



U.S. Department
of Transportation
**National Highway
Traffic Safety
Administration**

MAR 16 2006

400 Seventh Street, S.W.
Washington, D.C. 20590

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Christopher Tinto, Director
Toyota Motor Corporation
601 Thirteenth Street, NW
Suite 910 South
Washington, DC 20005

NVS-213car
PE06-010

Dear Mr. Tinto:

This letter is to inform you that the Office of Defects Investigation (ODI) of the National Highway Traffic Safety Administration (NHTSA) has opened a Preliminary Evaluation (PE06-010) to investigate allegations of Tire Pressure Warning System (TPWS) failure, where the system failed to provide sufficient warning when the tire pressure in at least one of the tires was low while the vehicle was moving in MY 2004 - 2005 Toyota Sienna vehicles with run flat tires manufactured by Toyota Motor Corporation, and to request certain information.

This office has received thirteen (13) reports of alleged Tire Pressure Warning System (TPWS) failure on the subject vehicles. Eight (8) complaints were received on model year (MY) 2004 subject vehicles and five (5) on MY 2005 subject vehicles. All complainants reported that the TPWS warning light did not illuminate on the driver information panel when the tire pressure was low or the tire was flat. In some incidents, the consumer reported that the TPWS light did not illuminate when the tire pressure in one tire was at 15-20 psi and the other tires were at or near the recommended tire pressure. In one (1) incident, the complainant reported that by the time he pulled to the side of the road, one tire was smoking and had burst into flames. A copy of each of the reports is enclosed for your information.

Unless otherwise stated in the text, the following definitions apply to these information requests:

- **Subject vehicles:** all MY 2003 - 2006 Toyota Sienna vehicles, regardless of the tires fitted on the vehicle, manufactured for sale or lease in the United States.
- **Peer vehicles:** all MY 2004 - 2006 Toyota Highlander, RAV4, and Solara vehicles, regardless of the tires fitted on the vehicle, manufactured for sale or lease in the United States.



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888-327-4236

- **Subject system:** all Tire Pressure Warning Systems (TPWS), including the tires, wheels, and all other system components, manufactured on the subject vehicles.
- **Peer system:** all Tire Pressure Warning Systems (TPWS), including the tires, wheels, and all other system components, manufactured on the peer vehicles.
- **Toyota:** Toyota Motor Corporation, all of its past and present officers and employees, whether assigned to its principal offices or any of its field or other locations, including all of its divisions, subsidiaries (whether or not incorporated) and affiliated enterprises and all of their headquarters, regional, zone and other offices and their employees, and all agents, contractors, consultants, attorneys and law firms and other persons engaged directly or indirectly (e.g., employee of a consultant) by or under the control of Toyota (including all business units and persons previously referred to), who are or, in or after 1999, were involved in any way with any of the following related to the alleged defect in the subject and peer vehicles:
 - a. Design, engineering, analysis, modification or production (e.g. quality control);
 - b. Testing, assessment or evaluation;
 - c. Consideration, or recognition of potential or actual defects, reporting, record-keeping and information management, (e.g., complaints, field reports, warranty information, part sales), analysis, claims, or lawsuits; or
 - d. Communication to, from or intended for zone representatives, fleets, dealers, or other field locations, including but not limited to people who have the capacity to obtain information from dealers.
- **Alleged defect:** Tire Pressure Warning System (TPWS) failure where consumers alleged or reported that:
 - a. The TPWS failed to provide sufficient warning when the tire pressure in at least one of the tires was low or had fallen to 25 percent or more below the vehicle manufacturer's recommended cold inflation pressure for the tires; or
 - b. The TPWS light did not go on when the tire pressure was low, the tire had a flat, a blowout, or a tread separation; or
 - c. The tire pressure was low or the tire had a flat, a blowout, or a tread separation.
- **Document:** "Document(s)" is used in the broadest sense of the word and shall mean all original written, printed, typed, recorded, or graphic matter whatsoever, however produced or reproduced, of every kind, nature, and description, and all non-identical copies of both sides thereof, including, but not limited to, papers, letters, memoranda, correspondence, communications, electronic mail (e-mail) messages (existing in hard copy and/or in electronic storage), faxes, mailgrams, telegrams, cables, telex messages, notes, annotations, working papers, drafts, minutes, records, audio and video recordings, data, databases, other information bases, summaries, charts, tables, graphics, other visual displays, photographs, statements, interviews, opinions, reports, newspaper articles, studies, analyses, evaluations, interpretations, contracts, agreements, jottings, agendas, bulletins, notices, announcements, instructions, blueprints, drawings, as-builts, changes, manuals, publications, work schedules, journals, statistical data, desk, portable and

computer calendars, appointment books, diaries, travel reports, lists, tabulations, computer printouts, data processing program libraries, data processing inputs and outputs, microfilms, microfiches, statements for services, resolutions, financial statements, governmental records, business records, personnel records, work orders, pleadings, discovery in any form, affidavits, motions, responses to discovery, all transcripts, administrative filings and all mechanical, magnetic, photographic and electronic records or recordings of any kind, including any storage media associated with computers, including, but not limited to, information on hard drives, floppy disks, backup tapes, and zip drives, electronic communications, including but not limited to, the Internet and shall include any drafts or revisions pertaining to any of the foregoing, all other things similar to any of the foregoing, however denominated by Toyota, any other data compilations from which information can be obtained, translated if necessary, into a usable form and any other documents. For purposes of this request, any document which contains any note, comment, addition, deletion, insertion, annotation, or otherwise comprises a non-identical copy of another document shall be treated as a separate document subject to production. In all cases where original and any non-identical copies are not available, "document(s)" also means any identical copies of the original and all non-identical copies thereof. Any document, record, graph, chart, film or photograph originally produced in color must be provided in color. Furnish all documents whether verified by Toyota or not. If a document is not in the English language, provide both the original document and an English translation of the document.

- **Other Terms:** To the extent that they are used in these information requests, the terms "claim," "consumer complaint," "dealer field report," "field report," "fire," "fleet," "good will," "make," "model," "model year," "notice," "property damage," "property damage claim," "rollover," "type," "warranty," "warranty adjustment," and "warranty claim," whether used in singular or in plural form, have the same meaning as found in 49 CFR 579.4.

In order for my staff to evaluate the alleged defect, certain information is required. Pursuant to 49 U.S.C. § 30166, please provide numbered responses to the following information requests. Insofar as Toyota has previously provided a document to ODI, Toyota may produce it again or identify the document, the document submission to ODI in which it was included and the precise location in that submission where the document is located. When documents are produced, the documents shall be produced in an identified, organized manner that corresponds with the organization of this information request letter (including all individual requests and subparts). When documents are produced and the documents would not, standing alone, be self-explanatory, the production of documents shall be supplemented and accompanied by explanation.

Please repeat the applicable request verbatim above each response. After Toyota's response to each request, identify the source of the information and indicate the last date the information was gathered.

1. State, by model and model year, the number of subject and peer vehicles Toyota has manufactured for sale or lease in the United States. Separately, for each subject and peer vehicle manufactured to date by Toyota, state the following:
 - a. Vehicle identification number (VIN);
 - b. Make;
 - c. Model;
 - d. Model Year;
 - e. Drive Type;
 - f. Size of tire fitted on the vehicle as original equipment;
 - g. Make of tire fitted on the vehicle as original equipment;
 - h. Line (model) of tire fitted on the vehicle as original equipment;
 - i. Run Flat or Non-Run Flat Tire;
 - j. Indirect or Direct TPWS;
 - k. Date of manufacture;
 - l. Date warranty coverage commenced; and
 - m. The State in the United States where the vehicle was originally sold or leased (or delivered for sale or lease).

Provide the table in Microsoft Access 2000, or a compatible format, entitled "PRODUCTION DATA." See Enclosure 1, Data Collection Disc, for a pre-formatted table which provides further details regarding this submission.

2. State, by model and model year, the number of each of the following, received by Toyota, or of which Toyota is otherwise aware, which relate to, or may relate to, the alleged defect in the subject and peer vehicles:
 - a. Consumer complaints, including those from fleet operators;
 - b. Field reports, including dealer field reports;
 - c. Reports involving a crash, injury, or fatality, based on claims against the manufacturer involving a death or injury, notices received by the manufacturer alleging or proving that a death or injury was caused by a possible defect in a subject or peer vehicle, property damage claims, consumer complaints, or field reports;
 - d. Reports involving a fire, based on claims against the manufacturer involving a death or injury, notices received by the manufacturer alleging or proving that a death or injury was caused by a possible defect in a subject or peer vehicle, property damage claims, consumer complaints, or field reports;
 - e. Property damage claims;
 - f. Third-party arbitration proceedings where Toyota is or was a party to the arbitration; and
 - g. Lawsuits, both pending and closed, in which Toyota is or was a defendant or codefendant.

For subparts "a" through "e," state the total number of each item (e.g., consumer complaints, field reports, etc.) separately. Multiple incidents involving the same vehicle are to be counted separately. Multiple reports of the same incident are also to be counted separately (i.e., a consumer complaint and a field report involving the same incident in which a crash occurred are to be counted as a crash report, a field report and a consumer complaint).

In addition, for items "c" through "g," provide a summary description of the alleged problem and causal and contributing factors and Toyota's assessment of the problem, with a summary of the significant underlying facts and evidence. For items f and g, identify the parties to the action, as well as the caption, court, docket number, and date on which the complaint or other document initiating the action was filed.

3. Separately, for each item (complaint, report, claim, notice, or matter) within the scope of your response to Request No. 2, state the following information:
 - a. Toyota's file number or other identifier used;
 - b. The category of the item, as identified in Request No. 2 (i.e., consumer complaint, field report, etc.);
 - c. Alleged defect category (i.e. Alleged defect type a, b, or c)
 - d. Failure consequence (i.e., low tire pressure, flat tire, tire blowout, tread separation, etc.);
 - e. Vehicle owner or fleet name (and fleet contact person), address, and telephone number;
 - f. Vehicle's VIN;
 - g. Vehicle's make, model and model year;
 - h. Tire's size, make, and line;
 - i. Vehicle's mileage at time of incident;
 - j. Incident date;
 - k. Report or claim date;
 - l. Whether a crash is alleged;
 - m. Whether a fire is alleged;
 - n. Whether property damage is alleged;
 - o. Number of alleged injuries, if any; and
 - p. Number of alleged fatalities, if any.

Provide this information in Microsoft Access 2000, or a compatible format, entitled "REQUEST NUMBER TWO DATA." See Enclosure 1, Data Collection Disc, for a pre-formatted table which provides further details regarding this submission.

4. Produce copies of all documents related to each item within the scope of Request No. 2. Organize the documents separately by category (i.e., consumer complaints, field reports, etc.) and describe the method Toyota used for organizing the documents.
5. State, by model and model year, a total count for all of the following categories of claims, collectively, that have been paid by Toyota to date that relate to, or may relate to, the alleged defect in the subject and peer vehicles: warranty claims; extended warranty claims; claims for good will services that were provided; field, zone, or similar adjustments and reimbursements; and warranty claims or repairs made in accordance with a procedure specified in a technical service bulletin or customer satisfaction campaign.

Separately, for each such claim, state the following information:

- a. Toyota's claim number;
- b. Vehicle owner or fleet name (and fleet contact person) and telephone number;
- c. VIN;
- d. Repair date;

- e. Vehicle mileage at time of repair;
- f. Repairing dealer's or facility's name, telephone number, city and state or ZIP code;
- g. Failure consequence (i.e., low tire pressure, flat tire, tire blowout, tread separation, etc.)
- h. Labor operation number;
- i. Problem code;
- j. Replacement part number(s) and description(s);
- k. Concern stated by customer; and
- l. Comment, if any, by dealer/technician relating to claim and/or repair.

Provide this information in Microsoft Access 2000, or a compatible format, entitled "WARRANTY DATA." See Enclosure 1, Data Collection Disc, for a pre-formatted table which provides further details regarding this submission.

- 6. Describe in detail the search criteria used by Toyota to identify the claims identified in response to Request No. 5, including the labor operations, problem codes, part numbers and any other pertinent parameters used. Provide a list of all labor operations, labor operation descriptions, problem codes, and problem code descriptions applicable to the alleged defect in the subject and peer vehicles. State, by model and model year, the terms of the new vehicle warranty coverage offered by Toyota on the subject and peer vehicles (i.e., the number of months and mileage for which coverage is provided and the vehicle systems that are covered). Describe any extended warranty coverage option(s) that Toyota offered for the subject and peer vehicles and state by option, model, and model year, the number of vehicles that are covered under each such extended warranty.
- 7. Produce copies of all service, warranty, and other documents that relate to, or may relate to, the alleged defect in the subject vehicles, that Toyota has issued to any dealers, regional or zone offices, field offices, fleet purchasers, or other entities. This includes, but is not limited to, bulletins, advisories, informational documents, training documents, or other documents or communications, with the exception of standard shop manuals. Also include the latest draft copy of any communication that Toyota is planning to issue within the next 120 days.
- 8. Describe all assessments, analyses, tests, test results, studies, surveys, simulations, investigations, inquiries and/or evaluations (collectively, "actions") that relate to, or may relate to, the alleged defect in the subject vehicles that have been conducted, are being conducted, are planned, or are being planned by, or for, Toyota. For each such action, provide the following information:
 - a. Action title or identifier;
 - b. The actual or planned start date;
 - c. The actual or expected end date;
 - d. Brief summary of the subject and objective of the action;
 - e. Engineering group(s)/supplier(s) responsible for designing and for conducting the action; and
 - f. A brief summary of the findings and/or conclusions resulting from the action.

For each action identified, provide copies of all documents related to the action, regardless of whether the documents are in interim, draft, or final form. Organize the documents chronologically by action.

9. Describe all modifications or changes made by, or on behalf of, Toyota in the design, material composition, manufacture, quality control, supply, or installation of the subject system, from the start of production to date, which relate to, or may relate to, the alleged defect in the subject vehicles. For each such modification or change, provide the following information:
 - a. The date or approximate date on which the modification or change was incorporated into vehicle production;
 - b. A detailed description of the modification or change;
 - c. The reason(s) for the modification or change;
 - d. The part numbers (service and engineering) of the original component;
 - e. The part number (service and engineering) of the modified component;
 - f. Whether the original unmodified component was withdrawn from production and/or sale, and if so, when;
 - g. When the modified component was made available as a service component; and
 - h. Whether the modified component can be interchanged with earlier production components.

Also, provide the above information for any modification or change that Toyota is aware of which may be incorporated into vehicle production within the next 120 days.

10. Provide a description of how each subject and peer system functions within each of its respective subject and peer vehicles, by make, model, and model years. This includes, but is not limited to, the following for each subject and peer system:
 - a. Identify whether the subject or peer system is indirect or direct;
 - b. Describe how the subject or peer system functions in all normal operating modes;
 - c. State the highest tire pressure at which the TPWS warning light will illuminate in the normal operating mode;
 - d. State how long after the tire pressure reaches the pressure defined in 10.c. it takes for the TPWS light to illuminate;
 - e. What warnings, if any, the operator would have that the subject or peer system was malfunctioning;
 - f. Describe the conditions or circumstances, other than components failing, under which each subject or peer system may not function properly (i.e. the low pressure warning light may not come on even if the tire pressure is low or the low pressure warning light may come on when the tire pressure is actually normal);
 - g. State why the conditions listed in 10 f. cause the subject or peer system to not function properly;
 - h. Describe the effect on vehicle braking distance and steering should the tire pressure in at least one of the tires fall to 25 percent or more below the vehicle manufacturer's recommended cold inflation pressure for the tires while the vehicle is moving;
 - i. Describe the effect on the subject or peer systems if the tread on one or more tires wears unevenly;

- j. Describe the effect on the subject or peer systems if one or more of the tires is out of balance;
 - k. State all the TPWS diagnostic trouble codes associated with the subject vehicles;
 - l. Describe any differences in how the subject and peer systems function for subject and peer vehicles, respectively, which use run-flat tires and those that use non-run flat tires;
 - m. State whether non-run flat tires may be fitted on the same wheels as the run-flat tires without any modifications to the subject or peer system or subject or peer vehicle. (Note: This assumes that the consumer replaces all four tires with either all non-run flat or all run flat tires and that the tires are of comparable size.);
 - n. List any modifications required to make the conversion referenced in 10.m.;
 - o. Describe the conditions or circumstances under which the subject system needs to be reset, re-initialized, or re-calibrated;
 - p. Describe the procedure required to reset, re-initialize, or re-calibrate the subject system, including the length of time and the speed at which the vehicle must be driven after the TPWS has been reset, re-initialized, and/ or re-calibrated before the TPWS is capable of detecting a loss of tire pressure; and
 - q. Explain why the length of time and speed described in 10.p. are required before the TPWS will detect a loss of tire pressure.
11. Discuss Toyota's reasons for using an indirect instead of a direct TPWS in the subject vehicles. In addition, discuss Toyota's reasons for using run flat tires on the subject vehicles with all wheel drive rather than the same non-run flat tires used on the other subject vehicles.
12. Describe all "actions," as defined in Request No. 8, that Toyota has conducted, are being conducted, are planned, or are being planned by, or for, Toyota that relate to, or may relate to, the impact of using an indirect versus a direct TPWS on vehicles that use run flat tires. For each such action, provide the following information:
- a. Action title or identifier;
 - b. The actual or planned start date;
 - c. The actual or expected end date;
 - d. Brief summary of the subject and objective of the action;
 - e. Engineering group(s)/supplier(s) responsible for designing and for conducting the action;
 - f. Test conditions and/ or criteria used during the action; and
 - g. A brief summary of the findings and/or conclusions resulting from the action.

For each action identified, provide copies of all documents related to the action, regardless of whether the documents are in interim, draft, or final form. Organize the documents chronologically by action.

13. For each component part number of the subject system, including, but not limited to, the tires, wheels, and the TPWS, provide the supplier's name, address, and appropriate point of contact (name, title, and telephone number). Also identify by make, model and model year, any other vehicles of which Toyota is aware that contain the identical component, whether installed in production or in service, and state the applicable dates of production or service usage.

14. State whether the TPWS for MY 2000 Toyota Sienna vehicles contain the same subject system as the subject vehicles. If not, list the differences between the two TPWS systems, including the supplier's name, address, and appropriate point of contact (name, title, and telephone number).
15. Furnish Toyota's assessment of the alleged defect in the subject vehicle, including:
 - a. The causal or contributory factor(s);
 - b. The failure mechanism(s);
 - c. The failure mode(s);
 - d. The risk to motor vehicle safety that it poses;
 - e. What warnings, if any, the operator and the other persons both inside and outside the vehicle would have that the alleged defect was occurring or subject system was malfunctioning;
 - f. How long (in minutes or miles) a MY 2004-2005 Toyota Sienna vehicle with run flat tires can be driven at 70 mph when the tire pressure in at least one of the tires has fallen to 20 psi, 15 psi, 10 psi, and 0 psi; and
 - g. The reports included with this inquiry.

This letter is being sent to Toyota pursuant to 49 U.S.C. § 30166, which authorizes NHTSA to conduct any investigation that may be necessary to enforce Chapter 301 of Title 49 and to request reports and the production of things. It constitutes a new request for information. Toyota's failure to respond promptly and fully to this letter could subject Toyota to civil penalties pursuant to 49 U.S.C. § 30165 or lead to an action for injunctive relief pursuant to 49 U.S.C. § 30163. (Other remedies and sanctions are available as well.) Please note that maximum civil penalties under 49 U.S.C. § 30165 have increased as a result of the recent enactment of the Transportation Recall Enhancement, Accountability, and Documentation (TREAD) Act, Public Law No. 106-414 (signed November 1, 2000). Section 5(a) of the TREAD Act, codified at 49 U.S.C. § 30165(b), provides for civil penalties of up to \$5,000 per day, with a maximum of \$15 million for a related series of violations, for failing or refusing to perform an act required under 49 U.S.C. § 30166. This includes failing to respond to ODI information requests.

If Toyota cannot respond to any specific request or subpart(s) thereof, please state the reason why it is unable to do so. If on the basis of attorney-client, attorney work product, or other privilege, Toyota does not submit one or more requested documents or items of information in response to this information request, Toyota must provide a privilege log identifying each document or item withheld, and stating the date, subject or title, the name and position of the person(s) from, and the person(s) to whom it was sent, and the name and position of any other recipient (to include all carbon copies or blind carbon copies), the nature of that information or material, and the basis for the claim of privilege and why that privilege applies.


Toyota's response to Requests No. 10 and 14 in duplicate, together with a copy of any confidentiality request for this response, must be submitted to this office by April 10, 2006. Toyota's response to the remainder of this letter, in duplicate, together with a copy of any confidentiality request, must be submitted to this office by May 8, 2006. Please refer to PE06-010 in Toyota's response to this letter. If Toyota finds that it is unable to provide all of the

information requested within the time allotted, Toyota must request an extension from me at (202) 366-5207 no later than five business days before the response due date. If Toyota is unable to provide all of the information requested by the original deadline, it must submit a partial response by the original deadline with whatever information Toyota then has available, even if an extension has been granted.

If Toyota claims that any of the information or documents provided in response to this information request constitute confidential commercial material within the meaning of 5 U.S.C. § 552(b)(4), or are protected from disclosure pursuant to 18 U.S.C. § 1905, Toyota must submit supporting information together with the materials that are the subject of the confidentiality request, in accordance with 49 CFR Part 512, as amended (69 Fed. Reg. 21409 et seq; April 21, 2004), to the Office of Chief Counsel (NCC-113), National Highway Traffic Safety Administration, Room 5219, 400 Seventh Street, S.W., Washington, D.C. 20590. Toyota is required to submit two copies of the documents containing allegedly confidential information (except only one copy of blueprints) and one copy of the documents from which information claimed to be confidential has been deleted.

If you have any technical questions concerning this matter, please call Ms. Cheryl Rose of my staff at (202) 366-1869.

Sincerely,


Jeffrey F. Quandt, Chief 3/26/06
Vehicle Control Division
Office of Defects Investigation

Enclosure 1, one CD ROM titled Data Collection Disc containing three files
Enclosure 2, thirteen (13) Consumer Complaints: VOQ numbers 10092945, 10118102, 10123813, 10124995, 10125089, 10125740, 10130191, 10131560, 10135521, 10140925, 10142788, 10149835, 10151462