

# DAIMLERCHRYSLER

*Prof*  
9/21/06

September 14, 2006

Ms. Kathleen C. DeMeter  
Office of Defects Investigation  
National Highway Traffic Safety Administration  
U.S. Department of Transportation  
400 Seventh Street, SW  
Washington, D.C. 20590

2006 SEP 18 4 31 PM '06  
DaimlerChrysler Corporation  
Stephan J. Speth  
Director  
Vehicle Compliance & Safety Affairs

Dear Ms. DeMeter:

Reference: NVS-213swcm; EA06-013

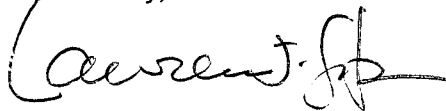
This document contains DaimlerChrysler Corporation's ("DCC") response to the referenced inquiry regarding the 2005 through 2006 Chrysler Pacifica vehicles that have been manufactured for sale or lease in the United States. By providing the information contained herein, DCC is not waiving its claim to attorney work product and attorney-client privileged communications.

DCC has not received any responsive reports alleging injury or fatality and only three reports alleging minor accidents. The vast majority of the reported incidents occurred when decelerating to a stop or at the end of a turn (as opposed to in the turn) and will restart immediately, and if not immediately within a brief period of time, and when restarted the vehicles will remain running.

DCC has identified two unique modes that may cause the subject vehicles to stall under certain conditions: (1) a dislodged jet pump fitting in the fuel pump module, and (2) a purge vapor spike from the fuel tank to the engine. DCC believes that the fuel pump module issue is isolated to vehicles built in August and September of 2004, but plans to further investigate vehicles built outside of this window in order to fully understand and identify the affected population. DCC also plans to further investigate whether TSB 18-039-05 is the remedy for those vehicles that are experiencing a stalling event, in the cases where the fuel pump module is not the issue.

DCC will provide an update to ODI on the status of both items by November of 2006.

Sincerely,



for Stephan J. Speth

Attachment and Enclosures

1. **State, by model and model year, the number of subject vehicles DCC has manufactured for sale or lease in the United States. Separately, for each subject vehicle manufactured to date by DCC, state the following:**
  - a. **Vehicle identification number (VIN);**
  - b. **Model;**
  - c. **Model Year;**
  - d. **Date of manufacture;**
  - e. **Date warranty coverage commenced; and**
  - f. **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.**

- A1. The chart below lists the production volumes for 2005 through 2006 MY Chrysler Pacifica vehicles that have been manufactured by DaimlerChrysler Corporation ("DCC") for sale or lease in the United States through July 19, 2006, date of receipt of this Information Request.

<b>Vehicle Type</b>	<b>2005 MY</b>	<b>2006 MY</b>	<b>Total</b>
Pacifica	118,564	82,547	201,111

The detailed response listing the production data as requested in Items a. through f. is provided in Enclosure 1 as a Microsoft Access 2000 table, titled "PRODUCTION DATA".

2. **State the number of each of the following, received by DCC, or of which DCC is otherwise aware, which relate to, or may relate to, the alleged defect in the subject 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 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 vehicle, property damage claims, consumer complaints, or field reports;**
  - e. **Property damage claims; and**
  - f. **Third-party arbitration proceedings where DCC is or was a party to the arbitration; and**

**g. Lawsuits, both pending and closed, in which DCC is or was a defendant or codefendant.**

**For subparts "a" through "d" 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 DCC's assessment of the problem, with a summary of the significant underlying facts and evidence. For items "e" 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.**

- A2. The following summarizes the non-privileged reports identified by DCC that relate to, or may relate to, the alleged condition in the subject vehicles. DCC has conducted a reasonable and diligent search of records kept in the ordinary course of business for such information. Please note that only reports that were received between March 3, 2006 (cut-off date for response to RQ06-002) and July 19, 2006 (date of receipt of this Information Request) are included in the summary below.
- a. There are a total of 144 customer complaints (120 unique VINs) that may be related to the alleged condition based on text within the complaint narrative. DCC's analysis shows that these complaints are likely due to multiple causes, where any cause has been identified.
  - b. There are a total of 157 field reports (153 unique VINs), that may be related to the alleged condition based on text within the complaint narrative.
  - c. There are no reports involving an injury, fatality, or property damage that are responsive to this inquiry. There is one report involving minor vehicle damage.
  - d. There are no reports involving a fire that are responsive to this inquiry.
  - e. There are no reports that alleged property damage that are responsive to this inquiry. For the purposes of this response, "property damage" is defined as any non-subject vehicle component that was allegedly damaged during the reported incident.
  - f. There are no third-party arbitration proceedings where DCC is, or was, a party to the arbitration, that are responsive to this inquiry.
  - g. There are 3 lawsuits and 5 legal claims where DCC is, or was, a defendant or codefendant, that are responsive to this inquiry.

In summary, there are a total of 309 non-VOQ field inputs that relate or may relate to the alleged condition, of which 261 are unique vehicles.

<b>Subject Vehicle Population 201,111</b>					
<b>Category Description</b>	<b>CAIRs</b>	<b>Field Reports</b>	<b>Claims/Lawsuits</b>	<b>VOQs</b>	<b>Total Unique VINS</b>
Steady State Stalls > than 15 MPH	3	2	0 / 0	0	5
Low Speed Stalls < than 15 MPH	1	1	0 / 0	1	2
Turning	43	74	1 / 0	25	96
Decelerating or coming to a stop	6	9	1 / 2	3	13
Indeterminate	88	61	2 / 1	7 <sup>1</sup>	135
Start & stall	1	5	0 / 0	0	4
Garage shift, idle, or stopped	2	3	1 / 0	0	4
Accelerating	0	1	0 / 0	2	1
Not related	0	1	0 / 0	2 <sup>2</sup>	1

<sup>1</sup> VOQs without a VIN provided

<sup>2</sup> VOQs not within the scope of this inquiry (2004 MY)

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. DCC'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. Vehicle owner or fleet name (and fleet contact person), address, and telephone number;
  - d. Vehicle's VIN;
  - e. Vehicle's make, model and model year;
  - f. Vehicle's mileage at time of incident;
  - g. Incident date;
  - h. Report or claim date;
  - i. Whether a crash is alleged;
  - j. Whether a fire is alleged;
  - k. Whether property damage is alleged;
  - l. Number of alleged injuries, if any; and
  - m. 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.**

- A3. The information requested in Items a. through m, is provided in the detailed response to Question No. 2, Enclosure 2, as part of a Microsoft Access 2000 table, and titled "REQUEST NUMBER TWO DATA".
- 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 DCC used for organizing the documents.**
- A4. Copies of all documents within the scope of Question No.2 are provided in Enclosure 3 - "CONSUMER COMPLAINTS, FIELD REPORTS, LEGAL CLAIMS AND LAWSUITS".
- 5. State, by model and model year, a total count for all of the following categories of claims, collectively, that have been paid by DCC to date that relate to, or may relate to, the alleged defect in the subject 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. DCC'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. Labor operation number;
- h. Problem code;
- i. Replacement part number(s) and description(s);
- j. Concern stated by customer; and
- k. 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.**

- A5. There are eight applicable Labor Operation codes (LOPs) that may apply to the alleged condition. The claims by vehicle count for the 2005 MY through 2006 MY Chrysler Pacifica vehicles that have been manufactured for sale or lease in the United States are shown in the tables below.

<b>Labor Operation Code</b>	<b>2005 MY</b>	<b>2006 MY</b>	<b>Total Claims</b>
08-19-06-01	56	12	68
08-19-06-50	0	0	0
14-50-01-00	4	1	5
14-50-01-07	54	3	57
18-19-06-10	941	272	1213
85-41-08-00	143	44	187
85-41-09-00	40	9	49
85-41-14-00	38	8	46

DCC's warranty system is designed to compensate dealers for repairs made, and cannot be reliably used to determine any trend related to the alleged condition. It is impossible to determine the reason for each particular warranty claim. There are other random issues that are not related to the alleged condition, yet may still trigger replacement of the subject components. The warranty claims that are being submitted are what DCC has deemed to be representative of claims that may relate to the alleged condition.

Most warranty claims do not have associated narrative data. In the case where warranty narratives were available, a word search criteria was established to filter those narratives which do not relate to the alleged condition. The following is the word search criteria used:

Words that must be contained within the narrative

- stall, stalls, stalled, stalling
- die, dies, died, dying
- shut off, shuts off, shutting off
- shut down, shuts down, shutting down
- quit, quits, quitting
- cut out, cuts out, cutting out
- PCM
- NGC
- module
- flash
- program
- TSB
- Fuel pump

Words that must not be contained within the narrative

- Radio
- Speaker
- Cruise
- Satellite
- Speed control
- Spd ctl
- Sirius
- Headlight
- Fog
- Cluster
- ATC

Any narratives that did not contain at least one of these words were not submitted. Additionally, since the warranty narratives must be entered for any "uncodeable" (UC) claims in order to be paid, the uncodeable claims that have been submitted per this response reflect only the claims which have narratives that match the word search criteria.

The detailed response that lists the warranty claims as requested in Items a. through k. is provided in Enclosure 4 as a Microsoft Access 2000 table, titled "WARRANTY DATA":

6. Describe in detail the search criteria used by DCC 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 vehicles. State, by make and model year, the terms of the new vehicle warranty coverage offered by DCC on the subject 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 DCC offered for the subject vehicles and state by option, model, and model year, the number of vehicles that are covered under each such extended warranty.

- A6. The search criteria used by DCC to identify claims to Question No. 5 can be found in the table below:

Labor Operation Code	Description
08-19-06-01	Replace powertrain/trans control module - All engines
08-19-06-50	Module, Powertrain/Transmission Control (NGC) ; Program Generic Powertrain Control Module With Software; Check and Adjust
14-50-01-00	Pump, Fuel/Level Unit

14-50-01-07	Pump, Fuel/Level Unit; Left Side Fuel Pump Module
18-19-06-10	Reprogram Powertrain control module
85-41-08-00	Diagnostic LOP: electrical
85-41-09-00	Diagnostic LOP: engine
85-41-14-00	Diagnostic LOP: fuel

Note: The following table contains the codes that relate or may relate to the alleged condition, for all Labor Operation codes in the above table.

Codes	15	41	43	53	61	DO	DT	LW	NP	PI	R0	UC	Y2	Y4	YF	YH	ZZ
LOP Qty	2	1	5	1	1	16	8	45	13	10	0	205	40	19	0	46	1213

Descriptions for each of the codes for the referenced labor operations are provided below. As stated above, DCC cautions against drawing any conclusions from warranty data.

Problem Code	Description
15	Calibration
41	Foreign material
43	Fuel leak
53	Improper pressure
61	Intermittent operation
DO	Die outs
DT	No response
LW	Level sender function
NP	Sags, hesitates and no power
PI	Poor idle
R0	Drivability
UC	Uncodeable
Y2	Stalls
Y4	Stumbles
YF	Improper idle
YH	Lack power
ZZ	Service Action

The standard warranty offered on a 2005 MY Chrysler Pacifica that has been manufactured for sale or lease in the United States is 3 years/36,000 miles for basic coverage and 7 years/70,000 miles for the powertrain. For the 2006 MY Chrysler Pacifica both the basic and powertrain coverage is for 3 years/36,000 miles. The Powertrain Control Module (PCM) is covered under the 8 year/80,000 miles emission system warranty for all model years. The fuel pump module is covered under the 3 year/36,000 miles basic warranty for all model



years on vehicles equipped with Federal emissions. For vehicles equipped with California emissions the fuel pump module is covered for 7 years/70,000 miles for the 2005 MY and 3 years/50,000 miles for the 2006 MY. There were no extended warranty coverage options related specifically to the subject components. Owners may have purchased additional warranty coverage through third-party providers not affiliated with DCC. This warranty data is not available to DCC and is not included in this response.

- 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 DCC 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 DCC is planning to issue within the next 120 days.**

A7. There have been no new documents nor are any planned to be issued that relate to, or may relate to, the alleged condition since the response to RQ06-002.

- 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, DCC. 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.**

A8. There have been no additional actions taken beyond those detailed elsewhere in this response that relate to, or may relate to, the alleged condition since the response to RQ06-002.

- 9. Describe all modifications or changes made by, or on behalf of, DCC in the design, material composition, manufacture, quality control, supply, or installation of the**

**subject components, 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 DCC is aware of which may be incorporated into vehicle production within the next 120 days.**

A9. There have been no changes nor are any planned to be made to the subject components, which relate to, or may relate to, the alleged defect since the submission of RQ06-002.

**10.State the number of each of the following that DCC has sold that may be used in the subject vehicles by component name, part number (both service and engineering/production), model and model year of the vehicle in which it is used and month/year of sale (including the cut-off date for sales, if applicable):**

- a. **Subject component; and**
- b. **Any kits that have been released, or developed, by DCC for use in service repairs to the subject component/assembly.**

**For each component part number, 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 DCC is aware that contain the identical component, whether installed in production or in service, and state the applicable dates of production or service usage.**

A10. The requested part demand information has been included in Enclosure 05 "PART INFO". It is impossible to determine the reason for each of these part sales. There are other issues that are not related to the alleged condition, yet may trigger sales/replacement of the subject components. In addition it is not possible to conclude that part demand is a reliable indicator of any trend related to the alleged condition.

- 11. Explain the statement in the response to RQ06-002, "To the extent a customer was misreporting a 'stalling' event . . . DCC believes that TSB # 18-039-05 is the appropriate corrective measure." Provide the following information concerning the TSB condition:**
- a. For those owners who are not misreporting but actually experiencing a stalling event, or multiple stalling events, state whether DCC considers TSB # 18-039-05 to be an appropriate and/or effective remedy;**
  - b. Describe all testing and other analyses conducted by or for DCC concerning engine performance, both cold and warm, when subject to the evaporative vapor purge condition addressed by the TSB and provide copies of all related documents;**
  - c. Describe what DCC considers "worst-case" for the condition with regard to the effect on engine performance and the risk of engine stall and state the basis for that assessment, the factors necessary for a "worst-case" event, DCC's estimate of the frequency of such events, and provide copies of all related documents; and**
  - d. State the reasons for DCC's determination that customers "misreported" stalling events. Indicate how DCC defines a "stalling event" and how this definition differs from the events "misreported" by customers.**

A11. For purposes of this response, DCC defines a "stalling" event as an incident where the engine shuts off requiring the driver to restart the vehicle. There are cases where customers may state that the vehicle stalled, when it did not require a restart. In those cases, the vehicle may have hesitated or stumbled and then recovered, not requiring a restart. DCC did not determine that the customers had "misreported" stalling events. In the response to RQ06-002, DCC recognized that not all reports of stalling were actual stall events but may have actually been idle fluctuation events. Although the TSB 18-039-05 was released to address idle undershoot, dealers have reported success in addressing stalling concerns. However, the field data suggests that some customers have reported a stalling event after the TSB has been applied. DCC is continuing to investigate whether the TSB is the remedy for those owners who are not misreporting but actually experiencing a stalling event.

To DCC, "worst-case" conditions were defined as those events that would create the highest probability of the fuel system control not detecting or reacting quickly enough to a large fuel vapor slug coming from the fuel tank during specific driving conditions, which could create a fuel rich stall-out condition. To replicate this worst case set of conditions, 2005-2006 MY Pacifica vehicles were evaluated in high ambient conditions (>100 degrees F ambient), with very high RVP (high vapor pressure) fuel, typically not available during seasons with high ambient temperatures, and with the fuel tanks set up with approximately 3/8 to 1/2 tank of fuel to generate the maximum splash effect (highest vapor pressure) for the saddle fuel tank design, and the most extreme steering wheel inputs and low vehicles speeds to, once again, generate the worst case vapor pressure. DCC estimates the likelihood of such conditions occurring simultaneously is extremely low.

- 12. Provide the following information regarding DCC's decision to conduct safety recall 04V-113 to reprogram the engine management software in MY 2004 Pacifica vehicles equipped with the NGC1 engine controller:**
- a. Copies of all presentations, white papers and other material associated with DCC's internal review of the problem – including all material presented before DCC's Vehicle Regulatory Committee and any other groups associated with the recall decision making process;**
  - b. State the number of complaints, field reports, and warranty claims associated with the condition addressed by 04V-113 that DCC was aware of when the recall decision was made;**
  - c. Describe, and provide copies of all documents related to, any statistical modeling or other analyses done to estimate the complaint, field report, and/or warranty claim rates that would occur as a result of the defect condition at future vehicle ages/mileages (e.g., 10 years or 100,000 miles) if not repaired in a recall;**
  - d. Compare the complaint, field report, warranty claim and overall stalling rates of the condition addressed by 04V-113 with those involving the subject components in the subject vehicles at the following service intervals: (1) 12 months; (2) 36 months; (3) 60 months; (4) 120 months; (5) 36,000 miles; and (6) 100,000 miles (for this comparison, use the MY 2005 subject vehicles built from August 2004 to September 2004 for the fuel pump module condition and use the MY 2005 through 2006 subject vehicles built from July 8, 2004 to November 24, 2005 for the engine software condition). Explain in detail the statistical methods used to calculate these rates, whether they are based on actual failure data or statistical forecasting; and**
  - e. Identify any other factors associated with the condition addressed by recall 04V-113 (e.g., crashes, injuries, effect on vehicle restart, circumstances when stalling occurs, etc.) that are different than those involving the subject components in the subject vehicles.**

A12.

- a. See Enclosure 06 for documents presented to the Vehicle Regulations Committee regarding safety recall 04V-113. Some of the documents requested may no longer be available due to document retention policies.
- b. DCC was aware of 98 field reports associated with the condition addressed by 04V-113 when the recall decision was made.
- c. There was no statistical modeling or any other analyses done to estimate the field input that would occur as a result of the defect condition.
- d. This data was not created for 04V-113, thus cannot be compared to the current issue with the subject components.

- e. The situation with 04V-113 involved a cold engine, coast down die out, that was a clear and reproducible stall event for which a remedy was effectively implemented. The subject vehicles do not exhibit clear and reproducible stalling events. The alleged condition can occur with a cold or warm engine, accelerating, decelerating, turning, or while stopped. Even after extensive analysis, the cause of the reported stalling events involving the subject vehicles has not been conclusively identified. For example, the field data suggests that some customers have reported a stalling event after TSB 18-039-05 has been applied. DCC is continuing to investigate whether the TSB is the remedy for those owners who are experiencing a stalling event.

**13. Furnish the following information regarding the fuel pumps suffering the tooling issue at the supplier's plant that contributes to or causes the engine stalling in the subject vehicles:**

- a. **DCC's estimate of the number of mis-built fuel pumps that were installed in the subject vehicles and copies of all documents related to any surveys or part inspection efforts that could be used to make such an assessment;**
- b. **Provide a chronology of all significant events associated with the origination of the tooling problem, its discovery, the investigation of the problem, and its resolution;**
- c. **State the earliest and latest production dates of vehicles DCC has determined were equipped with misbuilt fuel pumps;**
- d. **Explain what statistical method was used to create the graph in Attachment H of the response to RQ06-002 and state how many of the vehicles in the population depicted in graph had achieved each of the service intervals shown on the x-axis at the time the analysis was performed;**
- e. **Furnish copies of all communications between DCC and its dealers regarding the diagnosis or repair of the fuel pump condition; and**
- f. **Provide a list of all other DCC vehicles that may have had the suspect fuel pumps installed.**

A13.

- a. The supplier of the fuel pump fittings has no record of when the tooling issue occurred, and no evidence that the tooling issue affected the entire production population, so it is not possible to definitively identify the number of affected fuel pumps that were produced and installed in the subject vehicles. However, based on the analysis of all the returned fuel pumps through warranty, the customer complaints, and the field reports, the data suggests that a small number of the approximately 18,000 vehicles built during August and September of 2004 may be affected. DCC continues to study the data in an attempt to fully identify and understand the affected population.

- b. See Enclosure 07, document titled "CHRONOLOGY", for a summary of significant events associated with this issue.
- c. See A13a.
- d. The method used to create the graph in Attachment H is as follows: The number of fuel pump warranty claims at each month in service (MIS) is divided by the total sales for the build month and then multiplied by 1000, which results in the C/1000 or conditions per 1000 vehicles. The cumulative total is what is plotted for each MIS. The cumulative total for each MIS is the sum of the C/1000 for each MIS to that point. At the time the analysis was performed, the number of vehicles that had achieved each of the service intervals shown in the graph were 1,492 (Jun/July04), 3,870 (Aug/Sep04), 5,858 (Oct/Nov04), and 5,959 (Dec04/Jan05).
- e. See Enclosure 07, document titled "PROCEDURE". This document was provided to one dealer for assistance in the diagnosis of the Estes vehicle (VIN# 2C4GM68445R261352, VOQ 10156665).
- f. The fuel pump used on the subject vehicles is unique to the subject vehicles. Therefore, no other DCC vehicles may have had the suspect fuel pumps installed.

**14. Furnish DCC's assessments of: (1) the fuel pump model condition in the MY 2005 vehicles built in August 2004 and September 2004; and (2) the engine software condition in the MY 2005 and 2006 vehicles built from July 8, 2004 to November 24, 2005, including the following information for each:**

- a. **The causal or contributory factor(s);**
- b. **The failure mechanism(s);**
- c. **The failure mode(s) – and the percentage involving a vehicle stall while driving;**
- d. **The circumstances under which stalling events typically occur (e.g., acceleration/tip-in, deceleration, cruising, low-speed, highway speed, cold engine, warm engine, start-up, or randomly);**
- e. **State DCC's assessment of the percentage of warranty claims associated with the subject components that involve engine stall while driving and explain the basis for the assessment;**
- f. **The effect on vehicle restart (e.g., will the vehicle restart, the length of time before restarting, will it stay running after a restart, will the stall occur again after restarting);**
- g. **The failure rates for the service intervals listed in Question 12.d of this letter (if not already provided in the response to that Question);**
- h. **The risk to motor vehicle safety that it poses;**

- i. **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 component was malfunctioning; and**
- j. **The reports included with this inquiry.**

A14.

Fuel pump module

The subject vehicle uses a saddle tank design in which fuel is constantly transferred from the passenger side to the driver side of the tank. After a lengthy investigation, it was determined that, in some instances, the jet pump brass fitting in the fuel pump module may loosen and become dislodged from the reservoir tower, which reduces fuel flow and thereby eliminates the ability to transfer fuel. As a result, the only fuel that is useable is what is in the driver side of the tank and the fuel that may spill over from the passenger side on right hand turns. Another function of the jet pump is to keep the reservoir full with fuel for low fuel drivability. When the fuel level in the reservoir has dropped to the level in the fuel tank, the fuel pump may be starved for fuel, on certain maneuvers that slosh fuel away from the reservoir, resulting in various drivability issues such as hesitation, stumbling, and in the worst cases stalling. Although there is no warning when the alleged defect is occurring, there is warning that the subject component may be malfunctioning. The vehicle may hesitate, stumble, buck and yet may not stall.

After much testing and analysis of returned parts, it was determined that the jet pump brass fitting can become dislodged due to a combination of the following factors: incorrect barb tip radius (larger than maximum), incorrect barb diameter (smaller than minimum), insufficient press depth of the fitting to the tower, and significant temperature (hot/cold) variations and/or tower material swell. It was determined that the tip radius was the main issue in many of the return parts with loose fittings. It was later determined that a tooling issue at the supplier's plant was the main contributor. Not all vehicles that have a dislodged jet pump fitting will stall (DCC had previously evaluated a vehicle with the jet pump brass fitting dislodged and was not able to get the vehicle to stall), thus it is not possible to accurately determine what percentage of the vehicles that exhibit a stall. Approximately 10% of the fuel system related warranty claims relate to stalling based on the available data. And, based on the fuel pump return analysis, approximately 50% of the parts returned exhibited the condition. DCC is not able to determine what percentage of the vehicles that had the parts that exhibited the condition actually experienced a stalling event.

On the basis that DCC has not received any responsive reports alleging injury or fatality and only three reports alleging minor accidents, and coupled with the significant failure rates (4,332 C/100k vehicle at 12MIS, 4,889 C/100k at 36MIS, and 6,510 C/100k at 36k miles), DCC believes that the risk to motor vehicle safety is low. In the cases where a stalling event does occur, the vast majority of them will restart, if not immediately, within a couple of minutes, and when restarted, the vehicle will remain running.

Engine software condition

DCC identified an issue relating to a vapor spike in the fuel system purge canister in 2005 and 2006 MY Pacifica vehicles. In some instances, an idle undershoot could occur if: 1) the fuel tank reading was approximately 5/8 +/- 1/8 tank of fuel; 2) the seasonal fuel contained high RVP (high vapor pressure) fuel; 3) the ambient temperatures were quite warm, greater or equal to 70 degrees F (but not warm enough to "boil" the light ends of the fuel in the tank); 4) the vehicle was driven at constant speed/load to completely clean the purge canister of vapor (where the control system has maximum purge flow to clean the charcoal in the canister); and 5) the vehicle was put through an aggressive left hand turn maneuver with very light or no throttle input. After an aggressive left turn with a 1/2 to 5/8 filled reservoir, fuel sloshing can create differential pressure causing the control valve diaphragm to lift open and allow fuel vapors to get to the engine and cause drivability issues. When fuel spills from the driver ("full") side to the passenger ("empty") side on left turns, the control valve in the fuel tank sees a pressure difference and lifts off, releasing a large slug of vapor to the engine, which can cause a rich undershoot.

Approximately 35% of the engine software related/electrical warranty that relates or may relate to this issue involved an alleged stalling condition. This does not include the warranty associated with TSB 18-039-05. Although there are a significant number of warranty claims associated with this TSB, it is not possible to accurately estimate what percentage involved a stalling condition, as opposed to rough idle or idle fluctuation.

Rates are 780 C/100k @ 12MIS, 1027 C/100k @ 36MIS, and 1009 C/100k vehicles at 36k miles. DCC has not received any responsive reports alleging injury or fatality and only three reports alleging minor accidents. The vast majority of the reported incidents occurred when decelerating to a stop or at the end of a turn (as opposed to in the turn) and will restart immediately, and if not immediately within a brief period of time, and when restarted the vehicle will remain running.

In summary, DCC has identified two unique modes that may cause the subject vehicles to stall: (1) the dislodged jet pump fitting in the fuel pump module and (2) the purge vapor spike from the fuel tank to the engine. DCC believes that the extent of the fuel pump module issue is isolated to vehicles built in August and September of 2004, but plans to further investigate vehicles built outside of this window in order to fully understand and identify the affected population. DCC also plans to further investigate whether TSB 18-039-05 is the remedy for those vehicles that are experiencing a stalling event, in the cases where the fuel pump module is not the issue. Finally, DCC will provide an update to ODI on the status of both items by November 2006.