# ΤΟΥΟΤΑ

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March 24, 2010

Kathleen DeMeter, Director Office of Defects Investigation Enforcement National Highway Traffic Safety Administration 1200 New Jersey Avenue, S.E. Washington, D.C. 20590

Re: Toyota TQ10-002

Dear Ms. DeMeter:

This letter supplements Toyota's previous submission in this proceeding, and provides a preliminary response to Request 14, which seeks a chronology of information related to the issue of interference between the accelerator pedal and the driver's side floor mat. The enclosed preliminary chronology is based on Toyota's review of files and documents located to date, and may require revision in the future, based on additional files and documents identified in the on-going review of files and documents. Moreover, this preliminary chronology identifies only the principal events related to the specified issue. Additional events related to this issue are identified in the responses previously provided to Requests 11, 12, 13, 16, 33, 35, 37, and 42.

The verifications provided with the previous submission continue to apply to this supplemental submission.

Sincerely,

Christopher Tinto

Enclosure

# PRELIMINARY CHRONOLOGY – AS OF MARCH 24, 2010 SUBJECT TO FURTHER INVESTIGATION AND POSSIBLE SUPPLEMENTATION

### **Preliminary Chronology of Principal Events**

#### Slow to Return and Sticky Accelerator Pedal Issues

#### Slow to Return Accelerator Pedals in Tundra (and other) Models

- <u>March December 2007</u>: Toyota received four Field Technical Reports ("FTRs") concerning claims that the accelerator pedals in Tundra models were slow to return.
- <u>December 14, 2007</u>: Toyota investigated recovered parts. It was confirmed that pedal operated properly on the recovered parts under normal environmental conditions.
- <u>January 7, 2008</u>: Duplication test: The phenomenon of slow return of the accelerator pedal containing PA 46 friction lever was confirmed on the recovered part under high temperature and humidity environmental condition.
- <u>January 18, 2008</u>: CTS, the supplier of the accelerator pedal for the Tundra model, confirmed that the Tundra accelerator pedal could be slow to return in conditions of high humidity and temperature.
- <u>January 25, 2008</u>: Toyota issued Engineering Change Instructions ("ECIs") to change the composition of the friction lever of the Tundra accelerator pedal from PA46 to PPS.
- <u>February 14, 2008</u>: The design change was implemented into mass production vehicles.
- <u>March 21, 2008</u>: Toyota determined that even if a Tundra accelerator pedal was slow to return, the vehicle could be stopped using the brakes.
- June 19, 2008: A meeting was held to discuss the phenomenon of Tundra accelerator pedals being slow to return. A decision was made that the phenomenon was not a safety-related issue.
- <u>August September, 2009</u>: On August 4, 2009, a Dealer Product Report was created concerning a MY 2007 Camry that was the subject of a stick accelerator pedal complaint. This Camry was subsequently discussed in a Market Impact Summary dated September 9, 2009.
- <u>January 19, 2010</u>: Toyota made a presentation to NHTSA officials in Washington DC about the sticky accelerator pedal phenomenon in Europe and the United States. Although primarily addressing the PPS issue (discussed in more detail

below), the presentation also addressed the PA46 pedal). On the same day, Toyota decided to include the Tundra (and other models containing pedals with PA46 friction levers) in the forthcoming safety defect determination addressing other pedals manufactured by CTS containing a friction lever made of PPS. The decision to include PA46 friction levers was to avoid customer confusion.

• January 21, 2010: Toyota filed a Defect Information Report regarding pedals containing PA 46 friction levers and PPS friction levers.

#### Sticky Accelerator Pedals

- <u>July, 2006</u>: TMC received a FTR from US market regarding sticking of accelerator pedal on Avalon. At this time, problem was not reproduced and no other similar FTR received, so Toyota decided to monitor the situation in the field.
- <u>January, 2008 December, 2008</u>: TMC received four FTRs from European market regarding sticking of accelerator pedal and conducted parts recovery in the EU.
- <u>December, 2008 March 2009</u>: TMC conducted investigation of the recovered parts from the EU. It was confirmed that pedal operated properly on the recovered parts under normal environmental conditions.
- February 2009 June 2009: Customer Quality Engineering-Japan ("CQEJ"), a business unit within TMC, as well as pedal design and testing engineers at TMC and CTS investigated and analyzed the likely cause of sticky accelerator pedals in Europe. The trend that emerged in the judgment of these personnel was that the phenomenon seemed to occur during the winter in circumstances of high humidity in right hand drive models (in the U.K. and Ireland). TMC personnel had reproduced the phenomenon in April 2009, first on a recovered part and then in a laboratory setting using a full vehicle. In June 2009, the phenomenon was replicated in a test drive at TMC's Reliability Testing Group. The collective thinking was that condensation, along with wear of the friction lever assembly, likely caused accelerator pedal sticking and that the phenomenon occurred in right hand drive vehicles because the heater duct outputs directly towards the accelerator pedal, causing condensation inside the colder pedal assembly. TMC and CTS reviewed possible countermeasures and settled on a change to material (PPS to POM) and extended the length of the friction lever to prevent increased friction.
- <u>April 27, 2009</u>: Personnel at Customer Quality Engineering Europe ("E-CQE"), a business unit of Toyota Motors Europe, informed personnel at Customer Quality Engineering-Los Angeles ("CQE-LA"), about reports of sticky accelerator pedal

complaints at Galway, Ireland, one of which, in April, was replicated by Toyota personnel located in Europe.

- <u>May 2009</u>: ECIs were developed to address the sticky accelerator pedal issue in right side drive Aygo and Yaris models by extending accelerator pedal friction levers and changing material from PPS to PPA + POM.
- June 15, 2009: TME issues a Technical Information ("TI") to Toyota Distributors in the U.K. and Ireland identifying a temporary field fix utilizing replacement of CTS pedals with a Denso pedal modified in the field as advised in the TI.
- <u>Approximately July 2009</u>: A decision was made to implement the design change for CTS accelerator pedals on a rolling basis, first in right hand drive vehicles in Europe. TMC planned to commonize the friction lever in pedals used in other markets, including the US.
- <u>August September 2009:</u> On August 21, 2009, an inspection was conducted of a MY 2009 Matrix located in Arizona that was the subject of a sticky accelerator pedal complaint. This Matrix was discussed in a CQE-LA monthly report dated August 28, 2009 and in a Market Impact Summary dated September 9, 2009. In September 2009, the sticky pedal phenomenon identified in the field exercise was reproduced at Reliability Testing at TMC and CTS. The results were later characterized by the 3 Under Body Department at TMC as "[p]henomenon as same as Yaris and Aygo were confirmed at reproduction."
- <u>September, 2009</u>: TMC confirmed that a vehicle with a simulated "sticky pedal" in worst case condition will stop in approximately the same stopping distance as a vehicle without a sticky pedal.
- <u>September 29, 2009</u>: TME issued a TI to Toyota distributors in Austria, Belgium, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Holland, Hungary, Iceland, Ireland, Israel, Italy, Malta, Norway, Poland, Turkey, Portugal, Russia, Slovenia, Spain, Sweden, Switzerland, Ukraine, the U.K., Georgia, Kazakhstan, and Romania identifying a production improvement and repair procedure to address complaints by customers in those countries of sticky accelerator pedals, sudden rpm increase and/or sudden vehicle acceleration.
- <u>October 7, 2009</u>: A staff member of the Product Planning and Management Division ("PPM") at TMC sent a staff member at TEMA-PPM a copy of an ECI, which described the same design change for the accelerator pedal of the RAV4 manufactured in Ontario, Canada as was implemented in Europe.
- <u>October 13, 2009</u>: An Intra-Company Communication ("ICC") was issued, copied to CQE-J as well as Toyota personnel in the United States, concerning a

Corolla sold in Missouri that was the subject of a sticky accelerator pedal complaint. The ICC noted that, after the issue was identified on September 24, 2009, the part was recovered and installed on a 2010 Corolla fleet vehicle; and an concern was experienced during the pedal return stroke; the pedal was handed over to CQE-LA for further analysis on October 5, 2009.

- <u>October 21, 2009</u>: A member of TEMA-PPM received a call from a member of TMC-PPM instructing him not to implement the ECI noted above.
- <u>October 22-28, 2009</u>: Three FTRs were issued concerning claims of sticky accelerator pedals in Corollas sold in the United States, and parts recovery was conducted.
- <u>October 2009 January 2010:</u> Toyota received additional FTRs concerning sticky accelerator pedals on models sold in the United States.
- <u>November 2009</u>: Toyota notified NHTSA of the three October FTRs and provided copies to NHTSA (which submission also included other relevant FTRs provided under prior TREAD submissions.)
- <u>Approximately November December 2009</u>: Engineers at the Reliability Testing group at TMC examined the accelerator pedals that were recovered from the Corolla vehicles discussed above and that were the subject of the sticky accelerator pedal complaints in the United States, replicating sticky pedal phenomenon in two of the three cases, and concluded that the phenomenon experienced in the United States was essentially the same as the phenomenon experienced in Europe.
- <u>Approximately December 16, 2009</u>: TMC-PPM sent TEMA-PPM a copy of a new ECI concerning the design of the accelerator pedal of the RAV4 manufactured in Ontario. The design change described in this ECI was identical to that described in a previous ECI, although some of the details concerning the implementation of the ECI were different.
- <u>January 15-18, 2010</u>: Various internal meetings to discuss status of production changes and to prepare for meeting with NHTSA.
- <u>January 19, 2010</u>: Toyota made a presentation to NHTSA officials in Washington DC about the sticky accelerator pedal phenomenon in Europe and the United States.
- <u>January 21, 2010</u>: Toyota announced that it would recall 2.3 million vehicles to correct sticking accelerator pedals.

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- January 26, 2010: Toyota issued stop sale order for vehicles at dealerships containing CTS pedals.
- <u>February 1, 2010</u>: Toyota announced that the recall to address the sticky accelerator pedal issue would consist of inserting a metal plate in the accelerator pedal assembly to prevent the pedal from experiencing stickiness.