations are sufficiently broad enough to include relevant incidents related to a particular safety issue in the future?

Answer. NHTSA takes great care in determining the proper scope of an investigation. The background statement to this question suggests that NHTSA limited the scope of a prior investigation. We assume the intended reference was to the 2004 investigation involving the throttle control system on 2002—2003 Camry and ES300 vehicles. That investigation was focused on whether the newly introduced electronic throttle control system was the cause of consumer reports that the vehicle self-accelerated in close quarter driving situations (*e.g.,* parking the vehicle) and caused a crash. These were very short duration incidents (1 to 3 seconds) where the driver may not have had time to apply the brake, and after which the vehicle returned to a normal state.

After interviews were conducted, NHTSA eliminated from that investigation reports where consumers stated they had forcefully applied the brake pedal but the vehicle continued to accelerate for a longer period (*e.g.,* 5 seconds or more) or distance (*e.g.,* 50 feet or more). Such allegations can only be explained by a simultaneous failure of the throttle and brake systems. When no post-incident evidence of failure is found in either system, the likely explanation is driver error (pedal misapplication). Since the reports did not indicate a vehicle-based defect, they were eliminated from the scope of that investigation.

One important point, the term "longer duration" when used in the 2004 investigation did not refer to the types of incidents occurring in the MY 2007 and later Camry and ES350, which was the focus of a 2007 investigation (*i.e.,* those that were related to floor mat/pedal entrapment, and that lasted for several minutes and miles). NHTSA had not received reports of this type for the MY 2002 to 2006 Camry and ES vehicles so they were not excluded from consideration—rather they did not exist during the 2004 investigation.

NHTSA will continue to carefully evaluate reports and other factual information relevant to its investigations to ensure that the proper scope is identified.

Question 3. Why did NHTSA not subpoena the information the agency required earlier in its investigation?

Answer. NHTSA's issue with Toyota was not an inability to get documents or responses to questions, but rather Toyota's slow response in conducting recalls. NHTSA has adequate authority to get information from manufacturers through its process of issuing requests for document production and responses to questions. We have found that these formal requests are a better way to obtain the information we ask for rather than using subpoenas.

Question 4. What steps is NHTSA taking to make customer reporting more uniform and thereby improve pattern identification for emerging safety concerns?

Answer. NHTSA's Office of Defects Investigation (ODI) currently collects consumer complaints via four routes: Consumers can contact us via the Auto Safety Hotline (888–327–4236), via the Internet (by far the majority) at *www.safercar.gov,* via a hardcopy Vehicle Owners Questionnaire (VOQ), or via consumer letter. The first three of these use the same form and collect the same data in the same way. Letters are manually coded into our database using a similar form. Once coded into our database, this data is instantaneously available for investigators to review and use in safety defect investigations.

To date, NHTSA has taken a number of steps to improve data quality by reducing the number of fields on its web-based input form, by simplifying component code options on the form, and by improving the naming tools for child restraint and tire complaints. Decreasing the number of fields has reduced the risks of erroneous inputs. Consolidating the component code list has reduced the number of choices to a more manageable level, improving the certainty behind the component code that was chosen. Improved naming for child restraint and tire complaints has reduced ambiguity in those areas.

Concerns have been raised about the consistency between consumer narratives in the complaints and the component codes that were selected. A majority of consumer complaints are filed directly by the consumer, and the data provided by the consumer reflects the consumer's best judgment. Only the complaints received via the Hotline (approximately 17 percent of the current traffic) receive a secondary review for consistency between the narrative and the component code.

While component codes are helpful, the agency also uses other methods that include a manual review and keyword searches of the complaint narratives to identify patterns for emerging safety concerns. The agency is taking additional steps to improve component coding by replacing the text list with a graphical representation of the vehicle and an associated glossary to facilitate better choices by consumers.

Question 5. What [steps] can be taken to ensure that cars are designed with intuitive controls in case of a panic or emergency situation?

Answer. Under Federal Motor Vehicle Safety Standard No. 101 "Controls and Displays," NHTSA regulates the location, identification, color, and illumination of certain vehicle controls for both normal operation of a vehicle and in panic situations. Currently, we do not have performance requirements for push button start controls. We are aware of a lack of standardization of this feature among automobile manufacturers, and we are evaluating whether the agency should consider taking steps to require standardization of this feature.

We note that SAE International has been working to develop test procedures and guidelines for these controls, and they anticipate completion of this work in June 2011. NHTSA is also participating in this important work.

Question 6. Based on its Toyota investigations, will NHTSA update existing safety standards to prevent "sudden unintended acceleration" and pedal entrapment? Should NHTSA require "smart pedal" technology in new vehicles? Should NHTSA further develop a performance standard for stopping the vehicle when the throttle is wide open?

Answer. We are currently evaluating potential regulatory actions in this area. We believe that brake override technology could be promising We are evaluating that technology to determine if it will have a significant positive impact and to understand its performance characteristics and how they differ among manufacturers using this technology. The development of a performance standard for stopping a vehicle experiencing full throttle requires further discussion and research.

Question 7. When did NHTSA last review current FMVSS and SAE standards to ensure that pedal entrapment hazards are fully addressed in the agency's safety rules?

Answer. NHTSA's last comprehensive review of pedal placement and design was published in September 1989 (DOT H.S. 807 512). We actively follow the activities of SAE International as well as other standard setting organizations. SAE International has a standard related to pedal placement, SAE J1100 (Motor Vehicle Dimensions), that was last updated in November 2009. While SAE J1100 contains recommendations for the placement of pedals, we understand that manufacturers have internal proprietary guidelines that contain additional specifications. NHTSA does not have a FMVSS standard that specifically addresses the pedal entrapment hazard. However, the agency is currently reviewing SAE International's updated standard and the recent pedal entrapment incidents to determine whether regulatory action is necessary.

Question 7a. Should NHTSA or Congress mandate new safety standards for floor mats and pedal entrapment to reduce the likelihood of crashes from pedal entrapment and uncontrolled acceleration?

Answer. NHTSA is currently developing a plan to review this issue and will determine if such a safety standard is needed. This will require some research to ensure that, if a standard is needed, it will be effective and be expressed in performance terms.

Question 8. Should NHTSA require electronic data recorders in all new vehicles to improve safety?

Answer. NHTSA currently does not require EDRs. However, we estimate that more than 90 percent of the 2010 model year vehicles have some EDR functions available. NHTSA's current regulation on event data recorders (EDRs) applies to those voluntarily-installed on light vehicles (vehicles under 10,000 pounds GVWR). The regulation serves to standardize the accuracy, collection, storage, survivability and retrieval of crash-related data for vehicles produced after September 1, 2012 (or the 2013 model year). EDRs have the potential to improve safety by providing a better understanding of the crash environment. Indirectly, they may lead to safer vehicle designs, improved crash reconstruction, and better assessments of safety equip-

ment and automatic crash notification systems. None of these benefits of EDRs have been quantified at this time, but NHTSA is considering possible next steps.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. KAY BAILEY HUTCHISON TO HON. RAY LAHOOD AND HON. DAVID STRICKLAND

Question 1. It appears that as many as 70 percent of the complaints in Toyota's customer call database about unintended acceleration are not addressed by Toyota's recent recalls to replace floor mats and fix ″sticky″ pedals, and their cause remains unexplained. In its numerous investigations about unintended acceleration, NHTSA itself raised concerns in 2004 that the problem could be related to the electronic throttle control (ETC) system, but the question was never answered. Why didn't NHTSA independently test the Camry and ES-300 ETC system to determine whether the ETC may be responsible for unintended acceleration?

Answer. In 2004, NHTSA independently conducted the investigation of the Camry/ES electronic throttle control (ETC) system consistent with its approach in other preliminary evaluations. Specifically, a NHTSA investigator reviewed and evaluated the relevant consumer reports (VOQ), issued an information request to Toyota, reviewed and evaluated the information provided by Toyota (including documentation of the ETC design and its safety-related features). NHTSA looked for common objective identifiers of vehicle defects—replacement of vehicle components, report of warning lights, and presence of trouble codes. One or more of such factors often is present in the event of an ETC system failure. NHTSA also looked at Toyota's warranty claim experience on the ETC system, which if substantial often is an indication of a defect.

As part of our investigation, NHTSA also interviewed numerous vehicle owners. Based on these consumer interviews, many of the reports could not be explained solely by an ETC system failure. Specifically, some consumers' statements implied that while the vehicle was accelerating, the brakes simultaneously failed (*i.e.,* they had no effect on the vehicle after they were allegedly fully applied). Also, NHTSA did not find evidence to support the occurrence of brake system or ETC system failure—a fact pattern generally associated with pedal misapplication. After reviewing the information provided by consumers and Toyota, NHTSA did not pursue further investigation because the information gathered at that time did not indicate that further investigation was warranted.

By contrast, in the 2007 ES350 (floor mat) and 2008 Sienna (trim panel) investigations. NHTSA was able to identify and establish a condition that resulted in unwanted acceleration. In both cases NHTSA pursued the issues until Toyota took a remedy action.

Question 1a. What is the Agency doing now?

Answer. As announced by Secretary Ray LaHood, the agency has initiated two major studies designed to answer questions surrounding the issue of unintended vehicle acceleration.

First, NHTSA will conduct a short-term review of electronic throttle controls in Toyota vehicles by the end of the summer. In this effort, NHTSA has enlisted NASA scientists with expertise in areas such as computer controlled electronic systems, electromagnetic interference, and software integrity to help tackle the issue of unintended acceleration in Toyota vehicles. NHTSA chose NASA because of its extensive expertise in electronic controls, as well as its unmatched expertise in forensic analysis and fail-safe design, verification, and testing strategies. NASA's expertise in electronics, hardware, software, hazard analysis and complex problem solving will help ensure that this review will be comprehensive.

Second, the National Academy of Sciences (NAS)—an independent body using top scientific experts—will also examine the broad subject of unintended acceleration and electronic vehicle controls across the entire automotive industry over the course of 15 months. A panel of experts will review possible sources of unintended acceleration, including electronic vehicle controls, human error, mechanical failure and interference with accelerator systems. The experts will look at software, computer hardware design, electromagnetic compatibility and electromagnetic interference. The panel will make recommendations to NHTSA on how its rulemaking, research, and defects investigation activities may help ensure the safety of electronic control systems in motor vehicles.

In addition, NHTSA is concurrently evaluating the need for safety standards related to brake override systems, as well as other possible safety standards.

Question 2. What is the Department's assessment of the preliminary report by Southern Illinois University Associate Professor David Gilbert, indicating that a

failure of the circuitry, sensors or wiring in the electronic throttle control system could cause a runaway engine?

Answer. We first learned of Professor Gilbert's preliminary report in a meeting with Sean Kane on February 22, 2010, and we received a copy of the report the next day. While we immediately began evaluating the information contained in the report, the agency has not completed its assessment of Professor Gilbert's preliminary report. As noted above, NHTSA is conducting two important studies on unintended acceleration—a NHTSA/NASA study and a NAS study. Both studies will examine Professor Gilbert's report more closely.

Question 3. What needs to be done to prevent a situation like the Toyota situation from happening again? How does NHTSA plan to change its processes and priorities to ensure that no serious vehicle safety problem is overlooked?

Answer. NHTSA's objective in conducting investigations is to determine if there is a defect that poses an unreasonable risk to motor vehicle safety in a particular vehicle or series of vehicles. When NHTSA is unable to identify such a defect, it closes the investigation but continues to monitor field data for information that may show that the issue needs to be revisited.

We believe that our safety defect screening and investigation process works well in identifying, investigating, and remedying safety defects in the field. NHTSA's process is data-driven, and decisions are based on input from around the agency. In addition, NHTSA's process is largely open to public oversight. We believe that the 524 recalls involving 23.5 million vehicles within the last 3 years supports the success of NHTSA's approach.

With respect to the Toyota situation, NHTSA's defect screening activity identified early concerns about electronic throttle control in late 2003 (prior to any external warnings). This work and a defect petition led to the opening of the first defect investigation in mid-2004. This investigation and several subsequent defect petition reviews focused on the various causes of unintended acceleration in Toyota vehicles. The agency closed the investigation and petition requests because the agency did not find evidence of a vehicle-based defect.

During this time, NHTSA's screening process separately identified instances of pedal entrapment in other Toyota vehicles such as the Lexus ES350 (via all weather floor mat interaction with the pedal) and the Sienna (via trim panel movement). This work led to investigations which ultimately influenced Toyota to conduct safety recalls in the affected vehicles.

NHTSA continually seeks ways to improve its defects investigation process. For example, we are looking for ways to make our Vehicle Owner Questionnaire easier to use so that we can improve the amount and quality of information consumers provide in complaints. We are also adding more experts to our staff in the areas of electronics and software, which will help us to address issues of this nature more readily.

As noted above, the agency has also commissioned two new studies to identify vulnerabilities in the electronics systems that could lead to unintended acceleration not only in Toyota vehicles, but in all vehicles. These studies are not defects investigations, but rather are research initiatives. Any potential safety defect identified by this work will be referred to the defects screening process for further consideration. The agency will review the results and any recommendations from both studies to determine whether additional measures may assist the agency to improve its process.

Question 4. NHTSA has indicated that, on average, it conducts about 100 vehicle defect investigations annually. Two primary sources of vehicle information are consumer complaints filed directly with NHTSA, and Early Warning Report data submitted to NHTSA by the auto manufacturers as required by the TREAD Act. Yet NHTSA personnel have indicated that most investigations are opened on the basis of complaints submitted to NHTSA, and that only a few investigations each year are initiated based on Early Warning Reports. What needs to be done to make Early Warning Reports more useful? Early Warning information was intended to give NHTSA more information with which to determine potential safety hazards, but the reports do not seem to be as helpful as they should be.

Answer. At this time, the agency believes the information reported by manufacturers to NHTSA is useful for identifying potential safety defects in the affected vehicles in the U.S. Since 2004, the first full year in which NHTSA received EWR data, the Office of Defects Investigation (ODI) has used the EWR data to assist in our safety-defect identification investigation process. NHTSA has utilized EWR data to assist in opening 110 defect investigations, which resulted in over 11 million recalled vehicles and equipment. Specifically, EWR data has prompted the opening of

28 defect investigations, accelerated the opening of 30 defect investigations, and supported the opening of 52 other defect investigations.

The agency is reviewing the reporting requirements and our analytical methods to determine whether additional requirements or improvements are necessary to identify potential safety concerns more effectively and efficiently and intends to implement those changes as necessary.

Question 5. Event data recorders (EDR) are used to collect vehicle information to improve performance and safety. Their installation is not mandatory, though NHTSA has estimated that more than 60 percent of new vehicles contain them. It promulgated a rule in 2006 to standardize the data collected and the format for such information beginning in MY 2013 vehicles. How did NHTSA determine the data elements that should be recorded by an EDR?

Answer. Currently, NHTSA estimates that more than 90 percent of the MY 2010 vehicles have some EDR functionality.

The agency has been collecting EDR data since the 1990s when EDRs were developed as a secondary function of the air bag control module. This electronic module samples data from various vehicle sensors to determine if a crash is imminent and if an air bag should be deployed. Vehicle manufacturers use the data to assess air bag performance in the vehicle and aid in the development of new vehicle safety features. NHTSA uses the data to assess not only air bag performance, but also to assist crash reconstruction efforts and pave the way for the introduction of new safety systems such as Advanced Collision Notification (ACN), which forwards crash information to emergency responders for appropriate response.

In 1998, NHTSA began an effort called the Event Data Recorder Working Group (EDR WG) that utilized the collective resources of industry, academia, and other government organizations (*e.g.,* National Aeronautics and Space Administration and National Transportation Safety Board) to study EDRs. The EDR WG developed a list of 29 key data elements that would facilitate the collection and utilization of crash avoidance and crashworthiness data from on-board EDRs. The list of data elements was guided by recommendations developed by the Society of Automotive Engineers (SAE) and the Institute of Electrical and Electronics Engineers (IEEE). In addition, the EDR WG attempted to prioritize the data elements, assess their feasibility, and study EDR survivability. Consistent with the agency obligation to consider safety, cost and practicability, NHTSA then chose the required and optional data elements that would help the agency better understand the vehicle dynamics and performance of safety systems shortly before and during a crash.

Question 5a. Do you believe the data elements identified in this rule will be sufficient? Are there other elements you now believe should be collected that could prove useful to improving safety?

Answer. NHTSA currently does not require EDRs to be installed on vehicles. The agency's regulation on EDRs applies to those voluntarily-installed on most light vehicles. As noted above, the agency identified those data elements that it believed would help the agency better understand the vehicle dynamics and performance of safety systems. However, the agency's EDR rule is designed to grow with the increasing number and types of safety systems equipped in passenger vehicles. For example, as more manufacturers begin to install side curtain air bags, the rule standardizes any data an EDR collects relating to the deployment of these safety systems.

While other potential data elements may be available for recording if a vehicle is equipped with certain technology, such as steering input, electronic stability control status, or lane departure warning, the EDR technology installed on vehicles varies among the manufacturers and models. Recording these and other data elements may provide supplemental information that allows for a better understanding of driver actions, crash causation and vehicle performance. At this time, the agency is evaluating what additional elements should be added and how current data elements might be modified to provide more useful information.

Question 5b. How did NHTSA determine the appropriate length of time for which the EDR will record in the event of a crash?

Answer. EDRs were only intended to capture the short time period of data immediately preceding and during a crash. The EDR WG carefully considered the length of time needed to characterize a crash based on the collective experience of industry, academia, NHTSA's own crash investigations, and other government agencies. The agency selected the time intervals for collected data based on the recommendations of the EDR WG, crash testing (including air bag deployment times), and EDR research conducted in the 1990s. In the 2004 Notice of Proposed Rulemaking, NHTSA proposed that EDRs capture up to 8 seconds of pre-crash data and 500 milliseconds of data during the crash. In response to comments on the NPRM, additional agency

EDR data collection and research, and the estimated costs associated with the recording capabilities of EDRs, the agency concluded in the final rule that EDRs would be required to capture 5 seconds of pre-crash data and 300 milliseconds of data during the crash.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. ROGER F. WICKER TO HON. RAY LAHOOD AND HON. DAVID STRICKLAND

Question 1. How often and when has the Department of Transportation utilized Exponent to test for safety/defect related information?

Answer. On September 26, 2001, NHTSA awarded a delivery order type contract to Failure Analysis Associates (Exponent's predecessor) for "Compliance Tests for FMVSS No. 201, Occupant Protection Interior Impact." NHTSA placed four orders during the period of performance of this contract (September 26, 2001 to September 27, 2007).

Question 2. What information regarding occurrences/complaints and manufacturers in foreign countries do you currently receive? What types of information do you not currently receive regarding occurrences/complaints and manufacturers in foreign countries that you think would be beneficial? How would this information benefit your safety efforts in the United States?

Answer. The Early Warning Reporting (EWR) regulation established pursuant to the TREAD Act requires all vehicle manufacturers and equipment manufacturers (including tires and child restraints) to report information based on notices and claims of deaths occurring in a foreign country if the vehicle involved is identical or substantially similar to a vehicle sold or offered for sale in the U.S. Manufacturers must also report information on safety recalls and other safety campaigns in a foreign country on a motor vehicle or item of equipment that is identical or substantially similar to a vehicle or item of equipment sold or offered for sale in the U.S. The following are exceptions for reporting foreign recall or safety campaigns:

- The manufacturer is conducting a safety recall or safety campaign on a vehicle for which an identical or substantially similar vehicle is not sold in the U.S.;
- The component or system that gave rise to the foreign recall or other campaign does not perform the same function as the substantially similar component or system in the U.S.,
- The subject of the foreign recall or other campaign is a label affixed to the vehicle, item of equipment or a tire.

Manufacturers are required to submit a list of identical or substantially similar vehicles annually so that the agency can use this information to identify potential defects in vehicles sold or offered for sale in the U.S. Currently, manufacturers are not required to submit this list electronically. The agency is reviewing whether manufacturers should submit this list electronically to provide quicker access and review of the substantially similar vehicle lists.

At this time, the agency believes the information reported by manufacturers for foreign deaths and foreign safety campaigns along with the consumer complaints and other EWR information reported to NHTSA is adequate to identify potential safety defects in the affected vehicles in the U.S. However, the agency continues to review the reporting requirements to determine whether additional requirements or improvements are necessary to identify potential safety concerns more effectively and efficiently and intends to implement those changes as necessary.

Question 3. During the 2007 NHTSA investigation into the MY07 Lexus, the VRTC at NHTSA conducted a study of the electronics system. Please provide all information available related to this study, including testing procedures used, data collected, analysis of data, and results and conclusions from the testing. Should any of the requested information not be available, explain why it is not available and if that lack of availability is consistent with typical VRTC and overall NHTSA studies.

Answer. NHTSA's 2007 investigation of MY07 Lexus vehicles was focused on floor mat interference as the possible cause of unwanted acceleration. NHTSA's Vehicle Research and Test Center conducted a variety of tests, surveys and field investigations to support that investigation. Because they had access to a vehicle with an Electronic Throttle Control system, they decided to conduct a limited examination of how that vehicle responded to simulated faults in the accelerator pedal position sensors, the throttle position sensors, the mass air flow sensor and the coolant temperature sensor. In order to preserve the data collected, they were summarized in the final test report for that investigation (see attached).

Question 4. Have the various studies done on the Toyota and Lexus ETC systems (including but not limited to the 2007 NHTSA study, 2009 Exponent Study, and the study done by Professor Gilbert) been subjected to peer review? Do you think it would be beneficial to have them peer reviewed? Do you think it would be beneficial to have the National Academy of Sciences conduct a peer review of the various tests? If not the NAS, who would you suggest as an appropriate entity to conduct an objective peer review of these tests?

Answer. As noted above, NHTSA's 2007 investigation focused on floor mat interference as the possible cause of unwanted acceleration. Although NHTSA engineers performed a limited examination of the ETC response to a few simulated single point faults, the testing was not intended to be a comprehensive study of the electronic system. Therefore, a peer review of NHTSA's 2007 report would not be appropriate or beneficial.

As announced on March 30, NHTSA is conducting two important studies on unintended acceleration. In one study, NHTSA with NASA will focus on the ETC system in Toyota vehicles. The two agencies will examine the range of studies that have been done that are relevant to this subject, including those of Professor Gilbert and Exponent. In the second study, the National Academy of Sciences will examine electronic control systems and safeguards across the automotive industry. That study will also examine previous work relevant to the subject. These two comprehensive studies will include an examination of the work by Exponent and Professor Gilbert and will therefore serve as a type of peer review.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. TOM UDALL TO CLARENCE M. DITLOW

Question 1. Mr. Ditlow, Toyota responded to problems with accelerator pedals becoming stuck by making its pedals smaller, lowering the floor beneath the pedal, and installing "smart pedal technology" to ensure that the brake pedal overrides the gas pedal.

However, the recalled Toyota vehicles met all NHTSA safety standards when they were sold. These repairs to prevent sudden unintended acceleration seem to highlight the need to update Federal Motor Vehicle Safety Standards (FMVSS). Should NHTSA or Congress mandate new safety standards for "smart pedal" technology, floor mats, and pedal entrapment to reduce the likelihood of crashes from uncontrolled acceleration?

Answer. Congress should require NHTSA to issue a range of new safety standards for electronic controls, accelerators, and brake-accelerator pedal configurations. First, NHTSA needs to be directed to revise its existing standard for mechanical accelerator controls systems, FMVSS 124, to take into consideration electronic throttle controls. Second, NHTSA needs to be directed to issue standards that apply to all electronic controls in vehicles to require failsafe systems, testing for flaws in computer software, electromagnetic compatibility to prevent electromagnetic interference failures. Third, NHTSA needs to be directed to revise its existing standard for controls and displays, FMVSS 101, to not only address brake-accelerator pedal separation but also engine off controls such as the 3-second push button kill switch in Toyota's.

Question 2. What existing FMVSS, SAE, and other standards should guide efforts to ensure that uncontrolled acceleration and pedal entrapment hazards are fully addressed in future safety rules?

Answer. In addition to the above changes to existing Federal Motor Vehicle Safety Standards, NHTSA should be required to take into consideration IEEE standards as well as standards in other industries with electronic controls such as aerospace.

RESPONSE TO WRITTEN QUESTION SUBMITTED BY HON. ROGER F. WICKER TO CLARENCE M. DITLOW

Question. Have the various studies done on the Toyota and Lexus ETC systems (including but not limited to the 2007 NHTSA study, 2009 Exponent Study, and the study done by Professor Gilbert) been subjected to peer review? Do you think it would be beneficial to have them peer reviewed? Do you think it would be beneficial to have the National Academy of Sciences conduct a peer review of the various tests? If not the NAS, who would you suggest as an appropriate entity to conduct an objective peer review of these tests?

Answer. None of the three studies have been peer reviewed. The 2007 NHTSA study cannot be peer reviewed because the agency has no records of its data or pro-

cedure. The Exponent and Gilbert studies should be peer reviewed when they are completed. The NAS is certainly capable of doing a peer review and would be an appropriate entity to do so.

MEMORANDUM

U.S. Department of Transportation
National Highway Traffic Safety Administration
Vehicle Research and Test Center
East Liberty, OH

Date: Apr 30, 2008

Subject: Final Report: "2007 Lexus ES–350 Unintended Acceleration"

From: Michael W. Monk
Director, Vehicle Research and Test Center

To: Kathleen DeMeter
Director, Office of Defects Investigation

Attached are four (4) copies of the subject report. This completes the requirements for this program.

Attachment: Final Report

VRTC Memorandum Report EA07–010

VRTC–DCD–7113

2007 Lexus ES–350 Unintended Acceleration

1.0 Introduction

This program was performed at the Vehicle Research and Test Center (VRTC) at the request of the Office of Defects Investigation (ODI) of the National Highway Traffic Safety Administration. ODI opened an Engineering Analysis (EA07–010) on 2007 Lexus ES–350 vehicles to investigate reports of unintended acceleration.

2.0 Objectives

2.1 Determine whether reported incidents of unintended acceleration were caused by a vehicle system malfunction or mechanical interference;
2.2 Understand and document the effects of unintended acceleration as they impact controllability of the vehicle;
2.3 Document potential difficulties experienced by the operator while attempting to regain control of the vehicle.

3.0 Project Tasks

3.1 Dynamic Instrumented Vehicle Testing

The Vehicle Research and Test Center obtained a Lexus ES–350 for testing (see Figure 1). 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. Mechanical interferences at the accelerator pedal revealed that the one-piece, non-articulating accelerator pedal assembly was easily entrapped in the groove of the rubber all-weather floor mat (Figures 2 and 3) if the rubber mat was not properly secured with at least one of the two retaining hooks (Figure 4). In many observed ES–350s, the rubber mats were stacked on top of the existing carpeted floor mats, which prevented attachment of the rubber mats and facilitated the interference failure mode. A warning is embossed on the front of the floor mat that reads "Do not place on top of existing floor mats". Very few owners interviewed were able to find or read this warning (see Figure 5).

3.2 Owner Surveys

To comprehend the statistical significance of the probability for this event to occur, a survey was sent to a sample size of 1986 registered owners of a 2007 Lexus ES–350 requesting information regarding episodes of unintended acceleration. NHTSA received 600 responses for an overall response rate of 30.2 percent. Fifty-nine owners stated they experienced unintended acceleration. Thirty-five of those responding also reported that their vehicles were equipped with rubber Lexus all-weather floor mats and several commented that the incident occurred when the accelerator had become trapped in a groove in the floor mat. Interviews with owners revealed that many had unsecured rubber floor mats in place at the time of the unintended acceleration event, which included in some cases unsecured rubber floor mats placed over existing Lexus carpeted mats.

3.3 Analysis of the Effects of Unintended Acceleration on Vehicle Control

The safety consequences of an unsecured rubber floor mat trapping the accelerator pedal with the vehicle in gear can be severe. With the engine throttle plate open, the vacuum power assist of the braking system cannot be replenished and the effectiveness of the brakes is reduced significantly. During trapped throttle acceleration testing, several methods to defeat acceleration proved effective but not necessarily intuitive. These methods included:

3.3.1 *Application of the brake* - Significant brake pedal force in excess of 150 pounds was required to stop the vehicle, compared to 30 pounds required when the vehicle is operating normally. Stopping distances increased from less than 200 feet to more than 1,000 feet.

3.3.2 *Turning off the ignition* - In place of an ignition key, the ES–350 uses an ignition button that removes the ability to instantaneously shut off the engine in the event of an emergency while the vehicle is in motion (see Figure 6). It was found that depressing and holding the button will eventually turn off the engine after 3 seconds. Through the survey it was learned that the button delay operation is not widely known by owners and because of this, drivers found themselves unable to turn off the engine when the vehicle was in motion. The owner's manual makes general mention of the operation, but there is no indication of the 3-second hold requirement.

3.3.3 *Placing the vehicle in Neutral* - Many owners complained that the neutral gear position in the gated shift pattern was not immediately obvious, leading to unsuccessful attempts to disengage the engine from the drive wheels. On the labeled shift diagram located on the console, the Neutral "N" marking is in closest proximity to the "Sport" mode upshift gate (see Figure 7).

3.3.4 *Activation of Electronic Stability Control (ESC)* - It was discovered that if an emergency maneuver is executed that activates the Electronic Stability Control, such as steering around a sharp curve while traveling at an excessive speed, the electronic throttle is temporarily electronically closed by the vehicle control module regardless of the accelerator pedal position. With the throttle plate closed, vacuum quickly returns to the brake booster and provides a significant increase in braking capability (see Figure 8). Additionally, ESC has the capability to automatically apply hydraulic pressure to the service brakes to aid in slowing the vehicle. When the emergency maneuver is concluded however, the ESC system returns to a passive state, and the throttle again returns to an open condition leading to further unwanted acceleration.

4.0 Summary

- Mechanical interferences at the accelerator pedal revealed that the accelerator pedal assembly was easily entrapped in the groove of the rubber all-weather floor mat if the rubber mat was not properly secured with at least one of the two retaining hooks.
- A survey was sent to 1986 registered owners of a 2007 Lexus ES–350 requesting information regarding episodes of unintended acceleration. Of the 600 people that responded, 59 stated that they experienced unintended acceleration and 35 complained of pedal interference with the Lexus rubber all-weather floor mats.
- With the engine throttle plate open, the vacuum power assist of the braking system cannot be replenished and the effectiveness of the brakes is reduced significantly.
    - Brake pedal force in excess of 150 pounds was required to stop the vehicle, compared to 30 pounds required when the vehicle is operating normally.

- ESC activation may restore vacuum to the brake booster, providing a significant increase in braking capability, but only until ESC activity ceases.

- The owner survey indicated the 3 second delay in the operation of the ignition button is not widely known by owners and because of this, drivers found themselves unable to turn off the engine when the vehicle was in motion.
- Many owners complained that the neutral gear position in the gated shift pattern was not immediately obvious, leading to unsuccessful attempts to disengage the engine from the drive wheels.

Figure 1—2007 Lexus ES–350

Figure 2—Lexus All-weather Floor Mat with Retaining Hook Holes at the Bottom

Figure 3—Accelerator Pedal Trapped at Full Throttle by Unsecured Rubber Floor Mat

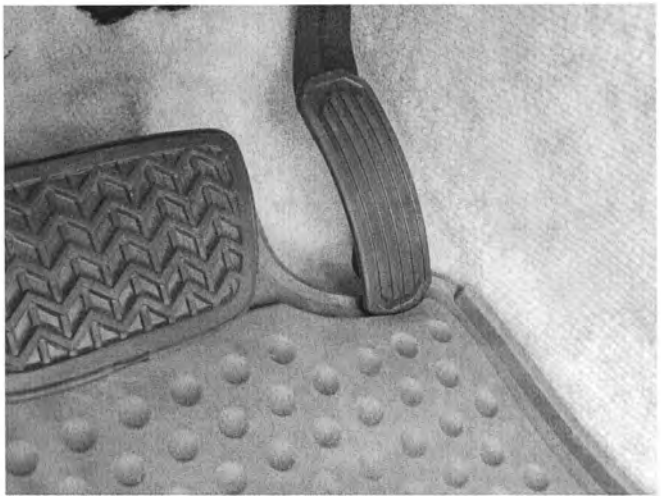


Figure 4 -Floor Mat Retaining Clip and Carpet Receiving Eyelet

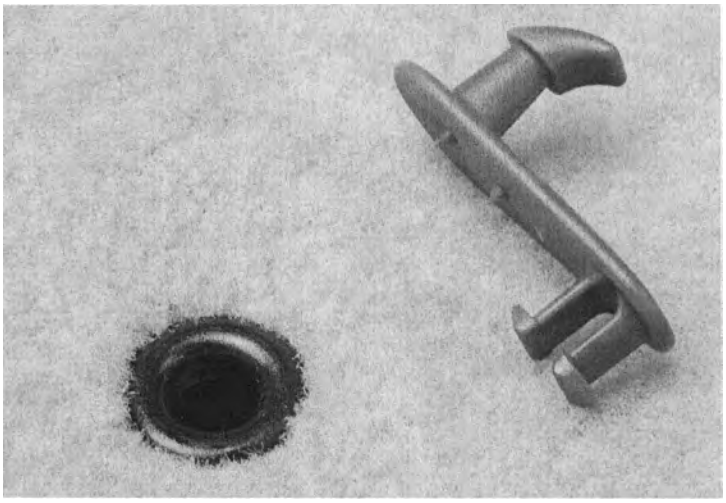


Figure 5—Embossed Warning On Floor Mat States "Do Not Place On Top of Existing Floor Mats"

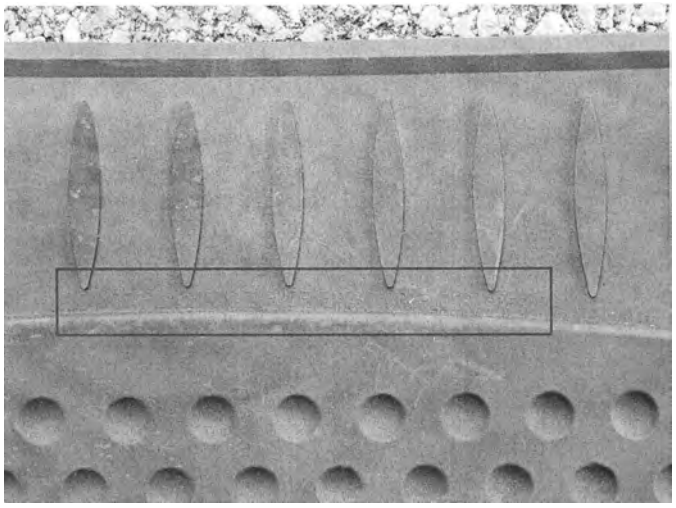
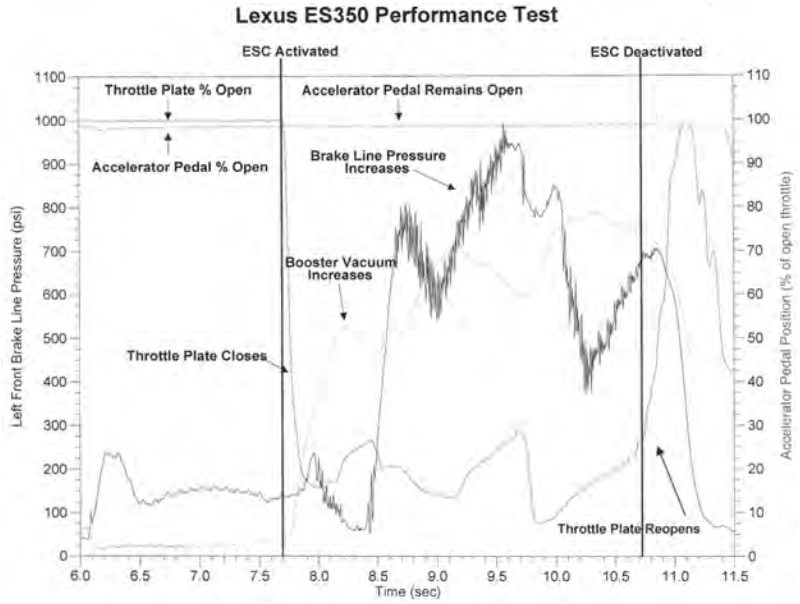


Figure 6—Push Button Ignition Replaces Conventional Key

Figure 7—Shift Gate with Diagram

Figure 8—Data Acquired from Lexus During Testing Indicates Engine Throttle is Overridden During ESC



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