Mark Saylor was doing what he did for a living: driving on a California highway. Only he wasn’t driving his state-issued highway patrol car that day in late August 2009. Nor was he driving his own Lexus 250, which was at the dealer for servicing. He was driving a loaner with his wife, daughter, and brother-in-law on a leisurely family outing northeast of San Diego—until suddenly the car inexplicably took off. And no amount of braking could slow it down. As Saylor frantically tried to gain control, his brother-in-law called 911. “Our accelerator is stuck!” he told the dispatcher. “We’re going 120!”

It wasn’t just the speed that made this so dangerous. He read the sign they were passing: “End freeway one-half mile.” The car was barreling toward a T-shaped intersection. When it got there, it hit another car, flew through a fence, rolled into a field, and burst into flames. The last word before the screams was, “Pray!”

This wasn’t the first time that someone driving a Toyota had experienced sudden unintended acceleration. And it’s not a problem that’s unique to Toyota. But this was the event that Toyota cites as the beginning of its ongoing crisis.

How has it responded? The company has moved aggressively to contain the damage. Shifting floor mats were identified as a primary cause of many of these episodes. The company found that the loaner that the 45-year-old Mark Saylor was driving was equipped with mats that had never been intended for that car. Later, the company fingered accelerator pedals manufactured by a third party as prone to sticking. And Toyota says that many accidents are caused by drivers who inadvertently step on the gas instead of the brake.

As the crisis mounted, the company seemed overmatched. Critics charged that Toyota had sacrificed quality—its traditional strong suit—in a rush to rack up sales. The National Highway Traffic Safety Administration (NHTSA), which had been criticized for years for its willingness to pin sudden acceleration on driver error, suddenly got tough. Toyota recalled more than 8 million cars and paid fines totaling more than $50 million. Litigation, which had slowed down before the Saylor crash, roared back to life, fueled by the recalls and new complaints. And the political pressure, coupled with a Democratic Congress, led to hearings in Washington that drew global attention. Toyota Motor Corporation president Akio Toyoda flew in from Japan to personally face the politicians’ angry questions.

Lost in Translation

Toyota says its problems with sudden unintended acceleration are in the rearview mirror, but newly disclosed documents raise questions that experts say have not yet been answered.
But then everything seemed to calm down. As the company battled two large multidistrict litigation class actions (MDLs) in California, it quietly settled some of the smaller lawsuits, including the one brought by the Saylors’ survivors. The results of several investigations trickled in. Some had been commissioned by Toyota, and tended to include lots of technical data and to focus on floor mats and gas pedals. Then, in 2011, NHTSA concluded its own probe, which purported to be comprehensive, and Ray LaHood, secretary of the U.S. Department of Transportation (the parent agency of NHTSA), pronounced himself satisfied that Toyota’s cars were safe.

Not only had the public uproar subsided, sales rebounded. Following a slump that was probably attributable to the many more documents last year to the National Highway Traffic Safety Administration (NHTSA), the company regained its status as the world leader in car sales. For Toyota, the long ordeal seemed over.

But some leading automotive experts aren’t buying it. Last December, Toyota agreed to pay $1.3 billion to settle the MDL brought by car owners who claim that they suffered economic damages as a result of these events. Critics point out that it’s a pretty big number for plaintiffs who weren’t even directly affected. Beyond that, more than 200 personal injury cases remain to be resolved in the other MDL. The first bellwether trial had been scheduled for March, but it settled in January on confidential terms. At this writing, it’s unclear how the matter will play out; some lawyers expect another large settlement.

But putting aside the politics and litigation, these automotive experts simply don’t believe that the controversy has been put to rest. They acknowledge that some accidents are caused by drivers stomping on the gas instead of the brake, and some from defective floor mats and gas pedals. But the experts don’t believe that these explain the surge in complaints. Instead, they believe precisely what Toyota has for years steadfastly denied: that the problem is rooted in electronics.

The experts agree that Toyota’s own people, Corporate Counsel obtained scores of internal documents written by employees who were struggling to understand why cars were suddenly accelerating, and where the company could have gone wrong. Among the writers were executives, managers, lawyers, public relations specialists, and engineers.

What is demonstrated in the age of YouTube and WikiLeaks, is how hard it is for multinationals and their in-house counsel to keep a lid on their companies’ internal data.

Many of the documents are marked “secret” and “confidential.” They were provided by Betsy Benjaminson, a translator who has worked for several agencies that translate Toyota documents from the Japanese (and who translated several of those quoted in this article). She says that these shops work for law firms hired to assist the company in litigation. Benjaminson provided these and many more documents last year to Senator Charles Grassley (R-Iowa), the ranking member of the Judiciary Committee, who then wrote a letter to NHTSA expressing his concern that questions about electronics have not been resolved. Corporate Counsel showed to the complete documents from which quotes were excerpted for this article; the company’s response is on page 75.

Benjaminson is revealing her identity for the first time here. She decided to go public because lives are at stake, she says. “Up to now,” she adds, “the corporate PR megaphone has completely drowned out the victims.”

Four experts agreed to review the documents independently and share their impressions. Keith Armstrong, Antony Anderson, and Brian Kirk are based in the United Kingdom; Neil Hannemann lives in California. All of them have decades of experience. The documents they reviewed date from as early as 2000; the most recent were written a few months after the congressional hearings in February and March 2010. They include many emails along with spreadsheets, flow charts, and diagrams.

One of the experts present the experts agree: There is no smoking gun that shows that Toyota identified and concealed an electronic defect that was responsible for crashes. But numerous documents, they say, undermine the corporation’s repeated attempts to reassure the public, as exemplified by the testimony of Jim Lentz, the CEO of Toyota Motor Sales U.S.A. Inc. In February 2010 Lentz told a House subcommittee: “We are confident that no problems exist in our electronic throttle systems in our vehicles.”

The documents suggest that Toyota has grasped and handled the overall UA problem (mat, accelerator, electronic throttle control, etc.) incorrectly. They also show that the company has often failed to keep a lid on its documents written in Japanese,” he advised, “but it is OK to do so in English, and in reports related to Europe. “It is OK to use English in the U.S. government, but it is not acceptable in Europe.”

Hagiwara wrote, “and is saying (publicly, I believe) that they are الصحيح problematic.” Tinto agreed. “Tinto said, “I can’t completely take care of the pedal problem, etc.” Tinto’s primary concerns (according to Hagiwara): “For NHTSA, we said that our investigations in Europe found that the pedal return is a little slow at a slightly open position, and that there were no accidents, but this is not true. Last year’s situation in Europe (many reports of sticking pedals and accidents, and a TIS T99-161 was filed on October 1, 2009) was not reported to NHTSA.”

Still speaking of Tinto, who worked for NHTSA in the 1990s before he was hired away by Toyota, Hagiwara con-

continued: “He appears to question how Toyota has handled and the overall UA problem (mat, accelerator, electronic control unit, and electronic throttle control systems, etc.).”

Hagiwara reminded the executives to be careful what they put in writing. He asked them to fax any investigative reports related to Europe. “It is OK to write things much more formally than the emails written in Japanese,” he advised, “but as much as possible only send materials that would not be controversial if disclosed (namely, things that have been reviewed), and it is best, I think, to discuss things orally.”

The documents make it clear that in-house lawyers and public relations personnel worked together to craft a strategy. Christopher Reynolds, the U.S. general counsel, advocated defending the electronic throttle control by seeking “validation” by a panel of experts. Using the Japanese word for building consensus to act, he wrote in December 2009 that he hoped “we can finalize a nemawashi plan this week and begin to implement it.”

One of the weaknesses in Toyota’s defense was flagged in an email sent by assistant GC Webster Burns the following April. Commenting on a demand letter from NHTSA, the company pay a $16.375 million fine for delaying its sticky pedal report, Burns wrote: “We need to keep in mind that we continue to find significant differences within Toyota about the significance of the sticky pedal phenomenon which will be explored by NHTSA in any litigation.”

Some documents require translation by specialists. An undated spreadsheet showed test results of an engine’s electronic throttle control system, including numerous faults that the document said cause sudden acceleration. “My guess is they were fixed in development,” says Hannemann, who has been hired by plaintiffs suing Toyota, and also by the defense in a suit against a Toyota dealer. “But this shows you have to find issues during testing. And how do you know you catch them all?”

Several documents illustrated what the experts describe as a propensity of Toyota employees to define
problems as they wish them to be, regardless of the facts. One is Toyota’s analysis—performed three days after Saylor’s death—of car owners’ complaints received by NHTSA. Some drivers described their own harrowing experiences. Several were adamant that theirs had nothing to do with floor mats, yet that didn’t always matter to Toyota’s reviewer.

One woman riding in a 2006 Toyota Tota said it was the third such experience she’d had with the car. “Two times previously Toyota had replaced the cruise control,” she reported. “This is not a cruise control problem. This is a gas pedal issue. I was told previously the mat was under the gas pedal. This is hardly the problem.” In the column provided for the cause, the reviewer wrote: “The mat catches (specifies unknown).” It was the most common cause listed on the chart, regardless of what the drivers had to say. Antony Anderson, an independent electrical consultant who specializes in electrical machine and control system failure investigations (and has provided independent expert testimony for plaintiffs who sued Toyota), says the document shows how Toyota’s “poor analysis” makes it appear that the incidence of stack floor mats “is very much higher than it really is.”

Another example of preemptive answers appeared in an undated email written by an engineer. He asked if acceleration can be caused by radio wave interference. Then he recounted his earlier experience with interference: “Previously, when I was in charge of Hilux [a truck model] in the Japan domestic service division, I experienced an engine stall malfunction due to radio wave interference from a nearby U.S. naval base in Yokohama. At that time I was told that it could absolutely never occur.” Keith Armstrong, an expert in electronic circuit design as well as electromagnetic interference (EMI), says the idea that radio waves can’t cause electronic malfunctions is absurd: “I know of no expert in this field who doesn’t work for the auto industry (and some who) would ever make such a ridiculous claim.” Armstrong has advised electronic suppliers on EMI safety matters, and he has also twice advised NHTSA, at its request. (He has not been involved in Toyota litigation.)

Anderson and Hannemann are even more troubled by an email exchange between Michitomo Kato, a general manager based in Japan, and Tinto in D.C. In messages dated October 11, 2007, the two were discussing television coverage of sudden acceleration in the Tacoma. Tinto wondered whether the mothership was looking into the situation. Actually, Kato replied, headquarters had not received any technical field reports from dealers or regulatory offices “because as you know, the sudden acceleration or surge issue usually can’t be duplicated by the dealer and they can’t find any abnormality on the vehicle. In those cases the dealer does not make the field report.” Consequently, he added, “Toyota does not know what’s happening on the Tacoma vehicles and it just started the investigation.”

Hannemann found it more than odd that Toyota was, as the email makes plain, getting information about its own problem cars from NHTSA, news stories, and Internet forums. “You should be telling NHTSA things, not the other way around,” says Hannemann, who has worked as a product development engineer at Chrysler Corporation and as a chief engineer at the Ford Motor Company. In February 2010 it established a new program to investigate all reports of unintended acceleration. It attempts to contact individuals within 24 hours to arrange a full analysis of their vehicles.

The documents also revealed introspective moments during which executives considered where their company went wrong. One Japanese exec, identified only as Takimoto, wrote in March 2010: “All of the current problems were caused by the low level of completeness of vehicle development during the time period when I was there; I am really very sorry.” Another executive truthfully admitted in February 2010 that quality was his “biggest bug bear” but he had to say “in the case of prototype vehicles, production vehicle, cars, and quality assurance test vehicles were dramatically reduced,” as were his personal efforts to achieve quality verification.

The experts who reviewed the documents offered their own assessments. Brian Kirk, the founding director of Robinson Systems Engineering Ltd, which specializes in safety critical software and systems for the transportation industry (and is not involved in Toyota litigation), says that the documentation “seems to intentionally try to understand the problems and provide practical solutions within the constraints of legacy and time pressures. However, there is no apparent safety engineering process forming a rigorous basis for understanding and solving the issues. Hannemann also finds a general lack of rigor. When technicians investigate complaints, they don’t seem to press to find the root cause of their problems. The process of solving is focused on something that’s predetermined; he noted. And if they’re not going to rigorously test cars prior to production, then they need to listen carefully to complaints from consumers, who are essentially doing the testing for them. But the company wasn’t doing that either, he says.

The problem of sudden acceleration emerged after electronic controls were introduced into cars in the late 1970s and early 1980s. Before then the issues were driver error and mechanical problems—like a throttle return spring failing. Diagnostic electronic failures, on the other hand, is much more challenging. As Keith Armstrong puts it: “Electronics in its very nature is weak, unreliable, sensitive.” And when a component fails, it doesn’t necessarily leave evidence. “Think of your PC,” he says. “Sometimes it will crash and you’ll reboot it. And if someone then asks, ‘Where is the evidence?’ you may not be able to show them.”

Sudden acceleration is still a very rare event, but unlike operating a computer, a malfunction in a car can cause serious injury or death. It doesn’t help that the problem is so rare. “It’s not a business like Ford has had its own sudden acceleration problems over the years, [but] it must be driver error,” says Saylor, who favors the theory that radio waves can’t cause electronic malfunctions. Armstrong has advised electronic suppliers on EMI safety matters, and he has also twice advised NHTSA, at its request. (He has not been involved in Toyota litigation.)

Ford and some of the other manufacturers, the big problems began with the introduction of cruise control. That was the function that was left to engineers, and some ground-breaking lawsuits, though cautious, were introduced into cars in the late 1970s and early 1980s. Before then the issues were driver error and mechanical problems—like a throttle return spring failing. Diagnostic electronic failures, on the other hand, is much more challenging. As Keith Armstrong puts it: “Electronics in its very nature is weak, unreliable, sensitive.” And when a component fails, it doesn’t necessarily leave evidence. “Think of your PC,” he says. “Sometimes it will crash and you’ll reboot it. And if someone then asks, ‘Where is the evidence?’ you may not be able to show them.”

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On one level Ditlow can commiserate with the agency, which is notoriously underfunded, he notes. But he can’t excuse its handling of SUA. Toyota has adopted the same attitude, Ditlow says, as the car manufacturer. If you can’t find a failure, it must be driver error. “I think that’s wrong,” he says in an interview. He also sees the same posture in NHTSA’s 1989 report on sudden acceleration and its decision not to call the companies to investigate all reports of unintended acceleration.

But Toyota, our core values have always been to pursue the highest levels of safety and quality and to continuously improve. To conclude otherwise based on a few handpicked documents, including internal deliberations about quality improvements or descriptions of prototype system testing, is misleading and simply wrong.

Over the past three years, the safety of Toyota’s Electronic Throttle Control System (ETCS) has been repeatedly confirmed by multiple independent evaluations, including by experts who investigated the Space Shuttle disaster, and the comprehensive NHTSA-NASA studies, which found no electronic-based cause of high-speed acceleration in Toyota vehicles and were confirmed by the National Academy of Sciences.

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We continue to stand fully behind our products, and millions of Toyota drivers continue to prove every day that they can depend upon their vehicles to provide safe, reliable transportation. We are gratified that Toyota vehicles are once again widely recognized as among the safest and most reliable on the road.

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That’s the nature of electronics.” Before one of Murray and O’Neill’s biggest wins, a trial judge ruled that their expert couldn’t mention EM1, which could have cast doubt on their explanation of how the accident happened. In the Daubert hearing, the judge said to the attorneys: “I don’t believe that the expert’s findings couldn’t be replicated in tests. They later won millions for appeal in 2002, in a decision written by Sonia Sotomayor before she was elevated to the U.S. Supreme Court. Murray says it was one of the first successful challenges to the electronics in a car’s cruise or throttle control. Yet, for EM1, it was another argument lost in translation.

As to the expert testimony of the company, Ford offered a full-throated defense of its regulator. “NHTSA has investigated alleged unintended accelerations many times over many years and has concluded that driver error is the predominant cause of these events. NHTSA’s work is far more scientific and trustworthy than work done by personal injury lawyers and their many public relations firms,” the statement concluded: “Ford has reviewed its own data and determined that its drivers are safer than the average prob- lems experienced by Toyota owners.”

In an emailed statement, NHTSA also defended its enforcement, citing the “debunking” of several Ford claims. The results “made clear there was no evi- dence of any electrical cause of sudden, high-speed unintended acceleration in the Toyota vehicle models that were the subject of the study.”

By 2009 the SUA front was quiet. There was no permanent investigation. The court had overturned an $80 million SUA verdict won by attorney Mark Evans against General Motors Corp.—the largest by far of Some of Murray and O’Neill’s best cases had settled, and NHTSA had closed its SUA investiga- tion in the Toyota vehicle models. And suddenly everything changed.

It was the 911 tape that did it. Posted on YouTube, it seemed to make the impossible possible—maybe because no translation was required. And it also seemed to give people who had experienced sim- ilar sudden acceler- ation permis- sion to talk about it—and the social media means to do so. “Without that crash that was caught on a 911 tape,” says Ditlow, “no one would have paid any attention to [sudden acceleration]. And there would have been no controversy!”

As the TEMPEST GREW, THE PRESSURE mounted on Congress, NHTSA, and Toyota. The company shifted into crisis mode, and the Japanese execu- tives slowly began to listen to the American managers who understood the U.S. legal landscape. Reynolds, the U.S. general counsel, began calling the shots along with the public relations people. But it wasn’t always easy for them to convince the bigwigs in the motherland. When Congress began planning hearings, for example, the initial word from Japan was that Toy- ota’s president would sit them out. It took some time to bring him around.

The biggest challenge during the hearings came from a surprising source. David Gilbert was an automotive research and development engineer professor at the University of Southern Illinois in Car- bondale, which, it so happens, receives resources and funding from Toyota. But he came to the hearing to talk about an experiment he’d cooked up that challenged claims Toyota made about its electronics. Toyota insisted that any electrical fault in its cars would trip an error code, which would immediately reduce power and send the car into “limp home mode.” Gilbert decided to test this assertion by rewiring Toyota’s throttle in a way that would mimic a short circuit and send the rpm surging. Then he’d check for an error code. At the hearing he revealed what he’d found (previewed the night before on ABC News). The cars he tested hadn’t produced the code, suggesting a vulnerability in the system. The poli- ticians were impressed—and suddenly everything changed.

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In a statement, Toyota denied that it cut its support of the university. The employee who suggested that the fire school Gilbert sent a personal e-mail to the student—though it doesn’t represent Toy- ota’s position on the matter.”

All the attention put NHTSA in the hot seat. When Ditlow testified before a Senate committee after Gilbert had addressed one in the House, he called for a “full and public” investigation of Toyota’s electronic controls with “independent scientists and engineers with no ties to the auto industry.”

Joan Claybrook had also been pressing NHTSA to seek outside help. Claybrook, who was NHTSA’s leader during the Carter administration, often works closely with Ditlow, and they works closely with Ditlow, and they work without preconceptions. Born in the U.S., she says, “I felt that I am not just the NASA guru, I am the person who works with people...